MoHPC *The Museum of HP Calculators*

HP Forum Archive 13

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

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

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NCEES Calc Policy and Foxy Ole' HP, Todd Stock **5 responses**
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33C <clear button> repair, DG **7 responses**
49G+ PC EMULATOR, Luis Fernando Suarez **5 responses**
Hp 38S II vs. 48GX, Cora Stewart **14 responses**
Has the HP12C improved in chip speed over the years?, dave brown **5 responses**
Questions about 32SII and 18C variations, Thomas Radtke **8 responses**
48G display flicker, Ed Look **4 responses**
HP-41CX Pricing, Garrett Moore **1 response**
Opinion request, Stan **3 responses**
Reminder of Portland Meeting, Dave Hicks **6 responses**
10BII, Thibaut.be **2 responses**
hp42s defect beeeeep, Michael **5 responses**
41cx US Govt sticker on back, Paul **3 responses**
HP seems to have lost its Way, DanO **7 responses**
49G+ manuals, Brandon Del Bel **0 responses**
-41CV fading display, Jim **2 responses**
HP-34C, spice calc's, what about "2 disease", Norm **5 responses**
1E-100 and HP-16C, HL **0 responses**
9114 drives, christof **1 response**
Infrared interface for 42s, andrew **8 responses**

Voyager series, Joao Santos-Silva **4 responses**
HP82973A HPIL PC Card, Philip **4 responses**
Dead HP31E, Peter Martin **7 responses**
41CX with dead extended memory, dbrunell **5 responses**
Gorilla Glue, gifron **7 responses**
...and the winner is.... (about 48's screen colours), R Lion (España) **5 responses**
HP48GX, missing alarm beep, Thomas Otterbein **9 responses**
HP49G+ vs. HP49G, pausing, F. Casanellas **6 responses**
[OT] BIG VERY BIG virus attack, R Lion (España) **4 responses**
Wow. Old BIG commodore desktop programmable on ebay, Gene **13 responses**
HP49G PC link, Neil Strickland **1 response**
HP 49g+, Ben Salinas **45 responses**
HP 9100B, what´s it worth?, Matti Övermark **4 responses**
Rechargable batts for a HP25C, but how?, Matti Övermark **4 responses**
To buy calculator, Alexandre **0 responses**
Allschwil Meeting, Meindert Kuipers **2 responses**
My HP-12c seems to be dead...., Luca Passaggio (Switzerland) **9 responses**
HP 48GII, Doug **1 response**
HP-97 Blues... any advice?, Michael Meyer **8 responses**
HP49G+ ARM CPU flavor???, Bill Wiese **0 responses**
How to repair the aluminum plate on voyageur?, jimc **5 responses**
HP82161 tape drive problem, Pavel Korensky **6 responses**
Does HP-42X work on the new HP-49G+?, Erik Ehrling (Sweden) **2 responses**
HP-12cPlatinum "Closeout"?, Paul Brogger **3 responses**
NCESS Exam - Would you have time to enter the Q's??, Bill (Smithville, NJ) **21 responses**
Confusion, Andreas Stockburger **1 response**
HP49G+ sd-card size, Juergen Rodenkirchen (GER) **4 responses**
HP48SX Sticky ON/ATTN button., Randy East **5 responses**
Help!!!, BSCobb **19 responses**
Meeting in Portland, OR, Wlodek Mier-Jedrzejowicz **6 responses**
HP-49G+ ROM...., Speck **1 response**
HP 11C Calculator, Phyllis **1 response**
28C Memory upgrade ?, Roberto FLores **1 response**
HP49G+ where to buy?, Chan Tran **3 responses**
HP-38C aand HP-97, Jerry Pfile **2 responses**
Random number generated on a 32sii, Charles **4 responses**
New HPs keyboard quality, Victor Koechli **16 responses**
Dead HP35?, PeterL **6 responses**
Plagerized HP-85 ad? - (Not exactly!), Mike **2 responses**
value of 10 c, norm **2 responses**
Horse Racing 11C, tbcab@aol.com **1 response**
TI Converts an HP fanatic, Steven Kutoroff **44 responses**
PocketPC 2003 and the HP48 emulator, Marcel **0 responses**
HP-41 Unit Management System, Angel Martin **9 responses**
How to replace battery of GRiD card?, John Smith **0 responses**
HP-bar-code generator, Michel Beaulieu **5 responses**
HP49G repairs---what's the situation?, Mark Ordal **10 responses**
1600 mAh 1.2 V NiMH Batteries for an HP-25C, Albert **10 responses**
HP-48S v. HP-48G, whoru **4 responses**
Copying the standard Pac cards, quemazon **2 responses**
HP 85B Schematics wanted, Dave **0 responses**
Meeting info, Allschwil, Matthias **17 responses**
Reparing half-nut 41CV , Tracy Vermeyen **8 responses**
Old HP calculators in stock, Jon **6 responses**

HP49g+ has equation library?, Charles **3 responses**
Dust on HP-42S Window, Tom Scott **4 responses**
17bii/19bii utpn awol, hugh **1 response**
HP 35 Servicemanual, G.Schneider **3 responses**
HP 48gx, Kevin Liebzeit **1 response**
HP 15c HP-42s or HP 41cx, Krystal **21 responses**
Killer Dash...?!, Tizedes Csaba **1 response**
HP-41 wand module, Frederic **2 responses**
HP-49G+ Power consumption, Daniel Diggelmann **3 responses**
A suggestion to those who did not receive their parcel, Emmanuel, France **2 responses**
Let's go to the moon, its '69 again :o), Norm **9 responses**
Meeting at Allschwil, Emmanuel, France **12 responses**
HP-41 Rom image, Emmanuel, France **0 responses**
HP-97 Printer, Howard **1 response**
Is there any info about the Voyager series hardware?, Nelson M. Sicuro (Brazil) **10 responses**
BTW, when we are talking about ROM modules,, Pavel Korensky **10 responses**
HP 20 Build quality???, Joe Edwards **8 responses**
12C: How to switch number of digits ?, Andreas Stockburger **3 responses**
12C 3v battery, tom **1 response**
Latest on the HP Create a Calculator Contest, Ben Salinas **7 responses**
The New HP calcs, Andy **0 responses**
User programmable ROM module ?, Pavel Korensky **17 responses**
Trading on Meeting in Basel, Daniel Diggelmann **5 responses**
I repaired my 15C back plate, bill platt **1 response**
Zapping NiCd cells, Renato **0 responses**
HP45 self-tests?, barry **7 responses**
HP-49G+ keyboard issue, Daniel Diggelmann **3 responses**
HP 71b Metal-back vs Plastic Back: Robustness, Neil **3 responses**
HP Conference in Orange County CA - 9/20-21, Guy Ball **7 responses**
HP 82164A, Jeff **3 responses**
11C non-painted logo, Quemazon **3 responses**
12c rubber feet, Mike **1 response**
hp86b hpib dip switch setting, Andy **0 responses**
What is this on eBay??, Nelson M. Sicuro (Brazil) **6 responses**
Custom HP-11C?, Patrick **5 responses**
Aurora FN1000 available at Fry's, Mike Sebastian **7 responses**
If you think the 33s is ugly..., Ben Salinas **2 responses**
Another HP calc. on eBay using hpmuseum pictures!, Nelson M. Sicuro (Brazil) **2 responses**
HP 49G+ calcs for sale in the US?, Joe Edwards **8 responses**
hp85 printer belts, andy **2 responses**
RPN Calculator List, Robert **2 responses**
HP97 keyboard, Chan Tran **5 responses**
HP 49G+ now available, Juergen (CH) **32 responses**
Why did HP stop building the HP 15 and 16c?, Joe Edwards **3 responses**
hp85 trouble, andy **6 responses**
TVM program for HP20S, Chan Tran **19 responses**
Using disposable batteries in a 82143A printer?, Emmanuel Verbeeck **2 responses**
A graphic display for a HP-42 *hardware* emulator?, Nelson M. Sicuro (Brazil) **23 responses**
HP-15C or 11C i found, Frederic **5 responses**
hp 48s calc with 48sx manual (vol 1), Neil **4 responses**
"A user's comments on two HP-42S emulators", Erik Ehrling (Sweden) **2 responses**
HP 42s ROM Dump, Richard Garner **0 responses**
I want to sell a spare HP-15C but I don't know how..., Nelson M. Sicuro (Brazil) **8 responses**
Module list, Matthias **3 responses**

HP 9114B Battery Problems ???, Chris Catotti (Florida) **7 responses**
TVM accuracy revisited, Tommi **3 responses**
HP DEKJET 610CL Printer -- does not print, Harsha **1 response**
HP-45, Jon **6 responses**
HP-55 Calculator & Carry Case, Jon **2 responses**
hp95lx, mike1646 **0 responses**
My good luck: a 10C, John **18 responses**
HP prod support- 49g+, Charles L **0 responses**
hp35 is magic, hugh steers **8 responses**
HP-25 internal Power Circuit Charger, Albert **3 responses**
HP 41 worth more as collection?, Quemazon **3 responses**
Graphics with HP48SX in programs - HELP!, Tizedes Csaba **3 responses**
CSIM (HP-35 emulator) ported to Palm OS (again), Jonathan Purvis (New Zealand) **2 responses**
Inexpensive batteries on eBay, Patrick **4 responses**
HP printer paper supplies (HP 82240B), Patrick **6 responses**
HP-11C Solutions Handbook Errata?, Patrick **26 responses**
QPI for the HP-42S, Erik Ehrling (Sweden) **7 responses**
Recap of HP calculators emulators for PDAs, Vincent Weber **6 responses**
Gamma function differences?, Nelson M. Sicuro (Brazil) **3 responses**
ebay partial refund question / poll. RSVP, db(martinez,california) **3 responses**
HP-01 spareparts, Hans Pind **0 responses**
windows driver for hp82240 printer, luciano fernandes **2 responses**
New HP Calculator, Garry **39 responses**
HP110/ 150 Systems, Kinkaide Devereaux **1 response**
Port X-Tender, Kin Kaide Deveraux, New Orleans **3 responses**
Luxury, Kin Kaide Devereaux, New Orleans **2 responses**
TVM calculations (again), Thomas Radtke **7 responses**
Strange serial number to HP48G+, Iqbal **0 responses**
82033 Battery Pack replacements discontinued, Philip **3 responses**
Strange blue outline in eBay picture, Patrick **8 responses**
batteries, need more batteries!, christof (NoVA US) **4 responses**
Posting from wireless PDA, Mike **2 responses**
HP 32S display screen dust, jsrlnd **3 responses**
HP48 SX and 48 GX, Charles Miller **6 responses**
Recommended Reading (absolutely off topic), Hans Brueggemann [GER] **1 response**
32s, D **2 responses**
batteries, Robert **6 responses**
HP41 key press delay (for NULL), Vassilis Prevelakis **1 response**
Spice troubles, dbrunell **3 responses**
Algorithmically refined..., eclectic_echidna **18 responses**
How Do I switch back to N. American Notation??, Raf **9 responses**
Limit on number of static routes, Eric Ashbaugh **1 response**
Anyone w/a dead 15C that can decap/peel chips w/ ROMs??, Bill Wiese **17 responses**
Anyone w/a dead that can decap/peel chips w/ ROMs??, Bill Wiese **0 responses**
High Price for an HP42s, Richard Garner **1 response**
A spare black screen 48GX, R Lion (España) **5 responses**
Strange recurring HP41CX at $440 on eBay, Sergio **13 responses**
9810 Power Problem?, Katie **12 responses**
Emmanuel at Xeq41@aol.com, Jeff **14 responses**
3056DL software for the hp85 and the hp3421a, Andy **0 responses**
buying HP calculators, Phil Jonker **1 response**
that HP42sx thing again, christof (NoVA US) **10 responses**
-+*/ -> /*-+, tony **10 responses**
Pioneer Cases, Patrick **2 responses**

Looking for magnetic-backed cardstock, Andy **6 responses**
HP48GX Websites, James **4 responses**
HP 41 rubber feets, Frederic **12 responses**
HP 59309A HP-IB Digital Clock, Vassilis Prevelakis **2 responses**
HP-17BII+, Tom Cox **14 responses**
41CV turns off after 30 seconds, Matt Kernal (US) **5 responses**
Buying a Used HP, Dave **25 responses**
PE exams, calculators, NCEES - PLEASE READ!!, John Cadick **4 responses**
Eigenvalues on 42S?, Steven Soto **12 responses**
49 blues, Harry **3 responses**
48GX /SX Observation, Ted **1 response**
Calculators vs Adding Machines, Katie **21 responses**
(deleted post), deleted **1 response**
41C ROM versions, Randy Sloyer **9 responses**
41C & 15C, Vincent Weber **11 responses**
19c record on ebay?, Gene **3 responses**
12C Platinum: Better/Worse than Original?, tomk **5 responses**
copying 9815 tapes, db(martinez,california) **0 responses**
NCEES Banning of 48GX, 49G, TI83, TI89, Etc, John Cadick **2 responses**
Math(s) class is a calculator tutorial , bill platt **16 responses**
HP15C, Hans **3 responses**
HP Calculators in movies ??, Norm **37 responses**
HP33S, Iqbal **18 responses**
Old other HP products, Pierre Brial **9 responses**
This Will Boost R & D, Sales of Scientific Calcs, J.C. Randerson **35 responses**
Hpcalc info Updated, Frank **0 responses**
Any Interesting HP 3421A applications out there?, Tracy Vermeyen **14 responses**
HP48 Calcs banned from NCEES FE & PE Exams, Stephen Sester **0 responses**
HP 3421A actuators, Tracy Vermeyen **2 responses**
HP 48GX Expansion cards, Arthur Coons **3 responses**
question re: 12C HP, Debi **5 responses**
HP 32E Display Question, Harry (Germany) **4 responses**
48 series memory cards, unspellable **3 responses**
Voyager Back Metal Plate Repair, bill platt **4 responses**
Pics, Pierre Brial **1 response**
The RPL family, jose goncalves (brasil) **0 responses**
Meeting in Basel - Youthhostel, Christoph Klug **0 responses**
Classic KBs over current 49g, Charles L **9 responses**
El-Cheapo Wally-World Four-Banger, W. Bruce Maguire II **18 responses**
33s Search on Google Gives 1-page Results List, Paul Brogger **3 responses**
Switzerland is the source for new HP calcs, Juergen (CH) **10 responses**
Why so many "Will ship to USA only" sellers on eBay ?, Emmanuel Verbeeck **11 responses**
HP-41 Durability, bill platt **13 responses**
Pioneer calcs: Gaps between keys and faceplate cutouts, Neil **3 responses**
HP's new calc page, charles **9 responses**
HP 15C Manuals over $100, Mitch **2 responses**
HP41 Card Reader, Colin Lambert **3 responses**
9810 Magnetic card options, andy **18 responses**
Back on line & new articles !, Valentin Albillo **4 responses**
HP29C documentation and data, Vieira, Luiz C. (Brazil) **10 responses**
Paypal Accounts May Be Deleted If Inactive (Hoax?), Victor **22 responses**
HP-55, Howard **0 responses**
hp 80 keys don't respond well, Irfan **2 responses**
Recovering a HP97 printer, Jose Goncalves (Brazil) **3 responses**

HP 71B - plate below hp logo, Neil **3 responses**
Question for HP-48GX Experts, John Smith **6 responses**
Did anyone notice this {HP33S}, Naim **4 responses**
Pioneer keyboard (esp. HP-42S), Erik Ehrling (Sweden) **1 response**
OT: SAT Pictures of the blackout, Vassilis Prevelakis **5 responses**
HP Journal for the Integral PC, Vassilis Prevelakis **8 responses**
Handbook download - where?, Tizedes Csaba **1 response**
Buying FN1000, Paulo Costa **1 response**
Help Please - HP32SII Fractional Display, Chris Thomson **3 responses**
OK, we know what's wrong..now, what's right, bill platt **19 responses**
I was working on, Norm **10 responses**
HP-67 for $760, Nick **3 responses**
New HP32Sii Platinum Model, Renard **0 responses**
HP-42S With 32K, Tom Cox **10 responses**
Pampered Texas Instrument Calculator users, Max **5 responses**
HP11C LCD Display "Corrosion", Daniel **0 responses**
End of Evolution (long), Ernie Malaga **15 responses**
new hp 17bII+ on eBay, Juergen (CH) **2 responses**
HP82494 HP71B Survey Module, Stefan Hauschild **6 responses**
ACO lives again??, Tom (UK) **2 responses**
New HP33S & Pontiac Aztec Design Philosophy, Danny **0 responses**
48GX /SX, Andrey **7 responses**
8051 as HP-41 module?, Ben Moss **12 responses**
Are 1970's sales brochures worth anything?, ben **3 responses**
rpn discussion, Paco **0 responses**
just don't buy one, bill platt **5 responses**
Texas Instruments RPN calculator, Graeme W. **10 responses**
We should be happy, L Martin **1 response**
Round off (beautiful...), Tizedes Csaba **1 response**
Restoring the 'ole click to a "classic", Michael Meyer **3 responses**
My self centered "but objective" opinion, Ron Ross **1 response**
HP41C halfnut serial numbers, David Smith **2 responses**
New HP calculators, Dave **6 responses**
New HP 33s and so forth, Charles **8 responses**
33s and 48gII Info, Jeff **49 responses**
Another picture thief on eBay, Andrey **2 responses**
Can we bring ebay prices down ?, Renato **21 responses**
simple math, Don Alexander **7 responses**
HP-71B/HP-41CX on same HP-IL Loop, Jeff **2 responses**
Symbolic math, Tizedes Csaba **7 responses**
TVM inaccuracy, Thomas Radtke **8 responses**
Does this 82162A work?, David Ramsey **5 responses**
Ebay - HP-12C #ABA, Howard **6 responses**
Start collecting something else, Victor Koechli **5 responses**
Hp future calculator, Pierre Brial **2 responses**
USB to serial connectors and HP calculators., Cameron Downunder **0 responses**
HP-41C LCD , Terry **5 responses**
Wanted: Hp Xpander connectivity cable schematic, Sean McNamee **3 responses**
HP-01, Gene Marsh **1 response**
15C: Original Packaging or Repackaged, Mike **9 responses**
41c y^x, hugh **3 responses**
12c/12c Platinum programming differences, Don Shepherd **6 responses**
Pioneer Display, gifron **4 responses**
Bermuda Triangle... Help, Mister Fox Mulder!, Emmanuel, France **0 responses**

A new fanatic?, Christof **4 responses**
HP32SII - Keypad Labels, Tony **9 responses**
HHC2003, John Cadick **0 responses**
HP-97 Card Reader - Reads but won't Write (Photos), Mike **1 response**
Deceptive eBay Auction, Patrick **1 response**
Meeting V, Matthias Wehrli **7 responses**
computation challenge, hugh steers **12 responses**
HP-97 display question, Mark Monica **2 responses**
HP12C - Internal Rate of Return, David L. Taylor **4 responses**
Familiar 97S Data, DougT **0 responses**
HP32SII Emulator, D.W. **4 responses**
How to change dots <> commas in HP-32E?, Nelson M. Sicuro (Brazil) **6 responses**
And the winners are.... ?, Matt Kernal (US) **24 responses**
CP/M on an HP-86/87XM, Mike **7 responses**
HP15C batteries, Tony **3 responses**
HP-80 Questions, Michael Barry **0 responses**
Technical Mac HP48gx connectivity problem with USB to serial converter, Cameron Downunder **0 responses**
Xpander battery compartment, Sean McNamee **11 responses**
STAT PAK for HP-48GX, Thomas Cox **3 responses**
F and G, John **5 responses**
HP41CV basic statistics question, Andrew **2 responses**
JYA just mentioned ROM 1.20 for the 49G on c.s.hp48, Gene **3 responses**
Roll-on adhesive use, Michael Meyer **1 response**
just got HP12C-Plat. spam from HP, Bill Wiese **4 responses**
HP95LX HELP !!, Rick VanHuss **4 responses**
HP-41C or V?, Michael Meyer **2 responses**
HP 12C, Joe **2 responses**
Whatever happened to the "Logic Dart" HP product?, Gene **7 responses**
eMail from eBay, Ellis Easley **9 responses**
HP-91 How rare?, Michael Meyer **9 responses**
What do you think of my HP buying prices?, Emmanuel Verbeeck **27 responses**
norm, take note, db(martinez,california) **9 responses**
Just wondering??, Naim **3 responses**
PPC ROM on eBay, Massimo Gnerucci (Italy) **9 responses**
HP41CX - hard reset, Richard McDonald **2 responses**
HP 41 cv "Memory lost", Juergen Schneider **1 response**
19c, Don Alexander **3 responses**
Dead HP41CX, Ben Moss **3 responses**
HP35 New Model , Scott Elesandro **14 responses**
97S Test connector outlay, Erik Wahlin **1 response**
HP-19C Help needed, Renato **11 responses**
HP49G+, Monte Dalrymple **6 responses**
Testing an HP41CX, Ben Moss **6 responses**
HP 37E repair., Harry (Germany) **7 responses**
MY HP-67 CARD READER AGAIN, Jon **3 responses**
Meeting, Matthias **0 responses**
HP 29C, Kevin Tupes **0 responses**
"n" function in HP 12C, Luc **4 responses**
New HP 49 Plus, Richard Garner **18 responses**
HP41CV gone crazy..., Marx Pio **1 response**
HP-97 Power Supply, Gordon Dyer **6 responses**
HP-35 production lot, **0 responses**
HP-9120A belt, David Smith **0 responses**

Cheap 41CV on eBay, gifron **4 responses**
HP-41 programming question, Axel Poqué **8 responses**
Enron Hewlett Packard Finan Calculator HP-12C, Howard **5 responses**
hp41c negative battery, hugh steers **3 responses**
Display for the HP-15C, Nelson M. Sicuro (Brazil) **1 response**
HP42S: scary moments, Vieira, Luiz C. (Brazil) **3 responses**
damaged hp?, seth hendren **10 responses**
Invalid card data, mapet **5 responses**
HP42S Programming question, Harry (Germany) **7 responses**
repair hp 27S calculator, Bob Plachta **1 response**
HP-71B Strange Behavior, Jeff **6 responses**
LED failure, Matthias **19 responses**
HP-41CV - Card Reader, Frank V **2 responses**
Re: HP-41 Programming Challenge, Axel Poqué **20 responses**
What to do with new HP-25, G Evans **14 responses**
Woodstocks ??, G Evans **4 responses**
Looking for Susan Wechsler, Heather Mackenzie-Campbell **1 response**
I am confused... Hey, Norm, this may be of interest, Vieira, Luiz C. (Brazil) **3 responses**
Characteristics:HP 9871A printer, Jack T.Lee **4 responses**
15C Keyboard Test Error, gifron **6 responses**
HP41 Battery question, Harry (Germany) **20 responses**
eBay insane price!, Michael Meyer **2 responses**
HP-110 Plus and Machine Language, Jeff **1 response**
Xtreme Newbie Question, V **2 responses**
Meeting IV, Matthias **8 responses**
HP-01 watch band, Erik Wahlin **1 response**
HP iPAQ PocketPC going to the moon, gene **3 responses**
33S picture?, Arnold **0 responses**
Advice on HP 25 Charging, G Evans **3 responses**
Zenrom Manual for Dennis, Christoph Klug **1 response**
Museum and MLDL2000 proto pictures online, Meindert Kuipers **0 responses**
Ernie, please read., Vieira, Luiz C. (Brazil) **6 responses**
$590 ebay auction using MoHP pictures, gene **3 responses**
09877-10002, Doyle Bullock **0 responses**
HP 42S ROM-versions, Harry (Germany) **6 responses**
HP 9825A, Scott **5 responses**
Need HP-25 troubleshooting tips, G Evans **19 responses**
41 Blanknut, Andrey **2 responses**
Any information about HP-15C hardware/firmware?, Nelson M. Sicuro **24 responses**
HP 11C Error 3, Phill higgins **1 response**
Update: 13 digit precision on HP-15c (from Palmer Hanson), Gene **1 response**
HP41 Programming challange, Harry (Germany) **22 responses**
Display Full Mantissa 41CV, bill platt **7 responses**
About that HP37E I am trying to fix, Harry (Germany) **5 responses**
HP-48GX display indicators, Axel Poqué **10 responses**
HP41 Bank Switching & HEPAX Question, Meindert Kuipers **5 responses**
Re: 2 articles about it, Robert Blaschke **0 responses**
Difference in CX roms?, Sean McNamee **8 responses**
HP-42S Emulator??, Nelson M. Sicuro (Brazil) **18 responses**
HP Power Calcs, Valhalla **2 responses**
Xpander auction ending in 1 hour, Scott **15 responses**
Math pac vs. Advantage pac, Sean McNamee **5 responses**
eBay and Classified Adds here, Valentin Albillo **0 responses**
zenrom manual?, db(martinez,california) **1 response**

NORM's CORRECT!, Trent Moseley **8 responses**
HP 71B and the 82162A, Wayne W Wayenberg **4 responses**
Hp 41c Keyboard, 41Jeff **0 responses**
SPICES KEYBOARD, Jon **5 responses**
New RPN calculator, Roland. **5 responses**
Problems with HP41C, hugo (belgium) **12 responses**
Hp-85 on ebay, Sean McNamee **0 responses**
How about chatting?, Sean McNamee **1 response**
Can anyone comment on the Lygea HP15C emulator?, Emmanuel Verbeeck **8 responses**
RamBOX, Matthias **14 responses**
non-calculator collections, Sean McNamee **28 responses**
HP-25 manual revisions, David Smith **1 response**
Who knows more about this?, Matthias **13 responses**
hp calculator batteries, Jennifer Seelye **2 responses**
I think I did not understand this auction's subject, Vieira, Luiz C. (Brazil) **8 responses**
CMT-300 multimeter for HP-41, Bill Jensen **0 responses**
Another 41cx Q:, Sean McNamee **9 responses**
11C - 2 Sellers same pic, M. Anthony **0 responses**
HP71B: two questions, Vieira, Luiz C. (Brazil) **7 responses**
Two questions on 41cx programming, Sean McNamee **4 responses**
New pictures, Matthias **0 responses**
The 13 digit capability of the 15c (From Palmer Hanson...former TI PPC editor), gene wright **3 responses**
we need more HP-34C posts, Norm **11 responses**
Semi-blanknut 41CX, David Smith **3 responses**
HP 25 -> HP25C, Victor Koechli **2 responses**
[OT] Babelfish automated translations :-), Valentin Albillo **1 response**
12c Platinum Perpetuity challenge, tony **67 responses**
Meeting III, Matthias **25 responses**
MLDL2000 now working as MLDL!, Meindert Kuipers **7 responses**
RPN via Visual Basic, OJM **0 responses**
hp 41 c, François Riverin **3 responses**
HP 28S Fast Mode, Victor Koechli **2 responses**
Some interesting documents (2), Valentin Albillo **7 responses**
Today I took the HP41 to class, and..., Harry **19 responses**
Help! Can one store a table of values as a 15c array?, glynn **5 responses**
To Kill the Flying Goose, Pierre Brial **6 responses**
Great photos of the Xpander, jose goncalves **3 responses**
What is an HP 82972A for the HP-85?, John **2 responses**
MLDL2000 Specification Update, Meindert Kuipers **5 responses**
12c: How do you change from "," to "."?, bruce **2 responses**
HP 17bii+ picture!, Jonas Lööf **19 responses**
Whatever happened ... ?, unspellable **1 response**
HP-41CX lock-ups, Axel Poqué **19 responses**
Blank-Nut On eBay?, Mark Hardman (LED) **8 responses**
Calculator Logic Systems (long), bill platt **4 responses**
News from Mr Packard, jose goncalves (brasil) **6 responses**
hp 45, bill platt **4 responses**
HP-41 fullnut keyboards, Jon **1 response**
HP Keyboards, Thomas Cox **5 responses**
Best thing about the HP12cp, Michael Barry **1 response**
User RPL IDE, Randy Sloyer **4 responses**
Re: Emulators, Raymond Del Tondo **1 response**
Emulators, V **3 responses**
Re: HP-38G, Ron Ross **1 response**

Re: HP-38G, Raymond Del Tondo **0 responses**
HP-38G, Fréderic **2 responses**
Buggy 11C, Mitch **7 responses**
41 & 71 file suffixes for the site I'm building, Emmanuel, France **2 responses**
Cringely Comment on HP, Les Bell [Sydney] **3 responses**
Where to Find Trans41, Mark Hardman (LED) **1 response**
Bought HP Xpander at sale today, Scott Seelye **3 responses**
LIF disks: volume label changing and related stuff, Vieira, Luiz C. (Brazil) **0 responses**
3468B DVM, 41Jeff **5 responses**
MLDL unit for 41 ??, Sean McNamee **10 responses**
SPICES keyboard label, Jon **2 responses**
HP 17Bii, V **13 responses**
wow. HP-11c @ $285 what's the highest?, gene **16 responses**
probably HP-41c Halfnut on ebay, gene **2 responses**
Are HP 32Es cheaper than other spices?, Harry (Germany) **4 responses**
OM-D30V: Anyone remember these disks?, Mike **3 responses**
What battery for 11 C?, Dave Beverstock **7 responses**
are Algebraics more Valuable?, bill platt **4 responses**
HP48GX screen replacement, Ohneil **7 responses**
17b emulator, Brendo **1 response**
Ebay purchase - good deal?, Sean McNamee **4 responses**
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HP-10 NIB??? on eBay

*Message #1 Posted by **Gordon** on 25 Nov 2003, 6:21 p.m.*

Looking at the real pics of this HP-10 it does look very good but is definitely used quite a lot. BUT MoHPC pics are added to give the impression it really is new!
Dave, this one needs to be dealt with!
http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=3061139552&category=11713

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Dump ROM of a HP17BII?

*Message #1 Posted by **Marc** on 25 Nov 2003, 6:03 p.m.*

Is it possible to dump the ROM of this calculator? Thanks.

Re: Dump ROM of a HP17BII?

*Message #2 Posted by **Randy Sloyer** on 25 Nov 2003, 6:22 p.m.,*
in response to message #1 by Marc

Yes it is. It requires a 48 series machine to receive the IR output.

Process is identical to that of the 42S. See http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=266 for details.

Just map the 42S keys mentioned to the same physical 17B/17Bii keys and have fun and don't miss a block.

Several hours and a sore finger later, you'll have your image.

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Accu packs

*Message #1 Posted by **Matthias** on 25 Nov 2003, 4:36 p.m.*

Today I was in a store called "AccuDoc". I wanted to know the price of a rebuild of a HP-41 accu pack and the accu pack of a HP 110. As I put the HP-41 accu on the table he told me immediatly to put it back into my bag.. Many people asked before, but the batteries are no more available as he told me. For the HP 110 accu pack: There are 3 lead cells in it.. Price for a rebuilt: arround $80... A little bit to much for me, cause I do not use the calculator. Buy anyway: Does someone has a working accu pack left for me?

Matthias

Re: Accu packs

*Message #2 Posted by **Juergen (CH)** on 25 Nov 2003, 5:21 p.m.,*
in response to message #1 by Matthias

If you do not use the calc, why do you need a working battery pack?

Re: Accu packs

*Message #3 Posted by **Chan Tran** on 25 Nov 2003, 6:46 p.m.,*
in response to message #2 by Juergen (CH)

I used the rechargable battery in the 41 before but now I use only alkaline. I see no need for the rechargable as the alkaline last a long time. When I use the card reader and/or the wand the battery life is shorter but not anything outrageous. If I use the card reader a lot because I am writing some programs and do lots of testing then I would find some way to power the calculator with AC power instead.

Re: Accu packs

*Message #4 Posted by **David Smith** on 25 Nov 2003, 9:51 p.m.,*
in response to message #1 by Matthias

The 75 maH 1/2N cells for the 41C pack were only made by Sanyo. They stopped supplying them a couple of years ago. Most people today use 1/3AAA NiMH cells. They are close to, but smaller than, the original size and require some additional shim material for a proper fit.

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49g+ screen flash

*Message #1 Posted by **Helge Gabert** on 25 Nov 2003, 10:19 a.m.*

Does anybody know what to do about the annoying screen flashes (bottom line) on the 49g+? ROM is 1.2. Does upgrading to 1.22 help? Thanks.

Re: 49g+ screen flash

*Message #2 Posted by **bmclaurin** on 25 Nov 2003, 10:26 a.m.,*
in response to message #1 by Helge Gabert

No, 1.22 doesn't help. I tried this myself last night. My understanding is that the flicker is caused by the unit going into a low power state about 1-2 seconds after each keypress while it waits for the next keypress. Somehow, it misses a screen refresh while making this transition. If you have the digital clock (with seconds) display turned on, it makes the problem more noticeable because the power state recycles pretty much with each clock tick. Turning the clock display off should at least reduce the amount of flickering, but it will not eliminate it. I am hopeful that this issue will be resolved in a future ROM update, but 1.22 doesn't do it.

Re: 49g+ screen flash

*Message #3 Posted by **Paul Brogger** on 25 Nov 2003, 11:26 a.m.,*
in response to message #1 by Helge Gabert

ROM 1.22 seemed to help, but not cure.

There's been much discussion of this on COMP.SYS.HP48 .

Pressing ON and then up-arrow at the same time seems to stop it, for some reason.

I'm not sure what command or feature is invoked with that keypress pattern. It may be related to printing, and IIRC, you'll want the "print via wire" flag (-34) set.

I *think* that's it, anyway.

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HP-95LX Demo - Screenshots

*Message #1 Posted by **Mike** on 25 Nov 2003, 12:37 a.m.*

Someone asked "what is in the 95LX demo pac?" I have a few of these and decided to take a few screenshots. They could be better but I just shot them as they appeared.

http://www.msdsite.com/hpcalcs/95lx/demo/demox.jpg http://www.msdsite.com/hpcalcs/95lx/demo/menux.jpg
http://www.msdsite.com/hpcalcs/95lx/demo/1x.jpg http://www.msdsite.com/hpcalcs/95lx/demo/2x.jpg
http://www.msdsite.com/hpcalcs/95lx/demo/3x.jpg

http://www.msdsite.com/hpcalcs/95lx/demo/4x.jpg http://www.msdsite.com/hpcalcs/95lx/demo/5x.jpg
http://www.msdsite.com/hpcalcs/95lx/demo/6x.jpg http://www.msdsite.com/hpcalcs/95lx/demo/7x.jpg
http://www.msdsite.com/hpcalcs/95lx/demo/8x.jpg

Re: HP-95LX Demo - Screenshots

*Message #2 Posted by **Jeff** on 25 Nov 2003, 9:02 p.m.,*
in response to message #1 by Mike

Is there a demand for these items? I have a couple of them. Please advise, Jeff

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HP-33S

*Message #1 Posted by **Matthias** on 24 Nov 2003, 12:46 p.m.*

Dear boys and girls.... Bad news. In Switzerland the HP-33S will be introduced in first half of december.. I got this news from a very trustfull soucre. Switzerland will be one of the first contries that will introduce the 33S... Let´s hope it´s under our chrismas tree...

Matthias

Re: HP-33S

*Message #2 Posted by **Namir Shammas** on 24 Nov 2003, 1:10 p.m.,*
in response to message #1 by Matthias

Why is that bad news? We were expecting a January 2004 intro date. Is it bad news because you can only buy it if you have a Swiss bank account????

:-)

Namir

Re: HP-33S

*Message #3 Posted by **bill platt** on 24 Nov 2003, 1:15 p.m.,*
in response to message #2 by Namir Shammas

I have a swiss email account---is tat good enough? ;-}

Re: HP-33S

*Message #4 Posted by **Namir Shammas** on 24 Nov 2003, 2:25 p.m.,*
in response to message #3 by bill platt

Bill,

You get a simulator for the HP33s!!!!

Re: HP-33S

*Message #5 Posted by **Matthias** on 24 Nov 2003, 2:28 p.m.,*
in response to message #2 by Namir Shammas

I was told that it arrives in the middle of november....

Re: HP-33S

*Message #6 Posted by **Ben Salinas** on 24 Nov 2003, 6:02 p.m.,*

in response to message #2 by Namir Shammas

January 2004... you're joking

I was expecting January 2005 at the earliest

Expect less and you will be more grateful.

-ben

Re: HP-33S

*Message #7 Posted by **Namir Shammas** on 24 Nov 2003, 6:16 p.m.,*
in response to message #6 by Ben Salinas

Ben,

What gave you the impression that the release date is Januray 2005? We heard about all the new calculators that they are coming out this fall (and maybe early winter).

Namir

PS: Congrats on winning the calculator design.

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HP-15C (11C/34C/42S/etc) Arguably Useful Mini-Challenge

*Message #1 Posted by **Valentin Albillo** on 24 Nov 2003, 11:16 a.m.*

Hi all,

After some months of comforting absence, here's a new Arguably Useful Mini-Challenge for the HP-15C.You can also use other HP models such as the HP-11C, HP-34C, HP42S, etc, though my solutions and timing will be particularized explicitly for the HP-15C.

The challenge has practical applications, and goes like this:

The Challenge

Write a subroutine (LBL A ... RTN) that given an integer N (where N > 0) in the display, it will return to the display the value of f(N), where:

```
f(N) =  1 x 3 x 5 x ... x (2*N-3) x (2*N-1)

        <------------ N terms ------------>
```

thus, for instance, if N = 4 then

```
f(4) = 1 x 3 x 5 x 7 = 105
```

The main design goal for the routine is for it to be ***as fast as possible***, (specially for large N, such as N > 30) and subject to that, to be as short as possible, to minimize resources (registers, flags, etc) used or have some other desirable properties.

Under the conditions given, there's a solution for the HP-15C in just 12 steps (counting LBL A and RTN) which takes 2.7 seconds for N = 52.

I'll give my solutions within 2 days or so, discussing the relative advantages of each. Meanwhile, let's see what you can do with your trusty HP and your ingenuity. **:-)**

Best regards from V.

Edited: 24 Nov 2003, 11:23 a.m.

Re: HP-15C (11C/34C/42S/etc) Arguably Useful Mini-Challenge

*Message #2 Posted by **Pascal** on 24 Nov 2003, 12:19 p.m.,*
in response to message #1 by Valentin Albillo

Well, taking your function f(n) = 1 * 3 * 5 * ... * (2*n-3) * (2*n-1)

one can see that it's related to the factorial.... somehow :-)

Lets put it differently:

```
        n
       ---
f(n) = | | (2x-1)
       x=1


        (2n)!
     = ----------
         n
        ---
        | |(2x)
        x=1


     = (2n)! / g(x)


where g(x) = x! * 2^x


Putting this together gives

f(n) = (2n)! / (2^n * n!)



So:


LBL A
STO 0
2
*
x!
2
RCL 0
y^x
LAST X
x!
*
/
RTN
```

OK, that's 13 steps.... but be it :-)

regards Pascal

Re: HP-15C (11C/34C/42S/etc) Arguably Useful Mini-Challenge

*Message #3 Posted by **Stephan (Germany)** on 24 Nov 2003, 12:23 p.m.,*
in response to message #2 by Pascal

I came to the same expression. But on a 15C evaluation for N=52 will fail due to 2*52 > 69 which is the maximum integer x! can handle. Still thinking, will post when I found another way.

Regards, Stephan

12345 to delete

Re: HP-15C Mini-Challenge - Valid solution, but too slow

*Message #4 Posted by **Stephan (Germany)** on 24 Nov 2003, 12:47 p.m.,*
in response to message #1 by Valentin Albillo

Considering that (2*52)! cant be evaluated by a 15C I found a solution in 11 steps.

f LBL A STO 0 2 * RCL 0 f Px,y 2 RCL 0 y^x / RTN

Unfortunately it is too slow (about 8 to 9 seconds for N=52). Still trying to improve.

Regards, Stephan

12345 to delete

Re: HP-15C:Fast(???), but limited (Nmax=34)

*Message #5 Posted by **Tizedes Csaba** on 24 Nov 2003, 5:07 p.m.,*
in response to message #1 by Valentin Albillo

I don't saw other solutions yet, this is my solution:

```
LBL B
ENTER
ENTER
+
x!
x<>y
x!
LSTx
2
x<>y
y^x
*
/
RTN
```

This is use the following equality:

1*3*5*...*(2*N-3)*(2*N-1)=(2*N)!/(2*4*6*...*(2*N-2)*(2*N))=(2*N)!/(2^N*(1*2*3*...*(N-1)*N))=(2*N)!/(2^N*N!)

Running times: (I measured 3 times, then calculated average times)

```
N=4     2.36s
N=34    3.09s
```

Only three problems with this solution:

1. Too long (14 steps with LBL and RTN)
2. Too slow
3. Limited by N=34 (because (2*N)!)

But I'm working... ;)

Csaba

Re: HP-15C:Slow, but not limited by N

*Message #6 Posted by **Tizedes Csaba** on 24 Nov 2003, 5:26 p.m.,*
in response to message #5 by Tizedes Csaba

```
LBL C
ENTER
+
LSTx
Py,x
LSTx
2
x<>y
```

```
y^x
/
RTN
```

11 steps, N=52 -> 9.39s

Csaba

Re: HP-15C:Faster...

*Message #7 Posted by **Tizedes Csaba** on 24 Nov 2003, 6:38 p.m.,*
in response to message #6 by Tizedes Csaba

```
LBL A
2
x<>y
y^x
LSTx
.
5
-
x!
*
pi
sqrt(x)
/
RTN
```

14 steps, N=52 -> 4.02s

Csaba

This is use the following equality:

1*3*5*...*(2*N-3)*(2*N-1) = 2^N*GAMMA(N+1/2)/SQRT(PI)

Re: HP-15C: An approximately solution...

*Message #8 Posted by **Tizedes Csaba** on 24 Nov 2003, 9:13 p.m.,*
in response to message #7 by Tizedes Csaba

I was played with Stirling-formula, and then Wallis-product, and I maked this approximately solution:

```
LBL D
2
x<>y
y^x
LSTx
x!
LSTx
pi
*
sqrt
/
*
RTN
```

13 steps, N=52 -> 2.69s

Error at N=4 +3.2%, at N=60 +0.2%

Csaba

Re: HP-15C:Faster...

*Message #9 Posted by **Stefan Katletz** on 25 Nov 2003, 8:33 a.m.,*
in response to message #7 by Tizedes Csaba

By storing the two constants (0.5 and sqrt(PI)) in two registers (before running the program) one gains two lines and a little bit of time. But it still not the 2.7s ....

Re: HP-15C:Faster...

*Message #10 Posted by **Tizedes Csaba** on 25 Nov 2003, 12:32 p.m.,*
in response to message #9 by Stefan Katletz

Thank you, Stefan, I wrote it, and I tryed:

```
LBL E
2
x<>y
y^x
LSTx
RCL-9
x!
*
RCL/8
RTN


.5 STO 9
sqrt(pi) STO 8
```

10 steps, N=52 -> 3.54s (Hmm...)

Csaba

Re: HP-15C (11C/34C/42S/etc) Arguably Useful Mini-Challenge

*Message #11 Posted by **Brent** on 24 Nov 2003, 6:30 p.m.,*
in response to message #1 by Valentin Albillo

I'm thinking of some way to put this in tha calc but I'm not a math person.

(N+1)x (N+2)x (N+3)x ... x (N+N)---------- 2^N

It seems you can get rid of a bunch of internal stuff if you can do it.

Re: HP-15C (11C/34C/42S/etc) Arguably Useful Mini-Challenge

*Message #12 Posted by **Brent** on 24 Nov 2003, 6:34 p.m.,*
in response to message #11 by Brent

Sorry, I guess I don't know how to format the form properly.

2^N should be in the denominator.

14 step solution HP41

*Message #13 Posted by **Gene** on 24 Nov 2003, 8:56 p.m.,*
in response to message #1 by Valentin Albillo

Might be really bad (haven't read below). 14 steps includes LBL and RTN.

LBL 01 ENTER ST + X 1 + FACT X<>Y FACT 2 LASTX Y^X * / RTN

An odd double factorial, eh?

Re: What's with the " 1 + " ?

*Message #14 Posted by **Paul Brogger** on 25 Nov 2003, 3:44 p.m.,*
in response to message #13 by Gene

I figure the factorial formula is:

```
(2N)! / (N! * 2**N)
```

Am I missing something?

Also, removing "1 +" from yours, and using "ST + x" rather than the two-step "2 *" in mine (below) brings us both to 12 steps, with the same formula.

Where I got my stuff from

*Message #15 Posted by **Gene** on 25 Nov 2003, 7:07 p.m.,*
in response to message #13 by Gene

Found my formula here:

http://www.research.att.com/cgi-bin/access.cgi/as/njas/sequences/eisA.cgi?Anum=A001147

and

http://mathworld.wolfram.com/DoubleFactorial.html

Note that the second link shows for (5) on the right side the (2N+1)!/((2^N)*N!) formula. That's what I used.

Re: Where I got my stuff from

*Message #16 Posted by **Paul Brogger** on 25 Nov 2003, 7:40 p.m.,*
in response to message #15 by Gene

Well, let's try one . . .

For the example, n=4, the result has to equal 1 x 3 x 5 x 7 (the first four successive odd numbers multiplied together) or 105.

```
 (2*4+1)! / (2**4 * 4!)
=      9! / (16 * 24)
= 362,880 / 384
=     945.


  (2*4)! / (2**4 * 4!)
=     8! / (16 * 24)
= 40,320 / 384
=    105.
```

It's interesting that your formula seems to produce the same sequence of values, but they're "off by one". That is, if your formula is "g" and mine "p", then it appears that g(n) = p(n+1).

(I've got to get home, but I'll be playing with this some more. If I've got something wrong in the above, do set me straight!)

Not Fair !!

*Message #17 Posted by **Tom Sherman** on 25 Nov 2003, 9:02 a.m.,*
in response to message #1 by Valentin Albillo

Valentin's daughter would take out her Sharp 1350 and quickly write something like this:

10 INPUT "Number of terms =";N

20 A=1

30 X=1

40 FOR I=1 TO N

50 A=A*X

60 X=X+2

70 NEXT I

80 PRINT A

90 END

Execution time for N=52 on the HP-71B is a little over 2 seconds.

The rest of us would be left wondering why anyone would program in RPN anymore. Answer: it is fun, and more satisfying, because it is harder and takes much more time out of an otherwise dull evening.

I think that the above scheme can be done using a loop counter, index register, STO* or RCL* to save steps, etc., but it is too many years since I have done RPN programming to remember.

Tom

Brute Force

*Message #18 Posted by **Victor Koechli** on 25 Nov 2003, 9:56 a.m.,*
in response to message #17 by Tom Sherman

Alright, if you're going brute force, here you are:

<< DUP + 1 DUP ROT FOR i i * 2 STEP >>

.552s (HP-48SX), .367s (HP-49G, approx mode), .875s (HP-49G, exact mode). Works for n up to 202 (approx mode).

At least you can see how compact RPL is. Certainly not exactly what Valentin was asking for, though. I keep testing with my 15C...

Cheers, Victor 12345

Re: Brute Force

*Message #19 Posted by **Arnaud Amiel** on 25 Nov 2003, 10:14 a.m.,*

in response to message #18 by Victor Koechli

And 0.1837 approx abd 0.2065 exact on a 49g+

Arnaud

Force, but not brute...

*Message #20 Posted by **Tizedes Csaba** on 25 Nov 2003, 11:32 a.m.,*
in response to message #18 by Victor Koechli

```
PROD.EQ
<< -> n
   << n DUP 2 * SWAP PERM 2 n ^ / >>
>>


TEST.PRG
<< TICKS 52 PROD.EQ TICKS >>
```

I measured three times, and I modified the TEST.PRG:

```
TEST.PRG
<< TICKS 52 TICKS >>
```

The difference of running times (the real running time): 0.225s, on my 48SX.

Csaba

Re: Force, but not brute... CASIO FX-850P

*Message #21 Posted by **Tizedes Csaba** on 25 Nov 2003, 11:51 a.m.,*
in response to message #20 by Tizedes Csaba

```
1 N=52:BEEP:FORI=1TO100:PERM=NPR(2*N,N)/2^N:NEXT:BEEP
```

Running time: A=19.51s

```
1 N=52:BEEP:FORI=1TO10000:NEXT:BEEP
```

Running time: B=26.68s

The result: A/100-B/10000=0.192s

Csaba

LN(...*...*...) -> ...+...+...

*Message #22 Posted by **Tizedes Csaba** on 25 Nov 2003, 4:21 p.m.,*
in response to message #20 by Tizedes Csaba

```
<< DUP 2 INV - ! LN SWAP 2 LN * + PI LN 2 / - EXP >>
```

N=52 -> 0.188s on my 48SX

Csaba

DUP's and ROT's

*Message #23 Posted by **Tom Sherman** on 25 Nov 2003, 3:06 p.m.,*
in response to message #18 by Victor Koechli

Victor,

This is beautiful. But I feel like a DUP, my brain quite ROTated, just looking at it. Nice job!

Cheers,

Tom

Re: Not Fair !!

*Message #24 Posted by **Valentin Albillo** on 25 Nov 2003, 11:05 a.m.,*
in response to message #17 by Tom Sherman

Hi, Tom:

Tom posted:

"Valentin's daughter would take out her Sharp 1350 and quickly write something like this:"

Actually, she *did*.

:-)

She took out her SHARP 1350 (which I presented to her a few months ago), and produced the following:

```
10 INPUT "N = "; N:
   A = 1:
   FOR I = 1 TO 2*N - 1 STEP 2:
       A = A * I:
   NEXT I:
   PRINT A:
   END
```

which is only *one* (multi-statement) line of BASIC and uses STEP 2 to automatically increment the multiplier, thus avoiding any extra auxiliary variables. It executes fast, too, 1.5 seconds for N = 60, which is the limit for f(N) < 10^100.

... and I agree, it just isn't fair ... :-)

Best regards from V. and L.

Re: Not Fair !!

*Message #25 Posted by **Victor Koechli** on 25 Nov 2003, 11:17 a.m.,*
in response to message #24 by Valentin Albillo

You must be quite happy with your daughter! Well done! Cheers, Victor

Re: Not Fair !!

*Message #26 Posted by **Valentin Albillo** on 25 Nov 2003, 11:38 a.m.,*
in response to message #25 by Victor Koechli

Thanks a lot, Victor !

The equivalent HP-15C's RPN "loop" version, as Tom described, would be something like this:

```
   LBL A
```

```
STO I
STO+I
 1
LBL 0
DSE I
RCL*I
DSE I
GTO 0
RTN
```

which works Ok for N=1 to N=60. It certainly will look less "intuitive" or "clear" to any non-RPN fan, mefears ! :-)

Best regards from V.

A+ for L.

*Message #27 Posted by **Tom Sherman** on 25 Nov 2003, 12:34 p.m.,*
in response to message #26 by Valentin Albillo

Hi Valentin,

Please tell your daughter that this old retired prof. gives her an A+.

And thanks to you for the RPN loop listing.

Cheers,

Tom

OK, Valentin; and what is your solution??? [NO TEXT]

*Message #28 Posted by **Tizedes Csaba** on 25 Nov 2003, 11:55 a.m.,*
in response to message #1 by Valentin Albillo

.

Re: HP-15C (11C/34C/42S/etc) Arguably Useful Mini-Challenge

*Message #29 Posted by **hugh steers** on 25 Nov 2003, 2:58 p.m.,*
in response to message #1 by Valentin Albillo

missing a step

LBL A . 5 - ! 2 UP ^ * PI SQRT / RTN

Re: HP-15C (11C/34C/42S/etc) Arguably Useful Mini-Challenge

*Message #30 Posted by **Paul Brogger** on 25 Nov 2003, 3:07 p.m.,*
in response to message #1 by Valentin Albillo

I came up with the following, but noticed it looks a lot like others' work (above) . . .

```
01 LBL A
02 DUP
03 2
04 *
05 x!
06 SWAP
07 x!
08 2
09 LASTx
```

```
10 y^x
11 *
12 /
13 RTN
```

11 Steps on a 32Sii

*Message #31 Posted by **Michael Fink** on 25 Nov 2003, 5:21 p.m.,*
in response to message #30 by Paul Brogger

LBL B ENTER + LASTx Pn,r LASTx 2 x<>y y^x / RTN

Cheers! Michael

Whoops! 10 Steps

*Message #32 Posted by **Michael Fink** on 25 Nov 2003, 5:51 p.m.,*
in response to message #31 by Michael Fink

LBL B ENTER + LASTx Pn,r 2 LASTx y^x / RTN

Cheers! Michael

Re: Whoops! 10 Steps

*Message #33 Posted by **Tizedes Csaba** on 25 Nov 2003, 6:00 p.m.,*
in response to message #32 by Michael Fink

Good trick! ;)

Cs.

Re: HP-15C (11C/34C/42S/etc) Arguably Useful Mini-Challenge

*Message #34 Posted by **hugh** on 25 Nov 2003, 5:21 p.m.,*
in response to message #30 by Paul Brogger

hey paul, you have it. you dont need the dup at the start.

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Buying HP48GX or HP49G+???

*Message #1 Posted by **Mark** on 24 Nov 2003, 11:05 a.m.*

I have found a place to buy 1 HP48GX, and I'm thinking if it's a better Idea than buying a 49G+. I have yet 3 hp48GX. They are so good machines... What about having one more? What do you think?

Re: Buying HP48GX or HP49G+???

*Message #2 Posted by **Ron Ross** on 24 Nov 2003, 11:30 a.m.,*
in response to message #1 by Mark

Since you have 3 48GX's (each with a typical lifespan of 10 years HARD USE), I would suggest a new 49G+ in a couple of months after all the bugs have been worked out.

Now if this were your 1st Hp, I might suggest the Hp48GX as I feel it is probably better made than the newer 49G+ (but I haven't yet got my grubby hands on a 49G+ yet either).

My $0.02 worth.

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Business Pac for hp48GX

*Message #1 Posted by **Marc** on 24 Nov 2003, 10:05 a.m.*

What do you think about the Business Pac of CalcPro? Thanks for the answer.

Re: Business Pac for hp48GX

*Message #2 Posted by **Frank Travis** on 24 Nov 2003, 1:55 p.m.,*
in response to message #1 by Marc

I have the Business Pac for HP 48GX. It is nice. However, if you want maximum business computation functionality, it is not as good as the no longer made HP 17BII and HP 19BII calculators. I do not have an HP 17BII+ (The HP 19BII+ should be available in a few months). Two places that might still have the original HP 17BII and HP 19BII are Calcpro website www.calcpro.com phone (541) 752-8414 and International Calculator website www.internationalcalculator.com phone (407) 898-0081 I have bought the two models mentioned (plus many other calculators and accessories) from these two places. I do not know if they are still in stock. Call them when you get a chance. Good luck.

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Re: HP 49G+ ROM version

*Message #1 Posted by **Ernie Malaga** on 24 Nov 2003, 3:29 a.m.*

Hi all. I've been trying to find information about the "|" operator (vertical bar), but the manuals don't even mention it. Can any of you enlighten me?

Thanks.

-Ernie

Re: HP 49G+ ROM version

*Message #2 Posted by **JasonG** on 24 Nov 2003, 3:42 a.m.,*
in response to message #1 by Ernie Malaga

Hi there,

IIRC, the | operator is called 'where', so that you can define the value of a variable in an expression. FOr example: y=m*x+c | m=2

I could, of course, be completely wrong, so I claim no responsibility for damage caused to your calculator (or anything else) by using this possibly wrong information. :-)

ttfn

JasonG

Re: HP 49G+ ROM version

*Message #3 Posted by **J.C. Randerson** on 24 Nov 2003, 7:53 a.m.,*
in response to message #1 by Ernie Malaga

Example: t^2|t=2 => 4

Example: a*t^2|(a=2,t=2) => 8

Re: HP 49G+ ROM version

*Message #4 Posted by **Arnaud Amiel** on 24 Nov 2003, 12:52 p.m.,*
in response to message #3 by J.C. Randerson

How do you input your examples? I managed to get it working in the EQW but not directly on the stack in RPN or ALG mode. I was always wondering how to use it and I am still wondering if it is really useful

Arnaud

Re: HP 49G+ ROM version

*Message #5 Posted by **Brent** on 24 Nov 2003, 12:58 p.m.,*
in response to message #4 by Arnaud Amiel

Put single quotes around it.

Re: HP 49G+ ROM version

*Message #6 Posted by **Martin** on 24 Nov 2003, 11:23 p.m.,*
in response to message #5 by Brent

You could always search google for ' hp49g+ "where operator" '

Martin

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!7bii+ vs other HP calcs

*Message #1 Posted by **Brent** on 23 Nov 2003, 8:31 p.m.*

On my 17bii+ I put PI on the stack and multiply by 100 and then divide by 100. I put PI on the stack again and subtract. I get 2.1E-13. None of my other HP calcs do this--I get zero. Why?

Re: !7bii+ vs other HP calcs

*Message #2 Posted by **Fred** on 23 Nov 2003, 10:09 p.m.,*
in response to message #1 by Brent

Please explain to me how this is a useful calculation....

but it has to due with the internal significant digits the calculator maintains and round off errors during calculations in the least significant digits....

Re: 17bii+ vs other HP calcs

*Message #3 Posted by **David Brunell** on 23 Nov 2003, 10:58 p.m.,*
in response to message #1 by Brent

Sheesh, even my 1973-vintage TI SR-20 desktop scientific gives an answer of zero for pi*100/100-pi.

Maybe you should be happy to have a pi key on a financial calculator at all. :) Doing a quick survey here, none of the other HP financials that I have contain a pi key.

Re: 17bii+ vs other HP calcs

*Message #4 Posted by **Brent** on 24 Nov 2003, 12:05 a.m.,*
in response to message #3 by David Brunell

OK, It does it even if I multiply PI by 1 and then put PI in the stack and subtract. It shouldn't do it. It should be just zero. I don't know why or how I stumbled on it, but it just seems odd to me. The other calculators (11c, 48GX) don't do it. The 17bii+ gives a non zero number (2.1E-13), and I don't care whether it's a financial calculator or not--it shouldn't do it.

Re: 17bii+ vs other HP calcs

*Message #5 Posted by **David Brunell** on 24 Nov 2003, 1:28 a.m.,*
in response to message #4 by Brent

I have no idea what the internal architecture of the 17bii+ is, but I'd be willing to bet that the error is due to the calculator doing some unnecessary BCD-to-binary conversions.

On hp's web site, the calculator is listed as having "memory capacity unlimited within available memory." What the hell is that supposed to mean?

Maybe they should also state that accuracy is "unlimited within available significant digits." ;)

Re: 17BII gives 0

*Message #6 Posted by **Graham Wilson** on 24 Nov 2003, 6:50 a.m.,*
in response to message #4 by Brent

My 17BII gives 0 like the other "old" HP calcs. Does the bii+ use the BII ROM in hardware emulation?

Re: 17bii+ vs other HP calcs

*Message #7 Posted by **Valentin Albillo** on 24 Nov 2003, 9:22 a.m.,*
in response to message #4 by Brent

Hi,

I guess the trouble is caused by improper binary to decimal conversions and back in the emulator. Older HP calcs did use BCD, which allows for exact representation of base-10, decimal quantities such as 0.1, while 0.1 is a periodic, never-ending fraction in binary (base-2).

As a simple test, just try to calculate Pi*1-Pi in your trusty Windows XP standard calculator applet (Scientific mode). You should get a 0, but actually you get instead:

```
[Pi] [*] [1] [-] [Pi] [=]

          -> 3,13705055260829694636963159425 62e-38
```

Close, but no cigar ! Pi + 0 - Pi gives the same result.

Best regards from V.

Edited: 24 Nov 2003, 9:26 a.m.

Re: 17bii+ vs other HP calcs

*Message #8 Posted by **Frank Wales** on 25 Nov 2003, 8:30 p.m.,*
in response to message #7 by Valentin Albillo

Well, I infer from this that either there is a stupid bug in the low-level routines that emulate the BCD-type arithmetic operations done in hardware on the older machines, or HP have finally decided that binary floating point is good enough for financial calculators (and maybe even for all of them -- has this been tried on the 49G+?).

Personally, I'm hoping it's a bug, and not a policy change, since the latter would indicate that HP had misplaced their understanding of the need for consistency of operation. Which would be sad.

Other tests

*Message #9 Posted by **Tizedes Csaba** on 24 Nov 2003, 9:32 a.m.,*
in response to message #1 by Brent

Hello,

my favorite test is the next:

3 [ENTER] [y^x] 27 [-]

And the test for PI:

355 [ENTER] 113 [/] [PI] [-]

Csaba

Re: Other tests

*Message #10 Posted by **Joe** on 24 Nov 2003, 9:58 a.m.,*
in response to message #9 by Tizedes Csaba

I'm not biting.

Re: Other tests

*Message #11 Posted by **Namir Shammas** on 24 Nov 2003, 10:17 a.m.,*
in response to message #9 by Tizedes Csaba

The operations 355 / 113 gives an good approximation for Pi that typically has the following error:

(355 / 113 - pi) / pi * 1E+09 = 84.xxx

Namir

Re: Other tests

*Message #12 Posted by **GE (France)** on 24 Nov 2003, 5:11 p.m.,*
in response to message #11 by Namir Shammas

Another test would be :

355 [Enter] 113 / [Enter] SIN + SIN

Which is quite close to zero. 48GX gives -2.06E-13, a nice PC1262 could probably do better as the result obtained from Maple (for instance) is about -3.16E-21.

Re: !7bii+ vs other HP calcs

*Message #13 Posted by **Scuba Diver** on 24 Nov 2003, 1:33 p.m.,*
in response to message #1 by Brent

Hi Brent!

Just wondering; what are your thoughts of the 17BII+? Is the keyboard the same as the 10BII, or is it better quality than that?

Now that the 17BII+ is out, I find the ebay prices for 17BIIs has dropped; would you suggest that I get a backup 17BII while I can, or should I pick up a +?

B.

Re: !7bii+ vs other HP calcs

*Message #14 Posted by **Brent** on 24 Nov 2003, 1:53 p.m.,*
in response to message #13 by Scuba Diver

I only have a 12c so I can't tell you anything about the other business calcs. It seems like a pretty good calculator but it has kind of a hollow or tinny feel to it. The eqation SOLVE part is nice. I wish they would make the 33s equation solver the same way. You can use names for variables and input values via softkeys. The 33s will only allow you to use A thru Z for variables (I think). I would go ahead and get the 17bii+ if I were you. It works fine, but it just doesn't have that feeling that you are holding a valuable piece of equipment.

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HP 41, 67 and 97 fuel tube for reader

*Message #1 Posted by **Michel Beaulieu** on 23 Nov 2003, 8:30 p.m.*

I repaired all my 2 card reader i have with modeling fuel hose as it is suggest here and there. After the installation, all my card reader works well for about 25 cards and after that i can hear a hirssing noise when card pass throught the reader and finally a lot of error occurs. I look in the reader and the fuel lind tend to slip on the shaft and finally touch the card reader body and friction occurs. I replace the fuel hose and try it again. works well and then the noise come back. I try to "superglue" the rubber on the shaft but the silicone line dissolved! i try other glue but the tube lost is perfect roud shape.

I also try o ring but i have the same problem in less passes...

What can i do to prevent slowly sliding of the wheel on the shaft?

Another one : what is the method to clear/clean cut these fuel line all around at 90 degree?

Thanks Michel

Edited: 23 Nov 2003, 8:33 p.m.

Tubing is too large

*Message #2 Posted by **Mike** on 23 Nov 2003, 8:49 p.m.,*
in response to message #1 by Michel Beaulieu

I believe you are using to large of an inside diameter. A good fit should require the tube to have to stretch to fit over the shaft. I have repired over 50 of these using this method and have never had to use any glue.

Try some tubing with a smaller inside diameter.

Re: Tubing is too large

*Message #3 Posted by **Dave** on 23 Nov 2003, 9:23 p.m.,*
in response to message #2 by Mike

Orange surgical tubing of the correct OD works well too, the texture provides good gripping for the cards.

Re: Tubing is too large

*Message #4 Posted by **David Smith** on 24 Nov 2003, 12:18 p.m.,*
in response to message #3 by Dave

Many surgical tubings are made of natural rubber. They tend to go bad after a while. I have silicone tubing readers that were repaired over 15 years ago and are still working fine.

Re: Tubing is too large

*Message #5 Posted by **Michel Beaulieu** on 24 Nov 2003, 6:45 p.m.,*
in response to message #4 by David Smith

Where can i find this kind of tubing? Thanks Michel

Re: Tubing is too large

*Message #6 Posted by **Katie** on 24 Nov 2003, 9:07 p.m.,*
in response to message #5 by Michel Beaulieu

I agree, silicone rubber tubing is the best stuff. Here's my old post on this.....

I've done many card reader repairs trying various materials (o-rings, rubber feet and different kinds of tubing). I've made all of these work, but by far the best one and the one probably closest to the original that I've found is silicone rubber tubing 1/4" OD x 1/8" ID. It fits on the gear shaft perfectly without the need to glue it on and provides plenty of contact area with the card (unlike the o-rings).

This is readily available from Small Parts Inc. www.smallparts.com (800) 220-4242. They sell 10 feet of this (enough to repair 1000 card readers!) for $24 (part # 210005 http://www.smallparts.com/products/descriptions/2100+.cfm). BTW, they also sell the 1/8" Delrin balls (4 of them) used in the card reader in case you loose them while doing the repair (25 for $1.45, part # BDLR-2 http://www.smallparts.com/products/descriptions/bdlr.cfm) -- I've never seen these disintegrate, however.

Edited: 24 Nov 2003, 9:15 p.m.

Re: Tubing is too large

*Message #7 Posted by **David Smith** on 25 Nov 2003, 12:51 p.m.,*
in response to message #5 by Michel Beaulieu

Small Parts tubing is way too expensive (but easy to get). Most hobby shops sell it either by the foot or prepackaged in 3 foot lengths for around 2 bucks. The thing to watch out for is to get some that is perfectly round and has the hole well centered. Bring a magnifying glass and check.

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HP-48* Question?

*Message #1 Posted by **Roy Haller** on 23 Nov 2003, 7:24 p.m.*

Does a USB adapter vs. the Serial Port adapter exist? Or is Infa Red simpler?

Edited: 23 Nov 2003, 7:33 p.m.

Re: HP-48* Question?

*Message #2 Posted by **Victor Koechli** on 24 Nov 2003, 2:43 a.m.,*
in response to message #1 by Roy Haller

I am successfully using a keyspan USA-19 USB-to-serial adapter for attaching my HPs (48SX, 48GX, 49G) to my iBook. I'm using Kermit or Xmodem to communicate witch the calcs (using ZTerm). I can even use VirtualPC if I have to do a ROM upgrade on the 49G (I don't know how to do that from the Mac, where the necessary software does not exists).

Note, however, that the USA-19 is not even a full serial adapter, but merely what they call a 'PDA Adapter'. It's cheap and does the job.

Hope this answers your question. Kind regards, Victor

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Are older 12c's as high quality as 15c's?

*Message #1 Posted by **Josh P** on 23 Nov 2003, 6:16 p.m.*

HP Museum describes the 10c's construction as follows: "Previous HP's had a flexible sheet under the keyboard to protect the electronics from minor spills and dirt. The 10C series took this further by having a single large sheet of film under the keyboard that wrapped around the electronics and overlapped at the back. This sheet consisted of three bonded layers: the outer layers were nonconductive, but the center layer was conductive. There was also an inner conductive film surrounding the main circuit board. These films gave the CMOSC chips a high degree of electrostatic protection."

Were the 12c's made during the same time period ('80's) put together as well as the other Voyagers? Maybe the engineering Voyager's were designed to survive harsher conditions than those used by the business folks?

Edited: 23 Nov 2003, 7:38 p.m.

Re: Are older 12c's as high quality as 15c's?

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 23 Nov 2003, 8:46 p.m.,*
in response to message #1 by Josh P

I have a HP-12C with the flexible circuit board and a protective "envelope" around all circuit. Is very well made, build in 1983 in USA. I had a identically well made HP-15C made in Brazil back in 1983 (bought new, sold in 1989 to buy a 42S). These old ones have in the battery compartment two single foiled springs.

The newer HP-15C and 11C that I have doesn't have the protective "envelope", and the circuit board is rigid with the chips, display and keyboard alltogether. These newer ones have in the battery compartment a helical spring in one side and a golden squared contact in the another side.

The HP-12C suffered several other modifications, that I don't know yet.

In short, the first "Voyagers" are all the same quality. The entire line followed the same modifications (I heard that the 12C ones where the first to be "upgraded") until they take the 10C, 11C, 15C out of busines... :(

Anyone to confirm this?

Best regards,

Nelson

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Looking for good working Hp-75C

*Message #1 Posted by **Adam** on 23 Nov 2003, 4:19 p.m.*

The last two I got had problems which im having so much trouble fixing. Does anyone have one in good condition that they know works and are willing to sell it for cheap?

Thanks. -Adam

Try the classified section

*Message #2 Posted by **Mike** on 23 Nov 2003, 4:30 p.m.,*
in response to message #1 by Adam

This is not the classified section.

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Curious auctions on ebay

*Message #1 Posted by **Emmanuel, France** on 23 Nov 2003, 3:03 p.m.*

```
FR E E HP 48GX Graphing Calculator
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3060837530&category=20335


F R E E TI-89_Advanced_Graphing_Calculator
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3060832954&category=20335


Both at $8.99, qty 100.
```

Re: Curious auctions on ebay

*Message #2 Posted by **Neson M. Sicuro (Brazil)** on 23 Nov 2003, 3:06 p.m.,*
in response to message #1 by Emmanuel, France

I think that it is a good old SCAM.

Nelson

Re: Curious auctions on ebay

*Message #3 Posted by **Namir Shammas** on 23 Nov 2003, 3:36 p.m.,*
in response to message #1 by Emmanuel, France

Emmanuel,

The auction is selling you INFORMATION on how to get these calculators free. I have written the seller many times asking him to send me these calculators (since they cost him nothing anyway!!!!!) and that I'd pay for shipping! Of course I never hear from the seller.

Don't waste your money!!!!!!!!

Namir

These are illegal auctions

*Message #4 Posted by **Mike** on 23 Nov 2003, 4:11 p.m.,*
in response to message #1 by Emmanuel, France

Illegal, in the sense of against ebay policies. eBay will delete any such auction (for info only), when they are reported.

Watch it disappear within 48 hours. Report it to ebay here: ebay policies

There are many reasons why this is against ebay policies. For one, the info stears customers away from ebay. That is a clear violation. Another is that it is a "misleading" title. There really aren't any FREE calculators.

You will also notice that he is spelling FREE with spaces like F R E E so he can avoid ebay catching him. If you report him, they will be deleted.

If everyone would search for these auctions and report them, they would all be removed. They are usually very quickly removed.

These are essentially SCAMS.

Edited: 23 Nov 2003, 4:32 p.m.

See... They are gone already

*Message #5 Posted by **Mike** on 23 Nov 2003, 7:10 p.m.,*
in response to message #1 by Emmanuel, France

They are gone already!

I bookmarked these items, to see how long it would take for them to disappear. They are already gone.

Like I said, report these SCAM auctions and ebay deletes them, as quick as they are reported.

Like Arnold, he'll be back

*Message #6 Posted by **Patrick** on 23 Nov 2003, 8:15 p.m.,*
in response to message #5 by Mike

I've seen this guy's ads appear on eBay for over a year now. Whether the latest crop has been cut down doesn't mean very much. You watch... he'll be back very soon, and he'll spell "FREE" a different way each time (F R E E, $FR E E, F REE, ...).

BTW... if you look at the guy's eBay feedback you'll find that he has considerable positive feedback. Of course, they could all be his friends for all we know.

So, report him again

*Message #7 Posted by **Mike** on 23 Nov 2003, 8:51 p.m.,*
in response to message #6 by Patrick

Just search for his auctions by his name or some other method of spotting these kind of ads.

Report the ad and within 24 hours it will be gone again. Make a game of it.
http://www.msdsite.com/images/smile.gif

Re: So, (don't) report him again

*Message #8 Posted by **Thomas Radtke** on 24 Nov 2003, 6:15 a.m.,*
in response to message #7 by Mike

There are many ways to waste your time;). Sadly, ebay is in a position where they don't need to protect bidders automatically but sit back and wait for responses. Even then they do not remove aucconts of those who failed to maintain the least possible decency.

Thomas

Re: So, (don't) report him again

*Message #9 Posted by **TR** on 24 Nov 2003, 6:17 a.m.,*
in response to message #8 by Thomas Radtke

'aucconts' should be 'accounts', obviously:(.

Re: See... They are gone already

*Message #10 Posted by **Namir Shammas** on 23 Nov 2003, 8:22 p.m.,*
in response to message #5 by Mike

Mike,

You are very right!! That was fast on eBay's behalf!

Namir

Why won't HP stop the guy on ebay selling PDF of 12c manual?

*Message #11 Posted by **Gene** on 23 Nov 2003, 9:14 p.m.,*
in response to message #10 by Namir Shammas

Seems like that is an auction that should be canned.

Re: Why won't HP stop the guy on ebay selling PDF of 12c manual?

*Message #12 Posted by **Nelson M. Sicuro (Brazil)** on 23 Nov 2003, 9:24 p.m.,*
in response to message #11 by Gene

Here in Brazil is even worst, they sell the HP-12C simulator for PC/Palm for $1, in the www.mercadolivre.com.br auction site. Is terribly anoying! Dozens of auctions.... Is really a shame! Even the HP-41, 48 and 49 emulators!!!

Just browse it in the "Calculadoras" section (in portuguese, you can use the www.babelfish.altavista.com to translate)

Best regards,

Nelson

Or let's get the Museum to buy it!

*Message #13 Posted by **Patrick** on 24 Nov 2003, 2:53 a.m.,*
in response to message #11 by Gene

What if we each contributed a bit to Dave and have him buy it and put it up on this site!

I'm sure there's a hole in this idea somewhere....

Re: Or let's get the Museum to buy it!

*Message #14 Posted by **Arnaud Amiel** on 24 Nov 2003, 4:36 a.m.,*
in response to message #13 by Patrick

Actually the PDF manual for the 12C platinum is available on hp's site. I would guess it is quite applicable to the non platinum.

Arnaud

Re: Curious auctions on ebay

*Message #15 Posted by **gifron** on 24 Nov 2003, 12:32 a.m.,*
in response to message #1 by Emmanuel, France

I emailed a buyer once to find out what the scam was. I was told that you are instructed to contact mfrs., representing yourself as a retailer, and stating that you need a sample for evaluation purposes, or some such thing.

I don't know if it was this same seller, as I have seen two or three different ones. I figure they are all selling the same thing.

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HP-75 Flashing dashes and then goes off

*Message #1 Posted by **Adam** on 23 Nov 2003, 2:59 p.m.*

My HP-75 still wont go on, it seems to be some sort of power problem which i have no idea how to fix. Somone PLEASE help me. When I push ATTN the screen just flashes a bunch of dashes, i tried both AC power supply and batteries, neither work.

-Adam

Re: HP-75 Flashing dashes and then goes off

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 23 Nov 2003, 3:04 p.m.,*
in response to message #1 by Adam

Try to contact Randy Sloyer, I think he can get you some advice.

His web site is

http://www.fixthatcalc.com/

Good luck!

Nelson

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HP-85B internal information?

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 23 Nov 2003, 2:42 p.m.*

Hi all,

Anyone knows anything of the internals of the HP-85B computer/calculator? What is its processor/instruction set? Any ROM dumps? I'm thinking about a HP-85B emulator, does anyone knows if this exists?

Best regards,

Nelson

Re: HP-85B internal information?

*Message #2 Posted by **Gordon** on 23 Nov 2003, 3:57 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Here is an excellent series 80 web site with ROM images and documentation available:
http://www.series80.org/

Re: HP-85B internal information?

*Message #3 Posted by **Vassilis Prevelakis** on 25 Nov 2003, 7:02 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

The processor instruction set is described in the HP-85 Assembler ROM Manual which is included in the MoHPC CDROM (roms/85asmrom.pdf)

To the best of my knowledge there is no emulator for any Series 80 computer. The processor architecture is quite strange and even writing machine language programs is non trivial.

**vp

Re: HP-85B internal information?

*Message #4 Posted by **Valentin Albillo** on 25 Nov 2003, 7:53 a.m.,*
in response to message #3 by Vassilis Prevelakis

Hi, Vassilis:

Vassilis posted:

"The processor architecture is quite strange and even writing machine language programs is non trivial."

Why, Vassilis, writing machine language programs is *never* trivial ! :-) At least for us, puny humans !

I've written machine language programs for quite a variety of CPUs, from the ZX-81 (aka Timex Sinclair 1000 in the US) onwards, and it was never 'trivial', specially if you had to assemble the code by hand, translating opcodes to hexadecimal and manually calculating the jump offsets, as was the case with the ZX-81 before the first rudimentary assemblers did appear.

I did also write a sizable number of 'machine language' routines for the HP-85, implementing a number of new BASIC keywords and frankly, though not exactly trivial, it wasn't that difficult either. The processor's architecture is not so much 'strange' as unique, with its large 8-byte CPU 'registers' and BCD arithmetic.

I remember distinctly it all was very exciting and enjoyable and you felt great when your newly assembled BASIC keyword would perform as expected (or else crash the machine altogether).

Some people went even further: a friend of mine did write a chess program for the HP-85 which made use of a number of chess-specific BASIC keywords written in assembler to generate all legal moves and search/evaluate the tree at assembly speeds. People at HP were amazed when we showed it to them, and used it at trade show demonstrations to help boost sales. And some HP-written assembly-language programs made incredibly amusing and addictive video games, I still fondly remember BATS and MAZE.

The assembly programming model was very similar to that of the HP-75C and HP-71B, you needed to define parse tables, text tables, polls tables, error messages tables, etc, then code your keywords, which usually made a large number of calls to operating system entry points in ROM (specially for parsing), so you didn't need to reinvent the wheel.

I still keep a number of HP-85 'machine language' listings, spefically written for didactic purposes, to be explained in a number of HP-85 programming courses I taught at the time.

Best regards from V.

Edited: 25 Nov 2003, 7:59 a.m.

Re: HP-85B internal information?

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 25 Nov 2003, 8:49 a.m.,*
in response to message #4 by Valentin Albillo

Hi, Valentin

I'm very interested in learn all I can about the HP-85B (I don't have one). I am a assembler programmer too (6502, Z80, x86, PIC) and started also with a ZX-81 "clone" here in Brazil (and a HP-15C :).

I want to know the assembler instructions and other hardware things (I/O, memory map, ROM dumps?) to *try* to build an emulator.

Is its processor in the saturn family processors?

Thank you very much

Nelson

Re: HP-85B internal information?

*Message #6 Posted by **Valentin Albillo** on 25 Nov 2003, 9:38 a.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

Hi, Nelson:

Nelson posted:

"I am a assembler programmer too (6502, Z80, x86, PIC) and started also with a ZX-81 "clone" here in Brazil (and a HP-15C :)."

Same here, more or less, except I never wrote anything for the legendary 6502 (but then I did for the HP-85's CPU)

"I want to know the assembler instructions and other hardware things (I/O, memory map, ROM dumps?) to *try* to build an emulator. Is its processor in the saturn family processors? "

No, it's not a 'Saturn' but a 'Capricorn'. If I remember correctly, the Capricorn series does include the HP-85, HP-86, HP-87, and HP-75 families. Among other things, this means that if you can get an Assembler ROM and/or its Manual for *any* of the above models, you're all set up. The Assembler ROM for the HP-86/87 is a lot easier. For the HP-85, there were both an Assembler ROM and a software assembler available on data cartridge. This software assembler was a complex BASIC program plus the STOREBIN binary, which provided the STOREBIN keyword necessary to add the required header to the assembled file and store it on the tape. You would then load it into memory with the standard LOADBIN keyword (the STOREBIN binary also had the SCRATCHBIN keyword, necessary in order to remove the loaded binary from memory to try another). I did all my assembly programming for the HP-85 using this software assembler, it was rather usable if not exactly fast.

Good luck with your HP-85 emulation and

Best regards from V.

More

*Message #7 Posted by **Valentin Albillo** on 25 Nov 2003, 1:05 p.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

Hi again, Nelson:

Have a look at these links:

Link 1

Link 2

Link 3

Link 4

Link 5

I'll see if I can find some assembler listings and/or materials and, if successful, will post some.

Best regards from V.

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HP49G+ EMULATOR

*Message #1 Posted by **Luis Suarez** on 23 Nov 2003, 1:49 p.m.*

HI every Body

Do you kno where i can find the 49g+ emulator

im need this ...

Re: HP49G+ EMULATOR

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 23 Nov 2003, 2:05 p.m.,*
in response to message #1 by Luis Suarez

I think that it doesn't exists yet...

Regards,

Nelson

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HP & SHARP [LONG, IMG=230 Kb]

*Message #1 Posted by **Valentin Albillo** on 23 Nov 2003, 3:22 a.m.*

Two of the very best machines from my collection **:** same size, similar weight, vastly different capabilities, yet same outstanding quality.

They don't make jewels like these no more ... **:-(**

Best regards from V.

HP-15C [3.0" x 5.0" x 0.5 ", 4 oz., 0.5 Kb RAM, 12 Kb ROM, RPN]

http://membres.lycos.fr/albillo/HP-15C.jpg

SHARP PC-1260 [3.0" x 5.5" x 0.5 ", 6 oz., 4 Kb RAM, 40 Kb ROM, BASIC]

http://membres.lycos.fr/albillo/PC1260CB.jpg

Re: HP & SHARP [LONG, IMG=230 Kb]

*Message #2 Posted by **Juan J** on 23 Nov 2003, 11:19 a.m.,*
in response to message #1 by Valentin Albillo

Hello Valentin,

Excellent photos. Could you please help me with a question?

I just got a 15C in a flea market for $40. Put in new batterires and it is running fine. It passed the self-tests and the PCB (I took it apart just to see how it was on the inside) was in good condition but it smells like it has been stored in a moist place for a while. You have voiced concerns about HPs' durability recently, particularly Voyagers.

My question: can a Voyager stand long term high-humidity storage without any damage? Is there anything to do about it? Thanks in advance for your advice.

Regarding the Sharp, a friend's father had one of these, to complement his HP-67. Later he bought an HP-85 and no longer needed them. Sadly, we never saw the Sharp again.

Juan J

Re: HP & SHARP [LONG, IMG=230 Kb]

*Message #3 Posted by **Gordon** on 23 Nov 2003, 4:06 p.m.,*
in response to message #2 by Juan J

Wipe out any mould or deposits with a damp cloth and allow the unit to dry slowly at 35 deg C. i.e. very warm but not hot, for about 1 week. It does take that long for moisture to migrate out of the epoxy plasic

used for integrated circuits.
Enjoy the calc!

Re: HP & SHARP [LONG, IMG=230 Kb]

*Message #4 Posted by **Valentin Albillo** on 23 Nov 2003, 6:56 p.m.,*
in response to message #2 by Juan J

Hola, Juan:

Juan posted:

"You have voiced concerns about HPs' durability recently, particularly Voyagers."

Yes, but only in the long term, say 40-50 years. Most existing Voyagers are now 20+ years old, so they've still 20-30 additional working years left in them, IMHO.

"can a Voyager stand long term high-humidity storage without any damage? Is there anything to do about it?"

I've never seen or heard of a Voyager ruined by humidity, but I guess that's a possibility. I'd suggest you open up the machine, and place it on a very mildly warm surface (the external top of a refrigerator is ideal, it's always very comfortably warm, but never hot) for a week or so. Humidity will dissapear that way. After that, keep the calculator for a while in a box surrounded by Silica Gel dessicant mini-bags, they will take care of any remaining humidity.

I always keep my calculators stored with dessicant mini-bags like those, it keeps them dry whatever the external circumstances.

Best regards from V.

Re: HP & SHARP [LONG, IMG=230 Kb]

*Message #5 Posted by **Juan J** on 23 Nov 2003, 10:53 p.m.,*
in response to message #4 by Valentin Albillo

Hola Valentin, como estas?

What I did was to take the calc apart and use a hot air blower to "dry" whatever moiture there was inside the calculator, for about 30 minutes. Then I allowed the pieces to cool down and once they were cold I put the calculator together again. Put in baterries, ran the self-tests and the machine is working fine. I even tried ione of mi favorite intergrate stress tests, so to speak, the sine integral, and the 15C passed it.

Noww the 15C is in one of those HP leather cases (the original slip case is still too moist and looks worn) designed for clamshells, which has a small package of silica gel.

Thanks for your advice and, if your time allows, I will continue asking about the 15C. So far I've been unable to use some of its features without the manual nearby. I got a bit too much used to both the Advantage Pac user interface and the 48's Matrix Writer.

A little bit off-topic, about your proverb (or it was Angel?) about the nature of truth, there is a latin one, Simplex Sigillus Veritas, Which translates to Simplicity is the sign of truth or, in Spanish, "La sencillez es el signo de la verdad."

Juan

Re: HP & SHARP [LONG, IMG=230 Kb]

*Message #6 Posted by **Valentin Albillo** on 24 Nov 2003, 5:17 a.m.,*
in response to message #5 by Juan J

Hola, Juan J:

Juan J posted:

"Hola Valentin, como estas?"

Muy bien, gracias, ¿ y tu ? [Fine, thanks, what about you ?]

"What I did was to take the calc apart and use a hot air blower to "dry" whatever moiture there was inside the calculator, for about 30 minutes."

While obviously having to wait just 30 minutes seems preferable to 1 week, I still stick to my original advice, of applying very 'soft' heat (top of a refrigerator being the ideal) for a long time, instead of stronger heat for a relatively short time. Humidity will evaporate without the slightest chance of damaging any component, as the recommended temperature limits are never exceeded or even approached. I'm not so sure a hot air blower will not dangerously approach the upper limits at times.

Bear in mind that even if the 'instant' temperature is within limits, the fact that you're applying heat continuosly in a small zone means that the 'average' temperature will rise well above the 'instant' one. You can easily test this by letting your finger stay in contact with a sheet of paper as it comes out of a laserjet printer: even if the sheet isn't hot enough to burn you by a quick contact, if will burn you if you let your finger remain in touch with the outgoing sheet for more than a couple seconds, as the heat just keeps building up.

"Thanks for your advice and, if your time allows, I will continue asking about the 15C."

You're welcome.

"So far I've been unable to use some of its features without the manual nearby."

Try and get one, then. They're sold on Ebay all the time at very affordable prices. I got a brand new, spiral one (the best for easy reference) a few months ago for less than US $20.

"A little bit off-topic, about your proverb (or it was Angel?)"

None of us, it was mentioned by Andy Agui.

Best regards from V.

Re: HP & SHARP [LONG, IMG=230 Kb]

*Message #7 Posted by **Juan J** on 24 Nov 2003, 9:01 a.m.,*
in response to message #6 by Valentin Albillo

Hola Valentin,

Estoy bien, gracias. Espero que tú también.

I will follow your advice. For one week. I will keep you posted. Muchas gracias.

Thanks for your suggestion on the manual. My problem is, apparently I am not paying much attentions to the instructions, hemce the need to keep a manual near when I use the matrix functions. I will have to apply myself a little about this.

A question: is the 15C one of your personal favorites?

Re: HP & SHARP

*Message #8 Posted by **Valentin Albillo** on 24 Nov 2003, 9:29 a.m.,*
in response to message #7 by Juan J

Juan J posted:

"A question: is the 15C one of your personal favorites? "

A resounding YES !! Matter of fact, it's widely known that I consider it the best pure calculator in the world, bar none.

Best regards from V.

Re: HP & SHARP

*Message #9 Posted by **Pierre Brial** on 23 Nov 2003, 10:14 p.m.,*
in response to message #1 by Valentin Albillo

Hello Valentin

Great pictures. The light is perfect. Can we have technical details on how they were made ?

For me the two calcs you show are the best ever produced for the ratio power/wheight.

Nowaydays, calculator manufacturer are no longer concerned about this ratio, and programmable calculators are no longer "pocketable"

All the best

Pierre

Re: HP & SHARP

*Message #10 Posted by **Juan J** on 23 Nov 2003, 10:58 p.m.,*
in response to message #9 by Pierre Brial

Back then there was limited memory and you had to be efficiente when writing code. As I often say, no Intel round the corner churning out faster microprocessors continously so your code nees not to be efficient.

Valentin's photos are similar to Dave's three-quarter images. Maybe a similar procedure with that free commodity, Spain'sam I wrong, Valentin?) sun and a good camera?

Juan

Re: HP & SHARP

*Message #11 Posted by **Valentin Albillo** on 24 Nov 2003, 5:49 a.m.,*

in response to message #10 by Juan J

Hi again, Juan J:

Juan J posted:

"Valentin's photos are similar to Dave's three-quarter images. Maybe a similar procedure with that free commodity, Spain's (am I wrong, Valentin?) sun and a good camera?"

Yes, completely wrong ! :-)

Best regards from V.

Re: HP & SHARP

*Message #12 Posted by **Juan J** on 24 Nov 2003, 9:06 a.m.,*
in response to message #11 by Valentin Albillo

Hola valentin,

Whatever the technique you used, you've got two fine photographs of good calculators. And wherever you are, good luck.

Juan

Re: HP & SHARP

*Message #13 Posted by **Valentin Albillo** on 24 Nov 2003, 5:34 a.m.,*
in response to message #9 by Pierre Brial

Hi, Pierre:

Pierre posted:

"Great pictures. The light is perfect. Can we have technical details on how they were made ?"

Thanks for your appreciation, but though I am quite an accomplished amateur photographer, have some great hardware and many thousands of excellent pictures in my portfolio, these 'great' calculator pictures were made making *no* use at all of either the great hardware or the great experience ! Matter of fact, I'd rather have you thinking they're 'great' instead of ruining your appreciation of them by telling exactly how they were made. :-)

"For me the two calcs you show are the best ever produced for the ratio power/wheight."

Well, I pictured the SHARP PC-1260, but the PC-1262 is actually better and boasts 10 Kb RAM instead of 4 Kb in the exact same packaging.

"Nowaydays, calculator manufacturer are no longer concerned about this ratio, and programmable calculators are no longer "pocketable"

Indeed. People may like HP48/49 calculators a lot, but they're certainly massive: large, weighty. They can't compete with the Voyagers or SHARP PC-12xx models at all. You can easily fit not one but even two such at a time in your shirt pocket. Try that with an HP48/49 ! :-)

Best regards from V.

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HP-9G

*Message #1 Posted by **rsenzer** on 22 Nov 2003, 10:57 p.m.*

I just purchased an HP-9G. I found one bug initially and phone it into HP this week. Customer representative said that HP would send me a new unit. Friday night, I found another bug and e-mailed the information to HP with the associated case id.

The first bug is: ln(2+2*10^(-9)) - ln(2) returns a negative number;

The second bug is: 7/6 [F<>D] [ENTER] does not convert decimal to the fraction, "7/6" where [F<>D] refers to the fraction-to-decimal decimal-to-fraction shifted toggle key.

The first bug existed in early models of the HP-30S, but it had been fixed a long time ago. The second bug does not exist on the HP-30S.

HP's customer service response was excellent, once I got past the detour to an HP service center somewhere in India that apparently handled HP Pavilion computer models.

A side note:

So how did I know I had travelled to India? ... the accent was the first clue, but when you're put on hold and the rock music is accompanied by a sitar, you know you aren't in Kansas anymore.

Re: HP-9G

*Message #2 Posted by **CalcKidd** on 24 Nov 2003, 8:11 a.m.,*
in response to message #1 by rsenzer

I tried this equation on my 49G+ and got .000000001. My 9G also got a negative number (1.908 x 10^-10).

FYI

Re: HP-9G

*Message #3 Posted by **Karl Schneider** on 25 Nov 2003, 12:29 a.m.,*
in response to message #2 by CalcKidd

CalcKidd posted:

> Quote:
>
> *I tried this equation on my 49G+ and got .000000001. My 9G also got a negative number (1.908 x 10^-10).*

My "genuine HP" scientific models all return 1 x 10^(-9) (1E-9), while the business models return 0.000000001, no matter if fewer decimal digits are specified. Are business "peeps" assumed to be unfamiliar with scientific notation?

No negative numbers, though, which, BTW, 1.908 x 10^(-10) is not... ;-)

"rsenzer", what was the negative number?

Karl

Re: HP-9G

*Message #4 Posted by **rsenzer** on 25 Nov 2003, 1:50 a.m.,*
in response to message #3 by Karl Schneider

Hi Karl,

The same result as reported by CalcKidd. From the context of the message and thread, I concluded that CalcKidd was referring to the magnitude and verifying that he also got a negative number from the calculation. Of course, I had seen that number already.

The number per the display is: -1.908214929*10^(-10)

As stated in the original message, early HP-30S models had a similar problem.

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OT: Sharp PC-1270 - An interesting non-HP

*Message #1 Posted by **Mike** on 22 Nov 2003, 7:31 p.m.*

This Sharp pocket computer is very interesting. It was manufactured with the sole purpose of being programmed with custom ROM. These were mainly used by businesses with very specialized purposes. The one below was originally used to calculate car liscense plate fees.

It does nothing, without a program memory. Most have ROM but you can get these with RAM. If you have a RAM module, these can be made very useful by reprogramming them.

I have reprogrammed this one to simply return the function key name, when the key is pressed. Now that I know the process, I'm going reprogram it for something more useful. http://www.msdsite.com/images/smile.gif

Click image for description of process http://www.msdsite.com/vcomp/sharp/1270/1270.jpg

Edited: 22 Nov 2003, 7:40 p.m.

Re: OT: Sharp PC-1270 - An interesting non-HP

*Message #2 Posted by **Valentin Albillo** on 22 Nov 2003, 7:53 p.m.,*
in response to message #1 by Mike

Hi,

For anyone interested, here's the SHARP PC-1270 BASIC Compiler manual (in PDF format, 55 pages, 140 Kb):

Sharp PC-1270 BASIC Compiler V3.3

Best regards from V.

But where can you get the compiler

*Message #3 Posted by **Mike** on 22 Nov 2003, 7:59 p.m.,*
in response to message #2 by Valentin Albillo

Thanks, I already have a copy of the compiler manual.

The compiler is nice for large programs. I just program in BASIC, since I can't find a compiler. PROMSoft does not sell the compiler and Sharp has discontinued that product.

Anyone have a compiler or know where one can be obtained?

Edited: 22 Nov 2003, 8:00 p.m.

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hp75 VisiCalc external display question

*Message #1 Posted by **andy** on 22 Nov 2003, 6:02 p.m.*

I am wondering how to change the external display on hp75 visicalc. When I first received the module a few months ago it displayed 32 columns which worked nicely using the 82163a video interface.

I ran visicalc today and for some reason its displaying at 80 columns now and I'm not sure what I've done to change it. Any ideas?

thanks,

Andy

80 columns on an 82163A?

*Message #2 Posted by **Mike** on 22 Nov 2003, 8:30 p.m.,*
in response to message #1 by andy

I'm confused. The 82163A is only a 32 column device. The real question is how are you getting 80 columns on a 32 column device?

Edited: 22 Nov 2003, 8:34 p.m.

Re: hp75 VisiCalc external display question

*Message #3 Posted by **Andy** on 22 Nov 2003, 9:12 p.m.,*
in response to message #1 by andy

sorry I don't have a good answer to getting 80 columns out of an 82163a other then I'm not. I noticed the display was not correct when using my 82163a so I switched my 75 over to link+ (using the hpil/isa card) which acts as an 80 column device and visicalc displayed properly.

Since that posting, I've switched the visicalc module to another 75 which was freshly reset. The default mode appears to be 32 columns.

Andy

There is no 80 column mode

*Message #4 Posted by **Mike** on 22 Nov 2003, 9:49 p.m.,*
in response to message #3 by Andy

The 82163A is 32 colunm mode only. There is no 80 column mode with the 163A.

Edited: 23 Nov 2003, 12:55 p.m.

Re: There is no 80 column mode

*Message #5 Posted by **David Smith** on 23 Nov 2003, 3:01 p.m.,*
in response to message #4 by Mike

Visicalc was formatting 80 column lines and sending it to a 32 column display.

Re: hp75 VisiCalc external display question

*Message #6 Posted by **Emmanuel, France** on 23 Nov 2003, 7:06 a.m.,*
in response to message #1 by andy

```
HP82163 video interface provides 32 columns only.
You need an HP92198A HP-IL 80-Column Video Interface.
It was made by Mountain Computer, Inc. (MC00701A).
```

Re: hp75 VisiCalc external display question

*Message #7 Posted by **Achim Buschendorf** on 23 Nov 2003, 10:35 a.m.,*
in response to message #1 by andy

Hello Andy,

you can set the dimension of the video display with the following BASIC commands: VLENGTH n and VWIDTH m. The defaults are VLENGTH 16 and VWIDTH 32.

Regards, Achim

Re: hp75 VisiCalc external display question

*Message #8 Posted by **andy** on 23 Nov 2003, 3:01 p.m.,*
in response to message #7 by Achim Buschendorf

Thanks Achim!

Those are the commands I was looking for. VLENGTH and VWIDTH appear to be commands specific to VisiCalc and these allow you to set the display dimensions. Somehow one of my 75's got set to 80 columns (probably while experimenting with a program off the swap discs).

For everyone else...I'm sorry that I was unclear.

Thanks for all the help everyone. One day maybe I can find a VisiCalc manual...all I have right now is the quick reference guide.

Andy

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request for help with my 48sx on key

*Message #1 Posted by **db(martinez,california)** on 22 Nov 2003, 3:25 p.m.*

The on key to my 48sx is not operating in many of it's uses but it works fine for others. The calculator has had a cushy life. I bought it in 91 and it has spent most of its life in an enviornmental case. The on key feels like new. I hope someone has a fix. Here are the main faults and other points:

To turn the calculator on it is necesasary to push and hold another button while pressing the on key.

To turn it off you must take out a battery of a moment because >on does not work.

There is no "continue" because <on doesn't do anything.

ATTN does not function.

It is not possible to darken or lighten the screen using on+ or on-.

It fails the keyboard test and does not beep at the on key.

However:

As i said; it can be turned on with the on key as long as one or more of most of the other keys are pressed and held first. The right cursor does not work for this but the other three do. Most numbers help it turn on but not the 9. It turns on if you press the < then the on but not the other way around and nothing goes with the > key.

The a-f-on reset works.

The tests which are started by pressing the on and one of the top row all start, but as i said, it fails the keyboard test when it gets down to the on key.

Thanks for the help. - d

Re: request for help with my 48sx on key

*Message #2 Posted by **Victor Koechli** on 24 Nov 2003, 11:22 a.m.,*
in response to message #1 by db(martinez,california)

The 48 series seems to have a contact problem between the main PCB and the keyboard. There have been several posts about this recently. Supposedly the ON key will work if you press on the metal bezel above (or below?) the C key. If your HP-48SX exhibits that behaviour, only disassembling it could solve it.

Of course you could also have a broken trace somewhere. The consequences would be the same.

Someone else have another idea? Regards, Victor

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OT: Manuals wanted on Sharp PC-1250A

*Message #1 Posted by **Bill (Smithville, NJ)** on 22 Nov 2003, 3:24 p.m.*

I know that many of the forumn members also appreciate & collect the small Sharp PC calculators/basic computers, so am hoping someone can help me.

I recently picked up a Sharp PC-1250A with the CE-125 micro-cassette/printer. It works great and is fun to play around with.

Does anyone have any extra manuals for this unit/printer they'd be willing to either copy or part with?

If someone could loan me the manuals, I'd be happy to scan them and return the originals. There doesn't seem to be any manuals on the Net other than the Tandy/Radio Shack ones.

E-mail me at bjhnot@vpes.com. Just remove the "not".

If this is considered too far off topic, then use 12345 to delete.

I have a 1251 manual

*Message #2 Posted by **Mike** on 22 Nov 2003, 7:27 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

I have a PC-1251 manaul which should be the same for what you need. I will look into copying it. The problem is that I don't want to break the spine so it won't be a great copy. But it will give you what you need. The manual is also 225 pages and will take me a while to get to it.

Interesting that you should post this. I was just about to post a PC-1270 post.

Re: I have a 1251 manual

*Message #3 Posted by **Bill (Smithville, NJ)** on 22 Nov 2003, 9:13 p.m.,*
in response to message #2 by Mike

Thanks Mike. I appreciate it. It's a shame Sharp didn't spiral bound their manuals. No hurry on the copy. I'm mostly interested in the commands for the mirco-cassette drive. The CE-125 makes for a nice compact basic computer, printer & mass storage. I `like the fact that the printer is thermal and is same width as the HP-41 printer.

My first forlay into handheld computers was the Sharp PC-1500 with the 4-pen plotter. Had a great time with it many years ago. Saw one at a flea market this year and picked it up with plotter for almost nothing. Unforturnately, I don't know of any source for the pens. I've tried cutting down some metal ball point refils with a little success - but it's pretty messy.

It's a shame that there's really very little scanned documentation for the Sharp computers.

Thanks again, Mike, for your help. 12345

Cassette commands

*Message #4 Posted by **Mike** on 22 Nov 2003, 10:03 p.m.,*
in response to message #3 by Bill (Smithville, NJ)

You may have already figured out how to use the cassette drive.

Switch to Remote OFF, allows you to control the tape like a normal tape recorder with the buttons.

Switch to Remote ON, allows the computer to control the tape. However, you must pre-select the operation desired. All tape commands to is allow the motor to turn. So, say you want to CSAVE "program". You would:

```
1) Set REMOTE to OFF
2) Rewind tape to beginning, or position tape
3) Set REMOTE to ON
4) Push down the RECORD button
5) Issue the CSAVE "program" command.  The tape will move and the program
will be saved.  Tape stops automagically.


To CLOAD:
1) Set REMOTE to OFF
2) Rewind tape to beginning
3) Set REMOTE to ON
4) Push down the PLAY button
5) Issue the CLOAD "program" command.  The tape will move and the program
will be loaded.  Tape stops automagically.


Commands


CSAVE "filename"
CSAVE "filename", "password"
CSAVE ,"password"
CLOAD "filename"
CLOAD? "filename" (this command is to compare programs on tape to memory)
MERGE "filename"
INPUT # "filename"
INPUT # "filename", var list
INPUT # var list
PRINT # "filename"
PRINT # "filename", var list
PRINT # var list
```

Edited: 22 Nov 2003, 10:06 p.m.

SHARP PDF manuals [OT]

*Message #5 Posted by **Valentin Albillo** on 23 Nov 2003, 1:45 a.m.,*
in response to message #3 by Bill (Smithville, NJ)

Hi, Bill:

Bill posted:

"It's a shame that there's really very little scanned documentation for the Sharp computers."

Not so. Remember that several TRS-80 Pocket Computers are *exact* clones of some SHARP models, 100% *identical* in functionality and all but one, also cosmetically except for the TRS-80 logo instead of SHARP's.

Taking that into account, here you are, a few SHARP PDF manuals:

TRS-80 PC-1 = SHARP PC-1211, 1212, 1210

Owner's Manual

Printer/Cassette Interface Manual

Service Manual

TRS-80 PC-2 = SHARP PC-1500, 1500A

Owner's Manual

Technical Reference Manual

Assembly Language Manual

Printer/Plotter/Cassette Interface Manual

Service Manual

TRS-80 PC-3 = SHARP PC-1250A, 1251

Owner's Manual

SHARP PC-1401 = SHARP EL-5500 = SHARP EL-5500II

SHARP PC-1401 Instruction Manual (English) and System Book (German)

Many of these manuals are also 99.9% or more adequate for a great many other SHARP models, such as the PC-1402, 1403, 1245, 1246, 1247, 1252, 1260, 1261, 1262, etc, etc.

Best regards from V.

Re: SHARP PDF manuals [OT]

*Message #6 Posted by **Bill (Smithville, NJ)** on 24 Nov 2003, 9:59 a.m.,*
in response to message #5 by Valentin Albillo

Hi Valentin,

You're right - the Tandy/Radio Shack is a re-branded Sparp. But Radio Shack always had a habit of making small changes so that their computers (also applies to their re-braded casios) were a little different from the original. The PC-2 and 1500 had very different keyboard layouts but basically the same functions.

The real question would be - if I dumped the ROM from a Tandy and a Sharp - how different would they be? Be an interesting exercise. I'm assuming one could PEEK the ROM memory and dump it to a file.

Thanks again for all your help. 12345

Re: I have...Pens?

*Message #7 Posted by **jimc** on 24 Nov 2003, 2:51 p.m.,*
in response to message #3 by Bill (Smithville, NJ)

What kind of pens are they? There may be some instrumentation warehouses that may be able to assist.

With a bit more information, I may be able to find you a source for the pens. (A picture would be most helpful)

Photos: 1500 printer pens

*Message #8 Posted by **Mike** on 24 Nov 2003, 6:16 p.m.,*
in response to message #7 by jimc

These are pens used in the printer for the PC-1500. They come in Black, Blue, Red and Green.

http://www.msdsite.com/vcomp/sharp/1500/pens2.jpg

http://www.msdsite.com/vcomp/sharp/1500/pens1.jpg

PTA-4000

*Message #9 Posted by **Tizedes Csaba** on 24 Nov 2003, 7:07 p.m.,*
in response to message #8 by Mike

In the middle of '80s was a pocket computer in Hungary, named 'PTA-4000'. That was the hungarian license of SHARP's PC-1500.

It has an expanded version, the 'PTA-4000+16'. This calc build with +16KByte RAM. See the follows:

http://www.rskey.org/detail.asp?manufacturer=H%EDrad%E1stechnika&model=PTA-4000

http://oldmachines.tripod.com/hun_pta4000.htm

Csaba

Re: OT: Manuals wanted on Sharp PC-1250A

*Message #10 Posted by **Valentin Albillo** on 22 Nov 2003, 8:03 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

Hi, Bill:

I suppose you already know this but just in case you don't, the Tandy TRS-80 PC-3 handheld is an *exact* clone of the SHARP PC-1251 pocket computer, which is just *nearly identical* to the SHARP PC-1250A you own, so the manual for the first will be 99.9% what you need.

You can download the TRS-80 PC-3 manual, in PDF format (5.1 Mb), here:

TRS-80 PC-3 Owner's Manual

and it certainly will be what you're looking for.

Best regards from V.

Re: OT: Manuals wanted on Sharp PC-1250A

*Message #11 Posted by **Bill (Smithville, NJ)** on 22 Nov 2003, 9:39 p.m.,*
in response to message #10 by Valentin Albillo

Thanks Valentin,

I did download the PC-3 manual and you're right - it's very similar. But I guess I;m always interested to know if there are any commands unique to the 1250. I'm also looking for some sample programs that would make use of the micro cassette tape drive.

On the side of the CE-125 interface unit is a jack labeled 'IN'. Do you know what this was for - audio in to the computer or to the tape? There would be no way to control it.

It's a great little, fun, system - especially with the tape and printer - very compact. 12345

Re: OT: Manuals wanted on Sharp PC-1250A

*Message #12 Posted by **Valentin Albillo** on 22 Nov 2003, 10:16 p.m.,*
in response to message #11 by Bill (Smithville, NJ)

Hi, Bill:

Bill posted:

"But I guess I;m always interested to know if there are any commands unique to the 1250."

I'm pretty sure there's none. The 1250, 1250A and 1251 seem to be nearly identical. Matter of fact, all SHARP models have either the identical BASIC dialect or else upwards compatible, with very few, obvious exceptions and extensions (4- or 2-line display versus 1-line display, etc).

"On the side of the CE-125 interface unit is a jack labeled 'IN'. Do you know what this was for - audio in to the computer or to the tape? There would be no way to control it."

I don't have the CE-125 interface so I can't tell for sure, but seems to me most probable that it is audio-in for the tape, not the computer.

"It's a great little, fun, system - especially with the tape and printer - very compact."

Certainly. The best model of this series is the SHARP PC-1262 (see pic at bottom). Same form factor, dimensions and weight, but 10 Kb RAM (vs. 4 Kb), 40 Kb ROM (vs. 24 Kb) and 2-line display (vs. 1-line). An amazingly capable and small machine (HP-15C size approx.). And fast, too !

Best regards from V.

SHARP PC-1262 (dimensions: 135x70x10 mm, weight = 115 gr)

http://pocket.free.fr/images/sharp/pc-1262.jpg

Re: OT: Manuals wanted on Sharp PC-1250A

*Message #13 Posted by **Emmanuel, France** on 23 Nov 2003, 4:28 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

```
Does the PC-1250 have an HELP key (available after SHIFT HELP)?
My PC-1251 has one.
```

Help?

*Message #14 Posted by **Mike** on 23 Nov 2003, 10:45 a.m.,*
in response to message #13 by Emmanuel, France

What do you mean HELP? I have both the 1250 and the 1251 and I don't find any HELP or any mention of it in the manual.

There is a RESERVE function (on both), that can be setup to display information after pressing SHIFT. Is that what you mean?

I believe the only difference between the 1250 and the 1251 is RAM size.

Re: Help?

*Message #15 Posted by **Emmanuel, France** on 23 Nov 2003, 11:40 a.m.,*
in response to message #14 by Mike

```
Please accept my apologies.
It's not PC-1251 but on PC-1261.
```

Both have help

*Message #16 Posted by **Mike** on 23 Nov 2003, 12:53 p.m.,*
in response to message #15 by Emmanuel, France

The only difference, I believe, is RAM. 4K on the 1260 and 8K on the 1261.

http://www.msdsite.com/vcomp/sharp/1260/1260-1.jpg

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ICQ contacts

*Message #1 Posted by **Matthias** on 22 Nov 2003, 3:22 p.m.*

I would like to purchase my ICQ number for direct chats with some HP freaks like me: 17413627. Please contact me and tell me your name..

Does someone else uses ICQ?

Matthias

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HP 49G+ ROM version

*Message #1 Posted by **Brent** on 22 Nov 2003, 12:27 p.m.*

How do you find what ROM version you have?

Re: HP 49G+ ROM version

*Message #2 Posted by **Ernie Malaga** on 22 Nov 2003, 1:33 p.m.,*
in response to message #1 by Brent

> Quote:
>
> How do you find what ROM version you have?

Type VERSION while in alpha mode, then press [Enter].

-Ernie

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HELP!!! HP-75C flashing dashes and dots

*Message #1 Posted by **aam Morey** on 22 Nov 2003, 12:06 p.m.*

For some reason when I turned on my HP-75C today the display just flashed a series of dots and dashes and then it turned off. PLEASE help me with this problem. I just purchased the machine and it was working fine until today. The problem seems unexplainable to me. Thanks.

-Adam ratinacage2002@yahoo.com

Re: HELP!!! HP-75C flashing dashes and dots

*Message #2 Posted by **Tom Sherman** on 22 Nov 2003, 12:50 p.m.,*
in response to message #1 by aam Morey

Adam,

Have you tried taking the battery pack(s) out and running it just on the AC adapter? The HP-75 can be powered that way without harm. If the batteries are dead (in spite of charging them), the unit may exhibit the behavior you have described, but should run OK with the batteries removed.

Hope it works for you.

Tom

Re: HELP!!! HP-75C flashing dashes and dots

*Message #3 Posted by **Adam Morey** on 22 Nov 2003, 1:01 p.m.,*
in response to message #2 by Tom Sherman

No, the computer does the same exact thing when hooked up to the power supply. I also charged the batteries and it is doing the same thing.

Re: HELP!!! HP-75C flashing dashes and dots

*Message #4 Posted by **Tom Sherman** on 22 Nov 2003, 2:45 p.m.,*
in response to message #3 by Adam Morey

Just a shot in the dark, as I don't know what's going on: disconnect the AC, take the batteries out, press the ATTN key once or twice, then reconnect to the AC (but without the batteries) and say some prayers or incantations when you try the ATTN again.

Best of luck, Adam. Can anyone else help?

Tom

Re: HELP!!! HP-75C flashing dashes and dots

*Message #5 Posted by **Adam Morey** on 22 Nov 2003, 8:31 p.m.,*
in response to message #4 by Tom Sherman

Still not working, thanks anyway man. I have no clue what to do. For some reason not enough power is getting to it. Its confusing and frustrating. Please someone help.

-Adam

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HHP Portable EPROM for HP-41

*Message #1 Posted by **Jeff** on 21 Nov 2003, 8:32 p.m.*

I recently purchased a HHP Portable EPROM unit housed in a card reader housing. Upon startup, the unit displays "Working" then says -ALLFAX-. I would like to know more about this unit and the EPROM inserted into it. The unit also came with a Overlay for the HP-41. I have posted at the following address the listing of the functions in this EPROM: http://www.elknet.net/mitchbrent/jdfam/HHPPORTABLEEPROM.DOC If you know any information or are interested in exploring this EPROM with me, please contact me. Best Regards, Jeff

Re: HHP Portable EPROM for HP-41

*Message #2 Posted by **Emmanuel, France** on 22 Nov 2003, 3:13 p.m.,*
in response to message #1 by Jeff

```
Dear Jeff,
Your HHP Portable Eprom is a 32K Eprom Box.


You can only have 4 size configurations:
4K (one 2764 for L8 & one 2732 for U2)
8K (one 2764 for L8 & one 2732 for U2)
16K (one 27128 for L8 & one 2732 for U2)
32K (one 27256 for L8 and one 2764 for U2)
2732, 2764, 27128 and 27256 are Eproms.


You have 2 DIP switches:
one for memory size & L8 chip type
one for port address


When you open your HHP-PE (remove the 4 screws on HP-41 side), you have something like
that:


 --------------
|   _________  |
|  |   L8    | |
|  |_________| |
|             |
|  |1 2 3 4 |  |_______
|                      |
|  |1 2 3 4 |          |
|   _________          |
|  |   U2    |         |
|  |_________|  _______|
|_____________|


The top DIP switch defines the memory size and L8 type of chip used as shown in the table
below.


The bottom DIP switch defines the port address desired for the Eprom memory.


    MEMORY SIZE   L8 CHIP TYPE
SW   1   2   3         4
    --- --- ---       ---
4K   +   +   +    + for 2764
8K   -   +   +      or 27128
```

```
16K  -   -   +
32K  -   -   -    - for 27256


            PORT  ADDRESS
SW          1   2   3   4
           --- --- --- ---
port 1      -   +   +   +
port 2      -   +   -   +
port 3      -   -   +   +
port 4      -   -   -   -


SW for switch
+  for up
-  for down


To be continued...
```

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HP JUNK! Scanner (printer.....) etc.

*Message #1 Posted by **Michael Meyer** on 21 Nov 2003, 7:05 p.m.*

I just returned an HP 5550C scanner that I've wasted 6 months trying to get to work right. Long story short, the software was never right, and HP took it off the market quickly without ever fixing the software. Even their support people "couldn't figure it out" except to say there was a "software" problem. Same problem years ago with a 720C printer. (Why make it actually work? Just come out with the next model.)

New printer models come out a dizzying pace. Not only does HP not support the older models, they never even fix the major bugs! Just look at problems other people report!

So sad... that I lovingly and proudly collect "HP's", and yet have to abandon the brand today.

My next attempt will be a Visioneer XP 450... supposed to scan at 20 sheets per minute. I've never had trouble with my Strobe scanners... other than Windows no longer supporting the serial interfaces. (I just bought new interfaces, and still use my Strobe(s) daily.)

(Any advice on a document-feeding scanner is welcome!)

I miss HP.

Michael

Me too!

*Message #2 Posted by **Mike** on 21 Nov 2003, 7:13 p.m.,*
in response to message #1 by Michael Meyer

I have a HP 4570 scanner that doesn't work right too. It's a software issue too.

It's supposed to scan multiple pages into a single PDF document. But whenever I try to scan a 2nd page, it overwrites the first. I can't get multiple pages into a single document.

Edited: 21 Nov 2003, 7:14 p.m.

Re: Me too!

*Message #3 Posted by **David Ramsey** on 22 Nov 2003, 4:54 p.m.,*
in response to message #2 by Mike

So far, my 4670 scanner has been working beautifully (OK, the first one died the first day I had it, but the second one's OK), scanning multiple pages into a single PDF under Mac OS X.

Sort of work

*Message #4 Posted by **Mike** on 22 Nov 2003, 7:56 p.m.,*
in response to message #3 by David Ramsey

I have 4 options to scan a document.

1) Text and Graphics (as image) (1 bit, 8 bit, 24 bit) 2) Text (as image) (1 bit, 8 bit, 24 bit) 3) Editable Text (8 bit, 24 bit) 4) Editable Text with Graphics (8 bit, 24 bit)

If I scan Text or Text and Graphics, as images, it won't put more than 1 scan into a document.

If I scan Editable Text or Editable Text with Graphics it does put multiple pages into the document.

Seems like the first two options should allow multiple pages as well. The reason I want to use the 1st two options is that it has a b/w option and images are much smaller. 3 and 4 only have options of 8 bit gray and 24 bit color.

Do you have options 1 and 2 and can you scan multiple pages into a document with those settings?

Re: Sort of work

*Message #5 Posted by **David Ramsey** on 23 Nov 2003, 1:40 p.m.,*
in response to message #4 by Mike

The Mac OS X software is different from the Windows software, so I moved the USB cable from the scanner over to my Windows box and installed the HP software.

I was able to set Text and Graphics, as images, 1 bit per pixel, and scan 3 pages into a document which I then saved as PDF. Worked fine.

What, precisely, happens when you try to do this?

Here is what happens

*Message #6 Posted by **Mike** on 24 Nov 2003, 8:23 p.m.,*
in response to message #5 by David Ramsey

Everything looks like it is working fine. I get a prompt that asks if I want to scan another page, I put a new page up and say "yes". It scans again and then asks the same question.

When I'm done and open the PDF, it only has one page; the last one.

Wierd!

As a test, I opened Acrobat 4.0 and used the "Import->Scan", I can scan multiple pages into a document. I just can't do it by using the HP Director control panel.

Edited: 24 Nov 2003, 8:52 p.m.

Re: Here is what happens

*Message #7 Posted by **Victor Koechli** on 25 Nov 2003, 2:30 a.m.,*
in response to message #6 by Mike

So what? Just use Acrobat for scanning and throw that HP piece-of-junk software in the rubbish bin.

Cheers, Victor

Problem Solved: Thanks Dave

*Message #8 Posted by **Mik** on 25 Nov 2003, 1:49 p.m.,*
in response to message #5 by David Ramsey

Thanks a lot. You have solved my problem.

I just tried your method and it works gread. My problem was I was choosing my destination as "Adobe Acrobat 4.0". So, I was trying to scan directly into a PDF document.

But when I switched the destination to "save to file" and saved as PDF, it worked great.

Thanks a lot.

Mike

Re: HP JUNK! Scanner (printer.....) etc.

*Message #9 Posted by **Katie** on 21 Nov 2003, 9:38 p.m.,*
in response to message #1 by Michael Meyer

Michael,

Although certainly not great software-wise, I have an HP officejet d145 all-in-one that does a pretty good job at scanning multiple-page documents. I've used it to scan many hundreds of calculator manual pages with almost no miss-feeds or jams. The printer is also of fairly high-quality for a relatively cheap inkjet. They don't make it any longer of course, although they do have similar models like the officejet 7110.

That said, the software could be a lot better. It does occasionally cause Win2K to crash and picks up the fax line in the middle of a phone call. It could also be enhanced, easily, to allow double-sided scanning. The copier will do 2-sided to 2-sided copying but for no good reason, they restrict the scanning to one-sided only.

I may have gotten lucky with the particular unit that I bought, but overall it's been a reliable work horse for me (knock on wood!).

-Katie

Edited: 22 Nov 2003, 1:08 a.m.

Re: HP JUNK! Scanner (printer.....) etc.

*Message #10 Posted by **Les Bell [Sydney]** on 21 Nov 2003, 10:55 p.m.,*
in response to message #1 by Michael Meyer

Same here. I bought a low-end Scanjet 2200C to augment an old Umax scanner I passed to my kids. The thing makes alarming plastic-on-plastic clanking noises when scanning, and the software is counter-intuitive, except perhaps to a completely clueless newbie. The main interface doesn't even let me specify scan resolution!

I was gratified to notice that the scanning software in Red Hay Linux 9 recognised the scanner, and provides much more sophisticated control over the scanning process.

I miss HP, too!

Best,

--- Les [http://www.lesbell.com.au]

Re: HP JUNK! Scanner (printer.....) etc.

*Message #11 Posted by **Ernie Malaga** on 22 Nov 2003, 1:14 a.m.,*
in response to message #1 by Michael Meyer

> Quote:
>
> the software was never right, and HP took it off the market quickly without ever fixing the software

HP is not alone in this. About 12 years ago I found a very serious bug in the PL/I compiler for the IBM AS/400, reported it to IBM, and it was never fixed. Shortly afterwards, PL/I disappeared as an option for AS/400 programmers.

Sheesh.

-Ernie

Re: HP JUNK! Scanner (printer.....) etc.

*Message #12 Posted by **Ted** on 22 Nov 2003, 4:11 a.m.,*
in response to message #1 by Michael Meyer

Isn't it just sickening? I have an old HP printer, Laserjet 5 MP. It has worked from the very first day it was installed non stop since 1996 and I never had a problem with it. Those were the days my friend, we thought they'd never end.....(sigh)

Re: HP JUNK! Scanner (printer.....) etc.

*Message #13 Posted by **Chris(FLA)** on 24 Nov 2003, 5:42 p.m.,*
in response to message #12 by Ted

> Quote:
>
> I have an old HP printer, Laserjet 5 MP. It has worked from the very first day it was installed non stop since 1996 and I never had a problem with it.

Those printers are the best that HP ever made.

Now scanners are a different story. I had a sheet feed that lasted about six months. Not very much use either. I started getting horrible lines in the scans.

Then just to be masochist I bought a 5200C scanner. I scanned about 50-60 images with it. Then it started acting up. It wouldn't scan. I would unplug it and plug it back in. Sometimes this would make it work.

One day after doing the plug trick about 20 times I gave up and threw it in the garbage.

I will **never** buy an HP Scanner again!

Chris

12345

OK. It looks like HP gets one more try....

*Message #14 Posted by **Michael Meyer** on 23 Nov 2003, 2:10 p.m.,*
in response to message #1 by Michael Meyer

WELL... I've looked at alternatives. The 7110 all in one has the same document feeder as the 5550C scanner, as well as a printer built in.

I never disliked the scanner's hardware; it just would stop unexpectedly, scan pages as black, scan half pages, etc.

Maybe the software in the all-in-one will work better.

I also decided that having copy and fax abilities while my computer is doing uninterruptable stuff like burning a DVD might be a good idea.

Anyway, thanks for the advice, and I'll give it one more try.

Michael

I bought a 7130-- does 2 sides!

*Message #15 Posted by **Michael Meyer** on 23 Nov 2003, 6:04 p.m.,*
in response to message #14 by Michael Meyer

I sprung for a 7130. It has a photo card reader, but more importantly, it comes with the two-sided feature that scans and copies and prints 2 sides.

HP gets a fortune for the ink, though....

Michael

Re: I bought a 7130-- does 2 sides!

*Message #16 Posted by **Katie** on 23 Nov 2003, 7:18 p.m.,*
in response to message #15 by Michael Meyer

Michael,

The 7130 looks like it's identical to the d145 that I have; but mine doesn't do double-sided scanning only double-sided copying and printing, so it looks like they must have made some software changes. Hopefully they took the time to improve the reliability of the software too.

The virtual photo contact sheet/enlargement order processing feature is a hoot!

I'd love to hear more on this after you use it for a while.

-Katie

Katie-- you're right! Bummer.

*Message #17 Posted by **Michael Meyer** on 24 Nov 2003, 7:08 p.m.,*
in response to message #16 by Katie

Hi Katie, et. al.,

Well.... the scanner does only scan one side. So far, it's much slower than my last scanner. I can "scan to" my Paperport desktop, or use WIA within paperport. Using the Windows Image

Acquisition, the scanner resets between each page!!! sending the scanner mechanism loudly back and forth!

And, I haven't been able to get the software to load the TWAIN drivers!!!!

More problems.

Michael

Re: Katie-- you're right! Bummer.

*Message #18 Posted by **Katie** on 24 Nov 2003, 9:40 p.m.,*
in response to message #17 by Michael Meyer

Michael,

That stinks! I'm getting about 5 (8.5 x 11) pages/minute at 300 dpi 24 bit color through the feeder. The TWAIN interface brings up the HP preview/scnning tool called "HP Image Viewer - HP officeJet d series Scan 2.0". Perhaps this same software will work on your machine. I also have no problem using the "scan to" feature, it goes right into Paint Shop Pro, for example.

I feel bad for recomending this. Maybe you should return it, get a d145 on ebay and pocket the change.

-Katie

Re: Katie-- you're right! Bummer.

*Message #19 Posted by **Michael Meyer** on 24 Nov 2003, 9:42 p.m.,*
in response to message #18 by Katie

Katie,

Don't feel bad. I'd been looking at these already. I'm going to try to install the "corporate" drivers first, then the whole thing if necessary. Might install the Twain stuff. I like the unit overall, even if it scans slowly.

Michael

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Two different designs of the 82120A rechargeable battery pack

*Message #1 Posted by **Jon** on 21 Nov 2003, 6:55 p.m.*

I have two different battery packs for the HP-41 calculators, both are part number 82120A but they are very different. I have repaired the oldest one with serial number 2203S. With new 1/3AAA batteries it works just fine. I have taken some notes of the charging circuit and I see it is very similar to the classic series chargers. It has one circuit to charge the batteries and another one to keep the calculator working. The plug has three pins and one separated connector. When connected to the 9V transformer the connector doesn´t make contact with the third pin and both circuits work separately. When not plugged the third pin makes contact and the batteries feed the calculator. The newest one has original cells and works fine. Serial number is 3112S. But it has two pins in the plug. It seems that it works like spices or Woodstock calculators, so it can be dangerous for the calculator if it is being charged and any cell fails. It seems that HP modified it to reduce costs. Can anybody confirm my impression?. Does anybody know if charging times are the same for both designs?.

Re: Two different designs of the 82120A rechargeable battery pack

*Message #2 Posted by **Randy Sloyer** on 21 Nov 2003, 8:40 p.m.,*
in response to message #1 by Jon

Jon, good detective work. The 3-pin version is similar to the classics circuit. Perhaps after the failure lessons of the Woodstocks, they went back to what worked. But, I suspect the kapton film that acted as both an insulator and conductor had reliability, manufacturing or cost issues. So, out goes the safe circuit for a lower cost, easier to manufacture 2-pin unit.

But, unlike the Woodstocks, the 2-pin version 82120A has a 6.4 volt zener diode across the battery so that should be the maximum voltage the calculator will ever see. The only problem with the design is that there is no series current limiting device. When the batteries begin to fail and no longer present a low impedance to the source, the zener diode alone provides the load. Yes, it prevents the calculator from frying but leave it on charge long enough and the diode will fail due to overheating. Ask me how I know... At least they short when they fail and you have a dead battery pack but the calculator survives.

Charging times for both versions are the same.

Edited: 21 Nov 2003, 8:41 p.m.

Re: Two different designs of the 82120A rechargeable battery pack

*Message #3 Posted by **David Smith** on 22 Nov 2003, 12:54 p.m.,*
in response to message #1 by Jon

Actually, the three pin version is not as good or safe as the later version. It can glitch the power when the plug is mated. Also it can overvoltage the calculator if the cells open up or go bad... the later version has a protection zener (which I install in all the old versions when I rebuild them). Both units seem to pump about 12-15 ma into the cells.

A 3-pin question

*Message #4 Posted by **Randy Sloyer** on 22 Nov 2003, 2:29 p.m.,*
in response to message #3 by David Smith

David, thank you, thats very good information. Have you ever had/heard of a situation where you end up with the dreaded MEMORY LOST message when plugging the charger in? I recently experienced this with a 3-pin pack and dismissed it to the pack having shifted and loosing connection with the calculator. Sounds like my assumption was incorrect?

Re: A 3-pin question

*Message #5 Posted by **David Smith** on 23 Nov 2003, 3:03 p.m.,*
in response to message #4 by Randy Sloyer

Sounds like the switch glitch hitch. Usually the cap in the machine will keep the machine running through the transient, but you know how glitchy glitches can be...

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Strange HP48GX Undo behavior

*Message #1 Posted by **GE (France)** on 21 Nov 2003, 5:51 p.m.*

Hello wizards,

Sorry the 48GX is not a vintage machine, but the behavior when mixing the 'CON' (create a constant matrix) and the UNDO capability is quite surprising. ([Enter] is a press of the ENTER key) :

1. Type : {2 3} [Enter] 5 [Enter] CON [Enter] (UNDO) you get back both parameters of CON.

2. Type : {2 3} [Enter] 5 CON [Enter] (UNDO) you get back only {2 3}.

Can anyone shed some light on this ?

Re: Strange HP48GX Undo behavior

*Message #2 Posted by **James M. Prange** on 21 Nov 2003, 8:27 p.m.,*
in response to message #1 by GE (France)

I hope so. The first thing that the ENTER operation (either explicit or implicit) does, assuming that last stack saves are enabled, is save a copy of the current stack for use by the LeftShift STACK (last stack) operation in the 48SX/S, or UNDO as it's labeled in the other RPL calculators.

Note that by default, last stack saves, last command lines saves, and last arguments saves are enabled, but they can be disabled by menu keys in the LeftShift MODES MISC menu, and last argument saves can also be disabled by setting flag -55. For the rest of this post, I'll assume that they're all enabled.

Maybe a bit on explicit/implicit ENTER is in order. Pressing the ENTER key is an explicit ENTER. When in "immediate entry" mode (both the ALG and PRG indicators are absent from the status area), many keys, such as +, SIN, or the CON menu key, do an ENTER operation before executing the key or menu object; these are "implicit ENTERs".

> Quote:
>
> 1. Type : {2 3} [Enter] 5 [Enter] CON [Enter] (UNDO) you get back both parameters of CON.

In this first example, when the last ENTER was done, the 5 was already on the stack in level 1, so it was in the saved last stack. CON was in the command line, so the CON command line can be recovered by the RightShift CMD (last command lines) operation. For that matter, up to four last command lines are saved, so the {2 3} and 5 command lines can also be recovered. You can use RightShift ARG (the LASTARG command) to enter both arguments to CON, { 2 3 } and 5, into the stack.

> Quote:
>
> 2. Type : {2 3} [Enter] 5 CON [Enter] (UNDO) you get back only {2 3}.

In this example, the 5 wasn't on the the stack yet when the last ENTER was done; it was still in the command line followed by CON, so UNDO wouldn't put it back on the stack. If you want to retrieve it, you can use RightShift CMD to retrieve the command line 5 CON, or you can use RightShift ARG (the LASTARG command) to enter both arguments to CON into the stack.

In both of these cases, I take it that CON was typed into the command line with the calculator in "program entry" mode (the PRG but not the ALG indicator in the status area), so it didn't cause any implicit ENTER; the last keypress of ENTER put it on the stack and caused it to be executed.

If you had done:

```
LeftShift {} 2 SPC 3 CursorRight 5 ENTER MTH MATR MAKE CON
```

Then the { 2 3 } and 5 would be already on the stack before pressing the CON menu key (which would cause an implicit ENTER), so would be recovered by UNDO. {2 3}5 would be available as a last command line, and { 2 3 } and 5 would be entered into the stack by LASTARG. But since CON was never on the command line, it can't be retrieved by the last command lines operation.

If you had done:

```
LeftShift {} 2 SPC 3 CursorRight 5 MTH MATR MAKE CON
```

Then { 2 3 } and 5 wouldn't be on the stack yet when the implicit ENTER caused by pressing the CON menu key was started, so they wouldn't be recoverable by UNDO, but the {2 3}5 command line could be retrieved by the last command lines operation, and the LASTARG command would enter { 2 3 } and 5 into the stack.

So your 48GX is behaving exactly as intended, and in my opinion, as long as you understand it, it's a good design.

Regards,
James

Edited: 21 Nov 2003, 8:38 p.m.

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Green LED's?

*Message #1 Posted by **Katie** on 21 Nov 2003, 5:08 p.m.*

Although this is somewhat off topic, I know that this is the best place to pose my question -- all the experts are here!

Quite often on ebay and elsewhere you see people that advertise their old calculator as having a "Green LED" display. Invariably (always, actually) these are not green LED display calculators, but some form of vacuum florescent display -- the seller has no idea what a Green LED is, no doubt.

Anyway, my question is this: Did any manufacturer ever make a calculator with a real green LED display (or yellow for that matter)? If I remember correctly, 7-segment LED displays were available in green and yellow before 1980 when most calculator manufacturers switched to LCD displays.

Thanks,

-Katie

Re: Green LED's?

*Message #2 Posted by **Michael Meyer** on 21 Nov 2003, 6:54 p.m.,*
in response to message #1 by Katie

Great question, Katie!!!! When I stop and think about it, I've had the same experience.... I can't think of any true LED displays that weren't red.... I know my Sinclair has a purple lens, but I think it's still a RRREEEEDDDD LEEEEDDDDD <grin>).

I'll look through my collection and see what I find. I still owe you a favor, BTW... (though still haven't gotten my circuit to work....)

Regards

Re: Green LED's?

*Message #3 Posted by **Trent Moseley** on 21 Nov 2003, 11:20 p.m.,*
in response to message #1 by Katie

Katie,

I have a 1972 Heathkit with yellow (amber) LEDs.

tm

Re: Green LED's?

*Message #4 Posted by **Katie** on 22 Nov 2003, 12:22 a.m.,*
in response to message #3 by Trent Moseley

That's pretty amazing and must have been quite expensive, are you sure it's really an LED display? According to this article http://www.spectrum.ieee.org/WEBONLY/publicfeature/jun03/med.html the yellow LED was only invented in 1970. Although the red LED was invented in 1962 it took 7 or 8 years before it got into commercial products.

Re: Green LED's?

*Message #5 Posted by **Trent Moseley** on 22 Nov 2003, 2:36 p.m.,*
in response to message #4 by Katie

Re the Heathkit. I haven't had it out of the closet for years. Just plugged in in. My wife says they are orange. But they aren't red.

tm

Re: Green LED's?

*Message #6 Posted by **Thomas Radtke** on 22 Nov 2003, 2:49 p.m.,*
in response to message #4 by Katie

The very first pocket calculator with LED was the '71 Bowmar 901B:).

Thomas

Re: Green LED's?

*Message #7 Posted by **Richard Garner** on 22 Nov 2003, 12:23 a.m.,*
in response to message #1 by Katie

I had an old 4 banger desk unit with sq root, % and 1 memory register, can't remember the name. It had white or very light yellow LED's that were viewed through a blue display cover.

Re: Green LED's?

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 22 Nov 2003, 10:00 a.m.,*
in response to message #1 by Katie

Katie: I think I haven´t seen any "real green LED" calculators, I could remember that green LEDs were anything but common before 1980 (of course in my country, but also in most USA and european electronics magazines I was subscribed to). Even the "activity" or "power on" LED in commercial computers (i.e.: Data General, IBM, Compaq, Bull), disk drives (Shugart, Seagate, Fujitsu), early PCs, floppy drives were usually red until 1988 and even later.

I assume that the higher cost and, for portable equipment, power budget could have been barriers for massive adoption of non-red LED. I vaguely remember something about GaAsP vs. GaP processes that may also have something to do with cost and availabity.

As the light wavelength relates with the voltage drop in LEDs by means of the equation E=hf, where E is the energy in electron volt units, h is Planck constant andf is the frequency, it follows that green (and yellow) LEDs have a higher operating voltage than red ones. While the greater eye sensibility for green may reduce operating currents, I think that the voltage issue may have been a factor preventing a faster adoption for portable electronics.

Edited: 22 Nov 2003, 4:12 p.m. after one or more responses were posted

Re: Green LED's?

*Message #9 Posted by **Katie** on 22 Nov 2003, 1:29 p.m.,*
in response to message #8 by Andrés C. Rodríguez (Argentina)

I do have one calculator that uses 3 yellow LED's -- 3mm size single devices, it's the Kosmos I. I think that this calculator dates to around 1978. But what I'm really looking for is a calculator that used a yellow or green 7-segment display.

Edited: 22 Nov 2003, 1:30 p.m.

Re: Green LED's?

*Message #10 Posted by **Andrés C. Rodríguez (Argentina)** on 22 Nov 2003, 4:23 p.m.,*
in response to message #9 by Katie

Yes, things were the way you stated. Individual LED lamps and single digit seven-segment displays were usually red, and the same happened for the multiplexed, n-digit "display sticks" used in portable electronic devices. By the time non-red LED lamps and non-multiplexed displays started to be more common (~1980?), most calculators were shifting to LCD's, featuring also more meaningful status indicators and even alphanumeric output.

I also have (many, many times) seen and heard about "green LED" displays which in fact were fluorescent types. Also (at least here) many people confuses "quartz crystal" (for time reference) with "liquid crystal", and journalists or TV reporters write and talk all the time about "liquid quartz" devices (sic).

Re: Green LED's?

*Message #11 Posted by **David Smith** on 22 Nov 2003, 12:57 p.m.,*
in response to message #1 by Katie

TI made some green and yellow LED calculators. They were for market test purposes only and never sold to the public or let out of TI control. A friend of mine snagged several of them from a trash can. There was even an LCD SR-51.

Re: Green LED's?

*Message #12 Posted by **David Smith** on 22 Nov 2003, 12:59 p.m.,*
in response to message #11 by David Smith

Forgot to mention the green LED Compuchron watches.

Even rarer were the orange and yellow ones. The yellow LEDs in particular were not very bright or even in their illumination. Compuchron pulled them off the market rather quickly.

TI green/yellow LED calculator

*Message #13 Posted by **Katie** on 22 Nov 2003, 1:33 p.m.,*
in response to message #11 by David Smith

That's a great collectible! Does your friend want to sell one to me?

Re: TI green/yellow LED calculator

*Message #14 Posted by **David Smith** on 23 Nov 2003, 3:04 p.m.,*

in response to message #13 by Katie

Nope, I've tried everything short of homicide to pry them loose from his tight fisted paws...

Re: TI green/yellow LED calculator

*Message #15 Posted by **Katie** on 23 Nov 2003, 7:22 p.m.,*
in response to message #14 by David Smith

I applaud your restraint, homicide might be talking this calculator collecting hobby just a bit too far :)

Re: Green LED's?

*Message #16 Posted by **Joerg Woerner** on 24 Nov 2003, 2:41 a.m.,*
in response to message #11 by David Smith

Hi David,

I'm the Curator of the Datamath Calculator Museum featuring the TI products. Could you forward me the address of your lucky friend ?

Regards, Joerg

Re: Green LED's?

*Message #17 Posted by **David Smith** on 25 Nov 2003, 12:54 p.m.,*
in response to message #16 by Joerg Woerner

I have not seen him in many years. He moved out to the west coast after leaving TI... I don't know where. He stored a lot of his electronics with me before he left so I got to play with them. Then he came back for his goodies (bummer). If he turns up, I'll send him your way.

Re: Green LED's?

*Message #18 Posted by **Tom (UK)** on 24 Nov 2003, 12:23 p.m.,*
in response to message #1 by Katie

Katie,

I think it's just physics. Red LEDs don't need as much forward bias (as someone else said) and I think they are also much better at turning electrons into photons, the GaAs LEDs are even better and HP were a leading supplier. As the LEDs were a big drain on the battery then red LEDs were the the only sensible choice. There is also the fact that Yellow and Green LEDs came on the market at prices that could be used just when makers were turning to LCDs for calculators. I also see many ads for 'green LED' that turn out to be the short lived VFDs period of calcs.

But more recent consumer products (pocket computers and mobile phones) usually have Greenish or Yellowish backlighting, I assume these are LEDs, I suppose Red LEDs would not provide enough contrast with an LCD screen.

HTH Tom.

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Strange handling fees

*Message #1 Posted by **Matthias Wehrli** on 21 Nov 2003, 7:17 a.m.*

As you all know I very often deal with U.S: sellers and my experiences are very good. But now I have to tell you about a U.S. seller you have to take care (Neal M., yes I do write his name in here in this forum!): I got some HP-48 software from him last month. The shipping was $17 what is ok. But now read slowly: This seller demanded $18 for handling!!! I asked him if the parcel is golden but he answered me the following reasons:

1. "I calculate my handling fees to cover all my expenses, including fees imposed by ebay and Paypal." --> As I know ebay doesn´t allows to push away their feed to the bidder, expekt it is remarket in the auction. It was not.

2. "An additional source of expenses that the S/H covers is time to address bidders' questions, time involved in preparing the listing to look as it is supposed to, time to go to the post office to send it, etc." --> Since when do sellers calculate the time for answering questions and for listing up the auction in their handling fee? That´s very arrogant. I never asked the seller a question, so he as no right to add this fee!

I accept, that there is a fee for handling: the parcel and the padding is not free. But this is arround $5, and not $18. Also the words "Ask before bidding" does NOT allows sellers to do this!

Matthias

Re: Strange handling fees

*Message #2 Posted by **Tom (UK)** on 21 Nov 2003, 7:29 a.m.,*
in response to message #1 by Matthias Wehrli

I think he is pulling a fast one. You are quite right to say ebay does not allow sellers to pass on the listing fees to the buyer. As far as the time to put up the listing and answering questions goes, it's a nice try to get more money from you but you could say there are buyers fees for:

The time taken to ask the questions

Time in bidding on items

Time taken to read his and other listings

etc etc.

In any case fees over and above direct costs to the seller (like postage) should not be added unless listed in detail in the ebay listing.

PS ebay are missing out on their fees by this method of recoving costs outside the bid amount so they probably don't like this either...

PPS I've stopped using ebay because of people like this (and worse) and the fact that second hand (camera gear) in shops is the same price (or cheaper) than ebay and comes with a guarantee.

Re: Strange handling fees

*Message #3 Posted by **Thibaut** on 21 Nov 2003, 8:12 a.m.,*
in response to message #1 by Matthias Wehrli

Huuuuh... Matthias, I hope you received the pacs you purchased, before you flame me on the forum ;-)

Re: Strange handling fees

*Message #4 Posted by **CalcKidd** on 21 Nov 2003, 8:37 a.m.,*
in response to message #3 by Thibaut

Thibaut... Your shiping fee was $18...though I know it's more for shipping overseas.

Re: Strange handling fees

*Message #5 Posted by **thibaut.be** on 22 Nov 2003, 2:36 a.m.,*
in response to message #4 by CalcKidd

... yes, because I oblige my buyers to have shipped by registered mail.

The fees I ask for seem somehow higher because the € is quite expensive nowadays, about $ 1.2 for 1 €.

Re: Strange handling fees

*Message #6 Posted by **Massimo Gnerucci (Italy)** on 21 Nov 2003, 8:49 a.m.,*
in response to message #1 by Matthias Wehrli

This happens, once in a while.

Some of them go on counting how many minutes they spent at the Post Office queue, the unbearable amount of time they had to throw away compiling customs' papers, that they have a better use of their lifetime, etc.

I wonder why they sell on eBay then...

My last rip-off is going on right now: I predicted the amount to ship from USA to Italy, the reply was more than the doubled amount, when the box was delivered it was stamped for less than my first forecast.

Answers to my refund request? Go figure...

Use feedback if seller is unresponsive (but do this on the 90th day). I know: this is not the same as your money back...

Greetings,
Massimo

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49g+ at Walmart

*Message #1 Posted by **David Brunell** on 21 Nov 2003, 2:37 a.m.*

I see that Walmart.com now has the 49g+ for $149.98. Seems like a logical place to buy one: at the world's largest retailer of Chinese merchandise. Has anyone seen one in a store yet? I've been waiting for somewhere to buy one where I'd have no qualms about making multiple returns if necessary.

I hope those "Needle-sharp 3-D graphs" don't hurt my eyes too much. ;)

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Basic

*Message #1 Posted by **Pierre Brial** on 20 Nov 2003, 9:58 p.m.*

Hello,

I like to program in Basic, but as far as I know, there is no longer any calculator in production which use this language.

Is there a Basic emulator for Hp48/49 ?

All the Best

Pierre

Re: Basic

*Message #2 Posted by **Tom Sherman** on 20 Nov 2003, 10:34 p.m.,*
in response to message #1 by Pierre Brial

Pierre,

Dare I say it? The TI-83, TI-86, and TI-89 all use dialects of BASIC -- not quite as nice (in my opinion) as what you are probably used to, however. Also the HP-39G has a form of BASIC. Variable names on the TI-83 and HP-39G are limited to a single letter, which can be restricting.

Tom

Re: Basic

*Message #3 Posted by **Roberto Flores** on 20 Nov 2003, 11:23 p.m.,*
in response to message #1 by Pierre Brial

Hi Pierre...

Buy an old HP200LX, a CF card and adapter, load your favorite version of Basic for DOS (gwbasic, QBasic, Quick Basic) and you are all set up! You can even disable the built-in applications on the 200LX and have over 600K available for your DOS applications.

I found this much more convenient than running a DOS emulator on a PocketPC.

Regards;

Roberto

Re: Basic (HP-71B emulator for HP-48/49)

*Message #4 Posted by **HrastProgrammer** on 21 Nov 2003, 1:15 a.m.,*

in response to message #1 by Pierre Brial

Look at the http://hrastprogrammer.tripod.com/HP71X ...

Best regards.

Re: Basic (HP-71B emulator for HP-48/49)

*Message #5 Posted by **Veli-Pekka Nousiainen** on 21 Nov 2003, 4:32 a.m.,*
in response to message #4 by HrastProgrammer

Does it work in the 49g+ ? Can you send me (again - after the HD crash) all possible demo version of HP calcs (no TI) # VPN #

Re: Basic (HP-71B emulator for HP-48/49)

*Message #6 Posted by **HrastProgrammer** on 21 Nov 2003, 6:26 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

OK ...

Re: Basic

*Message #7 Posted by **Valentin Albillo** on 21 Nov 2003, 4:29 a.m.,*
in response to message #1 by Pierre Brial

Hi, Pierre:

Here in my country (Spain) there are still a number of BASIC language handhelds (calculators) available for sale at department stores, mainly CASIOs.

But if I were you, I'd try and get an HP-71B in eBay or using the Classified section in this very site. You can get decent ones for low prices, from $50 to $100 in most cases. That is cheaper than main street prices for CASIOs, and it goes without saying that HP-71B's BASIC is several orders or magnitude better than most any other handheld BASICs available now or ever.

For instance, you'll get full I/O and device control abilities, recursive subprograms with parameter passing and local variables (and environment), multi-line user-defined functions (also recursive and multi-parameter), passing parameters by value or reference, full file system in RAM with multiple, independent programs, and inmense expandability: external ROMs such as the Math ROM, the FORTH/Assembler ROM (write your own machine-language subprograms and extend the built-in BASIC language with new keywords created by yourself), the HP-41C/FORTH ROM, the Text Editor ROM, the HP-IL ROM, ... and RAM modules which can be used to extend internal RAM to in excess of 400 Kb, plus last but not least, a manual CALCulator mode which will show intermediate results, automatically open and close parentheses, and can backtrack any calculation (for instance, after 3+4*5 has partially evaluated first to 3+20, then to 23, you can still go back ("undo") to 3+20, then to 3+4*5). Most features from the above list can't be found in any other BASIC handheld, none really compares.

While at it, you should also consider getting its Math ROM, if possible. It extends the BASIC language with lots of new BASIC keywords implementing a great many math commands and extra functionality (complex numbers, matrix operations, root finding, integration, polynomial roots, Fourier transforms, gamma function, hyperbolics, base conversions, utility keywords, etc)

Best regards from V.

Edited: 21 Nov 2003, 4:34 a.m.

Re: Basic HP-71B

*Message #8 Posted by **Gordon** on 21 Nov 2003, 5:07 a.m.,*
in response to message #7 by Valentin Albillo

The HP-71B is a lovely machine and I have several, but beware that you are dependent on HP-IL for any I/O or peripherals, this can be a big problem unless you spend a lot on a a PC card (old PC required).
But if you don't mind sorting out the HP-IL then get one!

Re: Basic HP-71 EMU with link!

*Message #9 Posted by **Gordon** on 21 Nov 2003, 2:18 p.m.,*
in response to message #7 by Valentin Albillo

Ooops...sorry I forgot to put the link into my last message, here is the superb EMU71...

http://membres.lycos.fr/jeffcalc/emu71.html

Re: Basic

*Message #10 Posted by **Emmanuel, France** on 22 Nov 2003, 10:48 a.m.,*
in response to message #7 by Valentin Albillo

```
Right. I'm not a specialist, just an user.
I think Casio or Sharp approach is not so expensive.


A positive point:
For instance, my Sharp PC-1360s use a CE-126P or my Texas Instruments TI-74s a CI-7
connected to my sound card.
From PC you can play the file (.wav) you want and load it on your pocket.
You can record and transform the program into a file (.wav) too.
I tested a grabbed audio cdr with several tracks on PC and also on a portable cd player
linked to a pocket via its audio interface.
You can easily find help on Sharp, Casio or TI forums.
Some of those pockets has internal (dis)assembler and compiler.


A negative point:
Casio FX-850P, 880P or 890P (I use this previous one in 3 versions: FX-890P, Z1 and Z1-
GR)
need to  access to PC through FA-6 interface (serial and parallel) or Pocket Link 800
serial);
and Sharp PC-E500 via Transfile Link (serial).
Rare and not cheap interfaces.


However HP-71B alone is just a pocket with 17K RAM (Casio FX-880P has 32K, FX-890P
256K, ...).
But with an HP-IL module and an HP82973A HP-IL/PC interface, it becomes stupendous and
powerful.
I like both Casio/Sharp/Texas and HP pocket computers.
I don't say that I'm right, just I give my poor point of view.
```

Re: Basic HP-71 emu

*Message #11 Posted by **Gordon** on 21 Nov 2003, 9:28 a.m.,*
in response to message #1 by Pierre Brial

Try this excellent DOS HP-71 Emulator.
You need a ROM image.

Thank you...

*Message #12 Posted by **Pierre Brial** on 23 Nov 2003, 9:58 p.m.,*
in response to message #1 by Pierre Brial

... for all the answers.

I already own some Sharps, but I wondered if it was possible to use basic on modern calculators.

I know it is possible to emulate Basic on Psion or Pocket PC, but I prefer *Calculators*, I mean a device that I don't have to change batteries every day...

All the best

Pierre

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DEMO HP-95LX Demonstration

*Message #1 Posted by **Jeff** on 20 Nov 2003, 8:09 p.m.*

Does any one know any thing about this card for the HP-95LX? What kind of software is on it? What is something like this worth? Item # F1000-80039

Re: DEMO HP-95LX Demonstration

*Message #2 Posted by **Raymond Del Tondo** on 21 Nov 2003, 12:46 a.m.,*
in response to message #1 by Jeff

AFAIR it's an endless looping demo for use in store display, and like most of these demos, shows you the features of the LX...

It's a nice to have thing, but of no real use;-)

Raymond

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How long do i leave HP-75C charging?

*Message #1 Posted by **Adam** on 20 Nov 2003, 6:14 p.m.*

Does anyone know how long the batteries for the hp-75c must charge for?

Re: How long do i leave HP-75C charging?

*Message #2 Posted by **Tom Sherman** on 20 Nov 2003, 8:56 p.m.,*
in response to message #1 by Adam

For the original equipment NiCad cells, the manual says eight hours from complete discharge to full charge, but you won't damage the cells if you let them charge longer than that. If your cells have greater capacity (in milliamp hours) than the originals, then you would want to give them more than eight hours. If you have NiCad cells, let them discharge completely every once in a while.

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HP-IL mass storage - opinions needed

*Message #1 Posted by **Pavel Korensky** on 20 Nov 2003, 3:57 p.m.*

Hello,

during last couple of days (or, better to say, couple of nights), I coded the basic layer of the modern mass storage, which I am building from parts saved from old HP-IL cassette drive.

Situation is as follows. The microcontroller react to most HP-IL commands and succesfully mimic the HP-IL mass storage on the HP-IL bus (it is possible to format it with NEWM and write/read data for example with WRTP).

Of course, there are some minor bugs and everything is not yet implemented.

Mainly, the mass storage itself is not implemented (I am using the 64KB external RAM of the microcontroller for testing).

I already got the 64MB MMC card which will be used as a permanent mass storage. When I will start to write the software for MMC card, I must make one basic decision. To FAT or not to FAT, it is a question. :-)

Normally, the MMC cards are preformatted as a DOS/Win harddisk, with partition table and FAT system. This mean, that they are normally readable/writable by a PC, if the card reader is attached to the system (USB, CF adapter etc.)

For HP-IL compatible storage, it is possible to create 500 DOS files, each 128KB long and implement the LIF file system inside each file. The file without LIF file system will behave like empty, unformatted tape.

Or, there is a second option. Discard the original format of the MMC card and read/write/erase the card on block/sector base.

Each approach has its pros and cons.

FAT system Pros: "tapes" are normally readable and writable by PC and it should be simple to write some PC software which will decode the LIF file system inside those files.

FAT system Cons: the software in the microcontroller must be very complex, because it will be necessary to implement the whole FAT system inside the microcontroller. It is not a trivial task, especially for memory cards (a lot of caching is necessary, because it is not possible to simply rewrite the sector on the card here and there).

Sector use Pros: simple implementation, probably much faster access.

Sector use Cons: it is not possible to read/write card in PC without special driver. Someone must write the driver for the Windows and/or Linux.

Which implementation I should use ? Let's discuss about it.

Re: HP-IL mass storage - opinions needed

*Message #2 Posted by **Giuseppe Marullo** on 20 Nov 2003, 4:39 p.m.,*
in response to message #1 by Pavel Korensky

Pavel, I am more than interested into your project, not specifically the memory storage emulation but the hpil handling. I would like to build the HPIL sniffer using a pic too, I need to decide if interfacing with the hpil is feasible or not using a 16f877 and/or a 56f800.

Could you please contact me at giuseppe.marullo@iname.com ?

About FAT implementations, there is one for the PIC 18f + MMC/SD at:

http://www.compsys1.com/workbench/On_top_of_the_Bench/MMC_Project/mmc_project.html

They support reading and writing on a SD with FAT16 support. There is beta (working) code for pic+picbasic+SecuredDigital.

About the windows driver, you could add a USB support, using a 50 bucks development kit, it provides you usb->serial port or usb->parallel port emulation, with custom h/w identification and easy driver setup. This could be optional, normal users could use rs232 comms.

TIA,

Giuseppe Marullo

Re: HP-IL mass storage - opinions needed

*Message #3 Posted by **Pavel Korensky** on 20 Nov 2003, 4:59 p.m.,*
in response to message #2 by Giuseppe Marullo

I know this PIC page. But it is a commercial solution :-(

Also, I think (I did not saw their code) that the solution is mainly oriented for MMC/SD reading or writing (like many other solutions used for MP3 players or data loggers). This is totally different from mass storage approach, where the rewriting is the main problem.

The USB is a nice option, but it will not solve the driver problem. If I will use the block/sector approach, we will need the FILESYSTEM driver. Not the interface driver. Those are two different things. You need the interface driver for connection to the PC and filesystem driver for reading and writing files to the card.

If you need to build the HP-IL sniffer, it is easy. Just solder the IL chip to PIC to something like 16F876, set the IL chip to LA=1 TA=1 and every frame will initiate interrupt. Read frame, send it to PC (via UART) for decoding and echo it. Simply read R1 and R2, send them to UART, write R2 back.

And analyzer is finished. You just need to interpret the frames in some Visual Basic piece of code on PC side.

Or, you can do the decoding in microcontroller (this is the way I am doing it) and send the results as ASCII messages to UART and look at them via some terminal program.

I will send you the C routines via e-mail.

Re: HP-IL mass storage - opinions needed

*Message #4 Posted by **Giuseppe Marullo** on 20 Nov 2003, 5:42 p.m.,*
in response to message #3 by Pavel Korensky

Pavel, thank you for the answer, I will gladly take a look. If you have a schematic handy, please send it too.

>The USB is a nice option, but it will not solve the driver >problem. If I will use the block/sector approach, we will >need the FILESYSTEM driver. Not the interface driver. You could use the serial cable and/or USB option to talk to your mcu using a pc program (user program). Your mcu could then read/write implementing the correct abstraction level, so you could use the track/sector approach.

On the other hand, if you write the MMC directly from a pc, you could read it from the mcu itself (no pc connection), obviously you need to implement at least FAT16 handling.

Best of both worlds would be you using the FAT16 AND a cable to exchange data with the pc without removing the MMC.

Santa Claus time soon...

Giuseppe Marullo

Re: HP-IL mass storage - opinions needed

*Message #5 Posted by **Christoph Klug** on 21 Nov 2003, 3:11 a.m.,*
in response to message #1 by Pavel Korensky

Dear Pavel,

gratulation for your actual results about IL-mass storage. Please give me your post address, as I told you by email I have some parts for your project....

Please enlarge the 128Kbyte DOS file size (compatible to cass-tape) to the greater memory amount of the HP9114A IL-Disk-Drive (compatible to floppy). This would be nice for user of the HP41 EXT-IL module (this enlarges the address space of the HP41 system to use the complete floppy) and alos for HP71 and HP75 user. Better have some less enlarged files than 500 different virtual tapes.

Please implement two or some more IL-Massstorage units to your system. Like the IL CMT-RAM-DISK which emulates one, two or fore drives at same time. Than we able to copy files from one drive to an other and use different drives for special applications...

For the file format on the MMC card I would prefer the sector solution with much faster speed. Fast mass storage would be a really nice feature for handheld products like HP41 or HP71 and have a higher prijority than file exchange with PC applications.

Because on PC side we have EMU41 : This is able to transfer files from your IL-mass storage unit to the PC world, furthermore EMU41 includes a own virtal mass storage drive, and we able to exchange files between your real IL drive and the virtual drive of EMU41.

Generally your IL-Mass storage project expands´and enlarges the existing HP41 system, also the virtual EMU41 system, and your solution is also compatible to existing HEPAX or RAM-BOX and to future MLDL devices :-)))

Best wishes from Germany - Christoph Klug

Re: HP-IL mass storage - opinions needed

*Message #6 Posted by **Veli-Pekka Nousiainen** on 21 Nov 2003, 4:50 a.m.,*
in response to message #1 by Pavel Korensky

Definately FAT16 (possibly FAT32, too) for greater compatibility. You may easily read the card on PC=(Win,Linux) or Mac via a reader (or a direct port on a new laptop). Also you can use the same card in a iPAQ, 49g+, digicamera, Nokia phone (MMC only), etc... # VPN #

Re: HP-IL mass storage - opinions needed

*Message #7 Posted by **J-F Garnier** on 22 Nov 2003, 6:28 a.m.,*
in response to message #1 by Pavel Korensky

Hi Pavel,

I would prefer to have a FAT system and LIF images, do we could exchange LIF images with PC (there are LIF image on this site). LIF image size can be 640kb. Some HP41 modules (e.g. Ext-HPIL) manages the full 640kb space.

An idea would be that your system checks all files for LIF image format (look at 1st 256 bytes), and reflects all these files as mass storage units on HPIL (so non-LIF image files would be ignored on HPIL side). HPIL handles up to 30 devices, so 30*640kb would make 19Mb on line!

In my opinion, access speed is not an issue with HPIL (especially with HP41 as controller).

Jean-Francois

Re: HP-IL mass storage - opinions needed

*Message #8 Posted by **Pavel Korensky** on 22 Nov 2003, 1:12 p.m.,*
in response to message #7 by J-F Garnier

Jean-Francois,

it is a nice idea. Christoph also suggested that the device should emulate multiple mass-storage units.

I just need to figure out, how to do it. The IL chip is supposed to work only as one unit (there can be only one IL address in the chip register 4) and only messages that belongs to the device with this address or common messages will interrupt the processor. At least in my current design. Of course, it is possible to capture all messages (chip in analyzer mode) and decode the IL commands in software, but I am affraid that it will be slow.

Re: HP-IL mass storage - opinions needed

*Message #9 Posted by **J-F Garnier** on 23 Nov 2003, 4:45 a.m.,*
in response to message #8 by Pavel Korensky

This is exactly what I'm doing in Emu41 and Emu71: I catch all HP-IL messages (IL chip always in listen state), and manage the virtual devices by software. Speed is really not an issue with the HP41 as controler...

J-F

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HP49+. SD memory card

*Message #1 Posted by **Hugh Wong** on 20 Nov 2003, 3:41 p.m.*

I got a 16MB SD memory card for my HP49+. I can copy all the "alg" objects on to it but cannot copy library files for the HP49 nor HP49 files created by an application program and if it copies, the file manager will show error and cannot purge the object unless I purge from command line (such as:- :3: objectname purge). Besides, if I turn the HP49+ on and going into file manager, select SD, the hour glass comes up but will not read the SD Card, but if I slide the card out and re-insert it again, the HP49+ sees it right away.Any explanation of this problem ?

Hugh

Re: HP49+. SD memory card

*Message #2 Posted by **Veli-Pekka Nousiainen** on 20 Nov 2003, 3:47 p.m.,*
in response to message #1 by Hugh Wong

Have you upgraded to ROM 1.22? I also expect a ROM 1.24 before XMas from HP. I think that the SD will need adjustments even after that upgrade. FAT32 dupport would great! You may use PC card reader to store your libs (from PC) or you may store your { libs } inside a list. Note that while programs can be run directly from port 3, libraries must installed in a lower port to be active. Also note that some PC names like "49LIBS" need strings around the name for the calc to RCL from the card. # VPN #

Re: HP49+. SD memory card

*Message #3 Posted by **Hugh Wong** on 20 Nov 2003, 4:08 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Thanks, my version is hp49-c revision #1.20, can you give me the link of the websiet ?

Best Regards- Hugh

Re: HP49+. SD memory card

*Message #4 Posted by **Hugh Wong** on 20 Nov 2003, 6:41 p.m.,*
in response to message #1 by Hugh Wong

Thanks for the infomation, downloaded the rom update and installed it, very thing works, thanks.

Hugh

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Voyager Question for Valentin Albillo

*Message #1 Posted by **Brian Smith** on 20 Nov 2003, 10:09 a.m.*

Valentin, I enjoy reading your posts about the Voyager's. I was wondering if you had a website that contains some of the things you have written about them. I'd like to read more, but it gets frustrating searching through all the archives trying to find things.

Sounds like you own at least a few. I was wondering if you have encountered any problems with them? My 11c has been reliable so far and is in perfect condition, but it's almost 20 years old so I'm sure it's days are numbered. Thanks.

Edited: 20 Nov 2003, 12:01 p.m.

Re: Voyager Question for Valentin Albillo [LONG]

*Message #2 Posted by **Valentin Albillo** on 21 Nov 2003, 5:34 a.m.,*
in response to message #1 by Brian Smith

Hi, Brian:

Brian posted:

"Valentin, I enjoy reading your posts about the Voyager's."

Well, thank you very much, I'm glad you do.

"I was wondering if you had a website that contains some of the things you have written about them. I'd like to read more, but it gets frustrating searching through all the archives trying to find things."

I've been thinking about creating a web site to make publicly available the *hundreds* of programs, articles, quality photographs, historic-PPC-times letters, and tons and tons and tons of materials I do have, mainly related to HP (75%) and SHARP handhelds (25%). I would really love to share all of this with interested people, specially as most of it is absolutely unpublished elsewhere.

However, there are two serious problems to overcome: first of all, documenting and preparing all of this in web form will take a lot of effort, scanning, retyping, testing, etc. I don't have so much free time at the moment to do it. Nevertheless, a great deal of it is already in web form and could be published right now but then we're stuck with problem two, namely I don't have enough free web space to host all of this. My computer chess site has only 5 Mb or so free space available, and the rest of my sites are also smallish. I would need some kind people to freely host my materials, and that would take a sizable number of megabytes. So far I've had no offers, so this web project may take a long while to get the green light, if ever.

Meanwhile, you just might be interested in some of my articles [all of them do include a program, full documentation and examples] that are already available on the web, namely:

HP Voyager Series:

Long Live the HP-11C!

Long Live the HP-12C!

HP-12C Tried & Tricky Trigonometrics

HP-12C's Serendipitous Solver

Long Live the HP-15C!

HP-15C Nth-degree Polynomial Fitting

Long Live the Advantage ROM!

Other HP handhelds:

HP-41/42 Othello/Reversi Game

HP-67 Chess Playing Program

Packing Long Integers for the HP 71B (Assembler)

A short, HP-related tale, *in memoriam* of Sir Isaac Newton

Time Voyager

A chess-related program (TP source code included)

Mater: A simple Mate-Searching Program

There are also a sizable number of postings from mine to this very Forum and some of them do include routines and 'challenges' for Voyagers and other models. I don't have them available so you'll need to search the Archives if interested.

Sounds like you own at least a few. I was wondering if you have encountered any problems with them? My 11c has been reliable so far and is in perfect condition, but it's almost 20 years old so I'm sure it's days are numbered.

I own a respectable number of Voyagers, indeed (though not nearly as many as Patrick), from a couple HP-10C to five HP-15C. All of them I like in their own way. Were it easily available and relatively cheap, the HP-10C would be the absolutely ideal simple-yet-powerful RPN calculator for everyone to always have one at hand, from housewives to examinees.

As for problems, I've *never*, ever had even the slightest hint of a problem or malfunction with any of the Voyagers I've used. The best example is the first one I got, a USA-made HP-11C presented to me by my close friend Fernando del Rey 23+ years ago. I've used this machine endlessly, it's been with me while I was with the Foreign Legion at the Sahara Desert, it's stood all kinds of rough conditions, yet not only does it work flawlessly, but it even looks like new ! And only 3 battery changes in those 23+ years, the third set still going strong ! :-)

Your 11C has its days numbered, but everyone and everything does, from the Universe to the humblest bacteria. I'd bet that 10-15 years from now your 11C will be absolutely fine and dandy, if properly taken care of as I'm sure you do.

Best regards from V.

Re: Voyager Question for Valentin Albillo [LONG]

*Message #3 Posted by **Veli-Pekka Nousiainen** on 21 Nov 2003, 6:16 a.m.,*
in response to message #2 by Valentin Albillo

Valentin Albillo wrote: "... five HP-15C."

Is by any change a slight possibility for me to get one. You may answer in a private e-mail - just DROP_NOSPAM. # VPN #

Re: Voyager Question for Valentin Albillo [LONG]

*Message #4 Posted by **Valentin Albillo** on 21 Nov 2003, 6:31 a.m.,*
in response to message #3 by Veli-Pekka Nousiainen

Sorry, VPN, but I don't intend to sell any of my handhelds, much less the Voyagers. I'm too attached to them ... :-)

Anyway, thanks for the offering (and interest) and

Best regards from V.

Re: Voyager Question for Valentin Albillo [LONG]

*Message #5 Posted by **Veli-Pekka Nousiainen** on 21 Nov 2003, 6:58 a.m.,*
in response to message #4 by Valentin Albillo

What is your exact address and do you have a burglar alarm? (-; PS: Is there anyone to donate a HP-15C to me? # VPN #

What about your 12c game? - n/t

*Message #6 Posted by **Gene** on 21 Nov 2003, 7:51 a.m.,*
in response to message #2 by Valentin Albillo

n/t

Re: What about your 12c game? - n/t

*Message #7 Posted by **Valentin Albillo** on 21 Nov 2003, 8:09 a.m.,*
in response to message #6 by Gene

Hi, Gene

If you mean my "Bridge-It" game program for the HP-12C, it's included in the "Long Live the HP-12C!" article mentioned (and linked) in my original post.

Else, please specify what game are you referring to.

Thanks and best regards from V.

Re: Voyager Question for Valentin Albillo [LONG]

*Message #8 Posted by **Rafael Millán** on 21 Nov 2003, 8:47 a.m.,*
in response to message #2 by Valentin Albillo

Hello Valentín:

We met in a few meetings of Madrid PPC members, about twenty years ago. You may even remember.

> Quote:
>
> *I would need some kind people to freely host my materials, and that would take a sizable number of megabytes.*

I have 20-25 MB of spare web space that perhaps you could use. You can contact me at fulano@hispavista.com. This address is already flooded with spam, but I will pick out your reply.

Re: Voyager Question for Valentin Albillo [LONG]

*Message #9 Posted by **Valentin Albillo** on 21 Nov 2003, 9:21 a.m.,*
in response to message #8 by Rafael Millán

Hello, Rafael:

Thanks a lot for your kind and generous offer, but the problem is 20-25 Mb is probably insufficient to hold the main parts together.

I could, of course, distribute the load between several sites, but that would generate an inordinate amount of extra bookkeeping and administration work for me, keeping track of what is where, plus it would be a mess for visitors having to deal with a number of quite different links to access the various materials. The graphic materials in particular (scans and photographs) take the lion's share.

So, for the moment being, I prefer to try and find a single site with enough room (100 Mb or so, initially) before commiting to splitting it all amongst smaller sites. Anyway, if I can't find any such hosting within a reasonable time lapse (several months), I might as well accept your offer if it still holds by then.

Again, thanks a lot and best regards from V.

Re: Voyager Question for Valentin Albillo [LONG]

*Message #10 Posted by **Rafael Millán** on 21 Nov 2003, 12:07 p.m.,*
in response to message #9 by Valentin Albillo

Mmm, do you think those 20-25 MB plus 50 MB of ftp space would suffice? 20 MB for html pages (mainly text and light images) is plenty of space, if heavier items were in a linked ftp directory.

Re: Voyager Question for Valentin Albillo [LONG]

*Message #11 Posted by **Valentin Albillo** on 22 Nov 2003, 8:19 p.m.,*
in response to message #10 by Rafael Millán

Hi, Rafael:

Thanks again, Rafael, but I'd prefer to have everything available at a single, web site. I've dealt with ftp servers in the recent past to distribute some files related to my other hobbies, and it was always an administrative chore, plus many users did have problems with proxies, firewalls, and the like, so I'm somewhat wary of using them. Classifying and converting all materials to web format is already too much work, so I am reluctant of anything that could introduce extra, administrative or maintenance work.

Perhaps I'll be able to get a large account (100 Mb) eventually, next year, and so most of it will see the light.

Anyway, thank you very much for your kind offering and

Best regards from V.

Re: Voyager Question for Valentin Albillo [LONG]

*Message #12 Posted by **RMillán** on 24 Nov 2003, 5:28 p.m.,*
in response to message #11 by Valentin Albillo

Ok, I didn't think it was difficult to use the ftp space from web pages, and I suddenly remembered that I have those 50 MB sleeping from when I joined my current ISP...

Anyway, don't forget to announce when your site is finally up.

Saludos, RM.

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TI-59 ROM

*Message #1 Posted by **HrastProgrammer** on 20 Nov 2003, 7:48 a.m.*

I know, I know, this is an HP forum but, regarding the fact that there haven't been very much use of some TI forums so far, I am posting this question to a forum which is full of experienced users with great knowledge.

So, I decided to (try to) make an TI-59 emulator, either for PC or HP-48/49. At first, it seems like an impossible task due to the lack of information but, during the time, things were getting a little better. I found some info, either from the Web and some other sources, including the patent #4153937 about TI-59. This patent even includes the whole ROM dump of TMC0582/0583 and TMC0571 ROM chips. So, what is the problem? I downloaded this patent from the US Patent Office in TIFF format. I decided to retype the ROM contents into the text file for further manipulation but I am unable to do this correctly because image quality is not very good and some digits aren't recognizeable. So, it is pretty useless :-(

I am wondering if someone has a better copy or knows some other way for obtaining the ROM dump? I have a real TI-59 but, AFAIK, it isn't possible to dump the ROM contents without expensive equipment.

Best regards.

P.S. If this isn't appropriate for this forum then delete a post with 12345 ...

Re: TI-59 ROM

*Message #2 Posted by **Michel Beaulieu** on 20 Nov 2003, 8:01 a.m.,*
in response to message #1 by HrastProgrammer

There are already some emulators available for the TI-59 series. Here is where to find some and the package probably contain the ROM you are looking for :

http://www.gemtree.com/prog_all.htm

and there :

http://n3times.com/vertigo/ (java emulator with printer !)

and there :

http://www.zanchetta.net/pocketPC/ (for pocket PC!)

Michel

Edited: 20 Nov 2003, 8:06 a.m.

Re: TI-59 ROM

*Message #3 Posted by **HrastProgrammer** on 20 Nov 2003, 9:03 a.m.,*
in response to message #2 by Michel Beaulieu

I know them - they aren't emulators but simulators because they don't emulate the TMC0501 CPU and aren't based on the TI-59 ROM image ...

Re: TI-59 ROM

*Message #4 Posted by **Joerg Woerner** on 20 Nov 2003, 9:39 a.m.,*
in response to message #1 by HrastProgrammer

Pretty cool ;-))

The TMC0501 was developed before the TI-59, it was used already with the SR-50.

I maintain a list of the calculator relevant TI patents here: http://www.datamath.org/Patents.htm

You should start with the US3900722, it explains the 13-bit Instruction word and the CPU-internal decoding PLA's.

All products with the TMC0501 are featured here: http://www.datamath.org/Story/TI-59_Birthday.htm

And - if necessary - schematics of the SR-50 and TI-59 are available...

Regards, Joerg

Re: TI-59 ROM

*Message #5 Posted by **HrastProgrammer** on 20 Nov 2003, 12:32 p.m.,*
in response to message #4 by Joerg Woerner

Hello Joerg,

I have schematics and TI-59 service manual, as well as US3900722 patent so TMC0501 instruction set is pretty clear to me, although there are some instructions which I don't understand at the moment but this is not the major problem. The problem is low quality of ROM dump so it cannot be used for retyping. Do you have a copy of US4153937 patent? If you do, could you see if you can recognize all characters in the ROM dump ...

Best regards.

Re: TI-59 ROM

*Message #6 Posted by **Dave** on 20 Nov 2003, 2:15 p.m.,*
in response to message #5 by HrastProgrammer

I downloaded a PDF copy of the patent. The PDF image of the ROM dump is poor quality for an OCR. If you need a copy of this PDF I can email it to you, but you probably have the same copy...

Dave

Re: TI-59 ROM (dumping)

*Message #7 Posted by **Bill Wiese** on 20 Nov 2003, 4:51 p.m.,*
in response to message #5 by HrastProgrammer

Hi Hrast!

Keep up the good work!

Do you have a link to the patent PDF??? Love to see it, learn more about the system & CPU architecture...

I've always been interested in the inner foibles of the TI5X calculators. Had one (still do somewhere) when I was in high school til I got my 41C. I was aware of some TI PPC Notes (Maurice Swinnen?? if I recall, ran it) and heard of the mysterious HIR registers and that SBR 239 w/Master Lib. Module did some funky stuff - speedups, etc. I think the TIs had more 'dark secrets' than HPs - perhaps because the HP user community was maybe more outgoing/communicative and had some friendly relations w/HP.

I think OCR extraction from a poorly printed copy may be very problematic to get a running system even if you started w/a 100% perfect emulator. Even the HP emulators whose ROMs were "patent-extracted" (35/45, maybe 41) got a few things wrong until cleaned up or an electronic extraction (or Peter Monta's "photo extraction"!) was performed.

It might be best to electrically extract data from the ROMs if they are separate/external from the CPU. I vaguely recall that the external ROMs are some kind of serial ROMs.

I've dumped various serial ROMs (Microwire and SPI) in the past using a DOS PC running some C code and talking thru the parallel LPT port for I/O. For quick & dirty one-time thing, writing DOS code for PC will avoid issues w/Windows low-level port access, timing, etc. If clock times are not critical this kinda quick hack might work nicely.

Given possible NMOS/PMOS technologies here, you might need some isolation, level converters, non-5VDC power supply, etc. At least you have some indication of what a ROM dump SHOULD look like: at least you're not totally in the dark, that's a big help to know that you're not getting garbage!

BTW: Does the TMC0501 have any internal ROM inside? Or is it a straight CPU? Hope it's the latter ;)

It's been awhile but IIRC, the TI calc CPUs apparently had some PLA (programmed logic array) areas not only for LED state use but also used for instruction decode/microcode - apparently this allowed instruction set optimization, fitting the right instructions into a limited opcode space. So having generic TMC0501 info might not help the specific TI58 case - but perhaps the ROM dump in the patent would reveal these features.

I always wondered if the external ROM module (i.e, where Master Library Module goes) is capable of running machine code or if it's just user code.

Bill Wiese San Jose CA

Re: TI-59 ROM (dumping)

*Message #8 Posted by **HrastProgrammer** on 21 Nov 2003, 1:56 a.m.,*
in response to message #7 by Bill Wiese

Hi Bill,

Yes I have all those patents and they are very useful. You can download most copies of TI PPC Notes from http://www.rskey.org/tippc.htm and the list is growing ... thaaaaaaaaaaanks Gene :-) There you will find everything about HIR registers, firmware, fast mode, graphics mode, hexadecimal codes and other things.

I tried ECR (Eye-Character Recognition) from the printed copy of the patent but this was unsuccessful for many characters. As you said, it is enough to have only one bad byte to make an emulator not working.

TMC0501 is a pure CPU without the ROM inside. TI-59 ROMs consisted of 4 parts:

```
TMC0582: First 2.5KWord ROM (addresses #0000..#09FF)
TMC0583: Second 2.5KWord ROM (addresses #0A00..#0FFF)
TMC0571: Last 1KWord ROM (addresses #1000..#13FF)
```

TI ROM-Word consists of 13-bits. These ROMs are soldered on the PCB as a separate chips.

There is also an TMC0541 ROM which contains 5000 bytes (not words). Funny about this ROM is that it is BCD-addressed e.g. the CPU is addressing it via an 4-digit BCD counter register (#0000..#4999). It is plugged into a module port. AFAIK, it is not possible to run machine code from TMC0541 (bytes vs. words).

Both TMC0582 and 0583 are further containing 8 eight-byte RAM registers and 16 8-byte ROM constants each (part of it containing user-code for statistical and other functions and the other are constants used in trigonometrical and logarithmical operations). I think that TI refers them as SCOMs (Scanning ROMs) in the patents. They have also some additional functions, like driving the display and scanning the keyboard.

All those ROMs are addressed serialy. I have some documentation and timing diagrams if you are interested. A few diagrams can be found on Datamath http://www.datamath.org/Sci/WEDGE/TI-59.htm as well ... thanks Joerg (please correct any mistakes which I eventually made in the above text).

Best regards.

Re: TI-59 ROM (dumping)

*Message #9 Posted by **Bill Wiese** on 21 Nov 2003, 2:10 p.m.,*
in response to message #8 by HrastProgrammer

Hrast...

Thanks for the links - didn't know some of that was hiding on Joerg's TI Datamath site. And thanks esp for the links to the TI PPC Notes! Hoorah... brings back memories of the "good ole days"... ;)

Weird that the addressing of the external ROM modules was in BCD format - perhaps that allowed for less (faster?) parsing/ processing of arguments to GTO nnn and SBR nnn ?

Character recognition: if you have access to several (or a wide variety of scanners) and OCR software packages (using different OCR engines - sometimes several packages use the same OCR core engine) scan the printed ROM dump using each of these. Try different page orientations (slight tilt might greatly affect accuracy). Once you get a collection of scans converted to ASCII text use a DIFF utility to point out & help resolve differences. Still no guarantee, but might be a help.

Any checksums? ;)

Regards, Bill Wiese San Jose CA

The hope is that...

*Message #10 Posted by **Gene** on 21 Nov 2003, 9:19 p.m.,*
in response to message #9 by Bill Wiese

We will soon have a complete set of the TI PPC Notes in PDF form to go along with the HP PPC Journal.

There are also plans to scan about 90-100 TI Library programs and make them available.

I'm grateful to those doing the scanning and providing the help. It has been one of my "dreams" to make sure that the TI side of our "friendly competition" didn't get lost into history.

Enjoy. Gene

Re: TI-59 ROM (dumping)

*Message #11 Posted by **HrastProgrammer** on 22 Nov 2003, 2:22 a.m.,*
in response to message #9 by Bill Wiese

Hi Bill,

I don't think that any kind of scanners and OCR can recover the ROM dump from the patent. I would be ready to retype it by hand from the copy but the more I am looking at it, the more I am convinced that it is not a problem of just a bad copy. I think that the problem lies in the line printer which has been used at TI for printing a dump. Maybe this was done intentionally ...

Greetings.

Re: TI-59 ROM

*Message #12 Posted by **Joerg Woerner** on 21 Nov 2003, 2:04 a.m.,*
in response to message #5 by HrastProgrammer

Same source - same quality...

Joerg

Re: TI-59 ROM

*Message #13 Posted by **David Smith** on 22 Nov 2003, 1:03 p.m.,*
in response to message #5 by HrastProgrammer

Right after the TI-59 came out, I was hired to reverse engineer its module interface. Built a custom logic analyzer board for a Southwest Tech 6800 machine. Never found out what they wanted the info for or what they did with it...

Re: TI-59 ROM

*Message #14 Posted by **Bill Wiese** on 22 Nov 2003, 2:37 p.m.,*
in response to message #13 by David Smith

David Smith wrote:

> Quote:
>
> Right after the TI-59 came out, I was hired to reverse engineer its module interface. Built a custom logic analyzer board for a Southwest Tech 6800 machine. Never found out what they wanted the info for or what they did with it...

Ah, Southwest Tech Products (SWTPC): I recall they offered a 'math coprocessor' board for their computers. The board used a Nat'l Semiconductor MM57109, which was a calculator chip with a bus interface. It was a COPS400 variant. Kinda funny to take a capable 8-bit CPU and offload the floating-pt/transcendental work to a less efficient 4 bitter.

Methinks this was an encapsulated "black box" hardware solution to the problem of not many folks being able to write floating-point/transcendental code.

Wonder if they were trying to "drive" the '57109 (with some support code) with TI module code??

BTW: if Nat'l didn't change their algorithms on the '57109 from what they used on their other sci calculators, the accuracy is not too impressive ;) My old Nat'l "Mathemetician" calc (an RPN calc w/3 (?) level stack) wasn't too great: 4.5digit log & trig accuracy...

Bill Wiese

San Jose CA

Re: TI-59 ROM

*Message #15 Posted by **David Smith** on 23 Nov 2003, 3:07 p.m.,*
in response to message #14 by Bill Wiese

The first computer that I ever designed was a calculator chip cobbled onto an original TV Typewriter. It could run 16 line programs (but 31 keypresses per line). Branching was controlled by the sign skipping a line.

HP98xx ROM

*Message #16 Posted by **Achim** on 21 Nov 2003, 11:15 a.m.,*
in response to message #1 by HrastProgrammer

Since long I'm thinking about a 9810 emulator, but stumbled over the same problem: how to get the ROM contents. The dumps in the patents aren't OCR-able because of the same reason. Is there any chance to get the ROM contents of the 9800 series digitally?

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HP-65 (67) clutch fix-- and a thank you.

*Message #1 Posted by **Michael Meyer** on 19 Nov 2003, 11:09 p.m.*

Hi all!

I just got my first HP-65. After washing the non-electronics in the sink and repairing the card reader roller.... the clutch washer disintegrated.

I looked around the workshop and spied a sprayer tube from a WD-40 can. Sure enough-- right inside and outside diameter!! A little piece of it with some glue, and it's as good as new.

Bummer. The card reader didn't work. I realized that it was reading, but not writing cards. Then I remembered the leaf switches. Cleaned and adjusted... it works perfectly. A quick battery rebuild, and the calculator is like new again!!

Thanks to the Forum for all the advice over the years. It was enough to get this beautiful baby working again!!!

I sure do love those RED LLLLEEEDDDD's!!!!!

RTN2RPN Michael

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HP-75 CMT-FOXCONN EPROM

*Message #1 Posted by **Jeff** on 19 Nov 2003, 8:44 p.m.*

Does any one know any information regarding this EPROM? Please let me know. Jeff

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Burning an HP-75 EPROM

*Message #1 Posted by **Jeff** on 19 Nov 2003, 8:21 p.m.*

Does anyone have any experience to burn a EPROM for the HP-75? Please let me know. Jeff

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Milwaukee Area HP Users?

*Message #1 Posted by **Jeff** on 19 Nov 2003, 6:21 p.m.*

Are ther any HP users out there in the Milwaukee area that might want to meet every other month as a users group? Please let me know, Jeff

Re: Milwaukee Area HP Users?

*Message #2 Posted by **Larry Corrado, USA (WI)** on 20 Nov 2003, 7:02 a.m.,*
in response to message #1 by Jeff

Jeff:

Yes, I'd be interested. I live in Manitowoc, a bit north of Milwaukee, but that's OK. Please contact me directly at:

lcorrado <at> uwc <dot> edu

Larry

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HP-65 and HP-41 magnetic cards

*Message #1 Posted by **Emmanuel, France** on 19 Nov 2003, 3:10 p.m.*

```
Hi there,
Do HP-41 magnetic cards fit to HP-65 card reader?
Thanks.
```

Re: HP-65 and HP-41 magnetic cards

*Message #2 Posted by **David Ramsey** on 19 Nov 2003, 4:16 p.m.,*
in response to message #1 by Emmanuel, France

Yes, magnetic cards for the 65, 67, 97, and HP-41 card reader are all interchangeable.

Re: HP-65 and HP-41 magnetic cards

*Message #3 Posted by **Katie** on 19 Nov 2003, 5:57 p.m.,*
in response to message #2 by David Ramsey

With the exception that the original HP-65 cards are setup for one-side use only, as far as labeling and corner-cut write protection go.

Re: HP-65 and HP-41 magnetic cards

*Message #4 Posted by **Ernie Malaga** on 19 Nov 2003, 10:29 p.m.,*
in response to message #1 by Emmanuel, France

Blank cards, yes. Recorded cards, no. The recording formats used by the 65 and 41 are different.

-Ernie

Re: HP-65 and HP-41 magnetic cards

*Message #5 Posted by **Emmanuel, France** on 20 Nov 2003, 10:54 a.m.,*
in response to message #4 by Ernie Malaga

Thanks!

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Giving an HP48GX

*Message #1 Posted by **Frederic** on 19 Nov 2003, 9:37 a.m.*

One of my college at office want to give me his HP48GX 128K RAM !!!! What can I do whis this monster ????

Any idea ???

Fred

Re: Giving an HP48GX

*Message #2 Posted by **Arnaud Amiel** on 19 Nov 2003, 10:04 a.m.,*
in response to message #1 by Frederic

About anything, remote control, game boy, PIM, polyphonic ringtones ... See http://www.hpcalc.org Oh and it is still one of the best calcs around. Grab it and start enjoying

Arnaud

Re: Giving an HP48GX

*Message #3 Posted by **Marx Pio** on 19 Nov 2003, 10:35 a.m.,*
in response to message #2 by Arnaud Amiel

I thought that "this monster" was your colleague. How can one give away an HP48GX?. ;^)

Re: Giving an HP48GX

*Message #4 Posted by **Frederic** on 19 Nov 2003, 11:03 a.m.,*
in response to message #3 by Marx Pio

Sure, that the reason why i said to him :

"Ok, I take your calculator, but only for a loan .... only for a loan for a long time ...."

I would like to show him the power of this calculator, and after to give it to him again. But I am only used to use a HP41C and a HP32SII.

And the power of the HP48GX is too for me !!!!

I know that he bought it a few years ago and didn't use it a lot. He knows that I enjoy using old HP calculators, but this one is maybe too recent ....

Re: Giving an HP48GX

*Message #5 Posted by **Brandon** on 19 Nov 2003, 7:57 p.m.,*
in response to message #3 by Marx Pio

I gave mine away (actually, loaned indefinitely). For a college math student, the 49g series is MUCH better... symbolic integration, exact answers and superior speeds amongst other improvements come in handy. True it doesn't have the huge, oddly placed enter key that you guys live for, but that and the crappier keyboard don't really bother me all that much. I guess I'm too young to appreciate the 48gx (or any calculator that doesn't do all the work for me ;)

Re: Giving an HP48GX

*Message #6 Posted by **R Lion (España)** on 20 Nov 2003, 2:44 a.m.,*
in response to message #5 by Brandon

> Quote:
>
> For a college math student, the 49g series is MUCH better... symbolic integration, exact answers and superior speeds amongst other improvements come in handy

exactly the same that 48GX+Metakernel+Erable+Alg48
The 48GX does all the work! ;-)

Re: Giving an HP48GX

*Message #7 Posted by **Veli-Pekka Nousiainen** on 20 Nov 2003, 5:51 a.m.,*
in response to message #6 by R Lion (España)

Quote:---------- For a college math student, the 49g series is MUCH better... symbolic integration, exact answers and superior speedsamongstotherimprovementscomein handy----------

exactly the same that 48GX+Metakernel+Erable+Alg48 The 48GX does all the work! ;-)

VPN replies to the above text: no, the 49G is not just the 48GX+MK+Erable+ALG48, since A) the programs are newer versions specially fitted to the 49G, which has them seamlessly *integrated* into the OS. B) There is that big non-volatile User Flash and the "ROM" can be upgraded, too. # VPN #

Re: Giving an HP48GX

*Message #8 Posted by **Victor Koechli** on 19 Nov 2003, 11:06 a.m.,*
in response to message #2 by Arnaud Amiel

NO! NO! NOOO!

Don't even touch it! It's a monster, as you said! Put it into a packet and send it to me. Hurry! You have *NO* idea what this thing can do to you!

Veeery concerned, Victor

Re: Giving an HP48GX

*Message #9 Posted by **R Lion (España)** on 19 Nov 2003, 11:41 a.m.,*
in response to message #8 by Victor Koechli

Victor took the words out of my mouth: "send it to ME!" :-)
Enjoy it, Frederic

Regrads
Raul L

Re: Giving an HP48GX

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 19 Nov 2003, 1:54 p.m.,*
in response to message #9 by R Lion (España)

And sometimes others are taken as lunatics... <8*O

Best regards... Luiz (Brazil)

P.S. - If you are not convinced at all, I can also be elected as the HP48GX, 128KRAM guardian... for the records, of course :)

Re: Giving an HP48GX

*Message #11 Posted by **DougT** on 19 Nov 2003, 11:46 a.m.,*
in response to message #2 by Arnaud Amiel

I'd have to concur with Arnaud - the capabilities of the HP-48GX are amazing. I bought one back in the spring, because it was looking like it would be the last decent RPN/RPL calculator out of HP. It was initially overwhelming, compared to my HP-25, HP-15, and HP-32SII. But stick with it, and before you know it you'll be loading libraries, adding RAM cards, etc. Much to my wife's chagrin, I use mine as a PDA (see hpcalc.org). I don't need no stinkin' stylus!

Re: Giving an HP48GX

*Message #12 Posted by **Wayne Brown** on 19 Nov 2003, 3:38 p.m.,*
in response to message #11 by DougT

> Quote:
>
> Much to my wife's chagrin, I use mine as a PDA

So, I'm *not* the only one whose wife objects to her husband carrying around a 48GX everywhere! I use mine as an appointment calendar, address book, note pad, and for keeping track of the due dates of library books I've checked out... Oh, yes, I also perform calculations on it every now and then. :-)

Re: Giving an HP48GX

*Message #13 Posted by **Brandon** on 19 Nov 2003, 11:12 p.m.,*
in response to message #12 by Wayne Brown

I do the same with my 49g+ (and did with older models); in fact, I cut slits into the case so I can carry it on my belt... it's a great organizer, and I never know when I'll need to play some freecell

HP48GX as a PIM

*Message #14 Posted by **Chris(FLA)** on 20 Nov 2003, 11:04 a.m.,*
in response to message #12 by Wayne Brown

> Quote:

> Much to my wife's chagrin, I use mine as a PDA
>
> Quote:
>
> So, I'm not the only one whose wife objects to her husband carrying around a 48GX everywhere!

I actually bought the PIM card for my 48GX. Thinking about it now I really don't know why, As you can load software that does the same thing. The card was also quite expensive for what it does. I guess my thought was that with the card I wouldn't use any of the RAM for the PIM program.

Chris

12345

Re: HP48GX as a PIM

*Message #15 Posted by **Veli-Pekka Nousiainen** on 20 Nov 2003, 11:11 a.m.,*
in response to message #14 by Chris(FLA)

It's better to buy a RAM card and then load a program from the www.hpcalc.org than buy a PIM card. # VPN #

Re: HP48GX as a PIM

*Message #16 Posted by **Masao Kinoshita** on 20 Nov 2003, 11:56 a.m.,*
in response to message #15 by Veli-Pekka Nousiainen

AFAIK, the RAM for Sparcom's PIM software needs to be all "merged" memory, i.e., not bank switched. 256 KB is not that much memory! Also, the sorting routine for the contact directory seems to be quite inefficient memory-wise. IIRC, the manual says it requires as much free memory as the directory takes for the alphabetical sorting to take place correctly. My memo section, which sorts also, crashed once and now I keep most of my Notes in the native tree as "notes" programs.

FYI, the calender portion was basically bundled onto the HP 48SX serial interface diskette.

I'm not recommending this PIM to new users for serious use today; but back over a decade ago, it was quite impressive. Much better than the HP 41 Time Module, which of course goes back another ten years and was itself quite impressive in its heyday. :-)

Re: HP48GX as a PIM

*Message #17 Posted by **Veli-Pekka Nousiainen** on 20 Nov 2003, 3:50 p.m.,*
in response to message #16 by Masao Kinoshita

Why use Sparcom PIM while you have all these for free:
http://www.hpcalc.org/hp48/apps/pims/

VPN

Re: HP48GX as a PIM

*Message #18 Posted by **James M. Prange** on 20 Nov 2003, 4:25 p.m.,*

in response to message #17 by Veli-Pekka Nousiainen

I expect that that goes back to before there was an hpcalc.org. Reading a book, the Goodies Disks (via snail mail) from EduCalc, a long-distance by-the-minute phone call to a BBS, Do-It-Myself, or buying a floppy disk or ROM card was how I got programs. Considering the prices for "Genuine HP" RAM cards, some of the "Write-Once ROM" cards didn't look so bad, although I much preferred getting an application on a floppy disk, and the Do-It-Myself method is always a lot more satisfying (at least when I can stretch my expertise that far).

Regards,
James

Re: HP48GX as a PIM

*Message #19 Posted by **Chris(FLA)** on 20 Nov 2003, 7:33 p.m.,*
in response to message #18 by James M. Prange

> Quote:
>
> Considering the prices for "Genuine HP" RAM cards, some of the "Write-Once ROM" cards didn't look so bad

Exactly the reason I got the PIM card. HP RAM was wayyyy expensive and using up the internal RAM for a PIM was not what I wanted to do.

I do now regret buying the card.

As soon as I have some HP stuff cash available I will pick up a Klotz card and exchange that with the PIM and then download a PIM from hpcalc.org. I have already looked at them.

Chris

12345

Re: HP48GX as a PIM

*Message #20 Posted by **James M. Prange** on 22 Nov 2003, 5:13 a.m.,*
in response to message #19 by Chris(FLA)

Yes, the RAM cards were very expensive, but I bought the Equation Library ROM card and a 128KB RAM card anyway. Having done that, I'm very reluctant to sacrifice a slot for an application on a ROM card. After all, I expect that the applications on most ROM cards don't take up anywhere near the whole 128KB, so I think it better to put any applications on the RAM card, and, if necessary, purge what I'm not using to install something else from the PC.

With the 49g+, I can now have about 3 times as much on my SD card as I could have on my PC's HD drive back when I first got the 48SX. Is it possible that I'll ever run out of room on the 128MB SD card? But then too, I wondered the same thing about that humongous 40MB HD drive back then. But at least I'll never have to try to fit Microsoft bloatware on the SD card, so I guess it should be enough for a long time to come.

Regards,
James

Edited: 22 Nov 2003, 5:17 a.m.

Re: HP48GX as a PIM

*Message #21 Posted by **Chris(FLA)** on 20 Nov 2003, 12:45 p.m.,*
in response to message #15 by Veli-Pekka Nousiainen

> Quote:
>
> It's better to buy a RAM card and then load a program from the www.hpcalc.org than buy a PIM card.

At the time the only RAM cards I knew about were from HP. We all know what they cost(ouch).

I didn't know about the Klotz RAM cards. I will most likely get a 1 meg card from them and then just....I don't know what I will do with the PIM card. Throw it in my old hardware box I guess.

Chris

12345

Re: HP48GX as a PIM

*Message #22 Posted by **Veli-Pekka Nousiainen** on 20 Nov 2003, 3:43 p.m.,*
in response to message #21 by Chris(FLA)

Well I could examine it (and later pass it on to somebody else in Finland.) # VPN # To e-mail me directly DROP_NOSPAM.

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manual

*Message #1 Posted by **Sanjeev p** on 19 Nov 2003, 12:29 a.m.*

hello sir i got one hp 21s calculator and lost manual so how can i get the manual? and also i want current price of that thanking u

Re: manual (hp21S)

*Message #2 Posted by **Charlie O.** on 20 Nov 2003, 9:42 a.m.,*
in response to message #1 by Sanjeev p

I bought a 21S last night and seached the web and this site and found very little info. A couple of manuals were on ebay that seem to sell for more than the calc. Why is isn't there more coverage? Just because it's algebraic?

I managed to get it to power up using the info in my 32sii manual and ran the tests using the same keys.

I bought it for the case and battery door but it is too nice to cannablize.

The 21S isn't even included in the museum CD.

ceo

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Repair of HP-48G

*Message #1 Posted by **Rob** on 18 Nov 2003, 10:33 p.m.*

I have a 1993 HP-48G with a bad 1 key. I have another calculator with a bad screen that I was planning to use as a donor, but I can't figure out how to take the thing apartment without some form of damage. Can anybody give me some insite on how to open the body of the calculator with out tearing it apart?

Thanks a ton

Rob

Re: Repair of HP-48G

*Message #2 Posted by **Jeff** on 19 Nov 2003, 8:06 a.m.,*
in response to message #1 by Rob

Try this, or this. Not a pretty procedure, but apparently can be done.

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Help repairing a Digital Cassette Tape

*Message #1 Posted by **Philip** on 18 Nov 2003, 10:27 p.m.*

I have Digital Cassette Tape to be used in the 82161A Tape Drive that appears to be broken. I can't tell if the tape came apart at the end or somewhere in the middle. Does anyone have suggestions on how to repair or splice these things?

Thanks

Re: Help repairing a Digital Cassette Tape

*Message #2 Posted by **Victor Koechli** on 19 Nov 2003, 2:09 a.m.,*
in response to message #1 by Philip

Hmmm, I've never had to repair one (so far). I can't think of any other means than splicing the tape, just like an ordinary audio cassette (you know, that rectangular pre-CD-thing that could not even handle MP3 ;-))). I can think of two problems:

- If the tape is broken at the beginning, there is an index hole in the tape that the drive can 'see' with an optical sensor (there's a little mirror in the cassette for this purpose). Be sure not to obscure this hole, or to make a new one, if you have to cut it out.

- I don't know how much of the tape's total length you can cut out before running into problems. My guess is that the INITIALIZE command assumes a fixed tape length to hold a fixed number of records. Therefore, cut out as little tape as you can, but as much as necessary in order to avoid defective records.

As your tape is broken, you probably have no alternative than trying to splice it anyway. Good luck, and keep us informed.

Cheers, Victor

PS If you want, I can have a look into the drive's manual once I get home. This will only be in 10 hours, however (I just got to work...)

Re: Help repairing a Digital Cassette Tape

*Message #3 Posted by **Diego Diaz** on 19 Nov 2003, 6:00 a.m.,*
in response to message #1 by Philip

Hi Philip,

Here you can read what I did to fix some of my tapes.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=24257

Wish you succeed!

Regards.

Re: Help repairing a Digital Cassette Tape

*Message #4 Posted by **Victor Koechli** on 19 Nov 2003, 7:26 a.m.,*
in response to message #3 by Diego Diaz

Thank you, Diego, for that excellent article! Actually, I think it should be moved to the 'articles' section, possibly along with additional information from Tony Duell concerning the pressure pad.

Do you have an idea how much of the tape's total length can be sacrificed before it gets too short? Or is tere an alternative NEWM command that allows for shorter-than-normal tapes? If so, it would not always be necessary to replace the entire tape, but you could easily splice it after cutting out the damaged section.

Kind regards, Victor

Re: Help repairing a Digital Cassette Tape

*Message #5 Posted by **Diego Diaz** on 19 Nov 2003, 8:39 a.m.,*
in response to message #4 by Victor Koechli

Hi Victor,

Unfortunately I can't tell how much "spare" tape is in the mini-cassette, I'd bet it won't be too much though.

I simply try to make my "rebuilt" as close as possible to original specs.

There is BTW an inacurracy in my article, I told about "constant angular speed" of the reel, it should be far more precise to say that the "sum of the angular speeds of both reels" is what the 82161A tape speed control cares about. Anyhow, that makes no difference from a user (fixer) point of view.

Cheers.

Re: Help repairing a Digital Cassette Tape

*Message #6 Posted by **Mark Hardman** on 19 Nov 2003, 10:31 p.m.,*
in response to message #3 by Diego Diaz

Thank you Diego!!! I'm off to try this on my own set of decaying tapes. Have you ever thought of expanding on this and posting it in the Articles section?

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Need to contact with Chris Catotti, e-mail didn't work (NT)

*Message #1 Posted by **Diego Diaz** on 18 Nov 2003, 6:34 p.m.*

123456 to delete.

Thanks

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HP-49G+ -- A Look Inside . . .

*Message #1 Posted by **Paul Brogger** on 18 Nov 2003, 4:33 p.m.*

I was able to get my HP-49G+ apart and take a few pictures -- I thought I'd share them with you all.

The first one shows the two halves not quite fully separated, and the IR lens removed.

The upper, dark section is the inside of the bottom case half. The battery compartment is to the left, and the wires connect the AAA and backup batteries and a large electrolytic capacitor to the main board. The small silvery rectangle near the top is a piece of conductive foam serving as the negative battery contact with the PCB. The larger black circle is where the buzzer is mounted, the smaller concentric circles to its upper left are the reset switch (a springy rubber contact).

The lower half shows the front case half, with the LCD board on the left covered by self-stick foil-backed paper. (It's actually aluminum-colored -- it looks coppery in these pictures, for some reason.) The main (CPU/key/SD) board is on the right.

The IR lens is thin and flexible, and pops out easily, but would probably be hard to get back in without taking apart the case halves (at least partially).

The second picture shows the electronics a bit more closely. A capacitor is glued to the main board with a smear of red-orange goo, and the reset contact is some gold fingers interleaved near the blue jumper wire.

The main board connects to the LCD board via: 1) a mylar (?) ribbon that runs across the calculator, just to the right of the coppery-looking shielding, and 2) a series of solder connections along two edges of what looks like a rectangular extension of the LCD board, near the bottom of the picture.

The square black chip above & to the right is marked "ARM" -- the other two I haven't looked at too closely. There's another pad of conductive foam attached to the SD card slot assembly.

The third image shows most of the self-stick paper/foil backing peeled away from the LCD board, exposing what appears to be two blobs of black stuff apparently sealing two LCD controller chips on the board.

Also visible are the IR sender & receiver, and the USB mini-B socket.

This view gives a good idea how the thing is put together -- the two posts are what I drilled to free up the top end, and otherwise it's only a series of plastic tabs around the edge that lock into the bottom case. After "topping" the posts, the two halves snapped apart quite easily.

BTW, the black accent that surrounds the calculator face is actually applied, and the calculator front and "side bumper" are actually one piece. Don't pry upward on the black accent, as it's just decoration and won't get you anywhere.

Re: HP-49G+ -- A Look Inside . . .

*Message #2 Posted by **David Brunell** on 18 Nov 2003, 4:56 p.m.,*
in response to message #1 by Paul Brogger

Thanks for the photos and description. It looks like you would have to drill out another 16 or so posts in order to get at the keyboard. Do you have any intention of going that far? I'm wondering if perhaps some of the keyboard reliability problems may be due to contamination on the production floor.

Re: HP-49G+ -- A Look Inside . . .

*Message #3 Posted by **Brandon** on 18 Nov 2003, 7:31 p.m.,*
in response to message #2 by David Brunell

I'd only open up the keyboard part once the calculator is dead (is this one?) because only the posts are holding it together (at least that's how it was on the 49g)... once you drill them out, your keyboard will REALLY suck when there's nothing holding it in place :)

Re: HP-49G+ -- A Look Inside . . .

*Message #4 Posted by **Paul Brogger** on 19 Nov 2003, 2:59 a.m.,*
in response to message #2 by David Brunell

I am considering it.

No, this one is not dead -- it survived the "operation" fine. One key is that I didn't try to pull the self-stick aluminized paper completely off, as it's in contact with the LCD edge of the mylar ribbon connecting the two circuit boards. I think that, were I to try to take the paper off, the ribbon connector may well come with it.

I have taken apart and reassembled a Pioneer keyboard. It is held together with heat stakes, too. I had to press the layers together in place while re-melting the original rivet heads (which had been sliced off at PCB level) back onto the truncated posts. It seemed successful, but I wonder about long-term durability.

I'm going to try a hot needle or other pointed object for my next Pioneer keyboard reassembly. (I've a 42s disassembled, and am awaiting the arrival of a conductive ink pen so I can re-create some of the worn-out contact pads on the latex "dimple sheet".) I'm hoping I can melt and displace enough of the posts' plastic centers that I can create new mushroom heads.

But this approach apparently wouldn't work with the 49G+, as the posts seem already to be hollow. Those hollow posts may, however, admit small, wide-head screws with insulating washers (if I could find such . . .)

I am curious about *what* (if any noticeable) difference exists between the keys that don't register so well and those that do. I did notice on this particular example that the LCD board wasn't held in place nearly as well as it might be -- some of its posts were too short or hadn't been melted over, and it rocked slightly, corner-to-corner, with the case halves separated. (While that may be evidence of an early production quirk, I don't think this particular manufacturing flaw accounts for any of this unit's reluctant keys.) If I could restore misplaced or contaminated key contacts *and* successfully reinstall the PCBs, it might demonstrate a cure for some of the problems being reported with early units.

Meanwhile, back in the land of the living, the "warranty cure" should be available to most anyone experiencing keyboard troubles. I recommend you make use of that cure, as a fully-functioning 49G+ is a fine thing to have!

Re: HP-49G+ -- A Look Inside . . .

*Message #5 Posted by **Bill Wiese** on 20 Nov 2003, 5:52 p.m.,*
in response to message #4 by Paul Brogger

Paul.. Couldn't get the chip numbers from your pix.

Could you post all the text on the ARM CPU please? And maybe the other non-glue chips too?

Thanks, Bill Wiese San Jose CA

Re: HP-49G+ -- Chip Numbers . . .

*Message #6 Posted by **Paul Brogger** on 21 Nov 2003, 11:09 a.m.,*
in response to message #5 by Bill Wiese

Here they are -- at least as clearly as I captured them when I had the thing open.

I'm not sure I want to open it too many times, but if you want me to try to clean off the tops of the chips and clarify anything next time, put in your requests now.

I am curious about just how the ARM chip is mounted. Is it likely to have a pin array on the bottom, as do the Intel CPU's I've dismantled?

Re: HP-49G+ -- Chip Numbers . . .

*Message #7 Posted by **Monte Dalrymple** on 21 Nov 2003, 1:12 p.m.,*
in response to message #6 by Paul Brogger

Yes, it's a ball grid array package.

That particular Samsung device happens to have a two-channel USB host controller, three UART channels and eight 10bit ADC channels that we can't get at because of the BGA package...

Oh, and it's an ARM920T processor core...

Monte

Re: Samsung Device

*Message #8 Posted by **Paul Brogger** on 21 Nov 2003, 4:30 p.m.,*
in response to message #7 by Monte Dalrymple

Thanks for sharing the details.

Is BGA a surface-mount technology, or is there an array of holes drilled through the PCB? (If the latter, I wonder how that's positioned vis-a-vis the keyboard contacts which I presume are etched on the other side? I guess I may have to dismantle it further, someday . . .)

Also, what is it, exactly, that "we can't get at"? The ADC channels, or everything you mentioned? We can't get at them because, in this particular package, the pads on the actual chip aren't connected to external pins?

Just curious . . .

Re: Samsung Device

*Message #9 Posted by **Monte Dalrymple** on 21 Nov 2003, 4:47 p.m.,*
in response to message #8 by Paul Brogger

With BGA the package actually has little solder bumps on it that melt and attach to the circuit board during assembly (a special case of surface mount). They are very fine pitch and unless the signals are brought out to a point on an outer layer of the circuit board they are essentially invisible. Hence my comment about being unavailable. Of course, all of those lands visible in the photos might actually connect to something useful, but it would take a fair amount of detective work to figure that out. Note that this chip is used in the new iPAQs also...

Monte

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HP42S=Hp17Bii but different ROM¿

*Message #1 Posted by **Marc** on 18 Nov 2003, 3:47 p.m.*

That's my question Thanks

Re: HP42S=Hp17Bii but different ROM¿

*Message #2 Posted by **Randy Sloyer** on 18 Nov 2003, 4:22 p.m.,*
in response to message #1 by Marc

Yes, you are 100% correct. Circuit board, passive components, case, keyboard sheets, everything but the keytops and ROM. You can also add the 27S so that:

17B = 17Bii = 27S = 42S

The only very fine detail of difference is that when the 17Bii moved with production to Indonesia, they changed the molded keys to printed keys. AFAIK, the 42S and 27S all have the nicer molded keys.

So the $64,000 question: Why did they drop the 42S in 1995 and continue to produce the 17Bii until 2002? IMO, they did not what to harm 48 sales.

Not exactly...

*Message #3 Posted by **Raymond Del Tondo** on 18 Nov 2003, 7:18 p.m.,*
in response to message #2 by Randy Sloyer

... the 17BII has more ROM. Or, in other words, the 17BII has an additional ROM chip, which features the language-specific messages.

Raymond

Re: Not exactly... Well almost....

*Message #4 Posted by **Randy Sloyer** on 18 Nov 2003, 7:40 p.m.,*
in response to message #3 by Raymond Del Tondo

Only the international version units. The standard ABA english units do not have the addition rom chip.

Re: Not exactly...

*Message #5 Posted by **HrastProgrammer** on 19 Nov 2003, 1:22 a.m.,*
in response to message #3 by Raymond Del Tondo

HP-42S is probably intended to have the second ROM, too, starting at the address #20000. That's why the misterious XFCN instruction exists:

```
128EB   =xXFCN
128EB 1F00002   D1=(5) #20000
```

```
128F2 143        A=DAT1 A
128F5 34F3CA5    LC(5) #5AC3F
128FC 8A6        ?A#C A
128FF 90         GOYES L_12908
12901 8F50002    GOSBVL #20005
12908   L_12908
12908 8C8FA3     GOLONG #16402
```

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HP-49G+ anomaly with 'CR'.

*Message #1 Posted by **r. d. bärtschiger.** on 18 Nov 2003, 3:28 p.m.*

I have discovered what may be an anomaly with 'CR' on the HP-49G+. In order to demonstrate this anomaly I will describe six different procedures, please bear with me. You may want to hold your 49g+ close to your ear while you do the following.

1.) Enter CR then press and hold the enter key for about a second. Did the calculator beep?

2. Enter CR then press and release the enter key as quickly as possible. Did the calculator Beep?

3.) Open the CATalog and scroll to CR. Press and hold the OK key for about a second. Did the calculator beep?

4.) Again find CR in the catalog. This time press and release the OK key as quickly as possible. Did the calculator beep?

5.) Create the following program and duplicate it a number of times on the stack:

\<< CR \>>

Now press and hold the EVAL key for about a second. Did the calculator beep?

6.) Then press and release the EVAL key as quickly as possible. Did the calculator beep?

7.) The answers I get are: Yes, No, Yes, No, Yes & Yes. Should the calculator really beep when it executes a CR? And in any event why does it react differently depending on how the executing key press is applied?

rdb.

Re: HP-49G+ anomaly with 'CR'.

*Message #2 Posted by **Raymond Del Tondo** on 18 Nov 2003, 7:14 p.m.,*
in response to message #1 by r. d. bärtschiger.

Maybe a problem with the key buffer ?

Perhaps the Xtra-Long-Hold gimmick isn't defined correctly there...

Raymond

Re: HP-49G+ anomaly with 'CR'.

*Message #3 Posted by **James M. Prange** on 18 Nov 2003, 8:30 p.m.,*
in response to message #1 by r. d. bärtschiger.

Well, it's not something new on the 49g+; essentially the same behaviour occurs on the 48SX, except of course that the 48SX lacks the catalogue. And it's not just CR, but all of the print commands. Notice that it doesn't

actually send the CR until after you've released the key. I suppose that it beeps because it unexpectedly finds a key pressed when it tries to print.

Regards,
James

Re: HP-49G+ anomaly with 'CR'.

*Message #4 Posted by **r. d. bärtschiger.** on 18 Nov 2003, 8:36 p.m.,*
in response to message #3 by James M. Prange

Then why does the 49G+ beep when it encounters a 'CR' in a running program?

rdb.

Re: HP-49G+ anomaly with 'CR'.

*Message #5 Posted by **James M. Prange** on 19 Nov 2003, 2:40 a.m.,*
in response to message #4 by r. d. bärtschiger.

Because a key is down when the CR tries to execute? I tried inserting a CR into a few programs without getting any beep from them, but just \<< CR \>> by itself, or CR as the first object in a program, does beep when I press the EVAL key on the 49g+. On the 48GX, this doesn't happen unless I intentionally hold the key down longer than normal. I expect that the "problem" is that on the 49g+, the program executes so fast that I don't have time to release the EVAL key before it tries executing the command. Maybe the fact that I have to press harder than "normal" on the 49g+ influences how fast I can release the key. With the program \<< .1 WAIT CR \>>, I don't get the beep with a normal keypress. Personally, I'd rather ignore this "problem" than have HP add a delay at the beginning of each print command.

But I am a bit curious about why the print commands beep when a key is down, but not the XMIT command (even when using the IR port) for instance.

If I use PR1 to print a string too long to fit on a single line, and hold the key down, then it prints out the first line and beeps. When I release the key, the rest of the string is printed. That it prints out the first line tells me that the "CR" ("print line and leave head at right", actually character 4) was sent while the key was still down.

The 48SX and 48GX seem to behave the same, so I continued experimenting with them. Using the INPRT program to capture the "Red Eye" IR stream does indeed confirm that the first line, beginning with the switch to ECMA 94 and ending with character 4, is sent while the key is down. If it can send that much, why the beep and delay in sending the rest of the string?

But with the CR command, with the key held down, it just beeps, and the character 4 isn't sent until after the key is released.

Switching to serial IR for printing and using the SRECV command to capture the print stream, the entire string is sent out while the key is held down, and then it beeps if the key is still down when it finishes sending. With the CR command, the line termination string is sent while the key is still down, and then it beeps. Printing by wire to either another calculator's SRECV or an actual serial printer shows the same behavior.

I really doesn't see a reasonable explanation for why it should behave this way. Maybe you've noticed a "bug" that's been in the ROM since the 48SX, but that nobody found objectionable until the 48g+'s extra speed made it so noticeable.

Maybe someone at comp.sys.hp48 has an answer? Should we take this discussion there?

Regards,
James

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Calc for imaginary numbers & matrix operations

*Message #1 Posted by **Joe Edwards** on 18 Nov 2003, 3:26 p.m.*

Could someone recommend a few good choices for a calc. that can perform large matrix operations and easily handle imaginary numbers? I would hope to come up with multiple solutions, including a large (graphical type) and small (handheld size) calculator. Thank you.

Re: Calc for imaginary numbers & matrix operations

*Message #2 Posted by **Victor Koechli** on 18 Nov 2003, 4:46 p.m.,*
in response to message #1 by Joe Edwards

Given the filter criteria and your desire for multiple suggestions, I'd say:

- HP 48/49 series (graphing) for really large matrices, as these have large memories and some of them are expandable. Best models in this class are the 48GX (128KB) and the new 49G+ (1.2MB), both expandable.

- HP 42S if it has to be more portable. Only limited graphics and 7K of memory, however. And possibly a higher price...

Hope this helps. Regards, Victor

Re: Calc for imaginary numbers & matrix operations

*Message #3 Posted by **Joe Edwards** on 19 Nov 2003, 7:34 a.m.,*
in response to message #2 by Victor Koechli

How do the older machines such as a 41c/v/x or a 15c handle in comparison. What are the size and speed limitations for matrices and imag. numbers? Thanks.

Re: Calc for imaginary numbers & matrix operations

*Message #4 Posted by **Namir Shammas** on 19 Nov 2003, 9:29 p.m.,*
in response to message #3 by Joe Edwards

Ed,

Unless you have mega years to kill, the HP48GX can handle complex calculations much easier since it has more memory and is a more advanced calculator. The HP15C was HP's first calculator that had built in complex math support. The calculator's memory IS limited by comparison to the HP48GX or HP49G.

Namir

Re: Calc for imaginary numbers & matrix operations

*Message #5 Posted by **Joe Edwards** on 20 Nov 2003, 6:55 a.m.,*

in response to message #4 by Namir Shammas

What is the largest matrix that a 48GX or 49g+ can handle?

Also, I don't mean to ruffle feathers here, (but many folks here are very knowledgeable in the calc field, so I trust your opinions) but how does a TI 89 compare in regards to imag numbers and matrices?

Joe

Re: Calc for imaginary numbers & matrix operations

*Message #6 Posted by **Victor Koechli** on 20 Nov 2003, 7:25 a.m.,*
in response to message #5 by Joe Edwards

They take 8 Bytes per real element, plus some small overhead (15 Bytes) per matrix. If you fill all available memory with one single matrix, you'll get (approx.)

- 127x127 in a 48G+ or standard GX (128kB RAM)
- 180x180 in a 49G or a GX with 128kB merged RAM in port 1 (256kB total RAM)
- 191x191 in a 48SX (!) with 256kB merged RAM in port 1 (288kB total RAM)

The big surpise here is of course that the old 48SX can take the largest matrices due to its highest possible merged RAM. However, the SX is lacking many of the later models' features, like list processing or the 49G's CAS. Complex elements take 16 Bytes.

I don't know about TIs, but I'm sure someone else does.

Kind regards, Victor

Re: Calc for imaginary numbers & matrix operations

*Message #7 Posted by **Mark Ordal** on 20 Nov 2003, 9:38 a.m.,*
in response to message #6 by Victor Koechli

It looks as if a TI Voyage200 can do a single matrix of up to about 115x115. I haven't seen documentation on it yet, but a few experiments point to 10 bytes per element for arrays of floats (plus, of course, a few bytes of overhead). Unlike an HP48/49, the TI uses less storage if the array consists entirely of integers (that is, 4 bytes per element, plus a few bytes of overhead).

Arrays of complex numbers with floating point components take about 20 byes per (complex) element plus some overhead. So it looks as if the Voyage200 could do a single 81x81 matrix of all complex elements.

So far as I know, the TI-89, 92, 92+ and Voyage200 all have the same amount of RAM---they differ only in the amount of Flash memory, builtin apps, physical size, battery size (4xAA vs 4xAAA) and (in the case of the TI-89) display size.

--Mark

Re: Calc for imaginary numbers & matrix operations

*Message #8 Posted by **Veli-Pekka Nousiainen** on 20 Nov 2003, 11:09 a.m.,*
in response to message #7 by Mark Ordal

The TI's are extremely slow on huge matrices, but in practical situations they are ok. Try a 32*32 real number matrix inversion on TI 89/V200 and on a 48G/49G. You don't need the 49g+ to beat the TI in numerical matrix operations. # VPN #

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Looking for Bill Drylie

*Message #1 Posted by **Bill (Smithville, NJ)** on 18 Nov 2003, 12:41 p.m.*

I've been trying to get in touch with Bill Drylie, but not having any luck at WDrylie@netscape.net

Does anyone have another address for Bill. Thanks.

Re: Looking for Bill Drylie

*Message #2 Posted by **Dave Mabry** on 18 Nov 2003, 2:49 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

You have the e-mail address that I used last month successfully to get in touch with Bill.

Re: Looking for Bill Drylie

*Message #3 Posted by **Bill (Smithville, NJ)** on 19 Nov 2003, 9:06 a.m.,*
in response to message #2 by Dave Mabry

Thanks, Dave. Maybe he's out of town on business or better yet - vacation.

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HP42

*Message #1 Posted by **Sheileen** on 18 Nov 2003, 4:41 a.m.*

I was wondering can anyone help me. My HP 42 calculator stopped working. I changed the batteries and it still doesn't work. Has anyone any ideas what I could possibly do now to get it to work?

Re: HP42

*Message #2 Posted by **Victor Koechli** on 18 Nov 2003, 5:33 a.m.,*
in response to message #1 by Sheileen

There have been several posts related to this problem recently. Try a system reset first (ON+C), if this doesn't help, try a memory clear (ON+A+F). If this doesn't help either, remove the batteries and shorten the two battery contacts with a coin for a few seconds. Preferably be grounded while doing this to prevent possible, although unlikely, damage from ESD. This should get your calc up and running again.

Good luck, and keep us informed! Victor

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Yokogawa-Hewlett-Packard

*Message #1 Posted by **Harald** on 18 Nov 2003, 4:39 a.m.*

Does anyone have a picture showing the front label of a "Yokogawa-Hewlett-Packard" HP-35 or HP-45?

Re: Yokogawa-Hewlett-Packard

*Message #2 Posted by **Joerg Woerner** on 18 Nov 2003, 5:28 a.m.,*
in response to message #1 by Harald

Sure - my friend Shinichiro living in Tokio:

http://osaki.cool.ne.jp/calc/calculator/hp/yhp45-2.jpg

More information here:

http://osaki.cool.ne.jp/calc/calculator/hp/hp.html#yhp

Regards,

Joerg

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Please HELP !!! My W&W-RAMBOX II crashed - I lost its soft operating system !

*Message #1 Posted by **Werner** on 18 Nov 2003, 2:57 a.m.*

Dear HP friends and MLDL experts,

can anyone of you help me here ?

I had a FATAL accident with my most important and beloved device, my urgently needed HP-41 MLDL-RAMBOX, I am really a bit desperate. Certainly the OS crashed and I do not know how to recover it ! :-((((

Yesterday I certainly killed the soft OS of my W&W RAMBOX of my HP-41CY. It is a built-in 64k W&W RAMBOX II which supports two 32k blocks of page 8-F, “Rambox a“ and “Rambox b“. Per software command PG<> you can switch between the blocks. Yesterday I used my HEPAX module which normally identifies and uses the visible RAMBOX-RAM as 8 HEPAX RAM pages. In the past this always worked fine (although it may not be common to use both, RAMBOX and HEPAX at the same time, but by this you can use the HEPAX functionality and have full 32k access).

This time unfortunately a conflict happened the HP-41 to freeze. I had to briefly remove the battery and make a master clear after that. Further I made a “Rambox Clear“. After that I had lost the 4k soft operating system (page 8) of my second RAMBOX block “b“ which is normally secure from being erased.

Formerly I have had no problems because HEPAX and RAMBOX seemed to coexist very well. But maybe I used a critical slot configuration with my plug-in modules, so the HP-41 froze after HEPAX installation. Maybe some self-mapping by the HEPAX after its installation may have mapped the RAMBOX “b“ OS into another page and there it was not safe against being erased by the Rambox master clear (the RAMBOX soft OS is located at page 8, there I had plugged in my HEPAX module in order to temporarily deactivate it for giving full 32k access to the HEPAX RAM management which normally works well. Troughout the initializing process, the HEPAX is located at page 8 very briefly, there it deactivates the 4k RAMBOX OS and after that it maps itself into page 6, thus giving free all 32k of Quasi-ROM).

This is my explanation of the fatal accident, but maybe I am wrong.

I do not believe that the RAMBOX hardware is defect. I had made a full check of every single bit of the 64k by some stored checksum program maybe a week ago. The RAM and the OS “a“ and “b“ were all working properly. I also did nothing wrong with plugging the modules. I always secured that there were NO hot-plugins, so normally the hardware was not endangered. So I believe I “only“ killed the software.

When I want to switch from “Rambox a“ to “Rambox b“ by using PG<>, nothing happens anymore. It always remains “Rambox a“ which you can check by CAT 2. This 32k (28k+4k soft OS) block is working properly.

So, what can I do here ?

1) I have not yet had the opportunity to back up the OS ROM code of the RAMBOX (because of this damn lack of spare time :-( ). So I lost the ROM code “Rambox b“ which is certainly quite similar to “Rambox a“ but with very little modifications. Does anyone of you have the ROM images “a“/“b“ of the W&W-RAMBOX II OS ?

2) How can I reload the soft OS into the second block of the RAMBOX RAM ? So how can I recover the software

to again being able to access the other 32k block of RAM ?

Certainly this is a tough problem. I hope so much that someone of you can help me in my fatal and sad situation !!!

Thanks and best regards from Germany,

Werner

Edited: 18 Nov 2003, 3:03 a.m.

Re: Please HELP !!! My W&W-RAMBOX II crashed - I lost its soft operating system !

*Message #2 Posted by **Raymond Del Tondo** on 19 Nov 2003, 3:38 a.m.,*
in response to message #1 by Werner

Hallo Werner,

ein paar der Leute hier haben einen CY (Christoph, Matthias,...). Wenn die HEPAX Mass Storage Funktionen ERAMCO-kompatibel sind, sollte es also kein Problem sein, den B-Block wieder einzuladen

wenn ich mich recht erinnere, gibt es beim CY bzw. der eingebauten RAMBox auch einen 'verzahnten' Modus ('PG01'), also abwechselnd Seiten von Bank 1 und 2 sichtbar zu machen, PG8 von Bk 0, PG9 von Bk 1, PG10 von Bk 0, etc...

Auf diese Weise kannst Du jedenfalls mit Software der einen Bank Software in die andere Bank laden. Aber das weisst Du ja schon;-)

Grüße,

Raymond

Re: Please HELP !!! My W&W-RAMBOX II crashed - I lost its soft operating system !

*Message #3 Posted by **Christoph Klug** on 19 Nov 2003, 9:46 a.m.,*
in response to message #2 by Raymond Del Tondo

Hallo Raymond,

Die Hepax und Ram-Box rom-image formate sind leider nicht kompatibel. Siehe hierzu auch meine Dokumentation zu EMU41 mit der Files von Hepax zu Ram-Box bzw. umgekerht konvertiert werden können.

Weiterhin hat W&W einen Schreibschutz implementiert, der verhindert, dass ein rom-image vom RAM-Box Betriebssystem erstellt werden kann :-(

Grüße - Christoph Klug

Re: Please HELP !!! My W&W-RAMBOX II crashed - I lost its soft operating system !

*Message #4 Posted by **Raymond Del Tondo** on 19 Nov 2003, 2:02 p.m.,*
in response to message #3 by Christoph Klug

Hallo Christoph,

hmm, das mit dem Kopierschutz ist mir bekannt. Aber es gab ja auch andere kompatible COPYROM Funktionen, zum Beispiel von oder über ERAMCO.

Auch mit dem Profiset kann man ein W&W OS kopieren;-) Allerdings muss man es dann auch mit der entsprechenden Funktion des Profiset wieder einlesen. Kann sein, dass die Profiset-Funktion (SAVEBL,GETBL) das gleiche Format verwenden wie HEPAX.

Abgeshen davon hat Werner ja noch mindestens eine Kopie des W&W OS . Vielleicht kann ein findiger Programmierer ja einfach den Kopierschutz deaktivieren? Hinweis: Ist nicht sehr schwer;-)

Andere Möglichkeit: Einfach ein ROM-Image laden, welches eine Funktion wie COPYBL enthält, die nicht auf Kopierschutz achtet. Dann das OS damit kopieren. Geht immer.

Grüße,

Raymond

nicht schwer

*Message #5 Posted by **Mike (Stgt)** on 19 Nov 2003, 2:08 p.m.,*
in response to message #4 by Raymond Del Tondo

Hi Raymond!

Wenn der CY nicht mehr tut, dann ist es egal wie schwer es war(!) den Kopierschutz zu umgehen.

Ciao.....Mike

Re: RAM-BOX

*Message #6 Posted by **Christoph Klug** on 20 Nov 2003, 3:17 a.m.,*
in response to message #5 by Mike (Stgt)

Hallo Raymond,

das W&W Betriebssystem mittels einem anderen Betriebssystem wegzuspeichern habe ich in der Vergangenheit schon gemacht : Ich verwende dazu ein Zeprom mit dem Eramco Betriebssystem.

Damit konnte ich auch schon zwei RAM-Box Systeme im Kartenlesergehäuse reaktivieren. Diese waren jedoch per Dipschalter bankgeswitcht. Beim HP41CY (mit Bankswitching per Software) dürfte die Prozedur schwieriger werden ?

Die Deaktivierung des W&W RAM-Box Kopierschutzes wäre doch eine angemessene Aufgabe für dich :-)))

Herzliche Grüße - Christoph

Re: RAM-BOX

*Message #7 Posted by **Matthias** on 20 Nov 2003, 6:27 a.m.,*
in response to message #6 by Christoph Klug

Ich finde eure Diskussion ja eiegntlich superinteressant.. Allerdings muss ich gestehen, dass ich da nur noch "Bahnhof" verstehe.. Keine blasse Ahnung, was ihr da so versucht.. Aber klingen tut siemlich beeindruckend

:) Matthias

Re: Please HELP !!! My W&W-RAMBOX II crashed - I lost its soft operating system !

*Message #8 Posted by **Angel Martin** on 19 Nov 2003, 2:56 p.m.,*
in response to message #3 by Christoph Klug

I've never used a RAMBOX but that of course won't stop me from giving my comon-sense aproach to this:-

"Q-ROM is Q-ROM is Q-ROM"

So the HEPAX should be able to utilize the RAMBOX-RAM, and the RAMBOX should be able to utilize the HEPAX RAM..

This, I'm afraid, won't help our friend Werner.

Best,

AM

Re: Please HELP !!! My W&W-RAMBOX II crashed - THANK YOU !

*Message #9 Posted by **Werner** on 20 Nov 2003, 12:19 a.m.,*
in response to message #2 by Raymond Del Tondo

Hello dear friends,

first of all I would like to thank you so much for your support and help, Raymond, Mike, Angel and Christoph! (with Christoph I already had some email exchange on this issue)

I appreciate your valuable advice very much and hope to finally find my HP-41CY completely recovered with the help of your information. I will try different of your ideas.

Angel, concerning your remark on Q-ROM and some other advice on copying the OS bank1-version: Yes, I can duplicate it to any another page at the first bank by using the HEPAX, I had already tried. There it should be compatible to W&W-Q-ROM format because it is a fully-functional 4k mcode set. In that sense Q-ROM is indeed equal to Q-ROM. But if you use the HEPAX not for internal duplication but for export to an IL mass storage device (or e.g. to virtual mass storage of PC/EMU41) it may have a different format compared to those files being exportet by W&W or Eramco (But that could be translated on a PC) ?

My problem here is more or less to address the bank 2 of the RAMBOX for copying the OS (the copy-protection will certainly not be the major problem due to this switch option, which you fortunately told me about).

BTW, thank you, Mike, for your info on the code differences between the "A" and "B"-ROMs !

Raymonds advice on using the bank interleaved functions PG01/PG10 instead of PG<> is a very good idea ! I had tried these functions but I got a strange result. In both switching states, i.e. at pg01 as well as at pg10, I "see" the OS version "A" at page 8 (via CAT2, still I have to check HEPAX multifunction #2 to ensure this result -I cannot do just here at the moment because just now I am not at home where my HP-41CY is lying around).

But isn't that strange ? I would have expected to get OS-"A" at pg 8 with pg01, but not any OS at pg 8 with pg10. What do you think on this strange behaviour ?

What I would like to check next would be to load programs or ROMS into pg01 pages and then switch to pg10. Then doing Copy again. Maybe I succeed to address memory space at bank 2 via the interleaved pg organisation of pg01/pg10. We will see.

I really hope that at the end I can be happy again ... happy to have a fully-functional RAMBOX for future activities ... we will see. I will keep you informed on news.

Thank you and with my best regards,

Werner

Could you please continue this conversation in english ...

*Message #10 Posted by **Staubzuecker** on 20 Nov 2003, 7:50 a.m.,*
in response to message #2 by Raymond Del Tondo

:-)

...yes, please...

*Message #11 Posted by **Krautrock** on 20 Nov 2003, 10:35 a.m.,*
in response to message #10 by Staubzuecker

:-)

Sorry.._.__no

*Message #12 Posted by **Mike (Stgt)** on 20 Nov 2003, 1:30 p.m.,*
in response to message #11 by Krautrock

Dear Sir, most respected Esquire!

we try to reactivate a screwed HP-41CY. Any translation errors may be fatal. ;-)

Best,

.....Mike

Re: Please HELP !!! My W&W-RAMBOX II crashed - I lost its soft operating system !

*Message #13 Posted by **Mike (Stgt)** on 19 Nov 2003, 2:04 p.m.,*
in response to message #1 by Werner

Hi Werner!

That happend too to my 41CY several years ago. But I had already copies of the RAM-Box on a LIF-disk (the copy pretending routine of W&W just looks if the second character - at nFFD - of the ROM-ID is W). A phone call to W&W revealed a hidden feature of the 41CY: under the insulating foil in the bat compartment is a dipswitch which allows to write-protect page 8. As your "set a" is still OK I hope this helps.

Here the delta between RAMbox a and b:

```
SUPERC - CMS FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY - V3.01  (11/22/95)
```

```
NEW:  RAMBXX   HPMCLIST         OLD:  RAMBXY   HPMCLIST


             LISTING OUTPUT SECTION (LINE COMPARE)


 ID       SOURCE LINES              TYPE  LEN N-LN# O-LN#
     ----+----1----+----2----
                                    MAT=   78
 I - 804E 0C1 a                     RPL=    1 00079 00079
 D - 804E 0C2 b
                                    MAT= 3437
 I - 8DBC 180 ENBANK2               RPL=    2 03517 03517
 D - 8DBC 04E C=0    ALL
 I - 8DBD 140 UNUSED                          03518 03518
 D - 8DBD 100 ENBANK1
                                    MAT=  574
 I - 8FFC 034 4                     RPL=    1 04093 04093
 D - 8FFC 035 5
                                    MAT=    2
 I - 8FFF 0BA CON    186            RPL=    1 04096 04096
 D - 8FFF 22A CON    554
```

Lines starting with I are in ROM A, lines with a D in ROM B.

Ciao.....Mike

Re: Please HELP !!! My W&W-RAMBOX II crashed - I lost its soft operating system !

*Message #14 Posted by **Mike** on 20 Nov 2003, 1:39 p.m.,*
in response to message #13 by Mike (Stgt)

Hi Werner!

Just to give you an idea what PG<>, PG10, and PG01 do here a excerpt: from -RAMBOX 64a

```
8DB8 0BE >
8DB9 03C <
8DBA 007 G
8DBB 010 P
8DBC 180 ENBANK2
8DBD 140 UNUSED
8DBE 3E0 RTN
8DBF 0B1 1
8DC0 030 0
8DC1 007 G
8DC2 010 P
8DC3 100 ENBANK1
8DC4 180 ENBANK2
8DC5 3E0 RTN
8DC6 0B0 0
8DC7 031 1
8DC8 007 G
8DC9 010 P
8DCA 100 ENBANK1
8DCB 140 UNUSED
8DCC 3E0 RTN
```

and from -RAMBOX 64b

```
8DB8 0BE >
8DB9 03C <
8DBA 007 G
8DBB 010 P
8DBC 04E C=0    ALL
8DBD 100 ENBANK1
8DBE 3E0 RTN
8DBF 0B1 1
8DC0 030 0
8DC1 007 G
8DC2 010 P
8DC3 100 ENBANK1
```

```
8DC4 180 ENBANK2
8DC5 3E0 RTN
8DC6 0B0 0
8DC7 031 1
8DC8 007 G
8DC9 010 P
8DCA 100 ENBANK1
8DCB 140 UNUSED
8DCC 3E0 RTN
```

Hope this helps in planning your next steps.

Ciao.....Mike

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HP-41C HP-15C & complex numbers

*Message #1 Posted by **Vincent Weber** on 18 Nov 2003, 12:22 a.m.*

Hi all,

After reading so much praise of the HP-15C in these columns, I had a good look by myself using the (excellent) simulator by Lygea on PocketPC (Pocket15C). My conclusion is that, yes, the HP-15C was a very finely design machine - elegant, compact, with well integrated and powerful features. It is true that for 3 long years, from the birth of the HP-15C (1982) to the Advantage and CCD modules for the HP-41C (1985), the HP-15C was the only device able to handle matrixes natively in a usable way ! However, when comparing HP-15C with HP-41C with Advantage module, I find that:

1) As Valentin already described it in a very good article, the matrix features of the Advantage module outshine by far the ones of the HP-15C (even though the HP-15C has some nice touches, so that matrix descriptors on the stack). As surprising as it may seem to the supporters of the idea that on the 15C all features are readily available on the keyboard, very often the HP-41C matrix routines require less keystrokes than their HP-15C counterpart: I especially think of matrix edition. Even in so-called 'USER' mode, the HP-15C requires 3 keystrokes to enter a new element (such as '1 STO A' while the HP-41C requires only 2 ('1 R/S'). In addition, handling complex matrixes on the HP-15C requires to manually transform them back and forth in matrix/real forms - an operation transparently handled in the Advantage ROM.

2) The SOLVE and INTEGRATE features are identical,

3) The CFIT program is much more powerful and flexible than the simple linear regression available on the HP-15C,

4) The Advantage ROM does not have hyperbolics, combinations and permutations, generalized factorial, and random number generator. Well, it is a pity, but the first three items are very easy to program, while the fourth one is quite useless (except to program games...). No big deal.

5) The HP-15C has recall arithmetics. It is an interesting feature, but it is quite easy to emulate on the HP-41C in 3 steps instead of one (i.e. RCL+ 32 is equivalent to X<>32, STO+ 32, X<>32, even if it is less elegant).

6) The HP-15C has direct line addressing. I would not want to use this feature, as it opens the door for messing up your programs very quickly (modify one line and you have to modify them all !).

7) The HP-15C has all 12 conditionals. It is a very nice touch, although it can be easily overcome by swaping the numbers to compare, let alone the fact that I do not think that remembering instructions as 'TEST x' is very elegant.

8) We now come to the *one* big superiority of the HP-15C: the fine integration of complex numbers. As Valentin pointed out, even the 42S is not able to have 4 different complex numbers on the stack, while the 15C can. At first glance, the complex functions of the Advantage module really pale in comparison of those of the 15C: On the 15C, these functions are optimized at the firmware level, do not require any register, are fast (well, as fast as the HP-15C can be), are integrated with all real functions (even reverse trigonometrics, which is not available on the '41 !). However, on second thoughts, I find this to be more cosmetics than of real use. Who really need to perform complex arithmetics ? Electrical/Eletronics engineers ? I don't think so. I studied electronics and I never used complex numbers on a calculator. Reason, I think, is that in electronics you would perform your reasonning in a

symbolic manner on paper, and use your calculator as a numerical application to compute the value of a resistance, a phase, an amplitude, whatever - which only involves real numbers. Furthermore, complex numbers in Electronics are mostly used in their polar form (amplitude and phase) - a painful operation on the HP-15C, as you need to convert polar-form number into rectangular form to perform all operations, and then back into polar form to see the results. Only the 42S & 48 series are able to do this. I think complex numbers are more useful in matrixes, to solve systems of equations - which the Advantage module performs far better than the 15C.

I would not trade-off this nice, but secondary to me, features for the core advantages of the 41C:

1) Alphanumerics: not only can the HP-41C display mnemonics instead of key codes, but also have alpha prompts and messages in programs through the alpha-register. Most important, you can handle a large libray of programs with global labels which you can name the way you like, rather than being restricted to 'A-E' '0-9' and '.0-.9'. I find this unvaluable.

2) Expandabiliy: I can use the '41CX emulator as a financial calculator (as I happen to be studying finance) - even a securities module with the Black-Schole equation pricing of an option is there ! Let alone Statistics, Avionics, synthetics programming with the CCD module... No machine had ever had such flexibility.

3) User keyboard: those who complain that the 41C is poorly designed because you have to type the name of the function you want to call obviously never used it: The 41C was designed to be customized by the user. Therefore, instead of trying to put everything on the keyboard like the 15C does, the 41C puts minimum, common operations on the keyboard, leaving it beautifully simple, and leaves it for you to assign your favourites functions to your favourite keys. Overlays can show you what they are, but it is still workable to do without overlay as if you press and hold the key, it would show the assigned function name, than return to 'NULL' after a while with no execution. A *very* clever design. A really pity that the (otherwise excellent) 42S chose custom menus over the user keyboard.

4) Memory: the extended memory made the 41 the very first PDA ever - even before the Psion 1 ! It can be used to store files and matrixes. A real must.

5) Speed: Altough reputed slow, the 41 was still about twice faster than the 15C...

As a conclusion, I would say that it is just amazing than a 1979-designed machine was so flexible. It could survive the more advanced features of the 34C and the 15C with its expandability; it could even resist the 28C/28S birth (a 1987 HP sales book was advertising both 41CV/X and 28S on equal grounds, and the 41CX was actually more expensive than the 28S !). HP discontinued the '41 series only with the birth of the 48SX, the only machine that could take over by inheriting -some- of its expandability... and even the 48 left 41 users with a lof of regrets !

Cheers,

Vincent

Re: HP-41C HP-15C & complex numbers

*Message #2 Posted by **Patrick** on 18 Nov 2003, 1:50 a.m.,*
in response to message #1 by Vincent Weber

There is no doubt that the 41C family was and is much more powerful than the 15C. For me, though, there is something of an imaginary line. On one side of this line are the applications which are best suited to a calculator, on the other a computer. In my mind, the 15C is the most usable and powerful device on the calculator side of this line. It is small and pocketable, is elegant to look at, provides most of its functions on the keyboard and not through menus, and is not hamstrung by the villany of short lived batteries. As a bonus, it provides substantial power when needed. It is an extremely pleasurable device to use, IMO.

Today, I choose to do things with a computer when the job is more complicated than what a 15C can handle. I

have owned a 41C since a month or so of its introduction but never find myself wanting to reach for it, other than to ogle it for historical sentiment. On the other hand, I have a 15C on every one of my working desktops.

Edited: 18 Nov 2003, 1:51 a.m.

Re: HP-41C HP-15C & complex numbers

*Message #3 Posted by **Ángel Martin** on 18 Nov 2003, 5:35 a.m.,*
in response to message #2 by Patrick

Interestingly enough this reasoning will apply much better to the 48 and 49 machines than to the 41.

IMHO the 41 didn't cross this imaginary line, but it bent it!

Best, ÁM.

(deleted post)

*Message #4 Posted by **deleted** on 18 Nov 2003, 5:27 a.m.,*
in response to message #1 by Vincent Weber

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Mr. Weber's EXEMPLARY review [LONG]

*Message #5 Posted by **Victor Koechli** on 18 Nov 2003, 5:45 a.m.,*
in response to message #4 by deleted

Two more things to add to this:

- Writing a 'matrix editor' so you can enter numbers into a matrix on the 15C by simply pressing R/S is easy:

```
LBL 0
u STO A  (press STO A while in USER mode)
R/S
GTO 0
```

- I'm surprised to hear that the 42S should be unable to have 4 complex numbers on the stack. I'll have to check that when I get home tonight, but AFAIK, you can have 4 objects of *any* kind on the 42's stack. Anyone like to comment?

Cheers, Victor

A correction & a comment

*Message #6 Posted by **Valentin Albillo** on 18 Nov 2003, 5:58 a.m.,*
in response to message #5 by Victor Koechli

Hi, Victor:

Victor posted:

```
LBL 0
u STO A  (press STO A while in USER mode)
R/S
GTO 0
```

Your routine, simple as it is, has a nasty bug. When the very last element of the matrix is stored, the [u STO A] instruction will *skip* the next step, i.e. it will skip the [R/S] and go on executing the [GTO O], while resetting the row-column indexes back to 1 at the same time. Thus it doesn't stop as intended, but rather stores the same value (the last element's) *over* the value of the first element, then stops. So, you end up with your first element having been overwritten by the last element, unnoticed to you :-)

*" I'm surprised to hear that the 42S should be unable to have 4 complex numbers on the stack. I'll have to check that when I get home tonight, but AFAIK, you can have 4 objects of *any* kind on the 42's stack. Anyone like to comment?"*

It's bad wording. It's not that you can't *have* 4 complex numbers on the stack. You can, of course. The correct wording is that you can't *enter* 4 complex numbers on the stack, as you need two stack registers, X and Y, to enter a complex number into X proper, and that would send your previously entered complex number now in the T register into oblivion.

That's not the case for the HP-15C because it does have a full, 4-level+LastX parallel stack and thus you can enter a full complex number into both X registers without disturbing the T registers at all.

Best regards from V.

Edited: 18 Nov 2003, 6:52 a.m.

Re: Mr. Albillo's CONSTRUCTIVE comments [LONG]

*Message #7 Posted by **Vincent Weber** on 18 Nov 2003, 5:54 a.m.,*
in response to message #4 by deleted

Dear Mr Albillo,

Two small comments:

1-So far I have really appreciated your deep knowledge and your style on this forum, and I appreciated this part of your post, which is helping me to learn more. I thank you for that.

2-Given your contemptous, arrogant and unfriendly tone, it seems that your emotional intelligence is way below you IQ. I advise you to read "People's skills", if you heard of it - you seem to need it urgently. Please focus on the chapter about giving negative feed-back. Perhaps your knowledge is due to the fact that you spend too much time with machines and not enough with human beings ?

I fully agree with you: please don't waste time on me or on any other idiot you may find on this forum. We do not deserve your lights - the same way that you do not deserve our esteem.

Yours sincerely,

V. Weber

Geek spotted here!

*Message #8 Posted by **Emmanuel** on 18 Nov 2003, 6:56 a.m.,*
in response to message #4 by deleted

I'm just simply amazed at the comptent and disdain you use to literally attack someone posting a debatable, but complete and documented opinion. Hey, it's just an *opinion* !

IMHO, you definitly need to spend less time with obsolete hardware, and spend some more with your friends and family - if you have any.

Being aggressive and even sometimes vulgar will never help your credibility. In short, get a life.

Re: Mr. Albillo's arogancy

*Message #9 Posted by **HrastProgrammer** on 18 Nov 2003, 7:42 a.m.,*
in response to message #4 by deleted

This is none of my bussines but it seems that Mr. Albillo has just crossed a line of nice and civilized manners. I haven't read such an arrogant post in this forum for a long time. I appreciated some of his posts in the past because they contained information and facts which were useful for me. He obviously knows very much about HP calculators and it is very nice from him to share this knowledge with the rest of us. But I am not sure if we want him to share his arrogance with us. It is obvious that Mr. Albillo takes every opinion as a personal attack on him and his favourite calculators (especially HP-15C). I read his posts about new HP calculators such as HP-49G+ ... it looks like a personal battle between him and HP. So what if HP-49G+ is not good enough? I simply won't use it and this is the end.

Is HP-15C the best calculator on the earth? For V.A. it surely is but for the others perhaps it is not. "HP-15C is the best" is not a fact, it is just a personal opinion. Do I like HP-15C? Yes, I do. Can I live without one? Of course, because I can do everything HP-15C can do in some other way and using some other techniques on HP-41C, HP-42S, HP-71B or HP-48GX. Four complex numbers cannot be entered on the HP-42S stack. So what? I can store two of them, enter the other two and recall the stored ones. Big deal. Or I can use my HP-48GX. Does it have the ability to have four complex numbers on the stack. It has, not 4 but almost 7000 complex numbers on the stack. Does it make it better than HP-15C? For me, it certainly does. For someone else, it doesn't have to be so.

I don't see Mr. Weber's post as something so bad to say that "I've had enough of you". In fact, I don't see his post bad at all. He simply described some of his opinions and arguments. Nice to read. Perhaps I don't agree with some of his claims but so what? He has all the rights to express his opinions in this forum as long as they are about HP calculators and as long as he don't attack or insult anyone. Then comes Mr. Albillo who is "certainly wasting his time trying to maintain a meaningful e-conversation". Well, Mr. Albillo, you really don't have to waste your time on this forum with such posts - just go and make something else.

Best regards.

P.S. I don't know Mr. Weber - I just wanted to point to something which seems wrong to me.

Re: Addition to my previous post

*Message #10 Posted by **HrastProgrammer** on 18 Nov 2003, 7:57 a.m.,*
in response to message #9 by HrastProgrammer

I can store two of them, enter the other two and recall the stored ones.

Ooops, I wanted to say: I can store one of them, enter the other three and recall the stored one.

Re: Mr. Weber's EXEMPLARY review [LONG]

*Message #11 Posted by **Joesph** on 18 Nov 2003, 8:33 a.m.,*
in response to message #4 by deleted

Grow Up

It's amazing (!)

*Message #12 Posted by **Valentin Albillo** on 18 Nov 2003, 8:01 a.m.,*
in response to message #1 by Vincent Weber

It's amazing ...

... the irrational attitudes some people incur towards me.

I make a derogatory (but rationalized and documented) comment on the *technical* abilities and sheer lack of objectiveness *in reviewing some devices* that some person evidences, without ever saying a word (or even subtly mentioning) any other aspects of said person's private life or attitude towards life in general, which I profoundly ignore and couldn't care less, and all I get are *personal* (not "technical") attacks, in the most derogatory terms possible, with bold statements about my "emotional IQ", my "social abilities", hastily quantizing the "time I spend with my friends and family", the "obsolescence of the hardware I deal with" ...

... which of course *none* of the persons uttering such has the *slightest* idea about whatsoever. In other words, a completely irrational, venomous attack, which only tries to pathetically retaliate some alleged "offence" by gratuitously and furiously trying to hurt the alleged 'offender', which is even kindly 'invited' to leave the forum.

Well, sorry but it just doesn't succeed. We have some proverb in Spain which roughly translated reads

```
"It doesn't offend he who wants, but he who can".
```

... and I get no offence from such blind, irrational attacks, coming from people that know not a thing about me. I guess all you utter them because you would feel 'vindicated' if I had no life, or were a social misfit, surrounded by old HP-15Cs all alone in my dark room.

Well, I've got news for you, because regrettably (for you, it seems), I *do* have an extremely successful social life, have a wonderful family life as well, participate in a lot of Internet forums and all kinds of intellectual and artistic activities (just search the web for "Valentin Albillo") and am surrounded by state-of-the-art hardware and software you can't even begin to imagine, in an extremely sunny and enjoyable place. Does ESA and Cisco ring a bell ? Or else you don't even know what I'm talking about ?

I'll comment no more on this off-topic issue here, at all, but anyway, it wasn't my intention to offend anyone, and if I've done so, I duly apologize. But next time, it there ever should be a next time, please stick to *technical* attacks or defences to 'revenge' alleged *technical* offences and leave the family, life, and everything else out of the question, ok ? It's just bad style and does nothing to support your points ... ;-)

Best regards from V.

Is this what your dusty life is all about?

*Message #13 Posted by **HP-Calc-Collector** on 18 Nov 2003, 8:16 a.m.,*
in response to message #12 by Valentin Albillo

Mr Albillo The Great,

It appears you are having some bad days, or at least I guess so, because the combination of your arrogance, comptent, and pure aggressivity are very bad symptoms of a downgrading need-a-life undertaker.

I will not even list the *technical* inaccuracies you keep repeating, like an old man speaking to his mirror. That's sad enough as is.

In case you don't notice, neither me nor the readers of this great forum are the least interested in you whoopa-dupa hardware environment, your living place within some corruption-ridden country, or your

soooooo-interresting participation in other forums.

Come on, life is not limited to old calculators, even great little machines as the HP-15C. Try the real life (where real geniuses are often incredibly modest and friendly personnalities), for once, instead of making yourself publicly pathetic.

Let's keep the high level?

*Message #14 Posted by **Nelson M. Sicuro (Brazil)** on 18 Nov 2003, 8:45 a.m.,*
in response to message #13 by HP-Calc-Collector

Hey, people, c'mon! Let's get the high level here! I live in a much corrupted country, this doesn't make me a bad person!

I read several posts of the highest level from this people that are *personally* and *anonymously* atacking our fellow V.A. Ok, we must be patient with others, as we all don't know everything of everything.

My *personal opinion*, I don't think is polite to call indirectly other people 'dumb', nor offent the caller in a personal level without arguments, not knowing him.

There are several 'polarized' discussions of one or other calculator (let's talk about RED LED?), is all matters of personal taste. I would love to have a RED LED HP-42S... (I'll build one some day)

I'm not a expert in the mathematics field, but I like it very much and I keep learning, in special in this excellent forum!

Best regards to all,

Nelson

(12345 to delete)

Edited: 18 Nov 2003, 8:46 a.m.

Please: help for translating...

*Message #15 Posted by **R Lion** on 18 Nov 2003, 9:25 a.m.,*
in response to message #13 by HP-Calc-Collector

> Quote:
>
> ...your living place within some corruption-ridden country...

I can't understand the meaning of that, posted for the anonymous HP-Calc-Collector... Could someone help me? Thanks in advance.

Raul L(Spain)

Edited: 18 Nov 2003, 11:01 a.m.

Re: Please: help for translating...

*Message #16 Posted by **David Brunell** on 18 Nov 2003, 12:48 p.m.,*
in response to message #15 by R Lion

Any country which has a system of taxation that allows politicians to take money from some people and use it to buy votes from others is "corruption ridden." That includes every country I know of, including my home country, the USA. Sadly, it wasn't always that way here.

I, as an electrical engineer, utilize complex numbers quite frequently, in both polar and rectangular form. Often, I will need to do a few quick calculations on the stack if I am analyzing a small circuit. Here, the 42S or 48 series is preferable to the 15C and 41C since the former allow both real and complex parts to be visible simultaneously. (I admit to using my TI-92 most of the time for these calculations however.)

I think there are polite and impolite ways to disagree with someone, and most of what has been posted in this thread so far is impolite. If you have strong emotions against someone's point of view, it is better to just let it slide than to resort to inflamed rhetoric and personal attacks.

Regards,

David

Edited: 18 Nov 2003, 12:56 p.m.

Re: Please: help for translating...

*Message #17 Posted by **R Lion** on 18 Nov 2003, 1:43 p.m.,*
in response to message #16 by David Brunell

Thanks David... and I'm wondering why this guy (?) talk about Spain in this way.
Definitely, I don't like these masked contributors.

Re: Please: help for translating...

*Message #18 Posted by **Dave Hicks** on 18 Nov 2003, 3:55 p.m.,*
in response to message #17 by R Lion

> Quote:
>
> and I'm wondering why this guy (?) talk about Spain in this way.

Spain? When I read that, I assumed Valentin must live in **my** country. Must be the cold making me cynical today...

Dave: thanks for your work and hospitality (no text)

*Message #19 Posted by **R Lion** on 18 Nov 2003, 4:59 p.m.,*
in response to message #18 by Dave Hicks

Re: Is this what your dusty life is all about?

*Message #20 Posted by **Angel Martin** on 18 Nov 2003, 1:47 p.m.,*
in response to message #13 by HP-Calc-Collector

Just keep the stereotypes aside, would you?

Best, AM.

Re: It's amazing (!)

*Message #21 Posted by **Vincent Weber** on 18 Nov 2003, 8:47 a.m.,*
in response to message #12 by Valentin Albillo

Mr Albillo,

If you are such a sociable person, you probably know that on a forum, you are not judged on what you are, but on what you display. And I can ensure you that what you display is pretty nasty. No personal attacks ? Let me laugh. Your post is full on assumptions about my education & background, and is litterally filled with hatred. What don't you go and read it again ?

Anyway, if you want to focus on technical issues, it is fine with me. Your agressivity was the first thing I noticed in your post, but on second reading, I found that besides the tone, your statements are also very debatable.

Probably living a deep love story with your HP-15C, you seem to have interpreted my post as "The HP-15C is lousy" while the essence of my message was clearly "The HP-15C is a very fine machine, with quite a few nice advantages over the 41C, but the 41C owner can overcome these". Since you wrote litterally on July 21st "There's almost nothing you could do with a real or emulated (not simulated) HP-15C that you won't be able to do with this emulated 41C", you obviously have radically changed ideas in the past three months, given the space you devote to (passionnately) demonstrate the hidden depth of this "almost nothing".

Besides, you take the "geek" approach while I was taking the "user" approach, which of course leads to some miscommunication. Examples:

"You're comparing a built-in *microcoded feature* versus an *RPN program*. That's not fair."

Yes, it is very true. Yes, the microcode features are far more optimized than RPN programs, I have noticed this, despite my mental disabibilities, thank you. So what ?? Does it change the fact that, from a USER perspective, MEDIT and CFIT are more user-friendly ? My point is not to be "fair", this is not a war against your beloved HP-15C, which I love too. The thing is, the user does not care of whether the routines he uses are optimized or not. He will care only as far as speed is concerned - and despite its great optimization, speed is not the 15C's main asset anyway, right ?

"Very easy to program ? With full accuracy for all the x range ? You're utterly misinformed, please do yourself a favor and read "Mathematics Written in Sand" by Mr. Kahan. A little mathematical and algorithmical culture will do you well".

On www.rskey.org, there is a fairly good '41 program to compute the Gamma function. It may not be as precise than the one for the HP-15C, though, I agree. And so what ? Again, from a USER perspective, I do not care that much if I miss one decimal on the Gamma function. You will tell me that it is because I do not use the Gamma function often and you will be right. Does it justify your agressivity ? As for "my mathematical and algoritmical culture", thanks for caring. FYI - I developped alone a Nortel voice/video/data network simulator for SITA/Equant (the largest telecommunication network in the world) 7 years ago, which is still used as a corporate standard today. The tool computes all routes & network metrics with one-bit precision and uses artificial intelligence techniques to build the topology in a couple of minutes on a simple PC, which the native Nortel tool could not achieve on a high-end workstation in hours So, I believe that I know a little more about algorithms and optimization that you may think. Before you judge people with contempt I suggest that you try to know them first.

"And, quite useless ? A random number generator ? Really, this is the point when I'm thinking I'm wasting my time with you, as you seem so painfully uninformed of all things mathematic. I could give you dozens of random number generator's applications, both real-life and theoretical, but this is not the place for it.Do

your homework, read a little, and get informed yourself, I'm not doing it for you."

There are indeed many such applications, which I am well aware of, thanks again for caring about my education. Personnally, I just don't need this on a *programmable calculator*, because the range of applications I use nowadays (matrixes, statistics, finance) do not require it. It seems that it makes me sub-human for you. Sorry !

"Good reasoning. The fact that you don't want to use a feature, because you're afraid of it or you don't see its potential, automatically means that feature is useless. For anyone. Banned out of existence. Counts for nothing. I like your style. Your reviews are great. You should consider doing some reviews of TI models, SHARP models, etc. BASIC ? Who needs BASIC ? It opens the door to spaghetti code ... Ugh !"

This sounds as if I had stated "All the pigs who are using direct line addressing should be shot at once". Mr Albillo, you definitely know how to write; the next step for you would be to learn how to read... (You see, it is not difficult to be sarcastic and nasty: I can do it too !).

"That's it. I've had enough of you. I'm certainly wasting my time trying to maintain a meaningful e-conversation with you as you're so painfully devoid of the minimum required knowledge and objectivity to rationally discuss the matters at issue."

All, please note that this is an "answer" to my comments in the use of complex numbers in electronics. Besides the insults, I do not see any argumented answer. Perphaps Mr. Albillo is an expert in electronics, and my opinion on complex numbers is so grossly ridiculous that every engineer would agree with it ? I guess that in your mind, the electronics engineer who posted recently that he has no use for a complex stack is also an idiot, then. Because of course, you are THE expert in everything - mathematics, electronics and real world applications ?

"As I said before, I like your reviewing style. Fair, knowledgeable, objective, comprehensive ... chapeau !"

...And I really enjoy yours: Argumented, constructive, pleasant, respectful of others' points of view: bellissimo !

Your sincerely,

V.W.

Re: It's amazing (!)

*Message #22 Posted by **Wayne Brown** on 18 Nov 2003, 8:52 a.m.,*
in response to message #12 by Valentin Albillo

> Quote:
>
> I make a derogatory (but rationalized and documented) comment on the *technical* abilities and sheer lack of objectiveness *in reviewing some devices* that some person evidences, without ever saying a word (or even subtly mentioning) any other aspects of said person's private life or attitude towards life in general, which I profoundly ignore and couldn't care less, and all I get are *personal* (not "technical") attacks, in the most derogatory terms possible, with bold statements about my "emotional IQ", my "social abilities", hastily quantizing the "time I spend with my friends and family", the "obsolescence of the hardware I deal with" ...
>
> ... which of course *none* of the persons uttering such has the *slightest* idea about whatsoever. In other words, a completely irrational, venomous attack, which only tries to pathetically retaliate some alleged "offence" by gratuitously and furiously trying to hurt the alleged 'offender', which is even kindly 'invited' to leave the forum.

Well, sorry, but I see all of the following comments not as "derogatory (but rationalized and documented) comment on the *technical* abilities and sheer lack of objectiveness *in reviewing some devices* that some person evidences" but as a "venomous attack" on Mr. Weber personally.

> Quote:
>
> You're utterly misinformed, please do yourself a favor and read "Mathematics Written in Sand" by Mr. Kahan. A little mathematical and algorithmical culture will do you well.
>
> Quote:
>
> Really, this is the point when I'm thinking I'm wasting my time with you, as you seem so painfully uninformed of all things mathematic. I could give you dozens of random number generator's applications, both real-life and theoretical, but this is not the place for it.Do your homework, read a little, and get informed yourself, I'm not doing it for you.
>
> Quote:
>
> Will you fault the HP-15C for the shortcomings of your emulator, as you're faulting it for *your* mathematical shortcomings ?
>
> Quote:
>
> That's it. I've had enough of you. I'm certainly wasting my time trying to maintain a meaningful e-conversation with you as you're so painfully devoid of the minimum required knowledge and objectivity to rationally discuss the matters at issue.

The last of these "comments" is the worst. (I found the tone of many of your other comments to be offensive, but have limited myself to quoting the most egregious.) Had Mr. Weber himself behaved in an obnoxious or condescending manner I would have had no problem with you reponding in kind, regardless of whether the technical points he made were right or wrong. But his was a polite and friendly note, and there was no excuse for your vicious response even if he were 100% wrong and you were 100% right.

My disagreement is not with your technical issues but with the insulting manner in which you choose to present them. In the disputes you've had with others here on the Forum I've often agreed more with your positions than with the positions of some of the others. However, I find that I hold those others in higher regard than I hold you. Why do you suppose that is?

I am saddened

*Message #23 Posted by **bill platt** on 18 Nov 2003, 11:44 a.m.,*
in response to message #12 by Valentin Albillo

Hello Valentin, Hello Vincent,

I am more deeply saddened by this episode than perhaps I would have expected. During the relatively brief period over which I have followed this forum, I have been delighted by the sense of cooperation and sharing, Sure, there have been occasional flames, and some "interlopers" coming in to stir up off-topic trouble. But these moments have been rare.

By and large, this forum has been a remarkable achievement--an international cast of characters, ever-

changing, yet ever-present. A sense of community. A sense of, "If I give something here, I will receive even more, but it feels good to give here, so I'll keep giving."

And we have personality! Valentin, the sometimes fiesty mathematiitian; Luiz, the warm and generous Brazilian, with words of encouragement for those with a hardware problem; Nelson, the amazing hardware guy...Wlodek, the legend; Hrast, Christophe, Miendert---these guys make *real* amazing things, and most of us just listen in awe! Randy, the professional hardware expert who has the time and patience to give us help...Norm, NORM!, life would not be the same without him! (He even writes songs.....) And there are so many others---it would be 50 pages to recognize all the personalities here, and the nice things they have done (thanks Katie for helping me with a bad scan of an HP45).... And it would be sad if either Vincent or Valentin departed...they both have interesting things to say.

SO,

I do think Valentin went too personal and cutting---but I hope it was just one of those "lost in translation" episodes...remember, some of our favorite contributors are not english first.... Or maybe it's like when you tell a sarcasm on the phone or with your head turned---it comes out all wrong without the face to belie the sarcasm!

I do hope we can see things patched up here.

And to look at this in perspective, there are other forums out there that are rude, lewd, obnoxious word-sewers. We have never had such depths as you find, for example,, at

http://www.ppi2pass.com/w-agora_eef/view.php?site=eforums&bn=eforums_eef&key=1069091623&first=1069174345&last=1068761617

Hoping for a resulotion of this conflict (and approriate apologies)

Best regards,

Bill

Re: I am also saddened

*Message #24 Posted by **james** on 18 Nov 2003, 12:23 p.m.,*
in response to message #23 by bill platt

Bill, you have said exactly what I was wanting to say but was struggling as to how to say it - I have also found the recent events very sad, in particular, as up to now I have always looked on this forum as one of the last bastions of civilised discussion, in a world which rapidly becomes more uncivilised, where people were capable of disagreeing with each other without resorting to personal attacks.

Like you, Bill, I hope that matters can be resolved.

Best, James

Re: I am saddened

*Message #25 Posted by **Vincent Weber** on 19 Nov 2003, 5:18 a.m.,*
in response to message #23 by bill platt

Hi Bill,

Thanks for your kind and wise words. I am also saddened, all the more that I used to have a lot of respect for Valentin's posts. I actually love both HP-41C and HP-15C, in fact, I own one 41CV and

one 41CX, but I am not lucky enough to own any module or a HP-15C. I purchased a nice Ipaq 1940 PocketPC, where I can run both an HP-41 emulator with all modules and an HP-15C simulator from Lygea. I wanted to choose once for all which one to use, and tried to persuade myself that I would not need the HP-15C with all the functionality of the 41C; hence my post to show that the HP-41C owner can live without the nice touches on the HP-15C. My goal was actually to be challenged, I would have loved a constructive reply to tell me "You should use the 15C instead" - that's a nice verbal game. When I saw that the first reply was from Valentin, I was really excited to read it ! My joy was short, though. I felt really insulted a first time, and a second time shortly after ("It's amazing !"), when Valentin refused to take any kind of responsability whatsoever in what happened, and put all the blame to others. Out of anger, I replied to him in the same kind of tone which he used with me, not to take revenge, but in the hope that this would trigger some positive reaction and that he would realize that such behaviour is not acceptable.

I have cooled down now, and I would like to tell Valentin that I am sorry both for giving him the impression that I was looking down on the HP-15C, and then for imitating his behaviour, which was not the smartest thing to do.

I also would like to tell him that, should he realize his own mistake and apologize to me in a brief, yet sincere note, his apology will be immediately and cheerfully accepted with no fuss, and I will feel proud and honored to share opinions and ideas with such a knowledgeable person. Otherwise, well, what to do, I will just have to accept the fact that our value systems are too different for us to communicate, and I will focus on other people on this forum, who, I must say, are generally very polite and pleasant to interact with. Thanks to all of you who posted a positive note.

Cheers,

Vincent

Re: I am saddened

*Message #26 Posted by **Valentin Albillo** on 19 Nov 2003, 6:57 a.m.,*
in response to message #25 by Vincent Weber

Hi, Vincent:

Vincent posted:

"I also would like to tell him that, should he realize his own mistake and apologize to me in a brief, yet sincere note, his apology will be immediately and cheerfully accepted with no fuss, and I will feel proud and honored to share opinions and ideas with such a knowledgeable person"

Thanks for your soothing message and measured words, all the more welcome as, in all honesty, I must state that no matter what particular technicalities were involved, the general tone of my reply to your original post wasn't up to the standards that must be observed between civilized, well-mannered people, and so I must sincerely apologize for any and all distress it may have caused you, because, although no offence was really intended on my part, it certainly could be construed as a blatant case of disrespect, an unfortunate state of affairs for which I'm deeply sorry.

That said, I'm the one who will be most honored to share knowledge and personal experiences with you, which can only result in our mutual enrichment. Again, thanks for your kind words and most amiable attitude and please accept once again my heartfelt apologies.

Also, to all those forum's members who kindly offered their valuable opinions and did their best to calm things down, thank you very much, your support is greatly appreciated and played a key part in helping us settle things down.

Best regards from Valentin Albillo.

Re: I am saddened

*Message #27 Posted by **Massimo Gnerucci (Italy)** on 19 Nov 2003, 7:19 a.m.,*
in response to message #26 by Valentin Albillo

Well done Valentin!

Now that all is fine again could we please come back to our preferred, yet *obsolete*, toys?

Thanks to both parties for pissin' on the flames.

Massimo

Many thanks Valentin.

*Message #28 Posted by **Vincent Weber** on 19 Nov 2003, 7:42 a.m.,*
in response to message #26 by Valentin Albillo

Dear Valentin,

I would like to deeply thank you for your kind and heartwarming words. As far as I am concerned, the issue is closed, and I am most honored to have the opportunity to discuss with you on this forum.

If you wish so and of course if you have the time, we could kick-off our discussion on two topics:

1) What do you think could be the limitations of the Lygea Pocket15C simulator (not emalator) vs. the orginal 15C ? The advantages are clear: mnemonics alpha display, light speed, 999 program steps, each matrix has the full 64 registers, display of full stack... the drawbacks are less clear to me. I suspect they might have to do with the precision of some operations. Since I own a PocketPC with Pocket15C, I could test such operations...

2) How to give the 41C the missing features from the 15C ? Any good complex stack implementation ? The RPN functions from the Advantage ROM are not really satisfactory (2-level stack, slow, no reverse trigonometrics - although Z^1/N gives *ALL* the roots of a complex number, which even the 48 does not do !); the 'CA' application from the PPC ROM is interesting, but it is a slow RPN implementation, with an "infinite" stack a-la 48 which does not allow T register replication; I don't know of any other implementation. I recently had a look at the AEC ROM, which does a good job a M-Code hyperbolics, and can also translate algebraic expressions into programs, almost like the 32SII - although not integrated with a solver, too bad. I like the 41 because I am amazed of how versatile and time-resistant a 1979 machine can be; I like the 15C for its best "power/volume" ratio and its classy design.

Cheers,

Vincent

Re: Many thanks Valentin [LONG]

*Message #29 Posted by **Valentin Albillo** on 19 Nov 2003, 10:41 a.m.,*
in response to message #28 by Vincent Weber

Hi again, Vincent:

Vincent posted:

"I would like to deeply thank you for your kind and heartwarming words. As far as I am concerned, the issue is closed, and I am most honored to have the opportunity to discuss with you on this forum."

Thanks to you for kindly accepting my apologies, the honor is mine indeed. Now, let's quickly forget this most unpleasant affair and move on :-)

"1) What do you think could be the limitations of the Lygea Pocket15C simulator (not emalator) vs. the orginal 15C ? The advantages are clear: mnemonics alpha display, light speed, 999 program steps, each matrix has the full 64 registers, display of full stack... the drawbacks are less clear to me. I suspect they might have to do with the precision of some operations."

Regrettably, I haven't had the opportunity to try Lygea's simulator so I can't comment on its strengths and weaknesses (apart from the backlabel's info :-) Accuracy should probably be greater, as it surely uses Double precision, i.e.: 17 significant digits, versus the 13-digit internal, 10-digit external available on the 15C. If it then rounds those 17 digits back to 10, *all* of them should be correct. That's *not* the case with the real 15C, where such operations as 3^201 is off by *two* counts in the last place (worst case known. See "Advanced Functions" manual).

Things I would look for include checking if absolutely all (400+) functions available in the 15C are indeed implemented, and with the exact same behavior. For instance, if you want to try a few:

- Does the display blink continuously when some operation results in overflow ? If yes, does "backarrow" stop the blinking ? Does CF 9 stop the blinking ? Does any other key or operation stop the blinking ? Does SF 9 start the blinking again ?
- When running a program, do "user STO" and "user RCL" automatically skip the next step when the last element is processed ?
- When running a program, does MATRIX 7 (Frobenius norm) automatically skip the next step if the contents of the X register is *not* a matrix descriptor ?
- When running a program, does SOLVE automatically skip the next step if no root was found ? Does INTEGRATE skip the next step if the final value didn't meet the precision requirements after reaching the internal maximum iteration limit ?
- Do all complex multi-valued functions have the same branch cuts as in the HP-15C ? Check square root, exp, log, and hyperbolics
- Do the results agree with the real 15C for inverses, determinants and system solutions for singular or very nearly singular matrices ? I would try all the examples in "Advanced Functions", just to be sure
- Does the random number generator mimic the results of the one in the real 15C ? If not, does it pass the Spectral Test (as the real 15C does) ?
- Does [Pi] [STO #RAN] [RCL #RAN] produce 0.3141592654 ? Same with 9.999999999E99, -9.999999999E99, 9.999999999E-99, -9.999999999E-99

- Does line number branching work the same as in the real 15C ? I would check with out-of-range, negative, and non-integer values in I.
- Does GTO I work correctly when I contains a matrix descriptor ?
- if you are in complex mode, can you store a matrix descriptor in both the real X-register *and* the imaginary X-register ? What does it do if you then press [+] or [-] ?
- Are both RCL DIM (i) and RCL DIM I legal instructions ? What do they do ?

I know you don't have a real HP-15C for checking these questions, but do check them on your simulator, if you want to, and we can compare results afterwards.

"2) How to give the 41C the missing features from the 15C ? Any good complex stack implementation ?"

I wrote a very good one as part of an HP-41C Solutions Book published locally (Matematica Avanzada). It's never been published elsewhere, but regrettably I don't have a copy of the book right now. I know I *do* have the original listings and documentation, but they're buried in a 4-feet stack of old listings and calculator docs and materials, and it would take some time to search for it, then retyping it all in a word processor. I'll do it, eventually, but it will take some time. I remember it accurately implemented an RPN complex stack just as a user would expect it, including all functions and functionalities, even complex store and recall, programmability, anything. It was a large, carefully crafted program and it certainly delivered the goods. I found it superior in usability to even the HP-15C's native complex mode, as it offered important extra functionality, such as complex storage/recall. It also had a novel and imaginative solution for conveniently implementing complex numbers entry and display.

"I like the 41 because I am amazed of how versatile and time-resistant a 1979 machine can be; I like the 15C for its best "power/volume" ratio and its classy design."

After all is said and done, the 41C is the best machine, no question. But the comparison will never be fair, as they simply aren't in the same league and besides, they weren't designed to compete but to complement each other. Matter of fact, many an HP-41C owner would also buy an HP-15C as well, to carry along all the time, whatever the place.

As a pure number-crunching calculator (not computer, not system, not expandable, not essentially programmable, ultra-pocketable, rugged, batteries last forever, highest quality keyboard and display), the HP-15C is arguably the best, all places, all times. As an essentially programmable, ultra-advanced calculator-cum-computer (expandable, configurable, customizable, portable, powerful, groundbreaking) the HP-41 is best, no question.

... and nevertheless, it doesn't really matter, as most any contemporary SHARP models (and even some CASIOs) can run rings around them both ... ;-) No flames, please, just kidding ! :-)

Best regards from V.

Matematica Avanzada?

*Message #30 Posted by **Angel Martin** on 19 Nov 2003, 3:19 p.m.,*
in response to message #29 by Valentin Albillo

Valentin,

If you finally succeed digging out your originals, I'd be more that interested! I'm not an expert on high level math, but have a deep fondness for those areas I studied while in college, many moons ago.

The HP solutions book is a good start, but in many respects it leaves quite some room for improvement. What a shame hp never took real advantage (pun intended) of the Advantage ROM! Anyway, as I said I'd love to see your programs - and of course, documentation in Spanish won't be a bit of a problem :-)

Best wishes y saludos, Angel

Re: Matematica Avanzada?

*Message #31 Posted by **Valentin Albillo** on 21 Nov 2003, 12:14 p.m.,*
in response to message #30 by Angel Martin

Hola, Angel:

Angel posted:

"If you finally succeed digging out your originals, I'd be more that interested! I'm not an expert on high level math, but have a deep fondness for those areas I studied while in college, many moons ago."

Thanks for your interest in my programs, and in Mathematics in general as well. Seems we share at least two main hobbies ...

"The HP solutions book is a good start, but in many respects it leaves quite some room for improvement."

Indeed ! Not just "some room" but cathedral-size room, at least for mathematical topics. I still remember the dreadful programs in the original Math ROM for the HP-41C. When I heard that ROM announced, I was all too eager and excited to lay my hands on one, assuming it would be full of quality, highly optimized programs and algorithms. Well, it was so bad as to be nearly unusable, it wasn't optimized but very nearly "pessimized". In short, I thought it was so bad that I gave it for free to somebody, not wanting to waste up a worthwhile port with that sloppy, unlovingly-written rubbish.

Solution Books for math topics weren't much good either, and HP Spain did know that, because both Fernando del Rey and me were all too happy to let them know, so they commisioned us to write several Solution Books to be published locally. I remember three: "HP-34C Advanced Mathematics", "HP-34C Physics & Chemistry Solutions" and "HP-41C Advanced Mathematics". They each had some 20-25 high-quality, ultra-optimized user code programs, *lovingly* written by Fernando (50%) and me (50%), with full documentation and examples. I still have one of these books, namely "HP-34C Advanced Mathematics" (courtesy of Fernando del Rey, I sent my one-and-only copy down under, to Australian's PPC Melbourne Chapter), but also keep the original listings and documentation for all of them. If only I would find them ! ... :-(

"What a shame hp never took real advantage (pun intended) of the Advantage ROM!"

Yes, HP was already showing signs of decadence back then, but Grapevine did publish a number of very interesting books and leaflets on the Advantage ROM. I happen to own three:

- Using your Advantage ROM: Statics for Students"

- Using your Advantage ROM: Electrical Circuits for Students"

- Using your Advantage ROM: Computer Science"

The last one did include a long, complex program to try and simulate most HP-16C functionalities on a 41C, quite successfully by the way.

"Anyway, as I said I'd love to see your programs - and of course, documentation in Spanish won't be a bit of a problem :-)"

If I can locate them and get some scraps of free time, I'll make them publicly available, but the documentation will have to be in English, to make them more easily accessible for a wider, international audience.

Muchas gracias por tu interes, y saludos. No viviras por Madrid, verdad ?

Re: Matematica Avanzada?

*Message #32 Posted by **Angel Martin** on 21 Nov 2003, 2:06 p.m.,*
in response to message #31 by Valentin Albillo

Valentin,

I'm also *fine* with English documentation, as a matter of fact, it is probably better.

I was wondering whether you ever came across the AECROM module? The reason why I mention it is because its hyperbolics MCODE functions. I've been meaning to get my MCODE scalpo and extirpate them from the AECROM and into my SANDROM, which I'm now extending to an 8k-module, and thus will have plenty of math functions.

I know they make use of the 41 internal routines, so supposedly they should retain the same internal precision as the EXP (and LN for the inverses) functions, albeit I suppose this gets impacted by the repetitive calling of them? (I'm showing my ignorance here). This touches upon something I've been wondering for a while: what's a good method to evaluate/check the calculation precision?

I'll work on this a little tonight, will keep you posted.

Best, AM

PS. Aun siendo de Madrid (c/San Bernardo para ser precisos) me temo que actualmente vivo bastante lejos: cerca de Karlsruhe, en Alemania... nadie es perfecto :-)

Re: Matematica Avanzada?

*Message #33 Posted by **Ed Look** on 21 Nov 2003, 6:23 p.m.,*

in response to message #31 by Valentin Albillo

Valentin,

I would be very very interested in seeing your chemistry and physics applications materials for the 34C. I understand that you don't have the actual booklets, but any format, compressed text files, copies on regular paper sent in an envelope requiring stamps (I would gladly pay postage, etc.). I am no mathematician nor programmer by any stretch of anyone's imagination, but these materials perhaps I can really use.

Re: Matematica Avanzada?

*Message #34 Posted by **Valentin Albillo** on 22 Nov 2003, 8:13 p.m.,*
in response to message #33 by Ed Look

Hi, Ed:

Thanks for your interest, but the problem is, not only I don't have the actual printed Solution Books, but further I don't have the originals exactly located ! I know I still have them, but 'buried' among many other articles, papers, magazines, etc, etc, in a 4- or 5-feet stack at home. It will be a major task organizing and classifying all that information, then I would need to translate them into English (as the original documentation is in Spanish), then retype or scan them in orden to make them distributable in electronic format.

Regrettably I can't allocate the time all of this would require right now, but if I ever manage to do it all, they will be made publicly available and I'll post a note in this forum to let you know.

Again, thanks for your interest and

Best regards from V.

Re: Matematica Avanzada?

*Message #35 Posted by **Ed Look** on 22 Nov 2003, 9:22 p.m.,*
in response to message #34 by Valentin Albillo

Valentin, no problem. I don't use the 34C much anymore for any real work, anyway; I thought perhaps I could easily translate them to my 32SII (much similarity between those two in many ways).

Puedo leer un poco espanol. Actualmente, estudie espanol desde el grado seis hasta universidad... pero no puedo hablar espanol no mas... solamente puedo leer y escribir un poco. Si encontraria los materiales in el futuro, yo los aceptaria alegremente.

Okay... no more Spanish tonight. That was too long ago. (Sorry!) (Pain inside cranium...)

Re: Matematica Avanzada?

*Message #36 Posted by **Angel Martin** on 23 Nov 2003, 3:23 p.m.,*
in response to message #31 by Valentin Albillo

Well, it's done: from now on the SANDBOX ROM will include the three main Hyperbolic functions and their inverses.

It looks like I could locate and transcribe the code from the AECROM, which in turn uses internal mainframe routines.

Riding on this fortunate success, I took upon writing a new MCODE function to calculate the roots of a quadratic equation: ax^2 + bx + c =0

The user inputs a,b,c in the stack, the results are left in Y and X, as the two real roots (Z contains 1) or as the real and imaginary parts of the conjugated comlpex roots (Z contains -1).

Another function also implemented is for the constant (not the function) Gamma de Euler, i.e. 5,772156649 E-01, as it shows up relatively frequently.

Any suggestions for further MATH functions or routines, anyone?

Best,

AM

Re: Many thanks Valentin [LONG]

*Message #37 Posted by **Vincent Weber** on 19 Nov 2003, 11:47 p.m.,*
in response to message #29 by Valentin Albillo

Hi Valentin

" Thanks to you for kindly accepting my apologies, the honor is mine indeed. Now, let's quickly forget this most unpleasant affair and move on :-)"

My pleasure. Yes, let's move on ! :-)

"That's *not* the case with the real 15C, where such operations as 3^201 is off by *two* counts in the last place (worst case known. See "Advanced Functions" manual)".

Unfortunately, I do not own a real 15C.I have been searching for one for month in Singapore... I managed to get one 41CV, one 41CX, one 42S and one 32SII. 15C, niet - probably the owners are too attached to it to sell it... ;) I don't own the "Advanced functions" either - it does not seem to be available on the Internet... So, we will complement each other: I will tell you the behaviour of Pocket15C, and you will be able to compare it with the real behaviour :)

3x201 answers 7.968419666E95 on Pocket15C, and 7.96841966626E95 on my 48GX. It seems that the first 10 digits are correct then ?

"Does the display blink continuously when some operation results in overflow ? If yes, does "backarrow" stop the blinking ? Does CF 9 stop the blinking ? Does any other key or operation stop the blinking ? Does SF 9 start the blinking again ?"

The display does not blink: as explicitely documented by Lygea, the digits turns red instead. However, the behaviour seems to be the same than on the real 15C, i.e. both "backarraw" and CF 9 get the digit back to black, while SF9 get them back to red.

"When running a program, do "user STO" and "user RCL" automatically skip the next step when the last element is processed ?"

I have tried the following programs:

User STO --------

001 f LBL A 002 3 003 ENTER 004 3 005 f DIM A 006 f MATRIX 1 007 f LBL 0 008 R/S 009 USER STO A 010 GTO 0 011 1 012 2 013 3 014 RTN

After inputing 9 elements, the program exists the "infinite" loops and displays "123" which I believe is the expected behaviour.

USER RCL (lauched immediately after 'USER STO') --------

001 f LBL A 002 f MATRIX 1 003 f LBL 0 004 f PSE 005 USER RCL A 006 GTO 0 007 1 008 2 009 3 010 RTN

Same bahaviour - the program successfully exists the loop.

"When running a program, does MATRIX 7 (Frobenius norm) automatically skip the next step if the contents of the X register is *not* a matrix descriptor ?"

I have tried the following programs (assuming A holds a 3x3 matrix as in the previous example):

001 f LBL A 002 RCL MATRIX A 003 f MATRIX 7 004 1 005 2 006 g RTN

Output: 12

001 f LBL A 002 0 003 f MATRIX 7 004 1 005 2 006 g RTN

Output: 2

Again it seems that the behaviour is correct.

"When running a program, does SOLVE automatically skip the next step if no root was found ? Does INTEGRATE skip the next step if the final value didn't meet the precision requirements after reaching the internal maximum iteration limit ?"

For SOLVE, I tried the following:

001 f LBL A 002 g X^2 003 1 004 + 005 g RTN

(f(x)=x^2+1, not likely to find *any* root unless the solver has been upgraded to a complex one ;))

Then:

006 f LBL B 007 f SOLVE A 008 1 009 2 010 RTN

The output is the expected "2". If I suppres the "g X^2" step in A, i.e. if I solve for X+1=0, I get "12" as an output for B.

For INTEGRATE:

I failed to reproduce this with a few examples. I am not too sure on how to get such a 'difficult' function to integrate for the 15C... Any idea ?

"Do all complex multi-valued functions have the same branch cuts as in the HP-15C ? Check square root, exp, log, and hyperbolics"

"1 ENTER f I sqrt g ->P" (in RAD modes) gives sqrt(sqrt(2)) as module and PI/8 for the principal root of 1+i = sqrt(2)*exp(i*PI/4). I would say that this is the expected behaviour ?

"1 PI 4 / f I EXP g ->P" (in RAD modes) gives the expected e as module, and PI/4 as argument.

"1 ENTER f I g LOG" gives the expected LOG(Sqrt(2)) as a real part, and PI/4/LN(10) as the imaginary part: LOG(1+i) = LOG(sqrt(2)*EXP(i*PI/4)) = LOG(sqrt(2)) + LN(EXP(i*PI/4))/LN(10) = LOG(sqrt(2) + PI/4/LN(10).

"1 ENTER f I f HYP SIN" gives the same results as with using the definition: (exp(x) - exp(-x))/2

"Do the results agree with the real 15C for inverses, determinants and system solutions for singular or very nearly singular matrices ? I would try all the examples in "Advanced Functions", just to be sure"

I can't comment on that, but I can try whatever examples you have. If I'm not wrong, that was done once on this newsgroup with correct results.

"Does the random number generator mimic the results of the one in the real 15C ? If not, does it pass the Spectral Test (as the real 15C does) ?"

I cannot comment about the results on the 15C. As for the spectral test, I heard of it, but I have no time right now to try it :)

"Does [Pi] [STO #RAN] [RCL #RAN] produce 0.3141592654 ? Same with 9.999999999E99, -9.999999999E99, 9.999999999E-99, -9.999999999E-99"

With PI, the result in 0.314159265; the others triggers an overflow (numbers become red), and the answer is either 1.0 or -1.0. Do we have a pitfall here ?

"Does line number branching work the same as in the real 15C ? I would check with out-of-range, negative, and non-integer values in I."

The bahaviour seems to be proper. Out-of-range values triggers an 'Error 4'.

"Does GTO I work correctly when I contains a matrix descriptor ?"

This does not trigger an error, but do be honest, I am not 100% sure of what this is supposed to do ?

"if you are in complex mode, can you store a matrix descriptor in both the real X-register *and* the imaginary X-register ? What does it do if you then press [+] or [-] ?"

RCL MATRIX A f I triggers an "Error 1"... I have tried that in the beginning hoping that this would have the same bahaviour as the 42S to create a complex matrix, and was disappointed when I saw that the only way to create complex matrix is to transform them from 'real' matrixes. Do you mean that this is actually supposed to work ? (forgive my

ignorance - please keep in mind that I could not find a real 15C and that this simulator is all that I have !").

"Are both RCL DIM (i) and RCL DIM I legal instructions ? What do they do ?"

Both of them are legal. Assuming I contains a 3x3 matrix descriptor, RCL DIM I gives the dimensions of the matrix on the stack (3 and 3), while RCL DIM (i) gives 65, which I strongly suspect to be the number of registers used by the matrix + 1 (65 as a fixed-sized in the case of Pocket15C).

"I wrote a very good one as part of an HP-41C Solutions Book published locally (Matematica Avanzada). It's never been published elsewhere, but regrettably I don't have a copy of the book right now. I know I *do* have the original listings and documentation, but they're buried in a 4-feet stack of old listings and calculator docs and materials, and it would take some time to search for it, then retyping it all in a word processor. I'll do it, eventually, but it will take some time. I remember it accurately implemented an RPN complex stack just as a user would expect it, including all functions and functionalities, even complex store and recall, programmability, anything. It was a large, carefully crafted program and it certainly delivered the goods. I found it superior in usability to even the HP-15C's native complex mode, as it offered important extra functionality, such as complex storage/recall. It also had a novel and imaginative solution for conveniently implementing complex numbers entry and display"

I am looking forward to see it. Congrats ! :)

"... and nevertheless, it doesn't really matter, as most any contemporary SHARP models (and even some CASIOs) can run rings around them both ... ;-) No flames, please, just kidding ! :-)"

Actually, I have seen some many people bashing Casio here... while I do esteem Casio ! My first machine was a Casio fx-8000G in high-school, and was doing a good job. Casio has been innovating in may ways: in 1982, the fx-602p, while not as powerful as the HP41, was faster, with a real LCD screen; the FX-702P in 1981 was a faster competitor to the Sharp PC-1211; in 1985, Casio simply revolutionnized the market by creating the first graphing calculator (the FX-7000G) with a large screen, together with the first programmable formula-based calculator (the FX-4000P, which is an adorable little thing that I have in my collection). Speed and quality of screens were key assests to Casio in the 80's. HP28C/S came only 1/2 years later, with half of the size of the screen, and were very expansive. During my school days, the usual path was to have a Casio in high-school and to move to the prestigious new HP-48SX, which was actually my first beloved HP. It is only recently that I started to discover the virtues of older machines, such as the 41,15, and 42 :) In comparison, TI did not innovate much: With the expection of the TI-59, a prestigious machine with modules (in 1977 !) which was litterally killed by the HP-41, TI was down until the '90s (I do not think of the TI-66 as a serious rival to the HPs, and the TI-88 project was cancelled). And the machines of the '90s were actually copies of Casio (think of the TI-81, so simular to the Casio FX-7000G... 5 years later !). Only their TI-92 could 'beat' the HP48, but I do not call this a calculator anymore, given the volume and weight :) They are finally dominating the market with the TI-89, a fine but overkill machine, which is actually very recent (1998). So, long live Casio ! My 2 cents :) Cheers, Vincent

Re: Many thanks Valentin [LONG]

*Message #38 Posted by **Veli-Pekka Nousiainen** on 20 Nov 2003, 5:44 a.m.,*

in response to message #37 by Vincent Weber

To my opinion Sharp BASIC and editor is more flexible than that of CASIO. I have CASIO FX-702P and Sharp PC1261 and PC1500. Naturally HP 71B and 75C are my preferred "pocket" PC (75C is a little bit too big for my shirt pocket, I use 16C instead, I wish I had not sold my 15C, I wish HP would make 15C Platinum - or should it be "Gold") My TI was (IIRC) old LED model SR-56 or something. I still can use it as a window-door stop. # VPN #

Real HP-15C results [LONG]

*Message #39 Posted by **Valentin Albillo** on 21 Nov 2003, 6:28 a.m.,*
in response to message #37 by Vincent Weber

Hi, Vincent:

Vincent posted:

"So, we will complement each other: I will tell you the behaviour of Pocket15C, and you will be able to compare it with the real behaviour :)

That's exactly the idea ... :-) Let's see:

"3x201 answers 7.968419666E95 on Pocket15C, and 7.96841966626E95 on my 48GX. It seems that the first 10 digits are correct then ?"

Correct.

"The display does not blink: as explicitely documented by Lygea, the digits turns red instead. However, the behaviour seems to be the same than on the real 15C, i.e. both "backarraw" and CF 9 get the digit back to black, while SF9 get them back to red."

OK.

[*"user STO [...] I have tried the following programs [...] which I believe is the expected behaviour"*

Correct.

"MATRIX 7 (Frobenius norm) [...]I have tried the following programs [...] Again it seems that the behaviour is correct."

Indeed.

"SOLVE [...] I tried the following [...]"

Again, correct.

"INTEGRATE [...] I failed to reproduce this with a few examples. I am not too sure on how to get such a 'difficult' function to integrate for the 15C... Any idea ?

Yes, you can define a "non-integrable" function (using *random numbers*, precisely ! :-) See ? They can be useful in a calculator for things other than games :-), that will fail all convergence tests thus making INTEGRATE exhaust all its allowed iterations, but it would need to evaluate your quite-complicated, random-based function 65,536 times or more, which would mean an *awful* lot of time. I suggest

we give it a miss for now.

"complex branch cuts [...]"

All your many examples (thank you) give exactly the very same results, so Ok.

"inverses, determinants and system solutions for singular or very nearly singular matrices"

I suggested you could try the examples in "Advanced Functions" but since it seems you don't have a copy and typing them here would be somewhat tiring and error prone, I suggest we leave this 'parked' for now.

"random number generator"

I really don't expect them to agree at all, it would be unreasonable except in an exact emulator. The important thing would be that Lygea's RNG would pass the Spectral Test, but that you wouldn't be able to easily test in the simulator itself. It would then be a matter of whether Lygea says as much in their documentation, or else asking Lygea directly.

"Does [Pi] [STO #RAN] [RCL #RAN] produce 0.3141592654 ? Same with 9.999999999E99, -9.999999999E99, 9.999999999E-99, -9.999999999E-99 [...] With PI, the result in 0.314159265; the others triggers an overflow (numbers become red), and the answer is either 1.0 or -1.0. Do we have a pitfall here ?"

Yes, we do. The real HP-15C never gives an error, and RCL RAN# gives 0.9999999999 (ten '9') for the E99 ones, and 0.0000000000 (ten '0') for the E-99 ones. No numeric argument will ever give an error, no matter its value. All arguments are simply 'scaled' to be between 0 (included) and 1 (not included).

"line number branching [...] The bahaviour seems to be proper. Out-of-range values triggers an 'Error 4'."

Ok.

"Does GTO I work correctly when I contains a matrix descriptor ?" [...] This does not trigger an error, but do be honest, I am not 100% sure of what this is supposed to do ?"

If I contains the matrix descriptor for matrix A, then GTO I should go to LBL A, likewise with B,C,D,and E.

*"if you are in complex mode, can you store a matrix descriptor in both the real X-register *and* the imaginary X-register ? [...] Do you mean that this is actually supposed to work ?*

No, it isn't. It was kind of a *negative* test, to see if the simulator would do something that the real HP-15C doesn't (but presumably could). So, correct behavior again.

"RCL DIM (i) and RCL DIM I [...]"

Correct again. It gives 19 instead of 65 on a just-reset HP-15C, but it corresponds to the present allocation, like the 65 does in your simulator.

Conclusion:

All in all, I think your simulator does pass most compatibility tests with flying colors, better than I expected. However, it does seem likely (to me) that it won't give the exact same results for these operations:

- Inverse, determinant, and system solving for *exactly* singular or very nearly singular matrices.

  This has to be tested, but I fully expect different results, based on the proprietary things the real 15C does with these kinds of matrices and the fact that the simulator actually works to significantly greater precision.

- Random number generator.

  This most likely doesn't mimic the one in the HP-15C and the only 'important' thing is whether it passes the Spectral test (as the real HP-15C's RNG actually does) or not. This can most likely be ascertained by asking Lygea's directly.

- Extra-precision, non-documented features

  The real HP-15C does perform some Sigma-Plus and Sigma-Minus operations and related statistics with extra precision, and this can be cleverly exploited in very specific user programs, as the one featured in "Advanced Functions" to accurately solve a most difficult case of 2nd-degree equation. I don't think that such program would run in your simulator, it would be necessary to key it in and see what the output is.

- Miscellaneous functions

  We've seen that STO RAN# and RCL RAN# do not work the same as they do in the real HP-15C for some arguments, and there are probably many other functions and features that could be tested as well. I'm thinking about Py,x and Cy,x for certain values of x and y, and other such cases, like Sin and Cos of *extremely* large arguments, where the internal argument reduction modulus 360 or 2*Pi could be computed differently in the real HP-15C and the simulator, etc.

Given enough time, it would be interesting to create an "HP-15C Simulators' Test Suite", comprising a certain number of specific calculations, programs, routines, and behavior that would be tried on any aspiring HP-15C simulator to give it a 'degree' of compatibility. Such tests do exist for compiler languages, Java and BASIC for instance, and are extensively used for standardization, normalization and certification.

I'd say that Lygea's simulator gets probably a 95% compatibility or better, and the remaining 5% is not all that important, anyway.

Thanks for this most interesting exchange and

Best regards from V.

Re: Real HP-15C results [LONG]

*Message #40 Posted by **Vincent Weber** on 23 Nov 2003, 9:42 p.m.,*

in response to message #39 by Valentin Albillo

Hi Valentin,

Great that this testing helped you to conclude that Lygea's job is not that bad :) Actually I like their program very much. There are a couple of things I do not like with it, though, among which: 1) Holding 'SST' and 'BST' keys does not automatically scroll the program steps, as in the real HP-15C. This is documented by Lygea, but they do not explain why they did not implement this nice, yet simple to code, feature. 2) They did not use the freedom that a simulator gives over an emulator to make the registers complex and to 'STO' and 'RCL' complex numbers in one instruction (which would increase the interest of the complex implementation tremendously). 3) Their 'Help' file is nice, but somehow too succint for somebody like me who never had a chance to own a real 15C with manuals. 4) There is no possibility to import/export program (apart from the possibility of manually copying the memory image file from your PocketPC to another one, or to/from a PC).

Apart from these weaknesses, this is a very neat program.

For integrating a function with random numbers, yes, I see why it should give you problems... :) First, probably such a function is not continuous (?) and I vaguely remember from my math courses that a non-continuous function could still be integrated, but under specific conditions to make the Riemman or Cauchy sums converge....

Btw - I know that on the 15C flag 8 is for complex mode and Flag 9 for overflow. Do flags 0-7 have specific meaning ? Especially: is there a '41 equivalent of the useful 41 features to detect if a the user is performing numerical input (I think it is flag 22 if I remember correctly), so that you could easily program an interactive solver that would either set the value for a variable or solve for it depending on whether or not you are typing a number ? This is where I think Lygea' help file falls short - there is no description of flags whatsoever.

Cheers,

Vincent

Re: Real HP-15C results [LONG]

*Message #41 Posted by **Valentin Albillo** on 24 Nov 2003, 10:32 a.m.,*
in response to message #40 by Vincent Weber

Hi, Vincent:

Vincent posted:

"Do flags 0-7 have specific meaning ? Especially: is there a '41 equivalent of the useful 41 features to detect if a the user is performing numerical input (I think it is flag 22 if I remember correctly)"

Regrettably the answers are "no" and "no". Flags 0-7 are "user flags", devoid of any special significance to the system which never uses them at all, while flags 8-9 are "system flags", used for complex mode and overflow signaling as you're well aware.

So, there aren't any system flags which will detect numerical (or otherwise) input, a la 41C (the HP-67/97 also had some flag support for this feature as well, where flag 3 would be set for data entry).

Ah, and by the way, check your e-mail ... :-)

Best regards from V.

Performance Tests?

*Message #42 Posted by **Patrick** on 22 Nov 2003, 6:34 p.m.,*
in response to message #37 by Vincent Weber

Hi Vincent

I admit I haven't read your detailed posting carefully, but I was wondering if you have undertaken any benchmarks comparing the 15C simulator against the real thing? Of course, it would depend on the PPC hardware upon which you performed the test, but would still be interesting to me.

Cheers, Patrick

Re: Performance Tests?

*Message #43 Posted by **Vincent Weber** on 23 Nov 2003, 9:31 p.m.,*
in response to message #42 by Patrick

Hi Patrick,

Such a benchmark would actually be irrelevant, as the simulator is so fast that every operation gives an *immediate* answer. Even solving for a root in an equation gives an answer as if it was a mere addition. This is due to the fact that the program does not emulate the hardware, but code every operation natevely - which is a real piece of cake for any PPC... That's the advantage of a simulator over an emulator (together with the extra memory and the alphanumeric display of program steps).

Cheers,

Vincent

Re: Many thanks Valentin.

*Message #44 Posted by **Veli-Pekka Nousiainen** on 19 Nov 2003, 12:13 p.m.,*
in response to message #28 by Vincent Weber

Vincent wrote: "although Z^1/N gives *ALL* the roots of a complex number, which even the 48 does not do !);"

Z^1/N on the 4XG series: -5^(1/4)

[1. 0. 0. 0. 5.] PROOT gives all roots at once!

Let's start a flame-war Vincent! # VPN #

The way things should be... (edited)

*Message #45 Posted by **Vieira, Luiz C. (Brazil)** on 19 Nov 2003, 8:24 a.m.,*
in response to message #26 by Valentin Albillo

Hi, Valentin;

once, sometime ago, I wrote you an e-mail, and you may remember it well. In brief, I mentioned my own feelings for your positive, chalenging participations. I'd not change a dot on it. I keep it the way it is.

I'm honored visiting and contributing on a place shared with you all (I'm trying to be more frequent).

Best regards.

Luiz (Brazil)

Edited: 19 Nov 2003, 1:47 p.m. after one or more responses were posted

Luiz: glad to "see" you here again! (no text)

*Message #46 Posted by **R Lion (España)** on 19 Nov 2003, 8:53 a.m.,*
in response to message #45 by Vieira, Luiz C. (Brazil)

Re: I am saddened - Well done, Valentin

*Message #47 Posted by **Juan J** on 19 Nov 2003, 5:13 p.m.,*
in response to message #26 by Valentin Albillo

Hello Valentin,

Reconforting to read your kind words to Vincent. And good to see an issue like this settled in such a polite manner. Appropriate for a smart person like you. Well done, period.

My 2 cents.

Re: It's amazing (!)

*Message #48 Posted by **Andy Agui** on 18 Nov 2003, 10:05 p.m.,*
in response to message #12 by Valentin Albillo

Well it seems that we have gone off the topic: the HP 15C is a clever machine, but not the best, that is just and opinion and the hp 15C, cannot answer many problems,like the reductment of mass, in the transcision of matter to plasma occurs, with the increasement of speed.

I understand Mr. Albillo, Spanish is (in my opinion,one of the best language to describe science, therefore the technical knowledge that mister Albillo possessed.

But they also taugh us something (Spanish citizens) in the schools:

" la verdad pure y sencilla, es raramente pura y pocas veces sencilla,. He alli el dicho: Yo solo se que no se nada"

Trans:

" the pure and simple truth, is rarely pure and not always simple, therefore the cry: I just know, that nothing I know"...

Andy Agui

Re: OK folks, nothin to see here, move along...

*Message #49 Posted by **jimc** on 18 Nov 2003, 12:52 p.m.,*
in response to message #1 by Vincent Weber

I think Bill Platt in this thread put it best when he said that our forum has personality. I would say that we have personality plus.

Such passions are admirable, but we must realize that email allows us certain liberties that face to face discussions would not. Let's all be grownups, shake hands and let us agree to disagree. Using email, there never will be a final word, it will be a never ending thread, belittling to both writers and readers.

My enjoyment of a quality product is lifted by the passion that both of you have for your respective machines. THAT is what HP calcs are about.

12345

Let's try to cool it

*Message #50 Posted by **Dave Hicks** on 18 Nov 2003, 2:42 p.m.,*
in response to message #1 by Vincent Weber

Hi everyone,

I attached this to the top post in this thread though it's not a reply to any particular person. Also, I have a cold at the moment so my head isn't clear enough to know "who started it".

I've been hiding in my cave working on a new version of the forum software so I haven't been following the forum closely for some time. (And if any of you are waiting a long time for an email response, I'm sorry about that but my inbox has gotten awfully deep lately - I'll try to catch up soon.)

Let's try to remember that these are all opinions and opinions will vary. Something like the Advantage Pac which was an option to update an older top-of-the-line calculator to be more competitive with newer models is, I think, an inherently controversial product. Obviously in some ways the older but higher end device will be more powerful but in other ways, the add-on is likely to seem a little kludgy.

Let's also allow for the difficulties in translation. I once mentioned that someone here (for whom English is not his primary language) was using aliases to do some "disguised self-promotion" (and I also referred to it as "mostly harmless".) He emailed me demanding to know why his self-promotion was "disgusting" compared to other people on this forum. "Disguised" vs. "Disgusting": VERY similar-looking words with VERY different meanings. I have a feeling that a lot of forum battles come from similar misunderstandings.

Back in Junior high school my friend and lab partner in Chemistry was a guy from Israel who, whenever he lost an argument, said in a loud voice "You See?!" I always laughed but at the end of the term, he got an "A" and I got a "B". The professor admitted that I had higher test scores but he said "Most of the time when you guys come to me to settle your arguments, he's right so I think you just don't understand it quite as well even though you test better." Fortunately my friend was enough of a friend to explain his arguing style to the teacher, at which point the teacher realized that just about every discussion he had with us was the reverse of what he thought it was ... oops ;-)

Even if you think someone has crossed the line, please try to nudge the discussion back to technical and friendly.

By the way, the main feature of the new forum software will be to allow accounts. At first it will be just an option that will make the forum more convenient but I can flip a switch and make them required or to send any posts made without an account through me and/or other moderators for approval. I intend to leave this switch "off" for now but I can turn it on if either the spam or people posting under multiple aliases get to be "too much".

Re: Let's try to cool it

*Message #51 Posted by **R Lion** on 18 Nov 2003, 3:04 p.m.,*
in response to message #50 by Dave Hicks

> Quote:
>
> ...or people posting under multiple aliases...

I hate it!

I can't help getting angry about that *"corruption-ridden country"* of HP-Calc-Collector. It's outrageous.

Edited: 18 Nov 2003, 3:05 p.m.

Re: Let's try to cool it

*Message #52 Posted by **Victor Koechli** on 18 Nov 2003, 4:37 p.m.,*
in response to message #51 by R Lion

Yes, that was unnecessary, like many other things said in this thread. Let's just try to cool down and get back to our usual level, which means technical, competent and sometimes very funny. I've always liked it.

As far as anonymous comments are concerned: If it's not coming from a person, don't take it personally. Just ignore it.

Cheers, Victor

Thanks, Victor, and I agree (no text)

*Message #53 Posted by **R Lion** on 18 Nov 2003, 4:55 p.m.,*
in response to message #52 by Victor Koechli

Re: Let's try to cool it

*Message #54 Posted by **GE (France)** on 18 Nov 2003, 5:54 p.m.,*
in response to message #50 by Dave Hicks

Hello Dave (ah 2001...), In short let me say that accounts are not necessarily a good idea. Did anyone ask for this ? Just MHO.

Accounts

*Message #55 Posted by **Dave Hicks** on 18 Nov 2003, 6:57 p.m.,*

in response to message #54 by GE (France)

Over the last couple of years I've had some direct suggestions for accounts. There have also been other situations, which have suggested accounts as a solution (or at least something that would help): spam, people posting under a bunch of names (one person once made up 17 names to attack someone here), and a troll posting under the same name as a regular (intentionally.)

Mostly I'm creating accounts to have a fall-back solution to spam. At the moment we're getting 1-4 spams per day and keeping them out of most people's sight by other means but the current methods won't scale well if the spammers ramp up their efforts. For now (and maybe forever), the accounts will be optional because I prefer not to put blocks in the way of first-time posters. However, some spammers have made it clear that they're willing to abuse wide-open forums so I need a good future potential counter-measure if their volume gets to be too much for the current counter-measures. I did some reading before coding and I don't know of a more effective way to slow spam. Simple measures like IP banning no longer work because persistent forum spammers are becoming like email spamers - they set up an ISP account and spam everyone before they get cut off. Then they just set up somewhere else.

Accounts will also make the forum more convenient - once you login, you won't have to type your name, email and password to post/edit/delete. You'll have the option to have a private email address to which people can email using the forum software without seeing your actual email address. (Or you can have no email address visible/usable, or you can use an obscured address just as you can now.) You will need to provide a real/working email address for registration but this does not have to be the same one that you make visible in the forum. (If you chose to make one visible at all.)

What are your concerns about accounts?

Re: Accounts

*Message #56 Posted by **Ernie Malaga** on 19 Nov 2003, 3:19 a.m.,*
in response to message #55 by Dave Hicks

> Quote:
>
> What are your concerns about accounts?

Dave, I have no concerns about accounts. In fact, I approve of the concept wholeheartedly and urge you to make them required.

Just my 2 cents.

-Ernie

Re: Accounts

*Message #57 Posted by **R Lion(España)** on 19 Nov 2003, 7:29 a.m.,*
in response to message #55 by Dave Hicks

I use an account in other forum with no problems

Best regards

Raul L

Accounts ? If this is the only solution... :(

*Message #58 Posted by **Vieira, Luiz C. (Brazil)** on 19 Nov 2003, 8:13 a.m.,*
in response to message #55 by Dave Hicks

Hi, all;

I'd keep myself away of the last events; no judgement, instead I have my own understanding and opinions.

If the sort of irregular events becomes unacceptable and begins to keep good people away from this heavenly place, I'd agree on placing an "account for posting". If they are somehow rare or sparse as they are now, I think it's fine. At least others will understand that the great majority won't accept these events without a fierce complaining. Please, I am keeping myself away of the events themselves because in many situations, cultural differences may become a problem when taken "as is". And even family matters may cause unnecessary discussion.

About accounts: I think that reading should be kept as free as it is, just posting should be allowed only for those who sign in. This way, anyone that wants to "visit before signing" would have the chance to know how good it is sharing his/her own experiences with ones who do the same.

Again, Dave, thank you for all your effort keeping this place as "clean and neat" as it is. I think I share the same enthusiasm as many others who want to keep it as it is.

My 2¢.

Luiz (Brazil)

Edited: 19 Nov 2003, 8:15 a.m.

Re: Accounts ? If this is the only solution... :(

*Message #59 Posted by **Trent Moseley** on 19 Nov 2003, 10:15 p.m.,*
in response to message #58 by Vieira, Luiz C. (Brazil)

I agree with Luiz.

tm

Re: Accounts

*Message #60 Posted by **Valentin Albillo** on 19 Nov 2003, 9:07 a.m.,*
in response to message #55 by Dave Hicks

Hi, David:

I agree with Luiz: reading posts should be free for all, no account or registering required, but posting should require a previously created account, with the user having to provide a real e-mail address where his/her initial password would be sent. Fake address = no password received.

Only users with an existing account and subject to a login procedure would be allowed to post. This would all but eliminate all spam and anonymous trolls doing their things. It would also help reduce the multiple-alias-for-the-one-and-only poster problem, etc.

Should it be not possible to allow free reading while requiring login for posting, I would opt for accounts and login in both cases.

Thanks for your efforts to improve this wonderful forum and for your disinterested and unpaid for hospitality.

Best regards from V.

Re: Accounts

*Message #61 Posted by **Victor Koechli** on 19 Nov 2003, 10:18 a.m.,*
in response to message #60 by Valentin Albillo

We should, however, make an exception for Norm, as otherwise we would have to live without his multiple fake user-ID halloween posts. I would really be missing these...

Cheers, Victor

Agreed :-) [NT]

*Message #62 Posted by **Valentin Albillo** on 19 Nov 2003, 10:43 a.m.,*
in response to message #61 by Victor Koechli

Best regards from V.

Re: Accounts (Humorous)

*Message #63 Posted by **Paul Brogger** on 19 Nov 2003, 11:02 a.m.,*
in response to message #61 by Victor Koechli

Captain Zener would have to get his own email address?

Maybe, should a "registered" user choose to use a pseudonym for humorous effect, his/her actual id or email address could be included subtly, in parentheses somewhere in the message (if not the thread summary line).

Pseudonyms can be used for good as well as for ill -- the Forum would lose something special if it were to absolutely prohibit the occasional post "from" a celebrity, famous figure, or obviously fictitions persona.

Re: Accounts (Humorous)

*Message #64 Posted by **Matthieu** on 19 Nov 2003, 11:38 a.m.,*
in response to message #63 by Paul Brogger

Yes, Norm is very important for this forum! And he needs multiple means for 'being Norm'.

Some people just make the forum discussion more vivid by posting a polarizing - but NOT offending and NOT personally aggressive - thesis. Just in the way Norm does. This can create a very interesting controversial discussion from the others that often also has a high technical content.

But of course such a contributor cannot do this always by using his real name because everyone knows that, e.g., Norm would never believe ‘HP-34C is a calculator that does look like a Sharp 1500’. But if he wants to initiate a controverse discussion 'someone else' has to kick in this thesis for him (it's just an example, sorry, Norm that I used your name).

Norm, we need you … !

One further argument: Some people might be afraid to ask a 'silly' technical or mathematical question and like to ask this as a disguised guest, e.g. with some alias like 'calc_friend'. He may be afraid that other people here may disrespect him, so being excluded from future serious discussions. And since yesterday we know that this fear may be legitimate …

So, if not abused and if used in a good sense for the forum, a small number if incognito posts should be allowed ...

1234 to delete

(please delete it if you think this is complete nonsense !)

Edited: 19 Nov 2003, 12:02 p.m.

Re: Accounts

*Message #65 Posted by **Karl Schneider** on 20 Nov 2003, 2:01 a.m.,*
in response to message #60 by Valentin Albillo

Dave --

Please allow me to "ditto" Valentin!

-- Karl Schneider

Re: Accounts

*Message #66 Posted by **Thibaut.be** on 19 Nov 2003, 10:18 a.m.,*
in response to message #55 by Dave Hicks

Amazingly this forum is, though well known and highly frequented, not that much spammed, and most important of all, not polluted by deliberate flaming or whatsoever.

Actually this is the 4th time I've seen "serious" interpersonnal issue. I suggest that we submit a file to the Guiness Book of records, at least for the less flamed forum !

I have been visiting this site since 1998 and have always appreciate the comments of the visitors, obviously people sharing a common passion. But I was amazed by the people's politeness, willing to help, and experience. I have learned a lot mon my calculators udring all this time and I'm sure there's a lot Istill need to know.

For all this, my warmest thanks to Dave who definitely hit a very high target in terms of standards.

To anwser the question, I'd be in favour in a non mandatory account solution. Using an account would just consolidate the credibility of the existing and active visitors, while new guests will be keen on participating without an account. Should spamming and flaming be more recurrent, then we could shift to a mandatory account policy.

My 2c ...

Re: Accounts

*Message #67 Posted by **Veli-Pekka Nousiainen** on 19 Nov 2003, 12:09 p.m.,*

in response to message #66 by Thibaut.be

BUT if we need to give our real addresses here, doesn't that draw spammers as a super-magnet?
VPN

Combined account responses

*Message #68 Posted by **Dave Hicks** on 19 Nov 2003, 3:16 p.m.,*
in response to message #55 by Dave Hicks

> Quote:
>
> BUT if we need to give our real addresses here, doesn't that draw spammers as a super-magnet?

When/if you register an account, you can provide up to two email addresses. The first is a real email address that is required but is used ONLY to complete the registration process. It is never shown or used for anything else. For the second address, you have the options of: using a real email address but not allowing anyone to see it (logged-in members can email via the forum software but without seeing the address), OR using a munged but visible address, OR using no address at all. (The latter two are the options that you have now.) The intent of the first option is to make the forum *less* of a spam magnet.

> Quote:
>
> I agree with Luiz: reading posts should be free for all, no account or registering required, but posting should require a previously created account, with the user having to provide a real e-mail address where his/her initial password would be sent. Fake address = no password received.

No account is ever required for reading even if I set the most "closed" options. For someone only reading the forum, the only change they will see is that next to " Search / Personalize Display" at the top, there will also be "login / accounts" which can be ignored for reading. Initially, you won't even have to go there to post, but if you do login, you'll see the name, email, and password fields disappear from the forums (until/unless you log out again.) Initially, creating an account and logging in for posting will be purely optional. It may stay that way forever or it could become required (but still only for posting). Or it can be set such that people who post without an account don't see their posts appear until a moderator has approved them. But again, unless we have increasing problems, accounts will stay completely optional.

(Oh and accounts are free. I have no intention of ever charging money for them nor is there any facility for payment built into the software.)

> Quote:
>
> Norm!

Hey no-one's attacking Norm! :-) I admit though that if I ever set the most "closed" option, I don't know how Norm will be able to post as various people without allowing the same for spammers and trolls. I'll take a look at that but may delay it till a later release since I plan not to use the most closed option any time soon. If it's only Norm, the simplest solution might be for me to set up several accounts for him. (But then what if the *real* Carly wants to sign up ;-))

Re: Combined account responses

*Message #69 Posted by **GE (France)** on 19 Nov 2003, 5:32 p.m.,*
in response to message #68 by Dave Hicks

Hello, First of all I must say again that this place is totally wonderful and that you Dave are making it work. Perfection is just that : no flashy devices, no dumb colors, it just WORKS.

Why are accounts irrelevant ? Because any troll/spammer can create a 'real' email address someplace just to register here and you won't ever know she's a dog. Also if you are lucky enough to have chilfren you know that the one way to ban bad behavior is not to lock doors but to explain and convince. Also, I feel pride in seeing this forum nearly free of the usual Internet garbage/bragging/spelling mistakes/name calling etc WITHOUT any thought police at work.

Second, what if one wants to post a quick answer and/or has no plan to come back ? Put any obstacle in between and the occasional poster won't give a damn.

Third, accounts may lead to the infamous "please give me a low number Richard" disease. Those with old accounts, with many posts, would be tempted to post more, less thoughtful messages, and might despise newbies (and even overuse commas ??).

Of course the tide is coming, and we don't know what you must do to clean things behind the scene, but maybe we could just keep things as they are. After all, past the excellent platform you've set up, the most important thing here is the content.

Re: Combined account responses

*Message #70 Posted by **Dave Hicks** on 19 Nov 2003, 6:07 p.m.,*
in response to message #69 by GE (France)

> Quote:
>
> Why are accounts irrelevant ? Because any troll/spammer can create a 'real' email address someplace just to register here and you won't ever know she's a dog. Also if you are lucky enough to have chilfren you know that the one way to ban bad behavior is not to lock doors but to explain and convince. Also, I feel pride in seeing this forum nearly free of the usual Internet garbage/bragging/spelling mistakes/name calling etc WITHOUT any thought police at work.

I'm hoping that it will slow them down and send some elsewhere though. I don't know how to explain to a spammer that he should please stop now. One spammer has been spamming this forum (and others) for over a year now. He comes from different ISPs so *they* "get it" but he/she doesn't.

Lately, we're also getting spammed by scripts. (I can tell because no person could type 4 spams per second.) I don't know how bad all this is going to get. If there's a better defense I'd love to hear about it.

By the way, spam is already being deleted by the "thought police". As I said, we are now getting several in a typical day. I hope that doesn't destroy any illusions about this forum. It shouldn't because these people are just using big lists of forums just like email spammers do. There's nothing personal. I just don't see a need for the top 4 posts on the forum each morning to be advertisements for a company looking for people to post ads on forums ("All you have to do is type ads like this one!!!") followed by replies as to how stupid this is.

(Which the spammer won't see anyway.)

> Quote:
>
> Second, what if one wants to post a quick answer and/or has no plan to come back ? Put any obstacle in between and the occasional poster won't give a damn.

Granted. This is why I don't really relish doing this. However, the furthest I would probably go is to set it up so a person without an account can post but it's viewed by a human moderator first. The UI will be just as now - only there will be delay for the message for the message to appear. (Also I have an option to automatically set new accounts to be moderated in this way so if people do create accounts just to spam, that can be controlled as well. So far, open forums are getting spammed far more than closed ones but time will tell.)

> Quote:
>
> Third, accounts may lead to the infamous "please give me a low number Richard" disease. Those with old accounts, with many posts, would be tempted to post more, less thoughtful messages, and might despise newbies (and even overuse commas ??).

I'm not sure exactly what you mean here but your name is your account and the software doesn't track post counts.

The human element

*Message #71 Posted by **Patrick** on 20 Nov 2003, 1:35 a.m.,*
in response to message #70 by Dave Hicks

When you register for certain services online now (such as an eBay account) they show you a little picture which contains some numbers and ask you to type the numbers into a box right next to the picture. Scripts can't read pictures, so this is a good way to cut out the spam automation, I would think.

Have no idea how available such technology is and whether it is free or must be purchased.

Re: The human element

*Message #72 Posted by **Dave Hicks** on 20 Nov 2003, 11:11 p.m.,*
in response to message #71 by Patrick

I've looked at CAPTCHAs (Completely Automated Public Turing test to tell Computers and Humans Apart). At this point I'm going to keep watching them but I probably won't have one in the next release. Most of the better ones don't seem to be available outside universities (unless you make a research grant perhaps?) and some of the simpler ones have been solved to 80-90% accuracy by AI programs.

Also most assume that humans can see well, which is not always true.

Re: Combined account responses

*Message #73 Posted by **Wayne Brown** on 19 Nov 2003, 6:22 p.m.,*

in response to message #68 by Dave Hicks

> Quote:
>
> If it's only Norm, the simplest solution might be for me to set up several accounts for him. (But then what if the real Carly wants to sign up ;-))

Don't let her! We'd rather have Norm. :-)

Re: Combined account responses

*Message #74 Posted by **James M. Prange** on 20 Nov 2003, 1:12 a.m.,*
in response to message #73 by Wayne Brown

Well, Norm does seem to be rather a special case. But seriously, I'd love to have Carly participate in the forum. Norm could always use an alternate spelling of someone's true name when posting a spoof.

Re: Accounts

*Message #75 Posted by **James M. Prange** on 20 Nov 2003, 1:07 a.m.,*
in response to message #55 by Dave Hicks

Well, I hope that posting about the new-fangled RPL calculators doesn't make me a "troll".

Of course I don't see most of the spam.

Regarding the identity that a poster uses, I do tend to take the post more seriously if the name seems real, but I do realize that some may have perfectly legitimate reasons for not revealing their true identities.

What I do find objectionable is when the same poster uses more than one identity in a single forum or newsgroup.

As for accounts, my only concern is that it may put off some newcomers who would be welcome here. If accounts do become necessary, please make it so that lurkers may still read the forum, and we only have to log in to post something.

Regards,
James

Re: Let's try to cool it

*Message #76 Posted by **Juan J** on 18 Nov 2003, 7:17 p.m.,*
in response to message #54 by GE (France)

It has saddened me too, to see how a review became such a bitter exchange. A while ago I wrote about how easy it is to say anything under an alias and how disrespectful it can be to others, especially in such a civilized forum like this. Pretty much the same thing it was, a far off-base comment from an unidentified (I mean, no e-mail address) contributor which became much the same exchange I've seen. I even suggested Dave to make the e-mail address field mandatory; this seemed too much. Eventually, the "offender" identified himself and wrote a sort of apology.

More recently, I praised Valentin's intelligence, but noted that as smart as he is, sometimes he kind of "crosses the line" (and in a rude manner) when he speaks his mind. After reading Dave's story about his

Israeli friend, I think that language subtleties aside, there are ways to say things, to make your point/statement quite clear, without hurting your audience or setting off a war. Now I insist. A wise man knows how to share his wisdom without disrespecting his audience; it is also wise to make your point in a polite manner. No offense intended, Valentin.

In my opinion, Vincent Weber was just expressing his point of view about how the 15C and the 41C deal with matrices and complex numbers. That there were things he may have not considered or known about, or that a second opinion was what he expected, well, was quite probably his intention when he wrote his post. But then came Valentin's reply, an angry exchange and finally, so to speak, the icing on the cake, the anonynous offender, who does not deserve respect of any kind (not mine at least) for his words.

About how Valentin says things, I have already commented. Now Mr. HP-Calc-Collector, the anonymous contributor who made things worse by making the exchange personal. Probably he thought that making rude statements wins debates. But in the end it turns to be like the asp that stung a knight when Arthur and Moerdred met with their armies at Camlan; the knight thought it was an attack, pulled off his sword and when the battle that ensued was over there were only Arthur and Moerdred left. Should we feel offended by a person that behaves like this? I think not. Anonymous offenders who think that winning arguments is matter of being rude or tread with personal details simply don't belong here. And don't deserve our respect.

I like to think of this forum as a (very) civilized one with valuable contributors from everywhere and with with very diverse backgrounds, where matters are discussed, points of view expressed and questions answered; a pleasant place in the Net to participate in, don't you think? Why not trying to keep it the way it is, and has been?

Limbic vs. Gray Matter content....

*Message #77 Posted by **Michael Meyer** on 18 Nov 2003, 10:53 p.m.,*
in response to message #76 by Juan J

An ongoing theme in science fiction writing is the issue of whether pure logic is better than logic with emotion. The general conclusion (in both Vulcans and androids) is that emotion is what gives meaning to logic.

I'm amazed, as a psychiatrist, at how separate these two entities are in the brain. The lower, older structures (including the limbic system) appear to be the exclusive location of emotion, where the gray matter appears to involve storage and intellect without emotion.

Other animals appear to have the same sort of limbic system as humans (can you name a human emotion a dog can't show?). I've seen humans with defective intellect and intact emotion (mental retardation) and vice-versa (borderline personality disorder).

The people on the board, in my opinion, have tremendous intellect. I'm glad there's a passion for this interest as well, as it gives it meaning.

Many here are the top of their fields. (Ever put a bunch of experts in the same room? One expert I know flunked his board exams by arguing with the examiners he probably knew more than they did...)

Just a reminder that the people on this forum have a great knowledge and great passion as well... tempers are bound to flare from time to time.

Everyone count to ten, listen to Dave Hicks (who is kind enough to let us be guests on his system), and keep providing us with top-notch intellectual information.

I'd like to add that I've seen very little flaming all-in-all over the years... maybe a little was due as a matter of human discourse. <grin> We'll probably see some again some day too. But for now...

On with the forum. And remember... the doctor is watching you.... (it sounded good, anyway).

Re: Limbic vs. Gray Matter content....

*Message #78 Posted by **Trent Moseley** on 18 Nov 2003, 11:51 p.m.,*
in response to message #77 by Michael Meyer

I must say that I agree with Michael. I feel that we are all here toghter. Some of us know a lot of things that others don't know, and some of us know a lot of things that we all know in our own way. This is a beautiful Forum! Let us keep it that way.

tm

Kudos for this forum!

*Message #79 Posted by **Frank V** on 19 Nov 2003, 1:56 p.m.,*
in response to message #78 by Trent Moseley

Thank for the SYMPHONY. Episodes such as the one we have just witness is the HALLMARK of this forum. Thanks Dave and all participants.

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FOR STATS HP-67 RULES!

*Message #1 Posted by **Trent Moseley** on 17 Nov 2003, 11:03 p.m.*

I love to stir up discussion. But for standard deviation anyway this seems to be the case and perhaps in other ways too. I must also say that it was through this forum that the "gummy" wheel got fixed.

tm

Re: FOR STATS HP-67 RULES!

*Message #2 Posted by **Arnaud Amiel** on 18 Nov 2003, 5:51 a.m.,*
in response to message #1 by Trent Moseley

For stats the 49 (+ or not) rules, afew tests have been added from the 48 and you can install STAT49PRO that adds all the basic tests you would ever need unless you are a real statistician. Of course input method through matrices might be a bit more cumbersome, but it is easy to update and the matrix writter is fast. And there is no gummy wheel, just the keyboard.

Arnaud

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HP-41 back sticker difference

*Message #1 Posted by **Michel Beaulieu** on 17 Nov 2003, 8:57 p.m.*

I look at my 2 HP-41CV back sticker and i found a logo i don't know the meaning : On my Fullnut this logo is not present but on my 41-CV halfnut there is a kind of "impeller" or a kind of disk with the inscription "871B" in the lower right corner. Does this means someting for somenone?

I'm looking closely to my 2 CV to see some differences i can count. I also found that the key feeling is smooter and the clic is less "loud" on the halfnut than the fullnut; is it true of just because my halfunt has more mileage!

I did a CAT 0 at the same time on the 2 CV and the fullnut finish the listing before the halfnut (the 2 calculators are "memory lost" before the "benchmark"). Is the fullnut faster than the halfnut?

Is there some kind of program i can run on them and see some difference between the 2 CV version or bug present on one only?

I just receive, result of a trade, my first halfnut so that's why i seems so curious about small details ;-)

Thanks!

Michel

Re: HP-41 back sticker difference

*Message #2 Posted by **Raymond Del Tondo** on 17 Nov 2003, 10:14 p.m.,*
in response to message #1 by Michel Beaulieu

AFAIK the 871B sign stands for something like: Tested to comply with some specific radio emission/interference limits, or alike.

Raymond

Re: HP-41 back sticker difference

*Message #3 Posted by **Thomas Radtke** on 18 Nov 2003, 4:47 a.m.,*
in response to message #1 by Michel Beaulieu

Don't know anything about the 41's but if the keypresses feel softer due to miles;), there should be differencies between the keys. I noticed this on my heavily used 18C; the 'equals' key has actually a significantly different feel. Do your 41's keys all feel the same?

Thomas

Re: HP-41 back sticker difference

*Message #4 Posted by **Michel Beaulieu** on 18 Nov 2003, 8:10 p.m.,*
in response to message #3 by Thomas Radtke

Yes they feel all the same.

Re: HP-41 back sticker difference

*Message #5 Posted by **Thomas Radtke** on 19 Nov 2003, 8:03 a.m.,*
in response to message #4 by Michel Beaulieu

Then your concern about wear might not be justified. Just enjoy your 41:).

Thomas

Re: HP-41 back sticker difference

*Message #6 Posted by **Johnny Billquist** on 24 Nov 2003, 4:20 p.m.,*
in response to message #1 by Michel Beaulieu

The keys did change slightly over the years, so I'm not surprised if they feel different.

The speed of a HP-41 is not an exact science. The frequency is made from discrete components, and not a chrystal. So different individuals might differ as much as 30%. On the fullnuts you can change a capacitor to increase the speed. The halfnuts were a bit more tricky, as well as not being so forgiving to frequency increases.

But basic speed comparision might show anyone being faster, depending on the individual.

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HPIL sniffer - Pavel plze contact me

*Message #1 Posted by **Giuseppe Marullo** on 17 Nov 2003, 7:51 p.m.*

TIA,

Giuseppe Marullo giuseppe.marullo@iname.com

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The End Of Days with Arnold Schwarzenegger

*Message #1 Posted by **Mike Burns** on 17 Nov 2003, 7:07 p.m.*

I recorded this movie on T.V. but did not see the end because the tape ran out. I got to the part where Arnold has the gun to the head of the girl. who is to be the brid of the devil. What happens after that? Details please ! or tell me where I can find a discussion board to get this information. Thanks, Mike

Re: The End Of Days with Arnold Schwarzenegger (just mildly OT)

*Message #2 Posted by **Paul Brogger** on 17 Nov 2003, 7:20 p.m.,*
in response to message #1 by Mike Burns

. . . then Arnold finds out that Gray Davis ***IS*** the devil, so he jumps into the California Gubernertorial recall election, gets elected, is sworn in and . . .

[to be continued]

Re: The End Of Days with Arnold Schwarzenegger (just mildly OT)

*Message #3 Posted by **db(martinez,california)** on 17 Nov 2003, 7:31 p.m.,*
in response to message #2 by Paul Brogger

.....now he holds the gun to our collective heads, while coping a feel off that girl..... [to be continued]

Re: The End Of Days with Arnold Schwarzenegger (just mildly OT)

*Message #4 Posted by **Jim** on 18 Nov 2003, 1:23 a.m.,*
in response to message #3 by db(martinez,california)

.....claiming that he had a migraine when he said, "NO NEW TAXES," he confesses that there must be new tax revenue because eliminating what's left of social services in Cal-lee-fornia won't be quite enough to balance the budget.....

Re: The End Of Days with Arnold Schwarzenegger (just mildly OT)

*Message #5 Posted by **james (uk)** on 18 Nov 2003, 8:38 a.m.,*
in response to message #4 by Jim

..... before reaching up to his neck and pulling off the 'skin' covering his face to reveal Carly underneath.....

Re: The End Of Days with Arnold Schwarzenegger (just mildly OT)

*Message #6 Posted by **CalcKidd** on 18 Nov 2003, 12:41 p.m.,*
in response to message #5 by james (uk)

... but alas it is Carly Simon and she's singing "Your So Vane".. but not to Jackson Browne, but

to a picture of Ahh-nold.

:-D

Re: The End Of Days with Arnold Schwarzenegger (just mildly OT)

*Message #7 Posted by **Brandon** on 18 Nov 2003, 2:06 p.m.,*
in response to message #6 by CalcKidd

For the record, **I** didn't vote for him :)

Re: The End Of Days with Arnold Schwarzenegger (just mildly OT)

*Message #8 Posted by **GE (France)** on 18 Nov 2003, 6:00 p.m.,*
in response to message #7 by Brandon

... neither did I, but then he pushes on the red button on the left ...

Re: The End Of Days with Arnold Schwarzenegger (just mildly OT)

*Message #9 Posted by **Brandon** on 18 Nov 2003, 7:24 p.m.,*
in response to message #8 by GE (France)

I knew you French could mess with our elections! :)

Re: Actually . . .

*Message #10 Posted by **Paul Brogger** on 19 Nov 2003, 10:13 a.m.,*
in response to message #9 by Brandon

. . . he LOST the election first time 'round, but returned in a time machine several times, systematically modifying his responses to the (few) questions put to him, until the outcome resolved in his favor.

Now, he'll be playing with the legislature with any votes that don't go his way.

(When it starts looking like "Groundhog Day", *informed* observers will know who to blame . . .)

Re: Actually . . .

*Message #11 Posted by **Frederic** on 20 Nov 2003, 9:14 a.m.,*
in response to message #10 by Paul Brogger

And .... what can you see on France 3 at 20h55 this day ???

http://television.telerama.fr/programmes.htm

The great Schwarzy Gouvernator ....

Re: The End Of Days with Arnold Schwarzenegger

*Message #12 Posted by **gifron** on 20 Nov 2003, 9:38 a.m.,*
in response to message #1 by Mike Burns

I didn't see the movie. Hope this helps ;^)

Re: The End Of Days with Arnold Schwarzenegger

*Message #13 Posted by **A.S. (CA Gov.)** on 22 Nov 2003, 1:19 p.m.,*
in response to message #1 by Mike Burns

Ha, ha, ha... laugh,

thou human scrap...

but remember:

"I'll be back".

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Posible HP-49G+ bug using DOLIST.

*Message #1 Posted by **r. d. bärtschiger.** on 17 Nov 2003, 3:39 p.m.*

I have just noticed what may be a bug on the hp-49g+. To duplicate it try the following:

```
1.)     Navigate to an empty directory. If your calculator does not have an empty directory,
then create one. You can purge it later.


2.)     Place a number on the stack, a 5 for instance. This number is not actually needed,
it will only be used as a place holder.


3.)     Execute VARS, this will place an empty pair of curly braces on the stack, { }


4.)     Place a 1 on the stack.


5.)     Place this program on the stack, \<< DTAG \>>


6.)     Execute this command, DOLIST


7.)     The stack should now contain:


        2:      5.00
        1:      { }


8.)     Execute OBJ\->


9.)     The stack should now contain:


        3:      5.00
        2:
        1:      1.00


10.)    According to the result the 'empty list' contained one item. That one item is
on stack level 2. However what is shown on level two is a 'blank' item.
The 5 is on level 3.


11.)    Normally executing OBJ\-> on an empty list results in a zero on level one with
the list having been deleted.
```

If the above is tried on an hp-48gx, the execution of DOLIST causes an error.

Any comments?

rdb.

Re: Posible HP-49G+ bug using DOLIST.

*Message #2 Posted by **Raymond Del Tondo** on 17 Nov 2003, 6:22 p.m.,*
in response to message #1 by r. d. bärtschiger.

Hi,

even Emu48 with a 49G ROM (1.19-6) gives "DOLIST Error: Invalid Dimension" .

So this may be new (and could be a side effect of other fixes again;-)

Raymond

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15C Display Repair

*Message #1 Posted by **gifron** on 17 Nov 2003, 11:29 a.m.*

A coworker has a 15C in which one of the segments works intermittently. Is this likely just an insecure connection? Is it a pretty easy fix?

Re: 15C Display Repair

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 17 Nov 2003, 2:05 p.m.,*
in response to message #1 by gifron

I fixed several Voyager-type calculators (11C, 12C, 15C) but there are two types of internal assembly: the newer ones are the most dificult to access the display, as the PCB is "riveted" with plastic pins on the case. To clean the display contacts I had to remove all 41 plastic rivets. The display worked but the keyboard became "noisy" (loose keys, as I cannot put enough pressure when re-melted the rivets).

The older ones the display/chips are separated from the keyboard, it was very easy to clean them. Just take care with the keyboard contacts, as they can be a little loose when closing the case and the keyboard doesn't work.

Good luck!

Nelson

Re: 15C Display Repair

*Message #3 Posted by **John** on 18 Nov 2003, 3:39 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Nelson, You said that "the newer ones are the most dificult to access the display..."

I was wondering, when would you guess that they made this change to the "newer ones?" I'm looking to pick up a used 15c. Would you recommend I find an older one because it's easier to repair? Maybe it doesn't really matter? Just want to find the most reliable Voyager possible.

Thanks.

Re: 15C Display Repair

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 18 Nov 2003, 7:01 p.m.,*
in response to message #3 by John

The problem is that if you have a older model, you NEED a older display, and vice-versa. The display mountings are different... If the first two digits of the serial number (plus 60 is the year of fabrication) are equal, I think that there is no problem. The displays of the 11C, 12C and 15C (and I think 16C and 10C also) of the SAME year may be identical, and you can buy a cheap 12C (of same year) to use its display. I've done that two times, one compatible, other not (different years), and I discovered these display differences.

My HP-15C of 1987 (s/n 2723Bxxxxx) display is the same one of my HP-11C (s/n 2644Bxxxxx) but are different of my 12C (s/n 2808Axxxxx) and the oldest one is a 12C (s/n 2317Axxxxx, its display is the easyest to replace).

If your 15C have one helical spring on the battery compartment in only one side and a fixed gold contact on the other side, it is the hardest to replace the LCD. If it has two simple folded springs, it is the older and easyer to replace.

I already counted three diffent displays, all incompatible with each other. Take care when searching a replace!

Good luck

Nelson

Voyager LCD variations

*Message #5 Posted by **Randy Sloyer** on 18 Nov 2003, 8:25 p.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

Nelson,

You are correct: The entire Voyager line (10/11/12/15/16) used the same displays, but not always at the same time. So, I would like to add the statement: "Most of the time". This is especially true as you found out with later model 12C's. They where always the first to change methods, the 11 and 15's followed. I've started to track the versions and serial numbers, but I don't have enough data yet for it to be useful.

I must disagree with you about the easiest version to find. It has been my experience that the older the unit, the harder it is to find a display for it. Volumes did not start to build for a few years after introduction so there are fewer old units. I'll bet there are 1000 new 12C's out there for every single older USA unit.

I have been able to identify three different versions with two being somewhat compatible. I refer to them as "fine pitch" and "coarse pitch".

The earliest version is the unit with separate keyboard and logic board parts. These can be identified by the springs in the battery compartment - straight contacts on either side, no spring. These are the hardest to find and to work with. The LCD is a "fine pitch" version that is held in place with the metal frame. It is positioned poorly by the frame.

I think due to the cost of manufacture, they re-engineered the unit to be one circuit board. This is where the coil spring on the left side of the battery box appeared for the first time. The same "fine pitch" display was used, but it was mounted by means of two-sided tape to an intermediate plastic carrier. The carrier had two indexing pins which made the job of properly aligning LCD as we say, "A piece of cake". Now that the LCD sat further away from the circuit board, the zebra connection strips got longer.

At this point, I would like to say that these two "fine pitch" versions are compatible. If you have a fine pitch LCD on a carrier and need one without, a little UN-DU (heptane) will pop it off for you. The same is true in opposite, if you need one with a carrier, you'll have it on the broken one, just remove the broken one and stick the carrier-less one back on. Just examine the LCD position on the carrier before removing, it will match up in the Y direction, you'll just need to center it in X. Use the proper length zebras.

Somewhere around date code 28 (1988), they redesigned the circuit board (again) and changed the spacing and width of the connections on the LCD. I suspect the desire was to ease alignment problems in assembly. These are what I refer to as the "coarse pitch" version. This one is VERY easy to find, just get a throw-away Chinese 12C and you're set. Yes, the LCD version used in the 3 volt units works just fine. I have only seen 11, 12 and 15C's with this version. These are VERY easy to change out and almost never have missing segments since the pads are so much larger, a drop to the floor will not cause misalignment.

I believe the 10C was only built in the two board version but I have not been able to verify. I know the 16C was built in both (I own 2 as I was a software geek first) but never made it to a coarse pitch version as it died a premature death.

Hope that helps.

Re: Voyager LCD variations

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 19 Nov 2003, 5:56 a.m.,*
in response to message #5 by Randy Sloyer

I didn't know that the production amount of the earlier models was smaller than the new ones.

The "fine" pitch contacts LCD of the earlier ones have 56 contacts, and is 1:2 multiplexed (the lower contacts and upper contacts have distinct common1-2 backplanes, can be used as 1:4 multiplex), and is the one with best contrast and no "shadows" on it. The "coarse" one have 30 contacts, and is 1:3 multiplexed and have "shadows" of the segments (you can see the "off" segments if you look at a shallow angle)

I'm trying to build a "timeline" of the voyager models and variations, but I don't have much information also.

I noticed that the "flex board, fine lcd" ones (earlier) have a 2 or 3 chip assembly (11C and 12C, 15C resp.) and I have two "one board, fine lcd" (11C, 15C) that uses the same chips (2, 3 resp.). I have a 12C "one board, coarse lcd" that uses a single chip. I thing that it was the big change on the voyager line, a cpu/ram/rom/lcd controller on one chip instead of cpu + lcd controller/rom + ram (15C).

I also discovered that on the 2/3 chip version the rom CAN be extracted, with logic analyser of some sort (or a parallel port with an adapter on PC and a good DOS software). The CPU is almost the same as of the HP-41CV halfnut (differs only on the clock/voltage). I plan to build a voyager's emulator as soon I get the rom out of my 11C/12C/15C.

I plan some day to build a site with pictures of the voyagers, but I haven't much time now...

Best regards,

Nelson

Re: Voyager LCD variations

*Message #7 Posted by **gifron** on 25 Nov 2003, 9:39 a.m.,*
in response to message #5 by Randy Sloyer

I have a 15C with a missing segment (sixth character from the left, bottom segment). I have cleaned the board contacts and the zebras with alcohol and eraser, to no avail. I did not clean the display-end of the zebras, as they are adhered to the display, and I didn't know if I could

peel them off without damage.

The zebras seem to be making contact, except for the hard to overlook fact that the segment is missing. I have discovered that a very, very light flexing of the board causes the segment to activate. Is this another instance of the rubber getting old? Do I just need to replace the lower Zebra with one from a newer 12C? Having read the other posts, I'm aware of the differences in the displays, this one having the indexing pins on the plastic carrier - Are the zebras all the same?

Thanks again, Randy for your previous helps.

Edited: 25 Nov 2003, 9:40 a.m.

Re: Voyager LCD variations

*Message #8 Posted by **Nelson M. Sicuro (Brazil)** on 25 Nov 2003, 10:13 a.m.,*
in response to message #7 by gifron

The "zebras" aren't equal, the earlier models (those with flexible circuit board) are thinner than the new ones. If the missing segment activates with a light "twist" on the PCB, you may have a bad contact in one trace of the PCB. I found also that the mounting of the LCD is a little "tricky", when you put the mounting in place the "zebras" can be a little bent and when I tested it I found several missing segments. At first I cleaned all contacts, to find later that the bent zebras are the guilty...

Good luck!

Nelson

Re: Voyager LCD variations

*Message #9 Posted by **gifron** on 25 Nov 2003, 11:32 a.m.,*
in response to message #8 by Nelson M. Sicuro (Brazil)

Thanks for the comments, Nelson. Yes, one has to be careful to keep the zebras straight. The same missing segment was there both before, and after, my repair efforts. I also inspected all the traces with a lighted 10X magnifier, and they all look good.

My actual question about the zebras being the same is, are they the same between models, assuming they have the same display type, as mentioned in the earlier posts by Randy and others. I would think they would be. That is, a thicker zebra from a 12C would work in a 15C which also utilizes the thicker zebra. Or to put it another way, are all voyager "thick zebras" the same?

Also, can I remove the zebra without being careful about how I position it in reassembly? My assumption is that all the dark sections are identically conductive, with the light sections being nonconductive.

Re: Voyager LCD variations

*Message #10 Posted by **Nelson M. Sicuro (Brazil)** on 25 Nov 2003, 4:20 p.m.,*
in response to message #9 by gifron

Do you tried to swap the upper "zebra" with the lower?

I think that the conductive area of it is the thin dark layer inside.

If the "zebras" from other HP-1xC are from the same size, it will work.

Try to test with another display if you can (if you can get another to pull the "zebras" out, get its display also if it is the same pinout). Some trace in the glass of the display may be defective.

Best regards,

Nelson

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Weird HP-48G problem

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 17 Nov 2003, 9:49 a.m.*

Hi all,

I have a HP-48G that has a problem with the "ON" key. It doens't work 'alone' (on/off) but WORKS on the auto-tests. I cannot switch it on or off (only by the "OFF" command) and only turns it on by the soft-reset (ON+C).

Anyone have seen this problem?

Thanks!

Nelson

Re: Weird HP-48G problem

*Message #2 Posted by **Victor Koechli** on 17 Nov 2003, 10:07 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Seems that the key itself works, but isn't recognized by the calc during 'normal' operation. Have you installed any libraries that could interfere with the ON key? Have you tried memory clear?

Cheers, Victor

Re: Weird HP-48G problem

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 17 Nov 2003, 10:17 a.m.,*
in response to message #2 by Victor Koechli

I just acquired this calculator (used, described with this problem and a missing line on the display) and put new batteries. No libraries, no software loaded, just plain "Memory Clear" condition.

Regards

Nelson

Re: Weird HP-48G problem

*Message #4 Posted by **adem ordna** on 17 Nov 2003, 11:02 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

It is not the on-C that is making it work it is the pressure at the top of the key pad that is making it work. Press on the bezel above the C key, and I'll bet the on button will work at that point. I have not seen the inside of the 48 but my guess is that is where the Keyboard connects to the main board. (correct me if I am wrong please)

Only LCD HP-48G problem now, ON key fixed

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 17 Nov 2003, 12:19 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

I disassembled it and cleaned the keyboard contacts, and now all keys work just fine. I also cleaned all LCD contacts but there is a horizontal line missing (#32, if I counted right). There isn't any corrosion or internal leakage. The calculator works fine, pass all self-tests.

I had this kind of LCD problem when I tryed to replace the old LCD from my HP-42S with one (identical) from a 'deceased' HP-17B. The "new" display has a missing column. Tryed to clean it in all ways I could imagine... I just put back the old one (some black spots on the left) and the column was there... I looked on the display carefully and can't see any imperfection. Bad luck...

This HP-48G was cosmetically perfect, noone tryed to opened it (before me) and there wasn't any battery leakage.

Any tip on how to fix this LCD problem?

Thank you all!

Re: Did you clean the rubber contact strips?

*Message #6 Posted by **Paul Brogger** on 17 Nov 2003, 1:36 p.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

My experience with Pioneers is that any foreign matter (even dust) on the rubbery contact strips that carry the PCB signals onto the LCD edges will result in one or more missing segments.

Those strips have been called "zebra strips", as the early ones used to be black & white striped -- black conductor stripes with white insulators in between. The Pioneer ones tend to be uniformly gray, but I assume there are mutually isolated conductive layers or channels molded in which connect the PCB traces to the almost invisible contacts on the LCD.

If you haven't already, make sure the rubber strips are absolutely clean and free of lint, dust & whatever, while assembling the PCB/LCD/front case. Also, flipping one of those strips end-for-end, or swapping them top & bottom, will isolate a bad contact strip from a PCB or LCD problem.

Re: Did you clean the rubber contact strips?

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 17 Nov 2003, 1:44 p.m.,*
in response to message #6 by Paul Brogger

On the 42S I tryed clean, swap, exchange with the other strip pair from 17B, no success. With the original LCD, it works, so I discard the strips/PCB contacts as a guilty. I think that is some bad contact/track on the LCD, but it is invisible.

On the 48G, I cleaned also, but I haven't another display/strips to exchange.

I already fixed several other display problems with just cleaning, but this two eluded me...

Best regards!

Nelson

Re: Aren't there TWO strips in the 48?

*Message #8 Posted by **Paul Brogger** on 17 Nov 2003, 2:06 p.m.,*

in response to message #7 by Nelson M. Sicuro (Brazil)

I would think that swapping the upper and lower strips (I'm assuming there are two) in the 48G should help narrow the list of possible problems.

If, after swapping, the same pixel row is not displaying, that would implicate the PCB or LCD. If, however, a different row or column or annunciator is affected, then a strip would likely be to blame.

Re: Aren't there TWO strips in the 48?

*Message #9 Posted by **Nelson M. Sicuro (Brazil)** on 17 Nov 2003, 2:44 p.m.,*
in response to message #8 by Paul Brogger

I don't swapped the strips, I'll try later. But I don't like to open/close it often, the metal clips that hold the PCB with the case/LCD are too thin and can be broken (as on my 42S...)

I'll try to check the tracks on the PCB also. I don't know if the display of the 48G is "partitioned" with 2 halves controlled by different pins (the 42S is 131x16, but the LCD controller is 66x32, 2 partitions plus symbols). On the 42S I'm shure that is the LCD, on the 48S I'm thinking of the PCB or controller chip, as the missing line is a horizontal one of the entire extent of the display (if the display is partitioned, this is covered by 2 lines).

Best regards,

Nelson

Re: Consider building a "jig"

*Message #10 Posted by **Paul Brogger** on 17 Nov 2003, 4:08 p.m.,*
in response to message #9 by Nelson M. Sicuro (Brazil)

re: twisting the metal tabs too many times . . .

You might consider building a "jig" -- a fixture that holds the pieces together and applies enough pressure for testing, thereby avoiding metal fatigue.

Randy Sloyer, I think, uses one for work on Pioneers -- I assume something similar could be built for 48G's. It needs to stay clear of the display (so you can see what's going on), press the PCB without shorting traces together (insulate its points of contact), and apply even pressure throughout the PCB/LCD/keyboard contact area. Not easy, but not impossible. (Easy for ME to say!)

Anyway, it sounds as if such a device has helped Randy -- I suppose it might help you, if you do a lot of work on 48G's. (Just a suggestion . . .)

Re: Consider building a "jig"

*Message #11 Posted by **Nelson M. Sicuro (Brazil)** on 17 Nov 2003, 4:57 p.m.,*
in response to message #10 by Paul Brogger

It is really a good idea! I'm fixing calcs that I buy cheap (non-working), fix them for my collection or to sell later. Most of them is Voyagers and Pioneers, this 48G is the first one. Is amazing how resistant those cals are!

I do repairs on my spare time and don't have a dedicated space (yet) to do it. I'm

planning to build a more sofisticated "equipment" to fix the calcs, a ultrasonic washer, this "jig" to press the displays (adjustable to more than one calculator serie?) and get some conductive paint, among other things...

Best regards,

Nelson

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Hp12c Platinum

*Message #1 Posted by **Pierre Brial** on 17 Nov 2003, 6:11 a.m.*

Hello,

The Hp12C Platinum has received here some cricticism about software problem. But how is quality compared to golden Hp12C ?

By Hp12C quality I mean :

- built tought

- highly readable display

- traditional Hp keyboard (with the key-click)

When one doesn't face a bug, is the platinum fastest than the gold one ?

In fact the only minus I find for the golden Hp12c is the slowness of programs.

Last question : is there somewhere on the net a large picture of the 12c Platinum ?

All the best

Pierre

Re: Hp12c Platinum

*Message #2 Posted by **Valentin Albillo** on 17 Nov 2003, 9:36 a.m.,*
in response to message #1 by Pierre Brial

Pierre posted:

"is there somewhere on the net a large picture of the 12c Platinum ?

Try these. They were originally provided by Gene (Thanks, Gene and sorry for the lapsus :-)

HP-12CP front

HP-12CP back

HP-12CP inside

Best regards from V.

Edited: 17 Nov 2003, 12:32 p.m. after one or more responses were posted

Re: Hp12c Platinum

*Message #3 Posted by **Arnaud Amiel** on 17 Nov 2003, 9:59 a.m.,*
in response to message #2 by Valentin Albillo

I hadn't seen the 12C so close before and I don't know if anyone noticed but they got the French wrong: "Fabrique en China" instead of "Fabrique en Chine"

Arnaud

That was me!

*Message #4 Posted by **Gene** on 17 Nov 2003, 12:28 p.m.,*
in response to message #2 by Valentin Albillo

:-)

Duly corrected. Sorry :-) [NT]

*Message #5 Posted by **Valentin Albillo** on 17 Nov 2003, 12:33 p.m.,*
in response to message #4 by Gene

Best regards from V.

Re: That was me!

*Message #6 Posted by **Frederic** on 18 Nov 2003, 4:29 a.m.,*
in response to message #4 by Gene

Sorry Gene ..... but on your

http://www.rskey.org/gene/hpgene/hp41c.gif

the BAT indicator is on. You may have to change batteries, or the display will blank ;-))

Re: Hp12c Platinum

*Message #7 Posted by **Pierre Brial** on 18 Nov 2003, 10:03 p.m.,*
in response to message #2 by Valentin Albillo

Thank you for the great pictures.

But what about speed and quality of the 12cp, compared to the old one ?

All the best

Pierre

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HP17Bii+

*Message #1 Posted by **Marc** on 17 Nov 2003, 5:51 a.m.*

What about this new machine, I know ti guys that had to change it by a new one because of the keyboard.

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HP 15C 33S 42S 48GX

*Message #1 Posted by **J Martinez** on 16 Nov 2003, 11:59 p.m.*

Dear Mr. Engineer at HP, if you want to sell a lot of calculators, don't reinvent it. Math is math, bring back these models and keep the same ol display touch feel and quality.

Re: HP 15C 33S 42S 48GX

*Message #2 Posted by **Arnaud Amiel** on 17 Nov 2003, 3:36 a.m.,*
in response to message #1 by J Martinez

After a bit of getting used to it, I find that some programs are still a bit slow on my 49g+. But when I go back to the 48 they are so incredibly slow!

Please Mr hp, continue inventing!

Arnaud

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TI-30 Manual Humor from 1976

*Message #1 Posted by **Ben Salinas** on 16 Nov 2003, 11:49 p.m.*

No, this post is not glorifying the 1976 TI-30.

I was actually discussing HP calculators with a friend just right now, and I was telling him about the "click" which I have never felt. I then realized, well maybe the TI-30 that I took from my grandmother's house has that same click, so I took it out, and tried punching a few buttons.

It most definitely does not have the click (even pressing a button for an instant will cause it to register 2 or 3 presses) I took the manual out of its incredibley ugly case in order to find the date it was made. I started reading, and one of its features reads:

"Algebraic mode of entry allows you to enter mathematical sequences in the same order that they are algebraically stated"

This is quite obviously a stab at RPN (as by 76, HP had a good many calculators out).

I read on and found this:

"Disposable battery power source provides independence from AC power supplies. You can take weeks of computing power with you wherever you go by simply carrying a few spare batteries."

This is obviously a stab at the rechargeable batteries of the HP's of the time. I showed this to my friend (who perfers his TI's) and he was amazed.

I just found it interesting the ways that companies can make a bad feature sound good.

-Ben

Re: TI-30 Manual Humor from 1976

*Message #2 Posted by **rsenzer** on 17 Nov 2003, 1:20 a.m.,*
in response to message #1 by Ben Salinas

Hi Ben,

The nice thing about the TI-30 was that it was cheap. TI had much higher quality calculators of superior construction at the time. I have a TI-58C with excellent tactile feedback, although I believe that this is a model that was produced a bit later.

In the TI-30, TI was hardly attempting to compete with HP. It was going after the student market for a basic calculator. This model was roughly the equivalent of an HP-6S or CASIO-fx260 today. It could handle basic scientific calculations for "Science 101" classes.

Re: TI-30 Manual Humor from 1976

*Message #3 Posted by **james (uk)** on 17 Nov 2003, 2:01 p.m.,*
in response to message #2 by rsenzer

My first programmable (way back in 1979) was a TI-58 which I still have but the keyboard is very poor, difficult to use quickly and after five or six years a couple of the keys became very unreliable - had to press very hard to register and then they tended to register 2 or 3 times.

Had the same problems with a TI-30 except that the keys became defective much quicker.

Best, James

Re: TI-30 Manual Humor from 1976

*Message #4 Posted by **Victor Koechli** on 18 Nov 2003, 3:08 a.m.,*
in response to message #3 by james (uk)

Woah, you were lucky, then. I had my TI-59 for a year, and by then 40% of its keys were bouncy and/or needed high pressure to register, plus the card reader was partially broken (it didn't sense anymore when a card was through and just kept on running).

I had it fixed, still under warranty, sold it, and bought a HP-41CV. It has seen heavy use, but it's still working perfectly. Quality really makes a difference.

Cheers, Victor

Re: TI-30 Manual Humor from 1976

*Message #5 Posted by **Karl Schneider** on 17 Nov 2003, 3:04 a.m.,*
in response to message #1 by Ben Salinas

My first calc was a TI-30 from about 1977 or '78.

Ben stated:

> Quote:
>
> *I took the manual out of its incredibley ugly case...*

It was denim-colored, as I remember...

> Quote:
>
> *"Disposable battery power source provides independence from AC power supplies. You can take weeks of computing power with you wherever you go by simply carrying a few spare batteries."*
>
> *This is obviously a stab at the rechargeable batteries of the HP's of the time.*

Interesting. Mine came with a rechargable 9V battery that quickly lost its ability to accept and retain a charge. I started using disposable 9V cells.

One day, I found myself in electronics class when another cell died. I hooked the TI-30 up to a DC power supply outputting 9.0 V measured by a multimeter. The display started going screwy shortly thereafter, and the TI ended up in the garbage, replaced a year later by a Casio LCD model. I'm still not quite sure what I did wrong; maybe the DC wasn't "clean" (steady).

Re: TI-30 Manual Humor from 1976

*Message #6 Posted by **Michael Meyer** on 17 Nov 2003, 12:38 p.m.,*
in response to message #5 by Karl Schneider

The TI's reversed their red and black wires... black is positive on many models. Might have been the reason yours blew out.

The TI-30 was the best selling LED calculator of all time. Obviously there was a method to their madness.

My TI-59 still works fine (after card reader repair, of course). Still, I always hated the algebraic entry, and despite years of using the TI-59, RPN was still easy to pick up and use again. Still, the 59 was powerful, and I wrote every computer science assignment twice: once for the mainframe, once for the TI-59. It could do anything that was assigned. (1980)

Michael

Re: TI-30 Manual Humor from 1976

*Message #7 Posted by **Bill Wiese** on 17 Nov 2003, 1:59 p.m.,*
in response to message #1 by Ben Salinas

Ahh, TI30.

Got my TI30 in summer of 1977 (summer of 6th grade). We were on vacation and my dad saw it on sale at Safeway in La Grande, Oregon for $25.95 - it came with a "Student Math Kit" textbook w/some interesting stuff. (That's where I found out about Stirling's Approx. for factorial/gamma... lotta fun.)

It was to replace an APF Scientific. My dad and I were in a ham radio class; he HATED to use shifted functions (never bothered me!). And the APF didn't have base-10 log/10^x functions so there was an extra step involved there too.

My TI30 keyboard (and my TI58's) never bounced. Pretty happy w/em. But not HP :)

But even then I couldn't resist playing w/the HP demos at the store...

Bill W San Jose CA

Re: TI-30 Manual Humor from 1976

*Message #8 Posted by **Palmer O. Hanson, Jr.** on 21 Nov 2003, 11:36 p.m.,*
in response to message #1 by Ben Salinas

Are you familiar with the Mach Number problem which appeared in the HP-67 and HP-97 manuals as a difficult equation which provided justification for choosing RPN over AOS? The accompanying writeup in those manuals emphasized the need to solve the Mach Number problem from the inside out.

Users did not have to work from the inside out to calculate the Mach number on the TI-30 or other AOS machines manufactured by TI. They only needed to have faith in the implementation of the parentheses routines and enter parentheses for brackets, braces and parentheses, remember that the square root must come at the very end, remember that you must add real multiply's where there are implied multiply's, and remember to add an equal after the last large closing bracket to multiply the value in the large outside brackets by five. If they watched the display as they proceeded they would even see most of the intermediate results mentioned in the writeups in the HP-67 and HP-97 manuals! So, the AOS user simply enters the equation in his machine as written and, voila, without any agonizing or analysis to decide where to start the problem, the answer appears

in the display. The AOS sequence requires 73 steps. The RPN sequence requires 67 steps on the HP-67, but only 66 on the HP-41 where the square root key is not a second function.

AOS solves the problem the inside out, not because the user asks it to, but because that is how it must be done. With RPN the user must examine the equation and find the proper inside point at which to begin. With AOS the machine essentially does the thinking for the user. Higher order languages such as BASIC and FORTRAN also do the thinking for the user when algebraic expressions are entered.

The reason tbe Mach Number problem solves so nicely on the TI-30 is that the problem does not require pending operations or pairs of parentheses that exceed what the machine allows. The really curious aspect of the selection of the Mach Number equation to demonstrate the power of RPN is that the equation is of the exact level of difficulty which permitted straightforward solution by the least capable of the machines in the TI inventory at the time. If one wishes to make RPN machines look better than the AOS machines in evaluating algebraic expresions one must propose a problem which overwhelms the pending operations capabilities of the AOS machines. All of the above reinforces my impression that whoever selected the Mach Number problem as an example of why RPN was better than AOS really didn't understand AOS. Of course, that isn't very surprising because most dedicated AOS users really don't understand RPN. There really aren't many true "bilinguals".

Re: TI-30 Manual Humor from 1976

*Message #9 Posted by **Paul Novaes** on 22 Nov 2003, 11:15 a.m.,*
in response to message #8 by Palmer O. Hanson, Jr.

In the same spirit, I recommend reading a very funny story (at least for a TI fan :) involving Wozniak and RPN vs AOS. He was working for HP circa 1975 and he tells what happened at the calc lab the day the first AOS TI arrived [TI SR-52?]. Classic.

It's on his website at the end of the this page: http://www.woz.org/letters/general/57.html

-- Paul Novaes

Re: TI-30 Manual Humor from 1976

*Message #10 Posted by **r. d. bärtschiger.** on 22 Nov 2003, 3:47 p.m.,*
in response to message #8 by Palmer O. Hanson, Jr.

It is not necessary to start in the middle of the equation and work your way out when using RPN. This restriction exists only when using a stack with a finite size where the number of levels available is less than that required by the problem at hand. If you are using a calculator with an unlimited stack, such as that on an HP-48GX, you can start at the left side and move from left to right, using the RPN stack flow chart as given on page 46, in 'Appendix A Stack Algorithm and Flow Chart', of the HP-45 Owner's Handbook.

If you use an HP-48GX to solve this problem you will need 65 keystrokes and 5 stack levels.

keys	keystrokes	total keystrokes	highest stack level
5 enter	2	2	1
1 enter	2	4	2
.2 enter	3	7	3
350 enter	4	11	4
661.5 /	6	17	5
ls x^2	2	19	4
*	1	20	3
+	1	21	2
3.5 y^x	4	25	3
1 -	2	27	3
1 enter	2	29	3
6.875 eex 6 x/- enter	9	38	4

```
25500 *                 6          44                 5
-                       1          45                 3
5.2686 x/- y^x          8          53                 4
*                       1          54                 3
1 +                     2          56                 3
.286 y^x                5          61                 3
1 -                     2          63                 3
*                       1          64                 2
sqrt                    1          65                 1
```

65 total keystrokes, five stack levels needed.

rdb.

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new hp49g user needs help

*Message #1 Posted by **Grahm Satterwhite** on 16 Nov 2003, 9:12 p.m.*

I have been a TI guy since i started using a graphing calculator but decided it was time for a change. Anyway I have been doing some surveying work and cant for the life of me figure out how to enter degrees, minutes, and seconds into the 49g. I'm sure the button is stareing me in the face but I just cant see it. anyway, any help is appreciated. Grahm Satterwhite

Re: new hp49g user needs help

*Message #2 Posted by **Brent** on 16 Nov 2003, 11:30 p.m.,*
in response to message #1 by Grahm Satterwhite

Enter it so it looks like a decimal, i.e. 45^35'30" looks like 45.3530. If you want to convert it to dsecimal degrees go to the time menu and use soft key HMS->. If you want to change it back to DMS use ->HMS. Calculations need to be done in decimal degrees.

Re: new hp49g user needs help

*Message #3 Posted by **Brent** on 16 Nov 2003, 11:47 p.m.,*
in response to message #2 by Brent

Use the red shift key and then the 9 key. choose "tools" and then scroll down until you see ->HMS or HMS->. Those are the ones you want. If you need it a bunch you need to create your own routine to call that function.

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.raw to text

*Message #1 Posted by **karl gruber** on 16 Nov 2003, 8:00 p.m.*

Is there a program to convert a "Virtual HP-41" .raw file to a text file?

Best,

Karl HP-41

Re: .raw to text

*Message #2 Posted by **Mike (Stgt)** on 17 Nov 2003, 11:03 a.m.,*
in response to message #1 by karl gruber

What kind of text would you like? Only hex presentation or as a program listing? If hex is sufficient use TextPad and define suffix RAW as binary.

If you need a listing first look for such a tool (there is one for conversion/bar code/do everything from ... [sorry, my brain]). If you can't find such a tool, make one of your own: Take emu41 from JF Garnier, look for the ROM image of Extended IO, define the RAW file as input to virtual HP-IL device DOSLINK, read in 7 bytes a time and store them i a XM register file, convert it to a program file, read it to main memory and - here we go - print it.

Simple, isn't it? In a similar way I made yesterday a routine to convert OUTP output to a RAW file. Works.

Ciao.....Mike

Re: .raw to text

*Message #3 Posted by **Richard Garner** on 17 Nov 2003, 12:12 p.m.,*
in response to message #1 by karl gruber

Karl,

If you go to Warren Furlow's web site and click on the emulator section, close to the bottom of the page you will see "User Code Utility" and "User Code GUI" the GUI is a Windows interface for the utility that will automate the conversions from Text, RAW, BIN, HEX and Barcode. I have used it and it does a good job of converting. I would still look over the program text after each conversion. I have found that it will drop the END statement or change it to LBL 12 from time to time.

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An HP-XX2050 parody

*Message #1 Posted by **Michael Meyer** on 16 Nov 2003, 5:53 p.m.*

(Note: the Hewlett-Packard Personal Computer Digest published a story about a hand-held calculator, the HP-XX2050 in the year 2025. Here is my updated version, with apologies to Gordon Dickson.)

Walter Jensen, a middle-level management executive, in the year 2025, had just left his meeting in Omaha, Nebraska, and was on his way to a conference in Saint Louis, Missouri (via Detroit, Michigan), hand-carrying some very secret and valuable commercial information stored in his pocket computer. The day had been a long one, and the pressures of business in the twenty-first century were severe (even with the high doses of antidepressants he was taking). After spending four hours going through several security checkpoints, and waiting through two hours of flight delays, he finally squeezed into the only open seat remaining aboard the DC-9 remake (as no new planes had been designed for many years). He wanted to take a nap, but the seat was so cramped and uncomfortable as to make this impossible. Additionally, he was still trying to recover from the nasty virus he got during his last business flight due to the unclean recirculating air. He was just starting to relax some, when he noticed the plane was already descending. An irritable and clearly overworked flight attendant appeared in the aisle. “Our apologies to our passengers. A computer glitch has forced us to land at Chicago O’Hare. The computer shows that we aren’t actually airborne. Have a nice day.” After an hour of circling in a holding pattern, the plane landed. After a 30-minute wait on the hot tarmac, a gate finally opened up. It was nice to breathe some cooler air.

Walter, upon deplaning, tried to speak with one of the few airline employees, but they were all too busy at their computer terminals, with long lines of tired and impatient travelers. So, Walter remembered his new HP-XX2050 should also be of some help with this sort of situation! He smiled as he pulled it from his pocket, remembering how easy it looked to use at the store display. Walter had thought the key layout was completely inefficient, but it sure looked slick, and besides, it had “HP” on the corner. After several attempts at finding the right keys to press, he tried to get online to make new flight reservations, but the flimsy thing kept reporting, “The wireless network is temporarily unavailable. Please try again.” After several attempts, his HP-XX2050 locked-up, requiring a lengthy re-boot. “Hmm,” Walter thought, “I can try to interface with one of the “pay” internet terminals!” He looked for some time, finally finding an unused computer terminal at the far end of the airport. After entering his payment information, he connected his XX2050 to the terminal. The device went blank. Nothing. The main terminal reported, “Sorry, cannot communicate with device.” Walter made several more attempts, finally receiving a different error message. “Your device uses Smartmedia memory. This terminal only supports XD memory. Please contact your hardware manufacturer.” Walter remembered how his father had spoken fondly of his early HP calculators and how reliable and well built they had been. Frustrated, Walter disconnected the HP-2050, knocking out the batteries in the process. When he replaced the batteries, the screen said, “memory lost”. Walter’s face took on a horrified look as he realized that all of his vital business documents had been erased as well. Without them, his entire business trip was ruined. In shock, Walter eventually realized that he still needed to somehow get back home.

With one last attempt, Walter tried the wireless network. Finally getting online, he followed the cumbersome process of logging onto the airline web site. He had to press each key up to four times to enter each letter! The device keys kept “bouncing”, entering the same letter multiple times. Walter eventually entered his ticket information, and a screen appeared saying, “We hope you enjoyed your flight. Your luggage is waiting for you at Los Angeles LAX. You will need to pay a retrieval fee upon claiming your luggage as it was 3mm over allowed dimensions. Have a nice day.”

After throwing his HP-XX2050 in the trash, Walter decided that the dirty carpet of the airport floor wasn’t such a

bad place to spend the night after all. “Maybe someone will notice me missing,” he remembered thinking as he finally passed out from exhaustion. Walter was startled awake moments later by an airport security guard. “Sorry, you can’t lay down here. Try the lounge down the hall past the next two security points.”

Screech!! (not even half a Beep)

*Message #2 Posted by **james (uk)** on 16 Nov 2003, 6:04 p.m.,*
in response to message #1 by Michael Meyer

Hi Michael

Unfortunately, going by the present I would say your crystal ball is a lot more accurate than Gordon's.

Best, James

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Parity in calculators

*Message #1 Posted by **Jim** on 16 Nov 2003, 1:45 p.m.*

If I were trading a 41-CV, plain vanilla, or a 48GX, for a 19BII, what kind of parity should I expect? In either case, each case taken separately, should I expect boot or expect to give boot, assuming that all units are comparable in quality? Thanks.

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Quality of 1982 15c vs. 1988 15c

*Message #1 Posted by **Jim B** on 16 Nov 2003, 10:00 a.m.*

I was just wondering if the 15c's made around 1988 or '89 (toward the end of the Voyagers production run) were made as high quality as the earliest ones? I was basically wondering if HP started cutting corners as time went on, or if all the 15c's were made exactly the same (and as high in quality) thru 1989?

Edited: 17 Nov 2003, 12:29 p.m. after one or more responses were posted

Re: early 15c vs. late 15c

*Message #2 Posted by **Randy Sloyer** on 16 Nov 2003, 4:59 p.m.,*
in response to message #1 by Jim B

IMO, quality (fit and finish) was the same.

Re: early 15c vs. late 15c

*Message #3 Posted by **David Brunell** on 16 Nov 2003, 5:45 p.m.,*
in response to message #1 by Jim B

As near as I can tell, the major cost-cutting on the Voyager series didn't occur until around 1994. I have two 12c's, one from 1993 and the other from 1995, both made in Singapore. The '93 unit has double-shot keys and is otherwise every bit as good as the early Voyagers, while the '95 model has painted-on legends. The blue g-function legends are nearly impossible to read.

Re: early 15c vs. late 15c

*Message #4 Posted by **jose goncalves (Brasil)** on 16 Nov 2003, 7:12 p.m.,*
in response to message #3 by David Brunell

Talking about cutting corners, is it possible that HP went through the same internal revision process of the 12C ? I remember that the first 12C had 3 chips, then only 2 and then only one, even before Kinpo. The LCD assembly went through a major revision also.

I don´t have that many 15C to disassemble and check and, for sure, the 15C didn´t last that long in production, anyway.

Re: early 15c vs. late 15c

*Message #5 Posted by **Randy Sloyer** on 16 Nov 2003, 11:43 p.m.,*
in response to message #4 by jose goncalves (Brasil)

Yes, the last 15C's to be built had one chip. They very much followed the evolution of the 12C.

Re: early 15c vs. late 15c

*Message #6 Posted by **Erin C** on 19 Nov 2003, 7:52 p.m.,*
in response to message #5 by Randy Sloyer

So, is it better to have 3 chips or does it mean nothing? Is the 1 chip 15c just as good? Besides this, weren't they made exactly the same? I have used both and can't tell if the keyboards or lcd's are any different? I would have to think that a newer 15c would last longer, just because it is newer and therefore its parts won't degrade as soon as the earlier 15c's.

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33S situation is getting ugly...

*Message #1 Posted by **CME750** on 15 Nov 2003, 9:07 p.m.*

..and no, I'm not talking about the keyboard.

The best-known forum for Professional Engineering exam candidates is at:

http://www.ppi2pass.com/w-agora_eef/index.php?bn=eforums_eef

Check it out. People are gearing up for the 2004 exams, which are the first to be affected by the new NCEES calculator restrictions. PE and PLS candidates across the country are coming to the shocked realization that:

(1) They will *not* be allowed to use their trusty HP48s or their new HP49s

(2) HP currently cannot provide *any* NCEES-compliant RPN scientific calculator

(3) Older NCEES-compliant models, like the 32Sii, now cost hundreds of dollars

(4) There is *no* firm timetable for the introduction of the HP33S

Needless to say, a lot of people are unhappy with NCEES, but also with HP.

There's been plenty of 33S bashing on this forum. Well, at the same time there are many engineers and surveyors who are desperate for *any* basic, reasonably priced RPN scientific. Even if it has an ugly keyboard.

Edited: 15 Nov 2003, 10:07 p.m.

Re: 33S situation is getting ugly...

*Message #2 Posted by **Brent** on 15 Nov 2003, 11:10 p.m.,*
in response to message #1 by CME750

Just took it and yes my 48GX helped alot. Hopefully you can get your hand on a 33s by April. If you are taking the Civil Engineering exam, make sure you have Manning's Eqn in the solver for all kinds of channels- in terms of depth, width, etc. It's a time saver.

Re: 33S situation is getting ugly...

*Message #3 Posted by **Valentin Albillo** on 15 Nov 2003, 11:49 p.m.,*
in response to message #1 by CME750

CME750 posted:

*"There's been plenty of 33S bashing on this forum. Well, at the same time there are many engineers and surveyors who are desperate for *any* basic, reasonably priced RPN scientific. Even if it has an ugly keyboard."*

Forgive me in advance, but there's something I think I don't fully understand, namely your *"There are many*

*engineers and surveyors who are desperate for *any* basic, reasonable priced RPN scientific"* statement.

How can that be ? I still remember the times when I was a young student, with very little money to spare, yet I managed to buy first an HP-25, then an HP-67, which took a considerable effort and a lot of trade and work on my part to get the $$ required to purchase it. I guess many of this forum's readers have endured similar experiences.

Now the question is, why are your 'engineers and surveyors' so 'desperate' ? If they are, indeed, can't they resort to get an HP-15C, say, from eBay ? I know they aren't exactly cheap, but you can get one for, say $175-225, and that's pretty comparable with the original price, augmented by inflation, that an HP-67 commanded 26 years ago. If 'poor' students like me could do it at the time, why can't present 'engineers and surveyors' ?

In other words, if people are really so 'desperate', stop sticking to your money like mad, stop waiting for such weird, ugly, underdeveloped products as the 33S (which might as well get banished from the exams if someone discovers it has A-Z on the keyboard), and spend that money on a nifty HP-15C or 41CV out of eBay, this MoHP Classified, or whatever. It'll end your 'desperation' once and for all, and you'll be glad you did, now, and many years from now.

Best regards from V.

If you don't mind waiting a little longer...

*Message #4 Posted by **Tony David Potter** on 15 Nov 2003, 11:56 p.m.,*
in response to message #3 by Valentin Albillo

Just a few observations:

1. HP contracts Kinpo to make the new HP-12C Platinum. 2. A few months after it's release, a new calculator, the Aurora FN1000, comes out (also by Kinpo) that's functionally equivalent to the HP-12C. It's price point is less than one-third that of the HP-12C Platinum. 3. HP contracts Kinpo to make the new HP-33S. 4. A few months after it's release...

Might be too much to hope for, but might we see a RPN Scientific calculator, a few months after the release of the 33S, with the functionality of the 33S (or 32SII) with a more traditional keyboard and at a $20-30 price point?

Just a thought. Tony David Potter (33333 erases.)

Re: If you don't mind waiting a little longer...

*Message #5 Posted by **Brent** on 16 Nov 2003, 12:39 a.m.,*
in response to message #4 by Tony David Potter

Well, I have run out of memory with just three survey programs on my 32sii, and the same goes for the 11c. The 33s would be very nice for Surveyors and engineers for the PE exam. I saw a post that said there is no way to use up all the memory. While it might be difficult, I could have certainly used alot of it for the exam. The 41CX is good for surveying (if you have the chip) but the eqn solver probably isn't as good as the 33s. Hell, Bring all the legal calculators you have- I did. 48GX for Hydraulics and surveying, the 12c for engineering economics and 11c for GP.

An interesting idea Tony, Chinese cloning

*Message #6 Posted by **NH** on 16 Nov 2003, 12:44 a.m.,*
in response to message #4 by Tony David Potter

That's an interesting idea Tony, and maybe you are right.

So your scenario is that Kinpo comes out with some of the classics (32S, 32Sii) because HP is not smart enough to do it themselves.

Did you know that Chinese businesses, stereotypically, are masterful copycats of other people's designs and ideas? Whereas USA business typically has enough pride that they wont copy, a company like Kinpo just wants the money and would copy gladly.

That's an excellent, excellent idea, and I hope your scenario comes true. Hey..... they could even make HP-34C !! With RED LED's HUBBA HUBBA OOOWEEEE BAAAAAAYBEEEE gimme dem RED LED's * pant pant pant *

wouldn't it be interesting if our favorite swear word (Kinpo) became the knight in shining armour to save us all and restore our hopes? (esp at $30 a unit, yeah, ooowee babeeeee). In point of fact, I designed a product that was cranked out many thousands at a time, and was sold for thousands of dollars a unit also. The chinese got jealous of the profit margins, and came out with a clone. They even cloned the "cut trace solder a jumper" reworks on the circuit boards (!!!!) :o| This went on for quite awhile and eventually the USA company used lawyers to make them stop. The Chinese company then offered to the USA company to make the product for them, as a low-cost manufacturing partner .....

Reminds me of COMPAQ

*Message #7 Posted by **rsenzer** on 16 Nov 2003, 12:48 a.m.,*
in response to message #4 by Tony David Potter

If I recall, it was COMPAQ, the company acquired by HP, that created the first clone of the IBM PC. This feat was accomplished relatively quickly because the original PC was a non-proprietary design.

A similar trend may occur in calculators as HP outsources the product. On the other hand, perhaps this is HP's strategy. If many overseas companies start building RPN models, HP can just select the one it desires and slap the HP name on it. Then, it can concentrate on its primary business of slapping the HP label on other outsourced electronic and computer products.

Re: Reminds me of COMPAQ...

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 18 Nov 2003, 12:49 p.m.,*
in response to message #7 by rsenzer

Just to say that, while I most admire the "classic" HP excellence of the 1970's and 1980's calculator models; I had worked with many of the Compaq "first 10 years" products, and I may say there was also quality and innovation on them, indeed.

The word "Compaq" is a combination of "compatibility", "portability" and "quality"; the main attributes for their first product. I have installed and repaired such units for years, and have been able to appreciate the attention given to details as the usage of perforated "fiche" boards to shave some weight; the shock absorbers for hard disks; the backup fuse located in the power connector; the appearance of a plasma display in the Portable III; the flexible, foldable motherboard on the LTE386 notebook (1990), adapted from aerospace technology; and many advanced features on servers like RAID controllers (1989); or autonomous remote-management adapters (1991, with their own battery, modem and voice synthesizer for spoken alarms), etc. While some of that quality may be lost (a sign of current times, perhaps?), there are still many quality features in their products.

As per service, I was amazed when I read my first Compaq Service Advisories, where, for instance,

technical personnel was instructed to look for a defective link in the leather carrying case of some models; to prevent possible slipage of the carrying belt with consequential damages for the computer and/or the user... Service centers were paid between U$S 50 and U$S 80 per event, to encourage them to detect and exchange the belt link... an attitude not many maufacturers had at the time (1990)!

Re: 33S situation is getting ugly...

*Message #9 Posted by **CME750** on 16 Nov 2003, 1:12 p.m.,*
in response to message #3 by Valentin Albillo

"Now the question is, why are your 'engineers and surveyors' so 'desperate' ? If they are, indeed, can't they resort to get an HP-15C, say, from eBay ? I know they aren't exactly cheap, but you can get one for, say $175-225..."

Yes...but $175-225 seems like a lot of money for a calculator which is only intended for use on one or two exams.

Most of the engineers and surveyors in question already own an HP48, which has been the closest thing to an industry-standard calculator over the past 10 years or so. The 48 cost less and does more than an old 15C, or any of the other fondly-remembered collectibles discussed on this forum.

But the 48 and 49 were recently banned for use on PE/PLS exams. So people who have been out of the calculator market for years now need to find an RPN alternative specifically for exam use. They are understandably shocked to learn that the only available options, as of today, are in the $200 range.

Actually...

*Message #10 Posted by **Gene** on 16 Nov 2003, 5:26 p.m.,*
in response to message #3 by Valentin Albillo

"f they are, indeed, can't they resort to get an HP-15C, say, from eBay ? I know they aren't exactly cheap, but you can get one for, say $175-225, and that's pretty comparable with the original price, augmented by inflation, that an HP-67 commanded 26 years ago."

Gene: Actually, HP-67's sold for $450 back in 1977 dollars. The price level has nearly tripled since then. Try an equivalent today of $1200. That makes HP-15c's etc. bought on ebay a bargain.

It also makes the 49G+ an incredible bargain.

Re: 33S situation is getting ugly...

*Message #11 Posted by **Thomas Radtke** on 16 Nov 2003, 7:07 a.m.,*
in response to message #1 by CME750

Don't take this as offense; It seems that dedication to a certain entry format turns into an unhealthy addiction. What you may win by using RPN is lost by using a keyboard like the one of the 33S, in terms of speed. I would always prefer my 20S or even my fx81p over using such a toy. In addition, from what we heard in this group, the device has apparently been designed so careless that you probably have to expect serious bugs in the software. And thats the best reason for not using it in the exams.

Thomas

Re: 33S situation is getting ugly...

*Message #12 Posted by **CME750** on 16 Nov 2003, 1:23 p.m.,*
in response to message #11 by Thomas Radtke

Software bugs? There are really only two major complaints about the 33S on this forum:

(1) the keyboard is goofy (which is true)

(2) the firmware appears to be nearly identical to that of the 32Sii

Point 2 is a significant drawback, since it means that the 33S will not be able to effectively use much of its memory. On the other hand, the 32Sii firmware was not buggy, and so there is no reason to suspect that the 33S firmware will be buggy either.

Re: 33S situation is getting ugly...

*Message #13 Posted by **Thomas Radtke** on 17 Nov 2003, 4:42 a.m.,*
in response to message #12 by CME750

I was only speculating. But you're wrong about the 32SII, there were buggy units (I have one of it) as there were several other HP calcs with bugs on early releases even when HP put more effort in them. Why should I expect to get a good calculator when the design already looks like it has not been made for professional use?

I would not dare to say that the firmware is nearly identical to the one of the 32SII. It's more likely rewritten from scratch. But then, it doesn't really matter. Doing modifications on a more than 10 year old software is always dangerous:).

Thomas

Re: 33S situation is getting ugly...

*Message #14 Posted by **Raymond Del Tondo** on 17 Nov 2003, 7:46 a.m.,*
in response to message #13 by Thomas Radtke

>Doing modifications on a more than 10 year old software is always dangerous: >

It depends. If the software sources are well documented *and* the programmer knows what to do then the risk is small.

Of course the above assumption contains two unknowns:-)

Raymond

Re: 33S situation is getting ugly...

*Message #15 Posted by **CME750** on 17 Nov 2003, 2:33 p.m.,*
in response to message #13 by Thomas Radtke

OK, the 32Sii had some issues with buggy fractions. But nobody actually uses those anyway!

Re: 33S situation is getting ugly...

*Message #16 Posted by **David Brunell** on 16 Nov 2003, 5:52 p.m.,*
in response to message #1 by CME750

If it were me, I'd tell NCEES to stuff their exam and HP to stuff their cowcatcher and find a career that didn't

require me to operate under such constraints.

But I'm just that way. ;)

NCEES to Blame, not HP

*Message #17 Posted by **Jeff** on 17 Nov 2003, 7:17 a.m.,*
in response to message #1 by CME750

I don't see why anyone should be unhappy with hp (aside from the oft discussed issues surrounding the 33S itself). It is not up to hp to make a calculator that meets with the approval of NCEES. I'd place the blame squarely on the paranoid, asinine NCEES for taking away the tools that engineers and surveyors use in their daily jobs over the silly worry that someone will type the questions and answers into their calculator, or beam answers via IR to their buddy across the room.

Edited: 17 Nov 2003, 9:08 a.m.

Re: NCEES to Blame, not HP - Absolutely!

*Message #18 Posted by **J.C. Randerson** on 17 Nov 2003, 11:24 a.m.,*
in response to message #17 by Jeff

The NCEES is an organization of delusional Luddites who would like to turn back the clock. There should be an alternative organization to license engineers that is more technologically oriented. This is 2003, not 1903 or 1803!

J.C. Randerson

Re: NCEES to Blame, not TI - Absolutely!

*Message #19 Posted by **CME750** on 17 Nov 2003, 2:26 p.m.,*
in response to message #18 by J.C. Randerson

Owners of TI graphing calculators are also affected by the NCEES ban, and they are also critical of NCEES. But they are not nearly as upset as HP owners, and they are not mad at TI. Why not?

Because a TI83 or TI89 user can go to any discount store (Walmart, Kmart, Target), or to any office store (Staples, Office Depot), or to any consumer electronics store (Good Guys, Best Buy), or to any number of internet sites, and pick up an adequate, NCEES-compliant TI scientific calculator for less than $20. Brand new, in the box, with warranty. Problem solved.

Does an HP48 or 49 user have similar alternatives for an RPN scientific calculator? Sorry. The only choices are: (1) try your luck at Ebay, where it may be possible to obtain an old used HP for $200 or so, or (2) simply get a $20 TI as described above and reprogram yourself away from RPN.

HP has produced boatloads of fine, NCEES-compliant scientific models in the past, starting with the HP35 and ending with the 32Sii. But somewhere along the line, they dropped the ball: the 32Sii has been discontinued for more than a year and a half, and the 33S is still vaporware.

As a result, people are unhappy with HP, not just with NCEES. TI and Casio and Sharp are unscathed.

HP deserves criticism, from RPN users

*Message #20 Posted by **CME750** on 18 Nov 2003, 12:45 p.m.,*
in response to message #17 by Jeff

<<It is not up to hp to make a calculator that meets with the approval of NCEES.>>

The great irony here is that HP **does** make scientific calculators that meet with the approval of NCEES.

The current-model HP-9S (~$15) and HP-9G (~$40) have both been explicitly granted the NCEES "seal of approval". The current-model HP-30S (~$20) also appears to meet NCEES criteria. Same with the HP-6S (~$10) and the HP-20S (~$40), which have been discontinued but are still available at low cost if you look around.

The problem is that none of these models have RPN. So HP's current product line includes three different inexpensive, NCEES-compliant algebraic scientific calculators -- but no RPN equivalents. Users accustomed to RPN are not happy with this situation, or with HP.

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what is your favorite (YOUR OWN) RPN program?

*Message #1 Posted by **bill platt** on 15 Nov 2003, 3:50 p.m.*

I post this question because it will hopefully help to give us all a better idea of:

a: what sorts of things we use our calculators for,

b: why RPN is good (or why keystoke programming in general)

c: why BASIC and other methods are good (Valentin, please feel free to post your favorite non RPN, too!:-))

Be sure that you describe a program that *you yourself* wrote--not something you got out of a book, or modified from someone else. It *has* to be your very own thing.

And it does not have to be big. It does not have to be complex. It it doesn't have to be THE one (we change our minds and perceptions with time, right!). And it does not have to be your latest (mine isn't). But it has to be satisfying--or really effective in your mind (tell us why).

So here goes: my favorite (for the time being) is one that I wrote to compute the 2nd moment of areas of arbitrary rectangular sections, along with adding known arbitrary shapes with known area, centroid, and fundamental 2nd moment about centroid, t oa set of other known shapes or rectangles. In this case, I discovered later that there was some sort of program in the calculator manual that did this--but I didn't bother to look, and I knew what I wanted! and besides, it is *sooooo* much more satisfying to give it a try all on ones own occasionally....

The reason this is such a satisfying program is that if you do mechanical design, and you need to know what the bending stress will be of some arbitrary set of parts, you need to know the "inertia" or "second moment of area" and the "Section modulus" of that section. While yes, I also wrote a spreadsheet program that does this task, the calculator is both "safer" in a way (no cells to mangle etc), but also portable, fast, there with pencil and paper as you are sketching and playing with ideas....And to have it programmed in, rather than doing it by hand, save lots of time! If yo uhave never done this computation, it goes like this:

Area y A*y A*y^2 I

Area2 y2 A2*y2 A2*y2^2 I2

Sum A Sum Ay (SumAy^2)+(Sum I)= Ib

SumAy / sUMA = Y'

Ib - (A*Y'^2) = I about centroid.

Z = section modulus = I / (max fiber - centroid position).

So, you can see that there is a lot of button pressing!

Further, in RPN, it programmed very smoothly--not very different from doing the problem by hand (except all the registers). So, that was satisfying.

Maybe I'll post the code later---but you don't have to post your code---better to get us talking about what we are doing first, not yet how we do it.

Basically, I have a "clear" routine (which is handy for preserving the contents of registers that are in use in other programs--rather than clearing the whole machine's registers), a "rectangles" entry routine, a "summing for I and Z" routine, and a routine for input of known sections (which always must be followed with the "summing" routine).

Best regards, and looking forward to hearing some fun stories!

-Bill Platt

Edited: 15 Nov 2003, 4:58 p.m.

Re: what is your favorite (YOUR OWN) RPN program?

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 15 Nov 2003, 7:24 p.m.,*
in response to message #1 by bill platt

For HP 25, prime number tester or factor finder; and battleship game.

For HP 41: Space Shuttle Landing Simulator (sort of game) and RCA 1802 microprocessor cross assembler (very crude, I admit)

I have some partial listings of the above, and have planned for months a detailed article on the last two, but I have not found the time to advance with such project...

Re: what is your favorite (YOUR OWN) RPN program?

*Message #3 Posted by **jimc (can.)** on 15 Nov 2003, 11:11 p.m.,*
in response to message #1 by bill platt

My favourite is my drilling fluids rheology program. When I was an engineer on the drilling rigs in the 80's, we had slide rules to calculate pressure drops, viscosities, and flow regimes. Using my trusty HP, I wrote a program using a procedure that I continue to use today - that is, define the parameters the user may wish to change, and attach them to a a Lbl instruction. In this way the user could examine several what if scenarios. It forced me to examine a structured programming sequence. To do it though, required over 600 steps. I was grateful for the continuous memory!

While I was using this program (in about 1/5 the time my fellow engineers were doing it using the company supplied slide rules) I was able to finish my am reports, complete with calculations for solids, weight up requirements, and relevant costs. At the time, it was a marvelous time saver.

Sure, its old tech. But then, so are Louis Armstrong's recordings....That doesn't mean it is any less relevant today. Any open minded person can enjoy it!

12345

Re: what is your favorite (YOUR OWN) RPN program?

*Message #4 Posted by **Jim Chumbley** on 17 Nov 2003, 9:08 a.m.,*
in response to message #3 by jimc (can.)

Jim,

Would you please state the machine you ran this program on? I presume it was the HP-41C/CV. And

would you explain how you managed the 600 program steps? I am imagining that it was designed as subroutines swapped in and out of working memory.

Edited: 17 Nov 2003, 9:09 a.m.

Re: what is your favorite (YOUR OWN) RPN program?

*Message #5 Posted by **jimc** on 17 Nov 2003, 2:33 p.m.,*
in response to message #4 by Jim Chumbley

Hi Jim. Thanks for your post.

I used a 41 CX, and I reduced the size of the memory registers to less than 50 at start up so I had extra room for all of it. (its kind of fuzzy now, but I believe that this was one of my first errors) - anyway, I did this in about the first ten steps. Since some of the calculations were to be used separately, I wrote some external programs that were called into the main program. As the program grew, I tried to pare it down to where I could manage it.

Therefore, the large number of steps were about 1 program that used around 300 steps, and the other 10 or so programs using the remainder. Not technically one program, however, the external programs (or subroutines) were fairly useless without the main program, as the main program had the constants (prices, etc) that were "seeded" into the memory. This was one of those decisions that at first blush seemed sound, but upon reflection was fraught with difficulty.

Like I said in the original post, I learned a lot writing the program, however the fundamentals were sound enough that I continue to use them today. I am no longer a drilling guy - so I have had no use for the program. I planned on posting it to the 'net, but over the years it has gotten buried.....However, this thread has re-awakened my interest in digging through my old textbooks.

12345 deletes

Favorite RPN (and BASIC) programs [LONG]

*Message #6 Posted by **Valentin Albillo** on 15 Nov 2003, 11:25 p.m.,*
in response to message #1 by bill platt

Hi, Bill:

These are a few of my choicest ones for assorted HP handhelds (no SHARPs on sight):

HP-25:

```
  WHAT: Numerical solution of 1st-order Differential
        Equations using a 3rd-order Runge-Kutta method


  WHY:  Because at the time, it seemed next to impossible
        to fit such a program on the meager HP-25's 49 steps,
        having to call your f(x) three times with different
        arguments and returning to different locations
        in a machine without GOSUB capability, while still
        leaving enough free steps to define your f(x).


        My approach was clever enough that it inspired my
        close friend Fernando del Rey to try and improve it
        to a 4th-order RK method, which succeeded in
        calling f(x) *four* times, and still left 10 steps
        or so for your f(x). To this day I still consider
        it the most amazing program I've ever seen.
```

HP-67:

WHAT: Elliptical Filter Design

WHY: Elliptical Filters were superior to any other standard filters in that they can be of lower degree for a given specs, as they do have true minimax properties. Designing them requires elliptic trigonometric functions (instead of the usual circular ones) and computing them with the required accuracy and fast enough was a real challenge in the slow HP-67's 224 steps. I had to design quite clever algorithms to accomplish it all, but in the end my program would compute high-pass, low-pass, band-pass and band-stop elliptic filters, would compute the zeros and poles and would plot the graphics and all other data relevant to the design.

HP-41C:

WHAT: 8x8 Othello (aka Reversi) game, the user playing against the HP-41C, which played a reasonably challenging game at a reasonably fast speed, while graphically printing the board, checking your moves for legality, being able to play against itself, and finally announcing the winner.

WHY: Because at the time noone had attempted to program such a complicated board game on a 41C. It required several Memory Modules (no Quad Module or 41CV then) and extremely impressed everyone who saw it, so much so that local HP used it to increase sales at local trade shows, as a demo, and it finally got to the hands of HP Corvallis, who where equally impressed. They wrote me a letter telling me so, and asking for my written permission to use and publish it as they saw fit, which I obligued. They then wrote a second 'thankyou' letter including a printed 'Outstanding Achievement' Diploma, redeemable for some expensive 41C peripherals. I still keep it. 'Othello' was also a sensation when I submitted it for publication in the legendary Australian PPC Technical Notes, where it appeared. Oddly, it had been previously submitted to PPC proper, but Richard Nelson gave it a miss.

HP-12C:

WHAT: Trigonometric functions package

WHY: Because noone else had written an acceptable package which implemented all six trigonometric functions for the HP-12C under serious, strict requirements of accuracy and speed. Some people had tried before and after, but hastily and carelessly implementing a bunch of run-of-the-mill Taylor Series expansions doesn't quite cut it and is bound to offer poor accuracy and unacceptable running times or even outright errors for large arguments or arguments near extremes, i.e.: it's not the same computing arc tan(100000000) than arc tan(1), and it's not the same computing arc sin(0.99999) than arc sin(0.1). My program succeeds in delivering accurate results for extended ranges at the fastest speeds and it does so for all six functions in a single 99-step program.

WHAT: Polynomial root finder and evaluator

WHY: Because this very small, 37 step program, succeded in using the financial functions available in the HP-12C well above and beyond their intended uses to provide the best and fastest polynomial root finder and evaluator among all Voyager series models (HP-15C included) and even faster than any pure RPN programs for the HP-41C. It could find any and all real roots of an Nth-degree polynomial, without any iterations in user code, and it could directly evaluate the polynomial for some given arguments, also without using any user code loops.

HP-15C:

WHAT: Computing E up to 208 digits

WHY: I haven't written that many programs for the HP-15C but this I consider particularly worthy. While it is possible to compute E to more than 400 digits on the 15C, my program was intended to do it using matrix functions and matrix techniques, as a way of demonstrating what they could do. So, it made a good use of matrix addition to update the running total, and a novel use of the matrix Frobenius Norm operation to detect termination, as well as scalar matrix division to normalize the final result. You don't see matrix operations being used like this that often.

HP-71B:

WHAT: Chess - Solving mate problems in N moves

WHY: Because it actually solved any chess problem of the 'White to play and mate in N moves' kind, in pure BASIC with no help from assembly language routines, using the powerful technique of *recursive* user defined functions that HP-71B's ultra-advanced BASIC language allows. There's also a neat trick on my part, defining and using variables *local* to the functions, which is something apparently not possible. The resulting program is quite complex, implements a full legal-move generator and recursive move-tree generator and evaluator and works for any number of moves N, subject only to time and memory constraints.

WHAT: Scramble

WHY: Because it implements a really challenging and enjoyable *video* game on the smallish HP-71B display. It uses a number of commands contained in my 4 Kb compilation of LEX words and succeeds in creating a very entertaining game in just a dozen lines of BASIC, with several levels of difficulty and an assortment of tunnels and obstacles that the user can add to easily, for extra-fun.

Best regards from V.

Re: Favorite RPN (and BASIC) programs [LONG]

*Message #7 Posted by **Angel Martin** on 16 Nov 2003, 2:32 a.m.,*
in response to message #6 by Valentin Albillo

Hola Valentin,

I remember fondly playing Othello on my 41 back then, it was (and still is) a truly amazing feat, one that best showcased the 41 system advantages so I wasn't surprised when HP acknowledged it as such. At least then they could recognize a masterpiece when they saw one.

Since you're an avid Chess aficionado (I'd dare to say you probably exceed such grading), I was wondering if you ever came across a full chess program written on the 41 by a Belgium gentleman by the name of Claude Roeltgen? He managed to create such an ingenious program that I'll always regard this as another incredible achievement. Mind you, it is painfully slow! but again, that's not the point at all.

I dissected the program to see how some things were done. It has synthetics galore, using precompiled GTOS to jump to non-existing labels (to save program lines), amazing manipulation of multi-byte instructions being used separately depending on the jump distance, etc.

Let me know by mail If you're curious, I'll be glad to send you a copy on mag cards.

Best wishes,, AM.

Link to Valentin's Othello program for the HP41

*Message #8 Posted by **Gene Wright** on 16 Nov 2003, 7:47 a.m.,*
in response to message #6 by Valentin Albillo

http://www.rskey.org/gene/calcgene/othello.htm

One of my favorite games. Changed to not require a card reader by inserting the storing of needed constants at the start of the program.

Enjoy!

Actually, it's 'Othello 2'

*Message #9 Posted by **Valentin Albillo** on 17 Nov 2003, 4:46 a.m.,*
in response to message #8 by Gene Wright

Hi, Gene:

Thanks for your kind words and for featuring some of my game programs on your excellent site, but as you fully state in the heading, the program you feature there is not the original 'Othello' I was referring to, but a later version, 'Othello 2'. Matter of fact, 'Othello' was never published in PPC, because Richard Nelson did not deem it proper. He published instead 'Othello 2', at a much later date. The original Othello was published earlier in PPC Technical Notes, and eventually, at the request of HP Corvallis themselves, it was fully documented and submitted to the HP-41C's Users Library.

Anyway, what's the difference ? Isn't 'Othello 2 ' an improved version of original 'Othello', better in all respects ? Well, yes and no. On the one hand, it's a much more complex program, features two levels of play, and so can play better at times. On the other hand, the original Othello was much more elegant, did a lot in significantly fewer program steps, and didn't require a card reader at all, being capable of running in less RAM without external initialization. In other words, O1 was the real gem, IMHO, innovative, elegant and streamlined, a programmer's dream come true, while O2 was clumsier, less elegant, and didn't really make the point, as its only redeeming feature, a better level of play, required significant extra resources, didn't play that much better, and was slower by an order of magnitude or more, so it was pretty useless as a demo and you'd need a lot of patience to play against its 'improved' level, thus greatly diminishing the awe factor and the enjoyment.

Besides having a look at O2, available at your site, I'll heartily suggest anyone interested to try and get

the original Othello as well. *That* is the program I consider one of my very best.

Best regards from V.

Available?

*Message #10 Posted by **Patrick** on 16 Nov 2003, 5:35 p.m.,*
in response to message #6 by Valentin Albillo

Are the HP-25 programs you've mentioned publicly accessible? I certainly would like to see the program you consider the most amazing you've ever seen!

Re: Favorite RPN (and BASIC) programs [LONG]

*Message #11 Posted by **Fernando del Rey** on 16 Nov 2003, 6:32 p.m.,*
in response to message #6 by Valentin Albillo

Valentín, thanks for your kind words in referring to my 4th order Runge-Kutta program for the HP-25. I certainly wouldn't have done it, had I not been inspired by your 3rd degree program. It's certainly one of the favourite programs I ever wrote, especially since I did now owe an HP-25 myself, and I wrote and ran the program "in my head", but had to wait until we both tried it together in your machine and it ran perfectly on the first try! I don't think I have achieved such a feat (first try perfect run) in my programming life ever again.

Funny thing is that there is an amazingly similar program in the software library here at the museum, and that one leaves 12 steps to code the function. But I think my program required less external initialization and no precautions to not alter the LAST X register between steps. I wish I had an HP-25 to try and compare both versions.

I also have very fond memories of a program I wrote on the HP-67 to solve systems of up to 7 linear equations in seven unknowns. This must have been 1977, and I was in engineering school (I was a classmate of Valentín). There was one particular day that I was not inspired solving a tough mechanics problem during a final exam. So I did it by brute force, which meant taking all the forces and momentum to set up a system of exactly seven linear equations which I solved with my handy HP-67. Of course, the teacher had no clue that such thing as a programmable calculator existed, so he thought my correct results had simply been copied from someone else. I had to show him that I had solved it with the calculator and he wasn't too happy with my method, but he could do nothing but give me a minimal pass grade. Oh well, at least my trusty 67 saved me from a flunked final!

Re: Favorite RPN (and BASIC) programs [LONG]

*Message #12 Posted by **Fernando del Rey** on 16 Nov 2003, 7:08 p.m.,*
in response to message #11 by Fernando del Rey

Sorry, I meant to say that I did NOT owe an HP-25 myself.

Will you share it with us, Fernando?

*Message #13 Posted by **Patrick** on 16 Nov 2003, 9:41 p.m.,*
in response to message #12 by Fernando del Rey

I'd love to see your 4th order RK program on the HP-25!

Re: Will you share it with us, Fernando?

*Message #14 Posted by **Fernando del Rey** on 17 Nov 2003, 2:22 a.m.,*
in response to message #13 by Patrick

Sure, give me a couple of days and I'll post it.

...NOT OWN... dammit! (NT)

*Message #15 Posted by **FdR** on 17 Nov 2003, 2:24 a.m.,*
in response to message #12 by Fernando del Rey

.

Re: Favorite RPN (and BASIC) programs [LONG]

*Message #16 Posted by **Valentin Albillo** on 17 Nov 2003, 4:59 a.m.,*
in response to message #11 by Fernando del Rey

Fernando posted:

"Funny thing is that there is an amazingly similar program in the software library here at the museum, and that one leaves 12 steps to code the function. But I think my program required less external initialization and no precautions to not alter the LAST X register between steps. I wish I had an HP-25 to try and compare both versions."

I'm not sure if "funny" is the correct word here. When I first saw that program in the software library at the museum, it made me very suspicious. I remember submitting your original program to PPC, PPC TN, and many particular individuals at the time (25 years ago), but if I recall correctly, it never got published (RN strikes again ! :-)

However, facts are that it got somewhat disseminated, and I've always wondered if the person who 'wrote' and submitted the program actually in this forum's Library could perhaps get some 'inspiration' in a copy of your original. If that's not the case, my apologies, but both programs seem far too similar that a 'lucky coincidence' seems unlikely. Even if it were, yours would pre-date the other one by decades.

Best regards from V.

Re: Favorite RPN (and BASIC) programs [LONG]

*Message #17 Posted by **Fred Lusk (CS)** on 19 Nov 2003, 10:21 p.m.,*
in response to message #6 by Valentin Albillo

Bill…

I can be just as long with my post, or even longer :-)

My favorite programs are ones I have written myself while I was in school or as part of my work as a civil engineer. This is not because I claim my programs are better than anyone else's--though I think my best programs are very good--it's because of the time I spent researching the subject of each program and the time I spent actually making the program work. There is great pleasure in both the learning and the accomplishment, and they're useful in my work. Of course, my wife doesn't understand the attraction one bit, but then I don't understand some of what she likes. Good thing we keep our mouths shut about these eccentricities!

In high school and college I wrote simple programs for my HP-55, the best one was probably an

interpolation program for finding all of the contour lines between two spot elevations (think topographic maps). I wrote this for my Engineering Graphics course.

Later in college I bought an HP-34C and wrote several nice programs for different engineering subjects. I even wrote a 34C program on the fly during my Hydrology final to solve a complicated iteration…I listed the formulas, the program steps, my initial guesses, and the result, and I explained how the SOLVE feature worked (my professor used an HP-45 so I knew my approach would be OK)…I finished the test after only 45 minutes and ended up with the highest grade…the second person out took another hour. He was totally blown away when I told him what I had done. Of course, he used a TI!

However, my best programs are for the 41/42S series. I started with an HP-41CV and replaced it a couple of years later with an HP-41CX. I added an Advantage ROM the day they arrived at Lewis & Lewis in Ventura, CA (remember when local dealers actually knew something?). I have an HP-32SII and an HP-48G+, but my calculator of choice now - as it has been for 15 years - is my HP-42S.

I have written a number of interchangeable solution programs for hydraulics that are similar to the Time Value of Money program in the original HP-41C Solutions Book (I think that's the name), including: (1) HW (Hazen-Williams for pressure pipes) (2) MEQ (Mannings for pressure pipes) (3) SD/SWR (Mannings for open channel flow in pipes) (4) CANAL (Mannings for open channel flow in a rectangular, triangular, and trapezoidal channels) I also have several HP-42S solver routines that I use for simple interchangeable solutions where I don't need annotated results.

I use these four (and others) on both the 41 and 42S. Programs (1) and (2) also include an overlapping interchangeable solution for the continuity equation (Q=AV). I say "overlapping" because flow rate and pipe diameter are shared by both equations and I use a toggle to determine which equation to use to solve these variables. Program (1) is my most used program over the years. I wrote it about 20 years ago while my wife was having an ultra-sound before our first daughter was born. I actually "wrote" it in my head (I had no paper) and transcribed the 200+ steps when I got home. My memory was much better back then! Program (3) solves sewer flows in gpm and storm drain flows in cfs. Program (4) is interesting because I use the same iteration subroutine for two of the variables. A flag determines which one to iterate.

(5) My favorite program in terms of cleverness is probably FEET, the Feet-Inches-Fractions program I posted here a couple of years ago. For those of you who live metric (and I wish I was one), this may seem unimportant. But, to those of us who have to calculate this stuff, this program is a god-send. I wrote it nearly 20 years ago for a co-worker. The core of the program (the fraction reduction) was adapated from the PPC ROM. I later discovered a simpler way to handle other parts of the program, but I haven't gotten around to finishing the last 10% so I can post the improved version. In any event, y'all may find the original program interesting.

Other programs I wrote for the 41 and/or the 42S and that I use frequently include: (6) VINT (Vector Interpolation) - this is useful for interpolating between rows or columns in a table based on "index values." I wrote this to interpolate the tables in "Circular Concrete Tanks Without Prestressing" and "Rectangular Concrete Tanks" (both by the Portland Cement Association). (7) NGAS (Natural Gas Flow Calculations) - this program solves the isothermal-compressible flow equation for upstream or downstream pressures in one reach of a natural gas system. I have more general Excel and Mathcad versions that handle multiple pipes, but this is good for things like checking the service lateral to a natural gas engine. (8) HYDR (Rational Method Hydrology) - this program solves single basin hydrology using the Rational (Irrational???) Method using either the Kirpich or FAA equations for Time of Concentration.

My last HP-42S program I will describe is a program I wrote a couple of years ago for a basic Statistics class. I had never taken a stat course and was self taught for the things I needed and use (mainly linear regression). I signed up for a lower division, math-oriented stat class at the local junior college (believe it or not, there are non-math-oriented stat classes…my wife took one in college…it was very qualitative with only a little bit of math). Anyway, my class was taught by my old high school physics teacher, who was

still sharp as a tack at age 77±. He was (I think) one semester away from his PhD in Psychology when WWII intervened, but was expert in many areas…except calculators (TI). He wanted to know why I was there, and I told him it was to pester him! Of course, I had an unfair advantage since I had more math behind me than any of the other students (he took me off the grading curve). Since it usually took me only 15-20 minutes to do each 90 minute mid-term, I had lots of time to kill. After a test on chi-squares and contingency tables, I wrote a nifty little 77-step program that makes great use of the HP-42S's matrix capabilities. The best part was it gave a great excuse to tease him about his affinity for TIs. As an aside, when I was a senior in high school, my American Government teacher asked me to determine the correlation between standardized reading scores and class scores for his group of students. My HP-55 was able to handle the regression for about 175 individual data points (student scores). I remember pointing out to my physics teacher that his SR-51 (I think) was internally crippled because TI limited n to 99 data points. He was not amused.

My favorite program by others is CAVES for the HP-41, though I haven't played it in quite a while. It's the ONLY program that got my wife to actually want to use my calculator. She was a child development major in college and never had a need for a real calculator.

I have also played OTHELLO, and remember it as a very good program.

Now you know the rest of the story.

Fred

Re: Favorite RPN (and BASIC) programs [LONG]

*Message #18 Posted by **Chris(FLA)** on 20 Nov 2003, 2:03 p.m.,*
in response to message #17 by Fred Lusk (CS)

> Quote:
>
> My favorite program by others is CAVES for the HP-41, though I haven't played it in quite a while. It's the ONLY program that got my wife to actually want to use my calculator.

Same here with my wife. She really enjoyed that game and played it for many hours. She also used the 11C I got her that she mainly used for work to figure out sales tax % on orders she would take. Still have the 11C and it is in mint condition. Running on the same batteries for 18+ years. I asked her recently if I could have the 11C and I received a direct and stern NO!

I taught her RPN in about an hour one day and she was hooked. I had to get her the 11C, my 41 kept growing legs and moving. She is an HP'er. She says the same thing I do when I have to use an AOS calculator. "How do you use this thing", "This is too hard to use", "Where is an RPN HP when I need it", and I wrote many a program on a TI-59 before I found the HP world and the simplistic beauty of RPN.

Chris

12345

Re: what is your favorite (YOUR OWN) RPN program?

*Message #19 Posted by **Trent Moseley** on 15 Nov 2003, 11:38 p.m.,*
in response to message #1 by bill platt

Bill-

It's a long, long, story, back to slide rule days. It is mainly about astronomy (my avocation). When I got my mail order HP-25C I thought I died and went to heaven. But in my profession at that time it was all about TVM. It also became cruch time: I had to learn RPN. I wrote programs to suit my personal needs (regarding TVM this was before the 12C). All the info I took was from old textbooks. I then blew my wad on the 67. Wow! The upshot is I like to take ideas or formuals and put them down in RPN. Footnote: I bought a 48GX, could not figure out RPL and gave it to my wife's nephew. I now have tons of stuff in the 15C and 42S. Another PS: I bought a 16C from Educalc. I still dont't know what its all about (I even have Grapevine's "Easy Course") so I do my checkbook on it.

tm

Re: what is your favorite (YOUR OWN) RPN program?

*Message #20 Posted by **Jim Chumbley** on 16 Nov 2003, 5:03 a.m.,*
in response to message #1 by bill platt

My favorite RPN program is the one I wrote in 1976 for the (stillborn) National Semiconductor NS-7100, which was not an RPN machine, because HP still held active patents then, but rather it was an algebraic machine.

My favorite RPN program is the Hewlett-Packard RPN-mode emulator I wrote using the NS-7100's own keyboard language. It had a stack that was nine registers high!

Nat'l Semi & HP patents on RPN

*Message #21 Posted by **Karl Schneider** on 16 Nov 2003, 2:05 p.m.,*
in response to message #20 by Jim Chumbley

Jim --

Was National Semiconductor later able to reach an agreement regarding RPN? I seem to remember, about 1977-79, NS had a "Mathmetician" model that used RPN with a 3-level stack.

The quality of construction did not measure up to HP.

Re: Nat'l Semi & HP patents on RPN

*Message #22 Posted by **Jim Chumbley** on 17 Nov 2003, 9:43 a.m.,*
in response to message #21 by Karl Schneider

I'm sorry, Karl, but I don't know the answer to that question, although it bothered me at the time. If I remember correctly, the Mathematician was the only RPN machine NS ever produced, and there is a chance that it was withdrawn because of some back-channel, not-for-publication warning to National from Hewlett-Packard.

On the even darker side, we should remember that National Semiconductor was at that time an absolutely gigantic supplier of semiconductors, especially analog ones, and could well have been HP's largest supplier of semiconductors, although I'm not sure of this. In addition, National made quite a number of unique analog ICs, which may have been part of a number of HP's instrumentation products.

A real patent war would not have been good for either company.

Re: Nat'l Semi & HP patents on RPN

*Message #23 Posted by **Katie Wasserman** on 17 Nov 2003, 1:50 p.m.,*

in response to message #22 by Jim Chumbley

National Semiconductor (also manufactured under the name Novus) made several RPN calculators, not just the Mathematician. I've got 5 of them that use RPN:

```
3-level stack:
Mathematician
Mathematician PR (programmable)


4-level stack:
4640
Scientist
Scientist PR (programmable)
```

Also, I think that the Novus 3500 was RPN too.

Re: Nat'l Semi & HP patents on RPN

*Message #24 Posted by **jimc** on 17 Nov 2003, 2:05 p.m.,*
in response to message #23 by Katie Wasserman

Thanks Katie!

I had a Novus Scientist (I think) that used RPN back in the late 79's (sheesh, I'm getting old). It was a HP-21 knock off. I don't remember too much about it, other than it KINDA looked like a 21, but had lousy tactile feedback with little rectangular rubber/plastic keys and chewed through batteries like nobody's business. (was it a 9 volt?) Anyways, I sold it to a business major for 50 bux. I think I paid 75 for it. I put the 50 dollars towards a 21.

Do you have a link to a picture of it?

Non HP RPN

*Message #25 Posted by **db(martinez,california)** on 17 Nov 2003, 11:42 p.m.,*
in response to message #24 by jimc

jimc; You'll find a few more pictures than you are looking for here including several Nat Semi/Novus RPNs:

http://www.msdsite.com/forums/upload.php?upload=view&uid=482

It's a space that Mike Davis loans to me. I've got about five more that i'll get around to posting someday. Be sure to look at the Corvus 500. It out HP'd HP. Also; if you're interested - Katie has archived some of the manuals for the "other voices" of RPN (along with a lot of other 1970's models) on her site. - d

Edited: 18 Nov 2003, 12:11 a.m.

Re: Non HP RPN

*Message #26 Posted by **jimc** on 18 Nov 2003, 9:23 a.m.,*
in response to message #25 by db(martinez,california)

Thanks db!

After perusing the images, I discovered I actually had the Mathematician model, not the Scientist. Funny how your memory plays tricks on you, as I was sure it had more functions!

Fascinating reading.

Thanks again.

12345

Re: Nat'l Semi 4510 "Mathematician"

*Message #27 Posted by **Paul Brogger** on 17 Nov 2003, 2:12 p.m.,*
in response to message #21 by Karl Schneider

Coincidentally, I found one of these at the thrift store last week -- working, MWOB (mint, without box) condition. It has a 3-level stack from the user perspective, without T, without automatic duplication of the Z value during stack drop, and without any "roll" function. I had tried one of these in '76, before giving in and buying my first HP (-21), and had discarded it long ago.

The stack is also utilized in "internal" calculations of logs, trig functions, etc., and as a result the manual is the most interesting part: it's got something like 7 of its 32 pages with diagrams devoted to explanations of whether & when to rely on maintenance of the Y & Z values after performing each of the higher mathematical operations. All in all, it illustrates in dramatic terms just how valuable are the extra design elements and internal registers of H-P's implementations.

And it still has the "Made in Hong Kong" label on the back, and, yes, feels even cheesier that the original TI-30 (if that's possible)! (I'm still wondering whether to "eBay" it . . .)

Re: what is your favorite (YOUR OWN) RPN program?

*Message #28 Posted by **Veli-Pekka Nousiainen** on 16 Nov 2003, 8:37 a.m.,*
in response to message #1 by bill platt

> a: what sorts of things we use our calculators for,

consulting new users, toying around, years ago computer science studies lists and queues simulation in the 48.

>b: why RPN is good (or why keystoke programming in >general)

HP-71B Is best, RPN is good. You see the intermediate answers aas well. ROL calcs with 'Algebraic' on stack give even more versatility.

>c: why BASIC and other methods are good

in a good BASIC (like th 71B) it easier to handle different types of files and records (fields witheen records) than using storage registers or lists of strings. The Commands can also be enhanced to take a different number of arguments. With Forth/Assembler and Saturn achitecture you get all the possible ways of calculating. The only thing missign might be the VisiCalc ROM from the 75C calculator. Now _that_ was a piece of gold.

> Be sure that you describe a program that *you yourself* > wrote--not something you got out of a book, or modified > from someone else. It *has* to be your very own thing.

71B & Foth/Assember: cracking the Secure bit for a desperate customer using a small ML program. The IDS where great and woth every grand.

49G I wrote the STARTEQW for a Custom to be used with the EQW, pure UserRPL

49G also an APPS enhancement that also added numbers to the custom list members (uses a message handler)

I can't recall my 25 and 41CV/CX programs anymore

wait-a-minute, on STaK pages there is still a number of our newsletter from 1992. There I introduce some new 48GX commands programmed in the 48S model to make the old model more compatible.

Then there are literally thousands of small routines and example which you could find with Google or dig out of the brains of the Finnish HP 48/49 users...:-D

There also a few commercial products for the 71B, 48GX, and 49G

Finally there is a small error message translation library FINLIB49, which can be founf here: www.radixoy.com

I surely have forgotten many nice routines Could it be something like this for the 41CV: ('=super T)

00 LBL'1-2-1

01 .02 @ line one of the code

02 %T @ line 2 of the code

03 END

VPN

Re: what is your favorite (YOUR OWN) RPN program?

*Message #29 Posted by **Gordon** on 16 Nov 2003, 9:33 a.m.,*
in response to message #1 by bill platt

Back in 1983 I used my 11C almost daily at work to calculate reliability predictions using Arhenius equation and to help with Weibull plots. The programs filled the memory and i wished I could afford a 15C !

Re: what is your favorite (YOUR OWN) RPN program?

*Message #30 Posted by **Ed Look** on 16 Nov 2003, 6:42 p.m.,*
in response to message #1 by bill platt

Yoiks!

I am embarassed sometimes to post or even just read here (or comp.sys.hp48) because I used to be so proud of myself if I could make the simplest program work on my old 34C. I tended to try to automate the summing of data points, linear regression, pop out the slope and intercept and if I had to worry a bit about the shape or scatter of my "line", put in an extra step for the correlation coefficient. Later on, I just modified it to get max, min, and mean on a set of numbers. Not anything like what I read here, but boy it streamlines my life... a little bit, anyway. Well, there was that time I got it give me voltages from the Nernst equation, simpler job, and boy, that was a looooong time ago.

:o

Re: what is your favorite (YOUR OWN) RPN program?

*Message #31 Posted by **karl gruber** on 16 Nov 2003, 8:03 p.m.,*
in response to message #30 by Ed Look

My favorite self written program ia one which calculates the weight and balance for a Beechcraft King Air 200.

It was actually approved by the FAA, for air taxi use.

Best, Karl HP-41 Hoarder

Re: what is your favorite (YOUR OWN) RPN program?

*Message #32 Posted by **Ben Salinas** on 16 Nov 2003, 11:27 p.m.,*
in response to message #1 by bill platt

Well, I have a few decent programs for my 32sii (none of the decent ones are typed up) For a long while I was on a game kick, so I programmed a number guessing game (where you guess a random number and it tells you if you are too high or too low), and I got into making stop animation (yes, on the 32sii... you are very limited on the types of characters, and it eats up a lot of memory because for each frame you have to enter an equation)

I also wrote a program, which probably is the most useful of all my programs, to do gas problems. It would do gas problems in torrs, mm Hg, and atmospheres. This was the first time I used flags. My other useful program was incredibley unuseful. I wrote a program that would calculate standard deviation. I know that that is a built in feature (now).

Finally, is my Tic Tac Toe program. I started programming it in December of last year, and have several different releases, all of which are unreleased. Basically, I will think of a more efficient way of programming it, and restart. I would always run out of memory before getting to the data entry part of the program, but now that I have discovered inderect referencing, it will be much easier. I should have enough room to even include AI.

-Ben

OT re: Re: what is your favorite (YOUR OWN) RPN program?

*Message #33 Posted by **Ed Look** on 17 Nov 2003, 12:13 a.m.,*
in response to message #32 by Ben Salinas

This is what I mean! See, you programmed the various gas laws, hey, I'll even bet you saved "R" to ten or twelve digits in some register after you calculated it out for yourself since no entry level textbook gives it you for more than four or five digits, and probably played with various permutations of the form of the equations.

A "basic" (NOT LOW end) calculator like the 32SII is more suited to actually making a student familiarize himself with the equations unlike a more features-loaded model, like any company's graphing calcs, which tend to already prerecord such equations in their libraries. Of course, I'm sure even copies of keystroke programmed equations are available for photocopy or download somewhere, but even doing that forces the person to actually go through the program steps!

the importance of keystroke programming

*Message #34 Posted by **Ben Salinas** on 17 Nov 2003, 9:15 a.m.,*
in response to message #33 by Ed Look

Exactly,

Another example of this is when we were covering bases in digital electronics (a required course), and

my teacher taught us how to convert bases, and would ask us questions about converting all bases, not just hex,decimal, octal, and binary, so I wrote a program that would convert any base into any other base. I asked my teacher if I could use it, and he said, "If you understand it well enough to write a program, then of course you can use it."

Another reason I like keystroke programming: It is quick to use -Ben

Re: the importance of keystroke programming

*Message #35 Posted by **r. d. bärtschiger.** on 17 Nov 2003, 2:50 p.m.,*
in response to message #34 by Ben Salinas

Have you perhaps seen the article on page 12 of HP Key Notes, Vol. 3 No. 2, May 1979 right column? There were a couple of corrections to this program which were listed in Vol. 3 No. 3 P. 10 & Vol. 4 No. 1 P. 2. Just thought you might be interested in how someone else did this to compare it with your own program.

rdb.

Re: the importance of keystroke programming

*Message #36 Posted by **Ben Salinas** on 17 Nov 2003, 6:31 p.m.,*
in response to message #35 by r. d. bärtschiger.

No, I have not seen that. Is it some sort of base conversion program, or what? -ben

Re: the importance of keystroke programming

*Message #37 Posted by **r. d. bärtschiger.** on 17 Nov 2003, 7:07 p.m.,*
in response to message #36 by Ben Salinas

Yes, it is an all base number conversion program. Quoting from the program description as given by the author, Cass R. Lewart:

"Here is my program that converts an integer argument from any base to any base in only 49 steps. I saw a description of a similar program in the Users' Library (00409D) but it required 135 steps. I think that many KEY NOTES readers will be interested in this one."

The program listed was written for the HP-67.

rdb.

My 15C program from the '80s

*Message #38 Posted by **Karl Schneider** on 17 Nov 2003, 3:44 a.m.,*
in response to message #1 by bill platt

In the mid-1980's, I maintained several Fortran 77 software programs that ran on Sperry-Univac mainframes. The software was written to provide large line-printer post-mortem memory dumps when execution failed for some reason.

Sperry utilized 36-bit words, with integers negated by ones-complement. Words of memory were listed as 12-digit octal strings. This practice differed from that of IBM (32-bit words) and CDC (60-bit words), which, I believe, also favored twos-complement.

Anyway, I got tired of manually deciphering 12-digit octal values in the PMD listings to find the value of a

floating-point variable at the time of program termination. So, I wrote a program for my 15C to do so.

The program accepted the 12-digit octal values in two parts -- the 3-digit signed exponent followed by the 9-digit signed mantissa. It checked for any digit larger than 7, stopping with a blinking display if it found one. After a number of seconds, it calculated the correct floating-point decimal value of the encoded word.

Recently, I got a 16C, and see that I could have written a slicker program using its capabilities -- e.g., setting word size and octal mode, extracting bits. A program for the 16C would allow entry of the word as a single string, refusing to accept extra digits or anything other than 0-7. Also, the integer conversions were built in, which leads me to an interesting footnote:

Among RPN HP calculators, only the 16C, to my knowledge, has built-in processing of ones-complement signed integers in addition to unsigned and twos-complement. The Pioneers and RPL models support only twos-complement, and the HP-41 Advantage ROM supports only unsigned integers.

Re: what is your favorite (YOUR OWN) RPN program?

*Message #39 Posted by **Thibaut.be** on 17 Nov 2003, 4:28 a.m.,*
in response to message #1 by bill platt

My favourite program was written for my 1st HP, a 11C. I managed to program the roots solution of $y = ax^2 + bx + c$ without using any register (only the stack).

Not a big deal actually, but at that time I was 14 and I thought challenging and evidence of mastering the stack not to use any register.

This impressed the "TI clan" of my schoolmates (HP were 2 or 3 times more expensive than TI's at that time and only a few of us had the privilege of pesessing one) who found something "magic" on HP calculators to do so as such a challenge was just impossible to them.

Re: what is your favorite (YOUR OWN) RPN program?

*Message #40 Posted by **Ron Ross** on 17 Nov 2003, 9:40 a.m.,*
in response to message #1 by bill platt

Newton’s Law of Cooling My favorite program actually makes use of the solver in the 42s. I used this program often when I was an instrument tech for a chemical plant. I normally used it to determine how good of condition or well the heat exchangers were working and if they needed cleaning. Right after an exchanger was cleaned or worked on, I would check it out by using Newton’s Law of Cooling to find out its heating constant. Since this is a two stage problem the solver is better than a program for this type of application.

I would take temperature readings at 5 minutes, find the time constant and predict the time for 10 minutes out (to verify my time constant). Every couple of weeks I would recheck the time constant of the reactor and if it started to degrade or slow in its heating cycle, I knew the Heat exchanger was failing. This allowed the maintenance dept. a better cycle of repair than just a 6 month cycle, fix it whether it needed it or not (which is what was used before). Often the heat exchanger would degrade after 4 months but sometimes they might last 8-12 months, but maintenance did not want to fix what wasn’t broke. Documentation always made the crew feel better, knowing the system they were going to fix, needed fixing. I myself worked on these systems located in a pit a couple times. NO ONE wanted to fix a working heat exchanger!

The Solver allows for any temperature and/or time scale (just stay in the same units). It works great at predicting future temperatures or time constants. And the 42s allows long variable names, which is great for looking at this program years later and still knowing what each variable is for.

LBL”COOL” MVAR”TF” FINAL TEMP MVAR”Ti” INITIAL TEMP MVAR”TA” AMBIENT “surrounding

or supplied" TEMP MVAR"K" TIME CONSTANT MVAR"TIME" TIME RCL"Ti' RCL"TA" - RCL"K" RCL"TIME" X E^X X RCL"TA" + RCL"TF" - END

Here is the formula listed: (Ti-TA)e^(K x TIME) + TA = TF

Re: what is your favorite (YOUR OWN) RPN program?

*Message #41 Posted by **Jim Chumbley** on 17 Nov 2003, 10:39 a.m.,*
in response to message #1 by bill platt

May I mention one more RPN program, which is more in keeping with the spirit of the other entries than my NS program was?

In 1970, I had to analyze the time in decimal hours that operators spent exercizing various machines being subjected to reliability testing. This irksome task required the efforts of two technicians working full time.

I persuaded the company to buy an HP-9100A, with printer, plotter, and (the nowadays apparently forgotten accessory) a mark/sense card reader. The card reader read IBM punch-card sized cards that had been marked in pencil. The placement of the pencil marks could be interpreted by the 9100, and the engineer could define these to mean anything he wanted.

I wanted it to mean time. So I designed the cards and had them printed and introduced them to the operators, explaining how to convert time in h-m-s to binary-coded entries in pencil marks on each card. This was, shall we say, somewhat less successfully received than I had hoped. Not to worry! I backed off, had the operators write down in numbers the time information needed and asked their supervisors to convert to markings on the cards. We were amazed to find that they quickly learned to make the conversions from h-m-s to binary-coded entries in their heads and to finish the marking of the cards in 20-30 minutes.

They sent each day's cards to me (from all three shifts) and I zipped them through the mark/sense card reader. The 9100 completed the analysis with finished reports. All this on a tiny little 40-lb. machine the size of a Selectric typewriter with 196 programming steps, 16 registers, and 1 flag--Oh, how I needed just 1 more flag! It had only a 3-register non-automatic stack.

And lastly, the key that was so badly misnamed in later machines as "Enter" was simply labelled with an arrow pointing "Up." And this key, while double key length, was placed vertically rather than horizontally. Look at the numeric keypad on your PC's keyboard.

Even now when I write RPN programs for my 41CX I still write "Up" for this function. Think about it for a second, and you'll realize that those of us who raised such a howl in 1972 about the HP-35 having this key labelled "Enter" were right. Nothing is being "enter"ed. It is being raised "up" from the x-reg to the y-reg. Maybe the reason that it was not called "Up" on the HP-35 was because that key had to be horizontal to fit in the keyboard.

And to think that now we have good HP customers who mourn the lack on the 49g+ of a double-width, horizontal "Enter" key. Horse-feathers! Shame on you young whipper-snappers! I want a double-height, vertical "Up" key!

Thanks for letting me tell two stories.

Edited: 17 Nov 2003, 11:00 a.m.

favorite RPN program--Thanks!

*Message #42 Posted by **bill platt** on 17 Nov 2003, 6:26 p.m.,*
in response to message #1 by bill platt

This has been great fun! And I've learned a lot--many great stories (hopefully more on the way....some familiar names have not posted yet.....) Last night we went to an excellent concert by "Andes Manta," a group from Ecuador who play amazing tunes on pan-pipes, charranga, bandolin, and all sorts of cool wooden pipes...so, where is the rest of our South American contingent---how about some favorite programs from the other side of the Caribean?

Best regards,

Bill Platt

Edited: 17 Nov 2003, 6:31 p.m.

Re: favorite RPN program--Thanks!

*Message #43 Posted by **Nelson M. Sicuro (Brazil)** on 17 Nov 2003, 7:22 p.m.,*
in response to message #42 by bill platt

Ok, I was remembering one episode...

I was with my family on the beach, and we are playing a card game called "Truco". Normally the points are counted with a box of matches, but in that time we haven't any! I was with my brand new HP-42S (it was 1990 then) and I wrote a little program on the 42S, to sum our points...

I'm not a engineer nor mathematician, I'm a computer programmer and I learned to program on a HP-15C (and a small Sinclar ZX-81 compatible computer) back in 1983. That "Truco" program was not any fancy algorithm, but I used menus and the score was showing on screen for both teams - and wrote it "on the fly" in about 15 minutes, while waiting my turn to enter in the game...

They where impressed, and was very fun!

My 2¢... ;)

Nelson

Re: what is your favorite (YOUR OWN) RPN program?

*Message #44 Posted by **Kraut** on 17 Nov 2003, 8:12 p.m.,*
in response to message #1 by bill platt

I have written a complete compressible flow function table solver, including classic 1D flow functions, normal shock tables, rayleigh flow and fanno flow functions.

It includes a "Preprocessor" that allows choosing between air, combustion products, steam (assumed to be an ideal gas in this case) and, subsequently, automatically selects the correct gas properties in the background.

It also allows entering a random gas via a molocular weight and specific heat ratio.

In the preprocessor, left shifting the gas selections initializes for metric units, a straight hit on the selection keys initialize for english units.

I have also included a method for "extracting" a desired expression for the chosen function, for easy subsitution to the stack in a format which makes using that chosen particular expression with the built-in equation solver easy. This allows for (fairly) seamless reverse use of the table, as well.

THAT one is my favorite.

Taking a close 2nd place is a similiar program that I wrote that calculates the ISA standard atmosphere given an altitude, then allows solving for the unknown air speed given one of the three following air speeds: true, corrected or calibrated air speed (in knots).

No, I'm not that bored, I really need these for my job.

With all of the computing available now relative to 15-20 years ago, there is still NO substitute to having such power in one (hand held) flexible package.

I go way back to the 67, the TI58 (ugh), then the 41s, then the 48s, and now the 49s. Love(d) programming ALL of them.

I'm showing my age a little bit...

Frank B

Re: what is your favorite (YOUR OWN) RPN program?

*Message #45 Posted by **Larry Corrado, USA (WI)** on 17 Nov 2003, 10:54 p.m.,*
in response to message #1 by bill platt

My favorite RPN calculator program was one I wrote in about 1977, for my HP-25. I was fascinated with the concept of random numbers, and the idea of computing (pseudo) random numbers. I found a simple algorithm that essentially kept cubing a real number and extracting the first digit in the tenths place as random. I was curious as to whether this could pass a simple frequency test. Thus, I wrote a 49-step program for my HP-25 that kept track of how many times each of the digits between 0 and 9 were generated in a test run.

One of the main problems I encountered was storing the 10 counters needed (one for each digit), with only 8 registers available. My solution, interesting for me, a novice programmer, was storing counts for three digits in one register by using the three lowest-order integer positions for one digit, the next three positions for the second digit, and the next three places for the third digit. I was thus able to keep count of all 10 digits in four registers, with a maximum of 999 for any one counter.

I recall leaving the machine running for hours at a time, testing tens of thousands of digits in the process. After a number of trial runs, I found that the digits appeared to be evenly distributed as expected.

Fond memories…

Regards to all. Larry

Re: what is your favorite (YOUR OWN) RPN program?

*Message #46 Posted by **David Brunell** on 18 Nov 2003, 5:21 p.m.,*
in response to message #1 by bill platt

If you will include RPL programs in your survey, then the one I am most proud of is my Smith Chart Companion, which I presented at the 1992 RF Expo (USA). From the abstract:

The Smith chart is a very useful tool for the analysis of transmission line problems as well as the design of high-frequency amplifiers. Its utility lies in the fact that the relationships between complex impedances and reflection coefficients are represented in an intuitive, graphical way. The price paid for this graphical technique is poor accuracy and interpolation headaches reminiscent of slide rule days. The Smith Chart Companion software has been designed to offload the computational tasks to a programmable calculator while maintaining the graphical ease of use inherent in the chart itself.

I'd be happy to send anyone interested a copy of the software.

Regards,

David

brunellSPAMNEIN@cdinc.com

Edited: 18 Nov 2003, 5:22 p.m.

From BASIC to RPL [long]

*Message #47 Posted by **Tizedes Csaba** on 18 Nov 2003, 7:34 p.m.,*
in response to message #1 by bill platt

Some of my favourite programs (all of it written by myself):

When I was young, I wrote a little BASIC program for my CASIO FX-850P. It was a molar-mass calculator. It had two vectors: M$() contained the symbols of elements (M$(1)="H",...), and M() contained atomic weights of elements, in same order.

When I typed the chemical formula, this program transferred that to a string, what was an evaluable formula to calculate molar-mass:

"CuSO4.5H2O" -> "M(29)+M(14)+M(8)*4+5*(M(1)*2+M(8))" then I used 'VALF()' function to evaluate it.

I wrote a tip calculator for my HP48SX. I never used it... :)

I wrote a Venus-calendar to my girlfriend. She's favourite planet is Venus, and she want to know, when and where it visible.

The orbits of Venus and Earth are good approximate with circles. This program use "linear" estimation of orbits, and calculates famous points of thats, and calculates the phase of Venus for any day. (It's not a really program, it's some of equations only...for my 48SX.)

I wrote a little program to calculate settle-velocity of gold-grains in the Duna (Duna is the largest river of Hungary) for HP32SII.

I wrote a partial derivative program for any variable for HP32SII. [I posted it to 'Program Library', but this site not freshed yet. It use statistical registers and 'i' to make calculations. All of other registers are free. This program calculates partial derivative numerically and works with SOLVER and with INTEGRATE.]

I wrote some equations to my mother, to optimize she's egg-incubator 'economically'. (What is the good egg? Chicken, duck, goose or maybe guinea fowl???)

In the University (some weeks ago) I wrote a little program, what maked some additional calculations of sterilyzing-time of tomato sauce. It uses idealized spherical preserving jar geometry, and used Fourier-series with four elements. When program ended, I transferred the result to my PC, and the presentation maked on it. OBSESSION :9

And finally a BASIC program for my CASIO: I wrote a program to calculate how many cucumbers we can to push to a preserving jar. It was important, because we had got some jars, and we don't know how many kilograms of cucumber we have need.

The program was not worked. We cutted little discs from paper, and drawed circles with some diameter like jars, and we try to put discs into the circles, then we calculated the approximated mass of cucumbers.

And many-many, what I liked... :)

Csaba

Ps.: I wrote a little counter program for Z80 microprocessor in assembly, many-many years ago. It counts up to 255 digits on the screen. On my ENTERPRISE 128 (that was my first HOME COMPUTER!) it counted to 1e6 about 24 seconds. Hmm... That was wonderful...! :)

Re: what is your favorite (YOUR OWN) RPN program?

*Message #48 Posted by **James M. Prange** on 19 Nov 2003, 8:53 p.m.,*
in response to message #1 by bill platt

Actually a pair of RPL programs that have been on every calculator I've had since the 28S.

```
\<< 25.4 * \>>
```

and

```
\<< 25.4 / \>>
```

Regards,
James

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HP 15 C

*Message #1 Posted by **Stefan Granat** on 15 Nov 2003, 3:45 p.m.*

In my HP 15 c the status indicator "c " in the lower right part of the window is on .What does it stand for and how can i change it? In my 12 c i can control it with sto and eex but it dosent work in 15 c.

Re: HP 15 C

*Message #2 Posted by **bill platt** on 15 Nov 2003, 3:58 p.m.,*
in response to message #1 by Stefan Granat

Simple. You are in "complex" mode. simply do g CF 8 to clear flag 8--when 8 is on, complex mode is on. To turn on complex mode, you either do SF 8, or f (i) (I think the latter is correct---try it!)

regards,

Bill

Re: HP 15 C

*Message #3 Posted by **stefan granat** on 15 Nov 2003, 4:29 p.m.,*
in response to message #2 by bill platt

Thanks

Re: HP 15 C - small typo, I guess

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 15 Nov 2003, 11:27 p.m.,*
in response to message #2 by bill platt

Hi, Stefan and Bill;

just a small remark over Bill's explanation:

- [f][(i)] allows you to temporarily "see" the imaginary part of the complex number in the X-register; if the HP15C is not in complex mode, [f][(i)] returns an [Error 3] message;
- as Bill mentioned correctly, I consider [g][SF]8 as the most "natural" sequence to activate complex mode in the HP15C, because it does not change existing stack contents; [f][I] (upper case "I", beside (i) function in the keyboard) also activates complex mode, but this sequence alters stack contents; and the third possible sequence to activate complex mode in the HP15C is [f][Re<>Im] (real exchanges imaginary), that changes only X-register contents.

Just my 2¢.

Best regards.

Luiz (Brazil)

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Differences?

*Message #1 Posted by **Matthias** on 15 Nov 2003, 2:52 p.m.*

Can somebody tell me the difference between the following HP-41 modules?

GMAC I - GMAC II - GMAC III AstroRom I - AstroRom II Buderus 1 - Buderus 2 - Buderus 3 - Buderus 4 Speed Machine I - Speed Maching II

Re: Differences?

*Message #2 Posted by **Wlodek Mier-Jedrzejowicz** on 16 Nov 2003, 10:31 p.m.,*
in response to message #1 by Matthias

Matthias, what do you mean by "difference" between: >GMAC I - GMAC II - GMAC III AstroRom I - AstroRom II >Buderus 1 - Buderus 2 - Buderus 3 - Buderus 4 >Speed Machine I - Speed Maching II

An obvious difference is that they have different name labels on them :-)

The different names represent modules that did different jobs. Are you saying that all 4 names (GMAC, AstroRom, Buderus, Speed Machine) refer to modules that did nearly identical jobs? They did not, though some of what they did does overlap.

In some cases you needed 2, 3 or 4 modules, to provide a complete set of functions for a particular task. I think that was the case with the GMAC modules - can anyone here confirm it? In other cases, the differently numbered modules did different jobs for a particular application and you bought the one you needed.

Sorry that this is vague, but that's why I am asking what your question really means :-)

Regards,

Wlodek

Re: Differences?

*Message #3 Posted by **Matthias** on 17 Nov 2003, 6:24 a.m.,*
in response to message #2 by Wlodek Mier-Jedrzejowicz

For example I have a AstroROM I and a AstroRom II, both with the same manual. Why?

Second example: GMac I-III. I have them all, but their template has the same key overlay exept that the template is white, gray and black...

Re: Differences?

*Message #4 Posted by **David Smith** on 17 Nov 2003, 12:01 p.m.,*
in response to message #1 by Matthias

I would suspect that they are different revisions of the same code with bugs fixed and mayby minor functionality changes.

Re: Differences?

*Message #5 Posted by **Ángel Martin** on 18 Nov 2003, 5:43 a.m.,*
in response to message #1 by Matthias

What about comparing the functions on them? I mean number of functions and their names, which shouldn't require much knowledge of the actual application.

Or what about checking whether they have the same XROM id#? Are all versions 4k ROMS, or maybe version III is the addition of I and II?

In this way you can start to figure out what makes them different, or what makes them the same...

I'm sure you'll let us all know your findings!

Best, ÁM

Re: Differences?

*Message #6 Posted by **Wlodek Mier-Jedrzejowicz** on 19 Nov 2003, 12:16 a.m.,*
in response to message #5 by Ángel Martin

Hi again, and thanks Matthias for explaining. Now I see that you were asking what the differences between the various GMAC modules were, then what the differences between different AstroRoms were, and so on. I had thought you were asking about the differences between GMAC, AstroRom, etc.

As David Smith and Angel Martin wrote, it seems most likely that these are different versions of one module. But in some cases, a complete application did not fit in one HP-41 module, and a company would sell two or even more modules, and you had to plug all of them into a 41 to use that application. In other cases you could buy and use only one module from a set, if you only needed some functions, not the full application. Either way, there might be only one manual for the full set, but it would explain the different modules.

Yes, please do tell us when you find the details!

Wlodek

Re: Differences?

*Message #7 Posted by **Matthias** on 19 Nov 2003, 12:40 a.m.,*
in response to message #6 by Wlodek Mier-Jedrzejowicz

I would like to get a (copy of the) GMAC manual. Does someone has one? This would help me as well.

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Does anyone know if the 19Bii+ will be out in time for Christmas?...

*Message #1 Posted by **Jim** on 15 Nov 2003, 3:54 a.m.*

I've seen December AND January. TIA

Re: Does anyone know if the 19Bii+ will be out in time for Christmas?...

*Message #2 Posted by **Scuba Diver** on 15 Nov 2003, 11:58 a.m.,*
in response to message #1 by Jim

To be honest, I wouldn't hold my breath.

During a recent visit to the HP website, I learned that there will be 11 calculators in the HP line. They currently have 10 calcs in production, and they announce on the site that there is one more graphing calculator to come (the 39G+).

So, I think that they might have dropped the 19BII+, and I will be disappointed if that's indeed the case.

If anyone has heard anyting different, please let me know! B.

Re: Does anyone know if the 19Bii+ will be out in time for Christmas?...

*Message #3 Posted by **insider** on 15 Nov 2003, 1:19 p.m.,*
in response to message #2 by Scuba Diver

I have it on very good authority that the HP 19Bii+ release has been rescheduled from December 2003 to August 2004! This is to allow the product to be re engineered in light of recent experience.

Re: Does anyone know if the 19Bii+ will be out in time for Christmas?...

*Message #4 Posted by **Jim** on 15 Nov 2003, 2:52 p.m.,*
in response to message #3 by insider

If true, then info like this should be brought up to date: http://www.hp-network.com/newhps/

The good ol' days when I would buy an HP-67 and HP-41C and get the kind of quality I EXPECTED. ;-)

Re: Does anyone know if the 19Bii+ will be out in time for Christmas?...

*Message #5 Posted by **David Brunell** on 15 Nov 2003, 6:10 p.m.,*
in response to message #4 by Jim

249 Euro???!!! Are they out of their minds? At that price, I sure hope it's made with classic quality and a damn good keyboard.

Does anyone know if the 19Bii+ will be out in time for Christmas?...

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HP 41 ROM pac keyboard overlays

*Message #1 Posted by **Jerry Pfile** on 14 Nov 2003, 10:49 p.m.*

Hi,

Would anyone be good enough to tell me if the following HP 41 Pac origonally came with keyboard overlays. If so, how many with each:

00041-15019 Thermal and Transport Science 00041-15002 Statistics 00041-15020 Machine Design

Thanks in advance,

Jerry

Re: HP 41 ROM pac keyboard overlays

*Message #2 Posted by **Randy Sloyer** on 15 Nov 2003, 3:28 a.m.,*
in response to message #1 by Jerry Pfile

AFAIK, none.

Re: HP 41 ROM pac keyboard overlays

*Message #3 Posted by **Jerry Pfile** on 16 Nov 2003, 1:39 a.m.,*
in response to message #2 by Randy Sloyer

Thanks Randy

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Problem with HP49+, conn4x

*Message #1 Posted by **Hugh Wong** on 14 Nov 2003, 6:47 p.m.*

Hi, My HP49+ has some problem connecting to the HP conn4x software. 1st. when I turn on the HP49+ and do the right-shift, -> arrow key combination, the HP49+ will say Await- server-comd and will not say Xmodem-server, and conn4x cannot find the HP49+; but sometimes the right-shift,-> keys will make the HP49+ display Xmodem Server, in that case, the conn4x may find the HP. By trial and error, I found that the " alpha, right-shift, -> " keys will definitly bring the Xmodem Server message on, but the Conn4x may still not find the HP. Does anybody encounter the same problem ? Furthermore, if I go to i/o menu and set the transfer parameter to Xmodem and select OK, next time I go to i/o - transfer, again, kermit parameter is automatic reset back. Is this a HP49+ hardware problem or "conn4x" problem ? All other function on the HP49+ seems OK.

Hugh

Re: Problem with HP49+, conn4x

*Message #2 Posted by **Veli-Pekka Nousiainen** on 15 Nov 2003, 5:14 a.m.,*
in response to message #1 by Hugh Wong

hold-shift=Kermit ; release the shift first => X-Modem # VPN #

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33S MANUAL HAS DISAPPEARED!

*Message #1 Posted by **Steve Ramsey** on 14 Nov 2003, 3:26 p.m.*

Just took a quick glance at the hp website...and I can no longer find the manual for the 33S! A search for "33S" yields not a trace of anything resembling a calculator. As I see it, motivation for this could be anything from "Why are we posting a manual for a calculator that can't currently be bought?" to "Those people that post to The Museum of HP Calculators Forum are right, we've got to totally redesign this thing!" Commence wild speculation.

While you're at it, consider these facts: -HP still holds the copyright for the HP 42S's ROM -The HP 42S is capable of handling 32k of RAM -The HP 42S uses a two-line display -The latest information indicates that the HP 33S will have 32k of RAM and a (underutilized) two-line display

Ah, if only.....

Ciao, Steve

Re: 33S MANUAL HAS DISAPPEARED!

*Message #2 Posted by **Namir Shammas** on 14 Nov 2003, 3:42 p.m.,*
in response to message #1 by Steve Ramsey

Steve,

I found the HP33s manual "again" at:

http://h20015.www2.hp.com/en/taskPageSelect.jhtml?reg=&plc=&lc=en&cc=us&prodId=hp33sscien370806&pagetype=manual&docparent=manual

Trying to find it using the regular search is like trying to find Saddam Hussein!!!

Re: 33S MANUAL HAS DISAPPEARED!

*Message #3 Posted by **Steve Ramsey** on 14 Nov 2003, 4:32 p.m.,*
in response to message #2 by Namir Shammas

Looks like we'll be stuck w/ the present incarnation of the 33S. I'll have to keep dreaming of a 43S...

-Steve

Educate HP with sumulators!!!

*Message #4 Posted by **Namir Shammas** on 14 Nov 2003, 5:38 p.m.,*
in response to message #3 by Steve Ramsey

We can always create a simulator and then send it to HP and say "Here is what we want!!"

Educate HP by not buying low quality products

*Message #5 Posted by **Thomas Radtke** on 14 Nov 2003, 6:10 p.m.,*
in response to message #4 by Namir Shammas

HP obviously lost focus on their loyal customers so it's about time to get used to 'the other' notation and look for a manufacturer that takes more care for its products.

Thomas

Re: Educate HP by...How about a copy of RCL20?

*Message #6 Posted by **jimc** on 14 Nov 2003, 6:25 p.m.,*
in response to message #5 by Thomas Radtke

We could always send a copy of RCL20 to Carly. She could have someone read it to her. ;)

12345

Lampman's trying to buy toys...

*Message #7 Posted by **james (UK)** on 14 Nov 2003, 6:37 p.m.,*
in response to message #6 by jimc

I really enjoyed reading RCL20 especially 'The Most Toys' by Dean Lampman - I still crack up on re-reading the part about him getting his 35!

Best, James

Re: Educate HP by...How about a copy of RCL20?

*Message #8 Posted by **Namir Shammas** on 14 Nov 2003, 7:56 p.m.,*
in response to message #6 by jimc

Too bad John Houseman is not around to read the book for Carly!!!

:-)

Namir

Re: Educate HP by...How about a copy of RCL20?

*Message #9 Posted by **Wlodek Mier-Jedrzejowicz** on 14 Nov 2003, 9:21 p.m.,*
in response to message #6 by jimc

It's nice to see RCL 20 mentioned, and, actually, Frank Wales and I did donate 3 copies to the HP people at the 2002 HP Handhelds Conference in London. We never heard how far up the HP hierarchy they travelled (or were read) ;-) Regards all!

Wlodek

Re: 33S MANUAL HAS DISAPPEARED!

*Message #10 Posted by **Brent** on 16 Nov 2003, 5:46 p.m.,*
in response to message #3 by Steve Ramsey

Now it's gone completely. Even the link posted in a previous message is no longer valid.

33S Manual has reappeared

*Message #11 Posted by **Mike Sebastian (Texas)** on 16 Nov 2003, 7:27 p.m.,*
in response to message #10 by Brent

http://h20015.www2.hp.com/content/common/manuals/c00043313/c00043313.pdf

It is now located under the HP 30S product information pages.

The amazing travelling manual....

*Message #12 Posted by **james(UK)** on 17 Nov 2003, 2:09 p.m.,*
in response to message #11 by Mike Sebastian (Texas)

Doesn't give you much faith that HP have any clue as to what they are doing when they can't even keep their manuals in one place!!!

Re: 33S MANUAL .... It's My fault

*Message #13 Posted by **Norm** on 15 Nov 2003, 2:05 a.m.,*
in response to message #1 by Steve Ramsey

It's my fault the HP-33S manual disappeared.

I was speaking to a senior HP executive and told him calculators should not be shaped like a Chevron gas station sign. Also, I told him that HP-34C was the best calculator HP ever made.

He said they would immediately scrub the entire HP-33S program and divert the entire HP calculator engineering department to making retro-nostalgic red LED calculators that work like classic calculators.

No doubt he got the HP-33S manual pulled at the same time.

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Statistics bug?

*Message #1 Posted by **Alan Dalkey** on 14 Nov 2003, 1:54 p.m.*

I'm doing the following on an HP11C: 147 sigma plus, 181 sigma plus, 211 sigma plus, 114 sigma plus.

Then I take the standard deviation: s = 41.97

Then I remove the last entry: 114 sigma minus.

Then I try to get the standard deviation again: s = error 2

If do 147 sigma plus, 181 sigma plus, 211 sigma plus, s then I get 32.02.

Is it me or the calculator?

Me too

*Message #2 Posted by **james (UK)** on 14 Nov 2003, 2:24 p.m.,*
in response to message #1 by Alan Dalkey

s = error3 for my 34C; s= error2 for my 12C and OUT OF RANGE for the 41CV!

Double D'oh.....

*Message #3 Posted by **james (UK)** on 14 Nov 2003, 2:54 p.m.,*
in response to message #1 by Alan Dalkey

Just realised - after getting s for the 4 numbers, 0 needs to be put into the stack before entering 114 so when you sigma-minus y=0 and x=114 rather than y=41.97 (old s) and x=114 otherwise when it recalculates s(x) it also tries to recalculate s(y) using sum of y squared which is now a negative due to subtracting the square of the apparent fourth y of 41.97 which then results in the poor old machine trying to take the square root of a negative number.

Ahh User Error as usual

*Message #4 Posted by **Alan Dalkey** on 14 Nov 2003, 5:26 p.m.,*
in response to message #3 by james (UK)

I see what's going on.

Thanks James!

Re: Statistics bug?

*Message #5 Posted by **Trent Moseley** on 14 Nov 2003, 3:15 p.m.,*
in response to message #1 by Alan Dalkey

It's the calc. I posted this problem on the Forum some months ago. Of the ones I own this problem occurs on the 11C, 12C, 15C, and the 42S. On the 25C, 67, and the 32iiS, NO error message, but the correct answer: 32.02.

tm

Re: Statistics bug?

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 14 Nov 2003, 3:38 p.m.,*
in response to message #1 by Alan Dalkey

My HP-15C and my HP-41CV does well, both shows for the SDEV=32.0208, no error. I cannot try on my 11C as its display is broken :((HP-15C s/n 2723B12245, HP-41CV s/n 2214B03932)

Triple D'oh!

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 14 Nov 2003, 3:44 p.m.,*
in response to message #6 by Nelson M. Sicuro (Brazil)

As our friend James said, is the Y value on the sigma(-) operation... I was clearing the display before inserting the 114 sigma(-), and it worked... if I don't clear the X before typing the 114, the HP-15C shows "Error 2"...

Re: Triple D'oh!

*Message #8 Posted by **james (UK)** on 14 Nov 2003, 4:25 p.m.,*
in response to message #7 by Nelson M. Sicuro (Brazil)

Hi Gang

It's always the little things - reminds me of the hours I spent gazing at FORTRAN listings wondering why the program didn't work and someone would look over my shoulder and point out the ',' that should have been a '.'

My apologies in advance for the formatting - can't work out how to get a superscript 2 for the squares or a sigma sign so please read x2 as x-squared and E as sigma.

The apparent bug results from the fact that the standard deviation function operates on two variables, x and y. Every time you key E+ the calculator accumulates Ex, Ey, Exy, Ex2 and Ey2. When E- is keyed the calculator makes the appropriate adjustment to Ex, Ey, Exy, Ex2 and Ey2. If you are only using one variable, the y-register should be cleared first before starting so that y (and Ey, Exy, and Ey2) will always be equal to 0. The apparent bug arises when, having called s, which returns both s(x) in the x register and s(y) in the y register, you then enter, in this case, the 4th x (114) which pushes s(x) into the y register and key E- then the calculator will in making the appropriate adjustments to Ex, Ey, Exy, Ex2 and Ey2 subtract the square of s(x) from the current Ey2 which was 0 and now becomes -s(x)2. When you recalculate s, s(x) can be calculated but s(y) can't be calculated as it now involves trying to take the square root of a negative number and the apprpriate error message is displayed – in the case of the 34C, error3. Extract from the 34C handbook “A nonzero number in the y-register during one-variable calculations of s, r, L.R. may result in a display of Error3”.

s(y) = square root of {[n Ey2 - (Ey)2]/n(n-1)}.

With my 12C, 34C and 41CV there is no error display provided that I am careful to ensure that after getting s(x) I key 0 [ENTER] before keying the 4th x (114) and E-.

I'm now off to try and make peace with my HPs for ever doubting them!

Best

James

Re: Statistics bug?

*Message #9 Posted by **Trent Moseley** on 14 Nov 2003, 5:08 p.m.,*
in response to message #6 by Nelson M. Sicuro (Brazil)

Using Alan's keystrokes on my 15C (serial 2242A17848) I get "Error 2". I consider it a "bug" when you are forced to load a "0" into the stack. After all on the 25C, 67, and the 32Sii loading in a "0" is not necessary and you do get the correct answer.

tm

Puzzled by 67

*Message #10 Posted by **james(uk)** on 14 Nov 2003, 5:37 p.m.,*
in response to message #9 by Trent Moseley

Hi Trent

The behaviour of the 67 intrigues me as it appears (from what I can find) to operate in the same way as the 12C, 34C, 41CV et al, ie when you calculate s it computes both s(x) and s(y) and therefore unless y is set to 0 for the data pair to be deleted, E- will result in s(y) being the square root of a negative number.

From a look at the 25 manual on the MoHPC CDs and the spec sheet on the 25C page on the museum the problem won't occur with the 25C as it doesn't appear to have full two variable statistical functions and only calculates s(x) - according to the manual the only quantities it accumulates are Ex, Ex2, Exy and Ey but not Ey2 therefore no s(y).

As to the 32Sii (of which I have no experience) a response to the thread a few months ago indicated that s(y) was a separate function to s(x) so calculating s(x) wouldn't give rise to any error message.

But the 67 baffles me.....

Best

James

Re: Puzzled by 67

*Message #11 Posted by **Trent Moseley** on 14 Nov 2003, 9:24 p.m.,*
in response to message #10 by james(uk)

James (UK),

I agree. I've got the handbooks out HP-67 pgs. 113-114 and HP-15C pgs.53-54 and Appendix A pg.206. Will try to figure it out. But the fact remains that the 67 comes up with the correct answer without all that "0" imput rigmarole.

tm

Re: Puzzled by 67

*Message #12 Posted by **r. d. bärtschiger.** on 17 Nov 2003, 7:17 p.m.,*
in response to message #11 by Trent Moseley

This may or may not be of some help.

According to the HP-67 manual:

"The number that you keyed into the X-register is preserved in the LAST X register, while the number in the stack Y-register remains in the Y-register."

rdb.

Re: Puzzled by 67

*Message #13 Posted by **Victor Koechli** on 18 Nov 2003, 3:14 a.m.,*
in response to message #12 by r. d. bärtschiger.

The same should also apply to the other 4-level stack models (15C, 41, 42S): The stack lift is locked after Sigma+, so entering just one number will not raise the stack and leave Y what is was before. If you press 0 ENTER before beginning summation of your data, all of these calcs should behave the same and not cause problems with SDEV or MEAN.

Cheers, Victor

Re: Puzzled by 67

*Message #14 Posted by **Trent Moseley** on 15 Nov 2003, 6:51 p.m.,*
in response to message #10 by james(uk)

James-

I can't figure out why the 67 doesn't have this bug. Its too bad they didn't use its algorithm for the Voyager series and the 42S.

tm

Re: Puzzled by 67

*Message #15 Posted by **james (uk)** on 16 Nov 2003, 4:53 a.m.,*
in response to message #14 by Trent Moseley

Hi Trent

Thanks for the update - it's interesting that they changed the algorithm - I wonder why? Presumably the 67 must decide that if Ey2 becomes negative you are working with only the x variable. Out of interest, what does it return for s(y) in such a situation?

Best, James

Re: Puzzled by 67

*Message #16 Posted by **Trent Moseley** on 17 Nov 2003, 6:59 p.m.,*
in response to message #15 by james (uk)

James -

After going through the same steps in Alan's original example, the X reg shows 32.02 and th Y reg 34.27 and zero in the Z and T regs. Storage reg s4 has Ex, s5 has Ex2, s6 has -41.97 (the negative value of the sd the orininal four values), s7 has -1761.58 which is the negative value of 41.97 squared, s8 has -4784.72 i'm not sure what that is, and 3 (n) in s9.

Trent

Re: Puzzled by 67

*Message #17 Posted by **james summers (uk)** on 25 Nov 2003, 8:20 a.m.,*
in response to message #16 by Trent Moseley

Hi Trent

Thanks for the update - I've been trying to work out what the y reg figure of 34.27 represents but with no luck - maybe I should get a 67 (any reason will do as justification!)

It seems to be picking up s(y) as a y value when E- is performed so stack lift can't be disabled so I guess it must have some code that decides that if s(y)2 is negative you are only working with x values and therefore doesn't bother with trying to take the square root which would produce an error flag. I wonder why they didn't carry this routine over to the later machines.

Best, James

Re: Puzzled by 67

*Message #18 Posted by **Trent Moseley** on 25 Nov 2003, 5:42 p.m.,*
in response to message #17 by james summers (uk)

James,

Sounds reasonable. I'm going to fool around with it some more this weekend.

Trent

Built-in stats on the HP-41

*Message #19 Posted by **Karl Schneider** on 16 Nov 2003, 2:46 p.m.,*
in response to message #1 by Alan Dalkey

The cause of the unexpected result obtained by Alan Dalkey (subj: "Statistics Bug?") on an 11C (and others on the 15C and 41C) has been adequately explained. The root cause is that these units perform summation and calculations on ordered-pair variables, even when only single-variable data is being entered. Models that provide separate operations for calculating mean and standard deviation for x and y (e.g., 32Sii) can avoid this problem.

(Another logical solution is to have separate "modes" for two-variable and single-variable statistics. Certain models by Casio and TI handle the stat/regression task more elegantly than many HP models, in my estimation. In fact, I can name at least five things I don't like about the stat functionality on the HP-15C, but at least it's there. Many of the shortcomings stem from a lack of keyboard space.)

Alan's "finding" revealed something I didn't know about the HP-41. I had assumed that it had only single-variable stats, because it had only "MEAN" (arithmetic mean average)and "SDEV" (sample standard deviation) built-in. Thus, the "OUT OF RANGE" message found by "james(uk)" was surprising -- if HP put two-variable stats in the HP-41, why didn't they add the necessary named-function regression routines?

The cynical answer might be in the HP-41 "Stat Pac" (which I have). Using Sigma-plus and Sigma-minus, the Stat Pac adds the missing regression-analysis functions as RPN programs for linear-, logarithmic-, expenential-, and power-. BTW, using the Stat Pac regression programs will change the stat registers from the default R11-R16 to R10-R15.

The HP-42S took this one better, adding a "best-fit" option.

Two-variable statistical summation built-in, with regression-analysis as an extra-cost option! Had HP planned that all along?

Re: Built-in stats on the HP-41

*Message #20 Posted by **Trent Moseley** on 17 Nov 2003, 10:41 p.m.,*
in response to message #19 by Karl Schneider

Karl -

But you leave out of your discussion the HP-67.

tm

Re: Built-in stats on the HP-41

*Message #21 Posted by **Karl Schneider** on 18 Nov 2003, 4:29 a.m.,*
in response to message #20 by Trent Moseley

Trent posted:

> Quote:
>
> *Karl -*
>
> *But you leave out of your discussion the HP-67.*
>
> *tm*

I don't *have* a 67; I've only seen pictures of one. Thus, I don't know what's different about it, other than what you have posted several times on this topic.

Perhaps the 67 is an exception, but stat calculations tend to be kinda screwy on the traditional HP RPN machines. Calculations automatically performed using "stack-clutter" inputs is the real culprit. Here's a list of shortcomings on the 11C/15C:

1. (x-data) ENTER (y-data) E+ adds x-data to Y-summation, and vice-versa.

2. No "frequency" function for multiple occurrences of a data point.

3. No x-data estimator, weighted mean, or population standard deviation.

4. y-data estimator also calculates "r" every time, and vice-versa.

5. Risk of calculation errors with inadvertent garbage data.

Granted, if one knows the math and summations, there are fairly easy workarounds for most of these. Also, there just wasn't enough keyboard space to provide the missing functionality -- much had to be "doubled up". Still, there is potential for "user consternation".

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HP-41 printing to 200LX via IR

*Message #1 Posted by **Mike (Stgt)** on 14 Nov 2003, 5:13 a.m.*

Hi Steve (Australia)! Are you listening!? In your article about that you mention the sound card as a good time basis. Do you see any chance to do without on a HP200LX?

Ciao.....Mike

Anypne else a clue how to "print" from Pioneers or the HP-41 with IR-Module to the LX? TIA

Re: HP-41 printing to 200LX via IR

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 14 Nov 2003, 7:39 a.m.,*
in response to message #1 by Mike (Stgt)

I'm trying to do the same, as soon I can I'll post here. I'll try to build a program in assembler based on some IR examples I see for the 95LX, and I need to know if the 200LX uses the same I/O.

Best regards,

Nelson

Re: HP-41 printing to 200LX via IR

*Message #3 Posted by **Mike (Stgt)** on 15 Nov 2003, 6:37 a.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

I do not know neither the details nor the difference of 95 vs 200 LX. May be you find the experts at HPLX-L, see http://www.sp.uconn.edu/~mchem1/HPLX.shtml for more.

Ciao.....Mike

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SANDBOX: the Sequel

*Message #1 Posted by **Ángel Martin** on 14 Nov 2003, 3:19 a.m.*

Hi there,

Work is in progress to extend the SANDBOX to an 8k ROM.

As it is, I'll have to redesign the current 4k page to make the function grouping more logical, after adding the new ones (ROMSUM, RAMED, RCLMATH, and many more...).

There's still some "space available" and I'll like to ask for your contributions. You're more than welcome to send me your 'favorite' function for inclusion!

So go ahead and crank up the MCODE machine, your code will "feel" great in the SandBox. Wouldn't it be grand if we made it a group effort? [Who knows, we might even call it "PPC-II ROM"]

Best, ÁM.

Re: SANDBOX: the Sequel

*Message #2 Posted by **Meindert Kuipers** on 14 Nov 2003, 4:31 a.m.,*
in response to message #1 by Ángel Martin

Send me your email address and I will send you the disassembly listing of my own MLROM, which I always use in combination with CCD and DAVID ASSEMBLER. I do have documentation, but printed only and I have yet to scan it.

Meindert

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Have got icon of MoHPC for Window's applications? [No text]

*Message #1 Posted by **Tizedes Csaba** on 13 Nov 2003, 5:35 p.m.*

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HP49+ , HP48, HP49

*Message #1 Posted by **Hugh Wong** on 13 Nov 2003, 1:44 p.m.*

Hi,

Anybody know how to transfer HP48 data to HP49+ via the infared port ? Are they competiable ? How can I transfer some spreadsheet data from one to another ? I tried the PC as an intermidiate transfer device using HP's PC link but the HP49 or HP49+ cannot download the file from the PC. Please help

Hugh

Re: HP49+ , HP48, HP49

*Message #2 Posted by **Brandon** on 13 Nov 2003, 10:24 p.m.,*
in response to message #1 by Hugh Wong

I couldn't transfer between the two, but I can't remember if it was because of the different file headers or because they couldn't see eachother. I'm loaning out my 48gx, so I can't check now.

Re: HP49+ , HP48, HP49

*Message #3 Posted by **Jeff** on 13 Nov 2003, 10:35 p.m.,*
in response to message #1 by Hugh Wong

This has been discussed at comp.sys.hp48.
Try this thread, this thread and this one. Apparently IR transfer is not possible. Transfer via computer is possible, but requires some file manipulations using either emu49 and/or other methods.

Edited: 14 Nov 2003, 7:24 a.m.

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HP 33s

*Message #1 Posted by **Dave Falkenberg** on 13 Nov 2003, 10:29 a.m.*

Does anyone have any info on this new calculator?

Re: HP 33s

*Message #2 Posted by **Juergen (CH)** on 13 Nov 2003, 1:31 p.m.,*
in response to message #1 by Dave Falkenberg

Look at this previous post: HP33S Manual Is Here!!!

Re: HP 33s

*Message #3 Posted by **Paul Brogger** on 13 Nov 2003, 5:33 p.m.,*
in response to message #1 by Dave Falkenberg

I was just talking to HP Calculator Support (about a 49G+) and asked about the 33s. Company line (as of yesterday) is, "Anything that's been announced is still subject to change" and regarding its release date, " ... sometime late 2003, early 2004 ... ".

Re: HP 33s

*Message #4 Posted by **Brandon** on 13 Nov 2003, 10:21 p.m.,*
in response to message #3 by Paul Brogger

yeah... we all hope the ugly V-shaped keyboard is subject to change :)

Re: HP 33s

*Message #5 Posted by **Ken Emmens** on 21 Nov 2003, 5:15 a.m.,*
in response to message #4 by Brandon

Yes, the HP33S keyboard is not the most inspired design in the world but hey, does it really matter? I'm going to buy a 33S to use it in my work, not to use it as some sort of adornment or to leave it lying around to impress others. As long as it does its job I'll be satisfied. In my humble opinion we're lucky to be even getting a reasonably decent replacement for the HP 32SII. Forget about what the thing looks like and think about all the extra program memory you've been given compared to the HP32SII. Personally, I can't wait to buy one.

Re: HP 33s

*Message #6 Posted by **CME750** on 21 Nov 2003, 4:41 p.m.,*
in response to message #5 by Ken Emmens

I expect to get a 33S too (primarily for exam use). But don't get too excited about "all the extra program memory you've been given compared to the HP32SII." In practice, it will be very difficult

to actually load more than 1-2KB of programs into that 31KB space. This is better than the 32SII, but not nearly as good as you might have expected.

The problem is with the labels. You need a distinct label at the start of each program, and at branches, loops, and subroutines. On the 32SII and 33S, you can't GOTO line numbers; you have to reference a label. The 32SII provided 26 labels (A-Z) for this purpose. Complex programs, such as those in Chapters 15 and 16 of the 32SII manual, can easily use 5, 10, or 15 labels.

It appears that the 33S will have only the same 26 labels found in the 32SII. And like the 32SII, the labels cannot be duplicated between programs. So the limited quota of labels will be used up fast. If you're careful to avoid label duplication, you might be able to install 2 or 3 complex programs in the 33S, as opposed to one in the 32SII.

Not sure what all the memory of the 33S is good for. Can't use it for programs, because there aren't enough labels. Can't use it for data, because the 33S will only have 33 storage registers, same as the 32SII. I suppose you could store a very large number of equations.

Re: HP 33s

*Message #7 Posted by **Ken Emmens** on 22 Nov 2003, 1:22 a.m.,*
in response to message #6 by CME750

You are correct in what you say about the limited number of labels available to write programs, but I still think the 33S is a good improvement on the 32SII.

One method that may assist in getting around the label limitation would be to combine similar programs into one larger program. Those "sub-programs" could then share any common subroutines and consequently avoid the "DUPLICAT. LBL" error message that occurs when all the labels have been used up.

Although I have not used it because I have never had the need (the 33S is likely to change that though because of its larger memory), indirect addressing (using (i)) would be an efficient way to control program subroutine branching under such circumstances. The HP32SII Owners Manual has good coverage of that technique in Chapter 13.

The restricted number of labels does offer one benefit - the encouragement of economical program design, and the mental challenge / stimulation of achieving that outcome. And who knows? - maybe the HP33S is the precursor to the HP33SII with thousands of labels and gigabytes of memory and download/upload capabilities and an easy to use enhanced Basic programming language and super-long-life batteries and, gasp, a normal keyboard. Wow, wouldn't that be something? Here's hoping.

Re: HP 33s

*Message #8 Posted by **CME750** on 25 Nov 2003, 2:31 a.m.,*
in response to message #7 by Ken Emmens

One ugly, but potentially effective, way to cut down on label use on the 33S is as follows.

Let's say you have a dozen distinct programs. Start with LBL A and enter Program 1, ending with RTN. Then enter Program 2, ending with RTN. Follow with Programs 3 to 12. All of the programs end with RTN, but none begin with labels (except for the first one). In this case, all 12 programs are associated with LBL A.

So how do you select a specific program? You have to note the line number where each

program begins. So Program 1 begins at line A0001. Maybe Program 2 begins at line A0083, Program 3 at line A0154, and so on.

If you wanted Program 2, you could start it by pressing GTO . A0083 R/S. For Program 3, you would hit GTO . A0154 R/S. The GTO . command moves the program pointer, even when you are not in program entry mode. So you can control the line number at which a program starts running, even without labels.

The obvious downside is that it would be difficult to remember the right code for starting each program. You would probably need a "cheat sheet" listing the appropriate line numbers. Furthermore, if you edited one program, the line numbers for all the following programs would change.

Confirmed that this works on a 32SII. Based on the online manual, the 33S should be similar (except that line numbers contain 4 digits on the 33S and only 2 digits on the 32SII).

Re: HP 33s

*Message #9 Posted by **Ben Salinas** on 22 Nov 2003, 7:47 p.m.,*
in response to message #6 by CME750

In a purely theoretical sense, with 32kb of memory you could emulate more subroutines. It would be terribly inneficient in terms of memory, but with 32kb, who cares

Imagine this. We have routine A. At the begining of A there is one subroutine, which can be accessed by a GTO. After that subroutine is complete, it will have a RTN. After the RTN, there is a second, entirely different subroutine, which can be accessed by a XEQ (which doesnt stop at a RTN, I believe...). As long as the first subroutine does not mess with any of the variables for the second subroutine, then you would be fine

Of course it would be terribly inneficient, and incredibley complex to code. I guess you could also have it do some simple subroutines separated by conditional tests, or if you say

Input Z 1 x=y? a command

Would that leave the Z and 1 on the stack, or are they consumed.

A final theoretical method would be if you had subroutines which began the same, you could have it break if it reaches a specified number.

Say we would like to have subroutine A1 and A2. A1 and A2 start with the same 5 commands, but after those 5 commands, A1 should break, and A2 continue. Given a variable Z, you can set it to 1 if you want to run A1 and 2 if you want to run A2 (or a flag, or something of the like). After the five commands are ran, have a conditional test to check if Z=1, and if it does, have it RTN. After A1, are the commands for A2.

Just a few thoughts

-ben

Re: HP 33s

*Message #10 Posted by **john gablenz** on 22 Nov 2003, 11:42 p.m.,*
in response to message #9 by Ben Salinas

Has HP announced an updated release date for the 33s?

JOhn

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Looking for HP Journal article

*Message #1 Posted by **james (UK)** on 13 Nov 2003, 8:40 a.m.*

Hi y'all

Anyone know if W Kahan's paper "Personal Calculator has Key to Solve Any Equation f(x) = 0" which appeared in the HP Journal 30 #12 (Dec 1979) pp20-26 (and deals with the 34C) is available on the 'net?

Extract from his paper "Mathematics Written in Sand":

"Euphoric at the sucess of the HP-38E, Dennis Harms' manager, Stan Mintz, humoured us by granting permission to devise a calculator with a [SOLVE] key, despite that no marketing survey had revealed any demand for such a thing, and subject to one proviso: mindful of his struggles with integrals in college, he charged us to devise an [INTEGRATE] key too. Thus was the HP-34C born."

Re: Looking for HP Journal article

*Message #2 Posted by **Valentin Albillo** on 13 Nov 2003, 11:35 a.m.,*
in response to message #1 by james (UK)

Hi, james (UK):

james (UK) posted:

"Anyone know if W Kahan's paper "Personal Calculator has Key to Solve Any Equation f(x) = 0" which appeared in the HP Journal 30 #12 (Dec 1979) pp20-26 (and deals with the 34C) is available on the 'net?"

Yes.

Best regards from V.

But buy the MoHPC set anyway...

*Message #3 Posted by **Karl Schneider** on 14 Nov 2003, 2:04 a.m.,*
in response to message #2 by Valentin Albillo

... if I remember correctly, the MoHPC scans of these articles are higher-resolution than the ones available from Cal-Berkeley.

D'oh.....

*Message #4 Posted by **james (UK)** on 14 Nov 2003, 2:13 p.m.,*
in response to message #3 by Karl Schneider

Can't see what's in front of me - had another look at my MoHPC CDs and it's there as plain as can be.....

Re: Looking for HP Journal article

*Message #5 Posted by **Massimo Gnerucci (Italy)** on 13 Nov 2003, 12:34 p.m.,*
in response to message #1 by james (UK)

Yes, it is!

I can only give you an hint: *I cannot write here where it is*.

Greetings,
Massimo

...not a useful hint now...

*Message #6 Posted by **Massimo** on 13 Nov 2003, 12:39 p.m.,*
in response to message #5 by Massimo Gnerucci (Italy)

...since Valentin replied with a neutral and valid link.

His reply wasn't there when I began mine: strange how TimeZones work :-)

Greetings,
Massimo

Re: Looking for HP Journal article

*Message #7 Posted by **Holger Veit (DE)** on 14 Nov 2003, 3:38 a.m.,*
in response to message #5 by Massimo Gnerucci (Italy)

You wrote: >I can only give you an hint: I cannot write here where it is.

It is obvious which site is meant here. What I would like to know though is the reason for this ban from this site. Looks to me not like normal competition (infact: there are also documentation CDs sold), but more. What's on and how can we avoid this obvious split of community?

Holger

Re: Looking for HP Journal article

*Message #8 Posted by **Giuseppe Marullo** on 15 Nov 2003, 7:25 a.m.,*
in response to message #5 by Massimo Gnerucci (Italy)

Massimo, could you please contact me at giuseppe.marullo@iname.com ?

Grazie,

Giuseppe Marullo

Re: Looking for HP Journal article

*Message #9 Posted by **Massimo** on 15 Nov 2003, 12:18 p.m.,*
in response to message #8 by Giuseppe Marullo

You have new mail! :)

Ciao,
Massimo

Many thanks

*Message #10 Posted by **james (uk)** on 13 Nov 2003, 2:14 p.m.,*
in response to message #1 by james (UK)

Hi Valentin and Massimo

Muchas gracias and molti grazia (I hope thats right!) for the bed-time reading.

Best

James

Re: Many thanks

*Message #11 Posted by **Patrick** on 13 Nov 2003, 4:02 p.m.,*
in response to message #10 by james (uk)

Hi James

I am in the midst of writing an article about HP Solve. Take a look at this thread for background. I'm hoping that HPCC Journal will accept it. I would appreciate any insights you might get in reading Dr. Kahan's wonderful articles.

Regards, Patrick

Re: Many thanks

*Message #12 Posted by **Namir Shammas** on 13 Nov 2003, 8:41 p.m.,*
in response to message #11 by Patrick

I am testing a comprehensive algorithm that solves the root of an equation using an enhanced version of Newton's method. The algoritthm I am working on handles the cases were basic Newton will fail:

1. The guess is near a maximum or minimum point. 2. The function looks like a strechted S with two somwhat parallel extremes (a variant of tanh(x) for example). In this case, the guess cycles back and forth.

I am using Excel's VBA to test the algorithm (you can alway store intermeidate values in the spreadsheet). I feel that to solve case 2 I need to use the basic Bisection method to ensure convergence and move away from relying on slopes (which got us into trouble in the first place).

Namir

Re: Many thanks

*Message #13 Posted by **james (UK)** on 14 Nov 2003, 2:28 p.m.,*
in response to message #11 by Patrick

Hi Patrick

Thanks for the link - I had forgotten about that thread (as well as missing the fact that Dr Kahan's article was on my CDs but every cloud has a silver lining - I found some other articles on root-finding on the Berkeley site so have some more reading).

Best

James

Re: Many thanks

*Message #14 Posted by **Gordon** on 15 Nov 2003, 9:13 a.m.,*
in response to message #11 by Patrick

Let us know when your article is ready. I am looking forward to reading it!

Re: Looking for HP Journal article

*Message #15 Posted by **John** on 15 Nov 2003, 9:13 p.m.,*
in response to message #1 by james (UK)

Does anyone know if there are any HP Journal Articles about how the HP Calculators (41, Voyagers, 28s, 32s or even the 48's) are manufactured and how they were designed? I saw one about the 11c and was wondering there were more? I can't seem to get enought of this information. I am very interested in learning how these calculators are put together, from the ground up. And, if there are articles, how would I go about obtaining them?

Thanks.

The MoHPC CD set or DVD has scans...

*Message #16 Posted by **Karl W. Schneider** on 16 Nov 2003, 3:52 p.m.,*
in response to message #15 by John

John --

Browse this hpmuseum website to find the CD-ROM set and DVD that includes scans of HP Journal articles. Quite a few articles focusing on specific models are available.

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10B with problem

*Message #1 Posted by **CalcKidd** on 13 Nov 2003, 8:31 a.m.*

I just got a used 10B with a faulty ON/C/OFF button.

When I press it, nothing happens Though, all the other buttons work just fine.

However, if I take the batteries out, make contact with the (+) and (-) terminals for a bit, put the batteries back in, and press the ON button - the calc fires up.

But... the button won't work after this unless I take the batteries out again and do everything all over again.

Any ideas?

It's just a 10B and I may take it apart to study it anyway.

Thanks...

Re: 10B with problem

*Message #2 Posted by **Randy Sloyer** on 13 Nov 2003, 7:14 p.m.,*
in response to message #1 by CalcKidd

Press above the I/YR key while trying to turn it on. If it works, it's a loose connection between the logic board and keyboard connector. Common Pioneer problem.

If that doesn't work, it's possibly a shorted key. Fatal problem for a Pioneer. Keyboard replacement is not a fun thing. Easiest way to diagnose is to hook it up to a power supply and check the current. If it immediately goes to 50 ua or more, you have a shorted key :o(

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HP33E

*Message #1 Posted by **Paul Marin** on 13 Nov 2003, 4:20 a.m.*

I've just aquired my bosses old HP33E and the battery hasn't been used for for 3 years. I'm running it on the charger, but still no life in it. Is there a new equivelant rechargable battery available today on the market, that isnt HP?

CAn anyone help me.

Paul (Australia)

Re: HP33E

*Message #2 Posted by **Thibaut.be** on 13 Nov 2003, 6:15 a.m.,*
in response to message #1 by Paul Marin

If you can manage to desolidarize the batteries from the metallic pac, replace them with 2 AA cells. Positive goes on top left siden you have the calculator in your hands, back side in front of you, battery compartiment on the top side.

Re: HP33E

*Message #3 Posted by **Paul Marin** on 13 Nov 2003, 6:39 a.m.,*
in response to message #2 by Thibaut.be

So does this mean that this unit runs on 3 volts, using 2 AA batteries?

Paul

Re: HP33E

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 13 Nov 2003, 7:53 a.m.,*
in response to message #3 by Paul Marin

It runs on 2 AA NiCd cells, 1.25V each (2.5V), you can replace them with 2 NiMH cells. I don't know if you can put 2 simple alkaline AA cells or Zinc ones. If you do so, DON'T USE THE CHARGER!!

Regards,

Nelson

Re: HP33E

*Message #5 Posted by **Thibaut.be** on 13 Nov 2003, 8:38 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

It works perfectly with 2 A batteries. After all these provide with 1.3 or 1.4 V most of the time, so

you're connected more often with 2.6 or 2.8 volts. Not a big deal.

And of course Nelson is totally right : do not connect your calculator with the adapter while running on standard batteries !

Re: HP33E

*Message #6 Posted by **db(martinez,california)** on 13 Nov 2003, 9:08 p.m.,*
in response to message #5 by Thibaut.be

.....and do not use the charger without having good rechargable batteries in place and making good contact. Other people who are much smarter than me have said here that you can fry the calc by doing that.

Re: HP33E

*Message #7 Posted by **Paul Marin** on 14 Nov 2003, 8:04 a.m.,*
in response to message #6 by db(martinez,california)

I've put in two AA alkaline batteries just to see if the unit works, and it does. Now I'm buying the Ni-cad batteries you've all suggested. Thanks guys for all your help.

Must appreciated

Ciao

Paul

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HP42S or HP49G+

*Message #1 Posted by **Marc** on 13 Nov 2003, 2:10 a.m.*

Hello, I have the option to buy an hp42S or a 49g+. which one for me , an engineer is the best? Have 3 48 and 2 32SII. Thanks

Re: HP42S or HP49G+

*Message #2 Posted by **Marc** on 13 Nov 2003, 2:11 a.m.,*
in response to message #1 by Marc

wanted to say that i'm an electronic engineer

Re: HP42S or HP49G+

*Message #3 Posted by **Joesph** on 13 Nov 2003, 2:39 a.m.,*
in response to message #2 by Marc

That depends on what you are interested in. I personally like the HP42S very much - what are your preferences? Ease of use, build quality, etc. Its a personal thing.

Re: HP42S or HP49G+

*Message #4 Posted by **Victor Koechli** on 13 Nov 2003, 2:43 a.m.,*
in response to message #1 by Marc

Buy both if you can. If you can't, buy them both anway. If you really can't, it depends on whether your current calcs are suficient for your needs (which is probably the case, since you have 3 48's). If they are, get the 42S if the price is anywhere near reasonable. It's one of the finest and most sought after HPs ever made, very potent and with tons of functions, while in a package the size of your 32SII. And you can still buy a 49G+ next year if you feel like it, but who knows when you will have the occasion to acquire a 42S again (especially if the price is good).

If you need a calc with even more power that your 48, get the 49G+. Does anyone know whether it has the equation library from the 48G/G+/GX built in?

Cheers, Victor

Re: HP42S or HP49G+

*Message #5 Posted by **Veli-Pekka Nousiainen** on 13 Nov 2003, 3:55 a.m.,*
in response to message #4 by Victor Koechli

no, use eql49 libraries from:

http://www.hpcalc.org/details.php?id=3181

VPN

PS: I would always prefer the I/O capable model 1st, in this case the 49g+ (regardless of the good things in the 42S)

Re: HP42S or HP49G+ and external keyboard hp 48GX

*Message #6 Posted by **Marc** on 13 Nov 2003, 6:49 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

I know that the 49G+ is very powerful,but is too big, I prefer the 42S but very expensive. I have created an external keyboard gor HP48GX, I uploaded it in HPcalc, but i don't see it, it is in hp-network.com.

VPN, where are you from? I'm curious. Bye and thanks PD is it correct buying an hp42S for 325€?

Re: HP42S or HP49G+ and external keyboard hp 48GX

*Message #7 Posted by **Victor Koechli** on 13 Nov 2003, 10:30 a.m.,*
in response to message #6 by Marc

It's certainly not a bargain. If it's OK depends on what comes with it. If you are a collector and the unit is complete with original box, manuals etc. and in a very good, like new state, then it would be OK. Otherwise, you should probably try to get a cheaper one (I have, however, not checked prices recently). I would, beacause I'm a fan, but mostly a user and not a collector, so I don't care for the box or worry about a scratch somewhere, as long as it works OK.

Alternatively, buy a 49G+ for half the price. I know, it's a big machine, but it does almost everything, and fast, and it communicates with the outside world, as Veli-Pekka pointed out.

Cheers, Victor

VPN, where are you from?

*Message #8 Posted by **Veli-Pekka Nousiainen** on 13 Nov 2003, 1:36 p.m.,*
in response to message #6 by Marc

C E-Mail Address

Re: HP42S or HP49G+

*Message #9 Posted by **Erik Ehrling (Sweden)** on 13 Nov 2003, 1:51 p.m.,*
in response to message #1 by Marc

Ask yourself which of your current calculators you use the most, the HP-48GX or the HP-32SII. The HP-49+ improves on the HP-48GX while the HP-42S improves on the HP-32SII. Personally, I would take the HP-42S if I had to choose. (The only reason I could find for not buying a HP-42S would be if HP releases a successor to the HP-42S with I/O capabilities...)

Best regards, Erik Ehrling (Sweden)

Re: HP42S or HP49G+

*Message #10 Posted by **Marc** on 13 Nov 2003, 4:46 p.m.,*
in response to message #9 by Erik Ehrling (Sweden)

Sorry Eric do you have one of your hp42S to sell? just a question thanks.

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32E Error 9

*Message #1 Posted by **Ron** on 13 Nov 2003, 1:25 a.m.*

I have a 32E which seems to work well. However, when running the self test, it is inconsistent in the final display. Sometimes it shows all zeros, sometimes just a minus, sometimes it shows the full display for a fraction of a second before going back to the previous entry, etc... Often though (about every other time), it shows ERROR 9, and occasionally (rarely) ERROR 0.

After I finally got up the courage to POP it apart, I found that it is solderless. I cleaned all the chip and switch contacts, and reassembled. There has been no change.

Everything else looks pretty good. Any help will be greatly appreciated.

Thanx.

Re: 32E; Check engine light

*Message #2 Posted by **Ron** on 13 Nov 2003, 8:57 p.m.,*
in response to message #1 by Ron

I have found out that ERROR 9 simply means it failed the self test. So this seems like the CHECK ENGINE light in my car; the only thing wrong with it that the check engine light is on. In this case, the calc seems to work fine; the only thing wrong with it is that it fails the self test. Anyway, for the sake of completeness, I still would like it to pass the test.

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Volunteer(s) for scanning needed - again

*Message #1 Posted by **Gene** on 12 Nov 2003, 7:13 p.m.*

Some of you may remember an effort several people made to get my copy of the "debugged" JPC ROM online for the 71B. Some of you may also remember a post from several months ago about a large stack of HP User Library programs I had that I hoped to get scanned and online.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv010.cgi?read=28693

Well, my volunteer has decided that he doesn't have time to do the scanning of these after all, so I'm looking for another person who could help by scanning these into PDF files.

Any volunteers?

Gene

P.S. The efforts to get the TI PPC Notes online is moving along and so is the effort to get the TI calculator manuals online too. If you REALLY want to see some of those, drop me an email.

Re: Volunteer(s) for scanning needed - again

*Message #2 Posted by **David Ramsey** on 13 Nov 2003, 1:07 a.m.,*
in response to message #1 by Gene

How many pages are we talking about?

#pages

*Message #3 Posted by **Gene** on 13 Nov 2003, 7:40 a.m.,*
in response to message #2 by David Ramsey

Figure 100 HP User Library programs x 6-8 pages each. Double sided. They also have magnetic card packets attached to the first page.

Not an easy task, but take a look at the long list of programs and you'll see why I'm hoping to get them done.

There's a similar list of TI58/59 programs someone is scanning too.

The TI PPC Notes are also on a list.

Gene

Re: #pages

*Message #4 Posted by **David Ramsey** on 13 Nov 2003, 11:50 a.m.,*
in response to message #3 by Gene

Well, I do have this shiny new HP-4670 scanner, so I guess I'd be willing to take a crack at it. I assume things are in no rush and if it took several weeks to get all 600-800 pages that would be OK.

Re: Volunteer(s) for scanning needed - again

*Message #5 Posted by **Victor Koechli** on 13 Nov 2003, 2:02 a.m.,*
in response to message #1 by Gene

I could try to contribute german TI 58/59 manuals if you like. What software is best for doing that? I have Windows 2k at my office and Mac OSX at home (has built-in PDF).

Cheers, Victor

Manuals

*Message #6 Posted by **Joerg Woerner** on 13 Nov 2003, 6:42 a.m.,*
in response to message #1 by Gene

Hello Gene,

Some weeks ago Texas Instruments granted me the permission to make the elder, scanned manuals on my Datamath Calculator Museum available for the public. If you check the www.datamath.org/Manuals.htm page you'll notice that I placed already 50 manuals there.

Next issue is webspace, here I received from Viktor T.Toth an offer to use parts of his webserver.

Please send me a list of the manuals you own and we'll discuss the next steps. Another good place to locate manuals is maintained by Katie Wasserman.

Greetings, Joerg

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Miller-Rabin Primality Test for HP-42S

*Message #1 Posted by **Erik Ehrling (Sweden)** on 12 Nov 2003, 4:16 p.m.*

Hi!

This is a short note to tell that I have just added an implementation of the Miller-Rabin Primality Test for the HP-42S to my homepage. (By a partial implementation of addition, subtraction and multiplication of double size integers it can handle primality tests for any integer up to 999 999 999 999.)

Best regards,
Erik Ehrling (Sweden)
Homepage:http://w1.322.telia.com/~u32220482/index.html

Re: Miller-Rabin Primality Test for HP-42S

*Message #2 Posted by **hugh** on 13 Nov 2003, 1:07 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

top program. i like it!

i have tried to implement this on the 15c (and others). the difficult bit (as you've noticed) is a*b mod n. do you use the complex number just as a convenient holder or can complex be used to help the precision (eg single precision c1*c2 requires double precision working. in practice the machines use all their internals if they can).

you can do the a*b mod n in binary. i tried it, but calculators take all day (literally) so i abandoned the idea.

Re: Miller-Rabin Primality Test for HP-42S

*Message #3 Posted by **Erik Ehrling (Sweden)** on 13 Nov 2003, 2:40 p.m.,*
in response to message #2 by hugh

> Quote:
>
> i have tried to implement this on the 15c (and others). the difficult bit (as you've noticed) is a*b mod n. do you use the complex number just as a convenient holder or can complex be used to help the precision (eg single precision c1*c2 requires double precision working. in practice the machines use all their internals if they can).
>
> you can do the a*b mod n in binary. i tried it, but calculators take all day (literally) so i abandoned the idea.

Hi!

Interesting to hear that someone else has been struggling with the same problem!

First I didn't realise the problems with calculating a*b mod n, headed for a straight implementation and ran

into trouble, but also got frustrated enough to not be able to put it away...

I use complex numbers mainly as a place holder, but for both addition and subtraction they come in handy for the calculation as well. The real part of the complex number is used to represent the higher (i.e. larger than 1e12) portion of the integer, while the imaginary part represented the lower portion (i.e. a normal precision integer).

As I only needed to deal with positive integers I realised that I could subtract 1e12 from one of the lower parts (i.e. the imaginary part of one of the terms) before adding the two long (complex) numbers together. Then I could check if the lower part of their sum was negative. If it was negative then I just added 1e12 to it again, otherwise I added 1 to the higher (real) part of the sum. (This is done on line 297-315 in the code).

Subtraction uses a variant of the same technique (line 284-296 in the code).

Multiplication was worse. However I only needed to multiply two normal length integers giving a double length product. For this purpose I divided a in two "small" halves a_hi and a_lo and similarly b into b_hi and b_lo. The higher portion here holds the part of the number that is larger than 1e6 and the lower portion holds the part that is smaller than 1e6. Having split a and b in higher and smaller part their double length product can be calculated. The higher (double length) part of a*b can be calculated as a_hi*b_hi + int((a_hi*b_lo + a_lo*b_hi / 1e6)) and the lower part can be calculated as a_lo * b_lo + (a_hi*b_lo + a_lo*b_hi mod 1e6). (The multiplication is made on line 229-283 in the code)

The last step, when a*b is finally calculated (represented as a double length integer), is to determine what the product is mod n. Here I realised that the HP-42S actually calculates very large numbers mod n absolutely correctly (e.g. 1e20 mod 999 999 999 961). So I simply used the rule that (i + j) mod n = ((i mod n) + (j mod n)) mod n. In this case this translates into (if i is the larger part of a*b and j the smaller part) --> a*b mod n = (((i * 1e12) mod n) + j mod n)) mod n. (This is done on line 195-228 in the code).

I guess the same technique could be used on the HP-15C. Program length might be an issue, though (even if some hundred bytes of PRM? are just for program encapsulation as to preserve the stack). On the other hand this means that implementing Miller-Rabin on the HP-15C would be much more of a challenge than on the HP-42S :-)

Best regards, Erik Ehrling (Sweden)

Re: Miller-Rabin Primality Test for HP-42S

*Message #4 Posted by **hugh** on 13 Nov 2003, 8:46 p.m.,*
in response to message #3 by Erik Ehrling (Sweden)

i was on the same road. the 42s is saved by the mod function being able to handle large numbers. without a mod function (that works), i was stuck trying to find a way to calculate, ahi*bhi*B^2 (mod n) and the cross-product term * B (mod n). maybe i could call a*b (mod n) recursively?

in the end i left it using its own precision, but of course this means i can only verify numbers up to 6 digits (or so). consequently i dropped rounds 7 and 11.

here is my original effort: http://www.voidware.com/calcs/hp15c.htm

Re: Miller-Rabin Primality Test for HP-42S

*Message #5 Posted by **Erik Ehrling (Sweden)** on 14 Nov 2003, 11:30 a.m.,*
in response to message #4 by hugh

Quote:

> i was on the same road. the 42s is saved by the mod function being able to handle large numbers. without a mod function (that works), i was stuck trying to find a way to calculate, ahi*bhi*B^2 (mod n) and the cross-product term * B (mod n). maybe i could call a*b (mod n) recursively?

I think there is a way around this. Actually I implemented the a*b mod n slightly different first, not relying on the mod function being able to handle large numbers. The idea that I came across in an excellent paper ("http://home.pipeline.com/~hbaker1/AB-mod-N.html") was to calculate a*b/n in normal precision giving a floating point approximation. By then calculating a*b - int(a*b/n) * n in double length using the floating point approximation of a*b/n then this is max +/-n from a*b mod n so the result can be checked and n added/subtracted accordingly. Voila!

Regards, Erik Ehrling (Sweden)

Re: Miller-Rabin Primality Test for HP-42S

*Message #6 Posted by **hugh** on 15 Nov 2003, 1:12 p.m.,*
in response to message #5 by Erik Ehrling (Sweden)

i see. you are still stuck with doing a*b - q*n in double prevision though. unless there's some way to get the low bits of a*b from a calculator.

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MoHPC *The Museum of HP Calculators*

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RAM = RAM ?

*Message #1 Posted by **Matthieu T. Vandamme** on 12 Nov 2003, 3:05 p.m.*

Hi HP experts,

does anyone have an experience in RAM effectiveness of program lines (programm effectivity per byte) in different HP calcs ?

E.g. I would be interested in HP42S, HP32Sii, HP48SX/GX, HP49G, HP71B and HP41C/V/X.

- HP32Sii needs 1.5 Bytes minimum per program line. Does this also apply for a HP42s ?

- for example HP41C and HP42S are quite similar concerning their program language and both are using the basic 41C commands:

Does this mean that in average the ratio (bytes/command) is equal for HP41 and HP42 ?

What about the "extra(beyond 41CV)" functions being implemented in the HP42S ? Do they also need only 1 or 2 bytes per command or do they need significantly more (e.g. due to lack of byte table space). Does in average a HP41 XROM command (from plugin ROM module) need the same byte amount like an HP42S "extra" function ?

- What about HP48, HP49, if compared to HP42S and HP41C ? How many (bytes/command) do they need ?

To conclude: Is RAM = RAM ?

What is a 7 kByte RAM of a HP42S compared to a 2.2 kByte RAM of a HP41C. Is it 3.18x ? Or only 2x (for example)?

Can a 128 kByte RAM of a HP48GX hold 58 times as much "program capacity(efficiency)" as 2.2kByte-HP41CV ?

What about the HP71B and the HP75C/D ?

Regards and thanks, Matthieu

Edited: 12 Nov 2003, 3:07 p.m.

Re: RAM = RAM ?

*Message #2 Posted by **Richard Garner** on 12 Nov 2003, 4:30 p.m.,*
in response to message #1 by Matthieu T. Vandamme

It has been awhile sense I have read the 41C manuals, but. As far as I can remember, on the 41C/CV/CX all single function commands need only 1 byte of space and multi function commands take 2 to 3 bytes. Numbered labels need 1 byte, but lettered needs 2 bytes. Numbered goto commands need 1 byte up to 10 and 2 bytes there after and lettered goto commands take 2 bytes. Numbered XEQ commands take 1 byte up to 10 and 2 there after, and lettered XEQ commands take 3 bytes. The same should hold for the 42S sense it is a pocket

sized version on the 41CX with extra memory and functions. I know that others here will check me and tell you if I am wrong.

Re: RAM = RAM ?

*Message #3 Posted by **Veli-Pekka Nousiainen** on 13 Nov 2003, 4:11 a.m.,*
in response to message #1 by Matthieu T. Vandamme

The newer [and newer] models with huge RAM give/take more memory. I usually count the HP 25 as 1, HP 41 as 1.5 and HP 42/75 as 2, the HP 71/48 as 2.5 and the new models with flash-pointers (HP 49G(+)/48gII) as 3, bytes per keyword. Remember that a 4-level stack has autocopy from T, but may "overflow" to force you to use STOrage, etc..

The languages are different and therefore it's difficult to do a general analysis, but the new models have [usually] so much more RAM to compensate (not 41C - only CV/CX - compared to older models AND definately not 28C, only 28S or 48/49 compared to 41CV/CX), that they "win" every time.

Note that PC connectivity, extra cards, internal FlashRAM, etc features can greatly enhance the memory capacity/limitation.

The speed of the new hp 49g+ is great for usability (and for # binary loops) # VPN #

Re: RAM = RAM ?

*Message #4 Posted by **James M. Prange** on 14 Nov 2003, 5:20 p.m.,*
in response to message #1 by Matthieu T. Vandamme

Well, this doesn't completely answer your question by a long shot, but 48SX commands and 48GX commands "inherited" from the 48SX take 2.5 bytes each because they're really 5-nibble addresses. Commands new to the 48GX take 5.5 bytes each because they're really XLIB commands. Other objects and the various program structures have a variety of sizes.

Anyway, in general, when comparing different operating systems, don't assume that more memory means that you can have proportionally larger programs.

Regards,
James

Re: RAM = RAM ?

*Message #5 Posted by **Matthieu T. Vandamme** on 17 Nov 2003, 6:36 a.m.,*
in response to message #1 by Matthieu T. Vandamme

Thank you all for your helpful answers !

BTW, I found out that the HP-48 needs 3 registers (of HP-41 size) to save one real numerical variable. Normally I would expect only 8/7=1.14x but it is 3x as much as a HP-41 needs. Is this true ?

Best, Matthieu

Re: RAM = RAM ?

*Message #6 Posted by **James M. Prange** on 17 Nov 2003, 9:28 p.m.,*
in response to message #5 by Matthieu T. Vandamme

I don't know about the 41, but on the RPL calculators, most real numbers are stored as a 5-nibble prolog,

3-nibble exponent, 12-nibble mantissa, and 1-nibble sign, so that's 21 nibbles, or 84 bits. A few reals, integer values from -9 through +9, can be stored as 5-nibble ROM addresses. Extended reals (used for some internal calculations) have a 5-nibble prolog, 5-nibble exponent, 15-nibble mantissa, and 1-nibble sign, for a total of 26 nibbles, or 104 bits.

The mantissa and exponent are BCD of course. A real's exponent can be -499 to + 499, with negative exponents represented by 1000 - exponent. Similarly, an extended real's exponent can be -49999 to +49999, with negative exponents represented by 100000 - exponent.

The sign nibble is 0 for positive or 9 for negative.

For storage (that is, outside of the Saturn processor), either temporary or long-term, the concept of a "register" doesn't really apply to the 48. Objects of various types and sizes are simply stored one after the other in memory, with every object using a whole number of nibbles.

Keep in mind that the RPL calculators' stack is really a stack of 5-nibble pointers to objects elsewhere in memory. If I "make another copy" of a real number with DUP, OVER, or PICK for example, it just looks like I've made another copy of the real number; what I've actually done is made another copy of the 5-nibble pointer to the real. All of the stack manipulation commands work with these pointers, never with the objects themselves.

Regards,
James

Edited: 17 Nov 2003, 9:31 p.m.

Re: RAM = RAM ? Interesting!

*Message #7 Posted by **bill platt (les Estats Unis d'Amerique)** on 18 Nov 2003, 11:55 a.m.,*
in response to message #6 by James M. Prange

Thanks, Paul! That explains why doing "mem" on the 48 does not return what I would expect, after a "DUP"

Re: RAM = RAM ? Interesting!

*Message #8 Posted by **James M. Prange** on 19 Nov 2003, 5:56 a.m.,*
in response to message #7 by bill platt (les Estats Unis d'Amerique)

> Quote:
>
> Thanks, Paul! That explains why doing "mem" on the 48 does not return what I would expect, after a "DUP"

Umm, actually, I'm James, but no matter. Yes, there's a lot of "smoke and mirrors" behind the RPL magic. Quite a bit more than I've thoroughly investigated.

Having the stack of pointers only does sometimes conserve memory, and perhaps more important, it allows the stack manipulation commands to be fast. And objects in temporary memory are left where they are until a "garbage collection" is done, at which time objects still referenced by pointers are packed next to each other to recover the memory used up by unreferenced objects.

A few other things that sometimes cause unexpected results from MEM are the last stack, last arguments, and last command lines saves.

One of the subtle things about the RPL calculators' memory usage is that if you have any pointer to any object within a composite object (a list, algebraic, or program), then the entire composite is kept in memory. For example, if you generate a list "on the stack" (really in temporary memory), and use GET to extract one element from it, then the entire list is kept in temporary memory for the sake of the pointer to that one element. Similarly, if an object from a program is left on the stack, then the entire program is referenced. NEWOB on the element makes it a new object in temporary memory, with a new pointer to it, so as long as the original composite or any element of it isn't referenced by any other pointer, it's eligible for overwriting at the next "garbage collection". Storing the element in a global or port (but not local) variable, or including it in another composite or an array, also makes it a new object and discards the pointer into the original composite.

But if the element of the composite isn't really an object, but a pointer itself, as in the case of a whole number -9 to +9, then the pointer is copied to the stack, instead of using a pointer into the composite.

Note that if the composite was stored in a global variable, the memory was used anyway. But if I recall a list from a global variable, extract one element from it, and purge the global variable, then the list is copied into temporary memory for the sake of the pointer, so I've only recovered a few bytes as long as I keep the pointer.

Regards,
James

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HP41 Bank Switching question

*Message #1 Posted by **Meindert Kuipers** on 12 Nov 2003, 11:12 a.m.*

I am busy implementing bank switching in my MLDL2000, and that looks pretty good right now. The problem is that I am running out of space in the chosen CPLD (256 macrocells), and the next step is a much more expensive device.

AFAIK the HEPAX module is the only one using all 4 banks in a page. Is there any knowledge of other modules supporting more than 2 pages? I could than make an exception for HEPAX and have 4 banks in one particular page, while all other pages support 2 banks. A limitation would be that HEPAX would work in one particular page. Would this be a problem for any intended users of the MLDL2000?

A more general note: Bank Switching is the last features that I need to fully test in the design. I am busy prototyping and all looks well. Will start working on the final PCB layout soon.

Meindert

Re: HP41 Bank Switching question

*Message #2 Posted by **Ángel Martin** on 14 Nov 2003, 2:55 a.m.,*
in response to message #1 by Meindert Kuipers

Meindert,

I know of no other module or device using more than 2 banks. The HEPAX appears to have been the sole exception in this, as with a few other aspects more (it broke many 41-world barriers).

I see no issues with having it at a fixed address, as long as it still only uses one page.

In fact, "all the others" probably amounts to just one (the Advantage ROM), or how could your MLDL deal with the IR_Printer module and the CX_Functions??

Maybe I'm missing some bank-switched ROMS; after all Zengrange implemented support for bank-switched into their Zeproms, but I'm not aware of anybody who actually used such functionality.

Best, ÁM.

Re: HP41 Bank Switching question

*Message #3 Posted by **J-F Garnier** on 14 Nov 2003, 7:08 a.m.,*
in response to message #2 by Ángel Martin

The W&W RAMBox II (64k) seems to use a non standard bank switching scheme. It uses the ENBANK 1 to 3 opcodes to switch pages between the two 32k RAMboxes. I'm working to emulate it on Emu41. More details soon ...

J-F

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48GX stack too big?

*Message #1 Posted by **Dave Shaffer** on 12 Nov 2003, 11:02 a.m.*

I don't have the manual handy, so this may have a trivial solution.

I noticed my 48GX seemed to be slowing down as I used it. At some point it dawned on me that the stack had hundreds of numbers on it. I'm guessing that the internal bookkeeping to pop the stack each time I enter something is slowing down the whole machine. When I cleaned out the stack by deleting one value at a time (lots of back-arrow key presses!), it seems "better."

Is this normal? Is there a single "empty the stack" command? Is there anything I should be doing as I calculate to keep the stack at a reasonable size?

I agree with some other comments that a stack bigger than 4 or 5 is unnecessary. Can I put it in a limited stack mode?

Re: 48GX stack too big?

*Message #2 Posted by **Randy** on 12 Nov 2003, 11:05 a.m.,*
in response to message #1 by Dave Shaffer

L-shift DEL wipes the entire stack. I usually do that when I pick one up and start to use it.

AFAIK you can't limit the stack. Might be some way in ML.

Of course you could always get the 42S emulator...

Re: 48GX stack too big?

*Message #3 Posted by **Victor Koechli** on 12 Nov 2003, 11:21 a.m.,*
in response to message #2 by Randy

If you'd limit the stack size, the consequences for the calculator would be fatal. The stack you see in the display is *the* RPL system data stack, used troughout the machine by all RPL routines, internal and user made. If you'd limit its size to e.g. 4, like it has been suggested many times, you couldn't even add 1 to (2x-y) anymore, because internally, symbolics are taken apart ("exploded") into meta-objects and then reassembled. Thus, everything in the HP 18/28/48/49 depends on an infinite stack. It's an essential part of the RPL system.

Just hit CLEAR (CLR on the 48SX) or the DEL key once in a while, or whenever you're done with some calculation, and you'll be fine. Alternatively, you could install HPSauce which always displays the stack depth in the status line... ;-)

Cheers, Victor

Re: 48GX stack too big?

*Message #4 Posted by **bill platt** on 12 Nov 2003, 11:05 a.m.,*
in response to message #1 by Dave Shaffer

Hi Dave,

just hit "DEL" once in a while. That will clear the stack.

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HP Series 80 Software

*Message #1 Posted by **Robert Hahm** on 12 Nov 2003, 9:29 a.m.*

I have aquired the following Series 80 software on 3.5" and 5.25" discs:

If anyone with any titles not listed below would like to trade email me.

Thanks

HP85

1. Standard Pac 2. Training Pac 3. Math Pac 4. Text Editing Pac 5. Graphics Presentation Pac 6. General Statistics Pac 7. Basic Statistics & Data Manipulation Pac 8. Regression Analysis Pac 9. Linear Programming Pac 10. Waveform Analysis Pac 11. AC Circuit Analysis Pac 12. Data Communications Pac 13. Information Management Pac 14. File Management Pac 15. Assembler 16. Modem Software 17. Speech Synthesis 18. Graphics Tablet (2 discs) 19. VisiCalc Plus 20. Portfolio Management (3 disc set)

HP86/87

1. Math Pac 2. Demonstration Disc 3. Arcade Games Disc 4. Linear Programming Pac 5. General Statistics Pac 6. Basic Statistics & Data Manipulation Pac 7. Data Communications Pac 8. Assembler 9. Modem Software 10. Speech synthesis 11. CP/M Operating System 12. VisiCalc Plus 13. Word/80 14. File for 80 Series (5 disk set) 15. Series 80 Graphic Presentations 16. Portfolio Management (3 disc set) 17. USCD Pascal

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32Sii 2 var eqn solver not working

*Message #1 Posted by **rbaird1@ihug.com.au** on 12 Nov 2003, 12:33 a.m.*

Hey guys. Can anyone - maybe Ben - tell me if there is a bug in the 2 var eqn solver program for the 32Sii listed in the software section? (http://www.hpmuseum.org/software/322var.htm)

If I add a LBL A to the start I get the checksum of EA51

The comments on the page with the program say the results will be stored in X and Y, but the program does not contain a STO Y instruction so I assume something is wrong.

Running it with A=1 B=1 C=3 G=2 H=-1 I=3 gives 3.0 for X and (predictably) 0.0 for Y (expected X=2 Y=1)

Re: 32Sii 2 var eqn solver not working

*Message #2 Posted by **Eamonn** on 12 Nov 2003, 3:12 a.m.,*
in response to message #1 by rbaird1@ihug.com.au

Looks like there is an error in the listing. Line 35 should be "STO Y".

After changing line 35 to "STO Y", the x value is stored in the X location on the stack and also in the x storage register, accessed with RCL X. The y value is stored in the Y location on the stack and also stored in the Y storage register, accessed with RCL Y.

Re: 32Sii 2 var eqn solver not working

*Message #3 Posted by **Ben Salinas** on 12 Nov 2003, 7:28 p.m.,*
in response to message #1 by rbaird1@ihug.com.au

Yeah, I found a mistake in the version I typed up. That was before I understood almost anything on the 32sii (i was perplexed at how I could store more than 1 program in it at a time since i didnt know about labels, and was amazed a few weeks later when i found teh "if's" (x?y))

Those programs are currently extremely inefficient (I also did not know about teh STO+ and RCL+ and the likes), but the theory is there -ben

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32S Won't Power Up

*Message #1 Posted by **gifron** on 11 Nov 2003, 11:46 p.m.*

I just pulled out my 32S. I worked great when I last had it out - Several months back (stored w/o batteries). I installed good batteries, and nothing happened :^[

What to do??!!

Re: New Problem...

*Message #2 Posted by **gifron** on 12 Nov 2003, 1:13 a.m.,*
in response to message #1 by gifron

Okay - Got it to come on, and think I have figured out the problem. It seems that the lower heat stakes have relaxed over time, and are no longer holding the case together tightly. After it finbally came on, only a few of the keys worked, and only while pushing them really hard. A little more experimenting, and I found that if I apply pressure above the "8" key, most of the other buttons work - the x and / still require a little heavier pressure, and the + and - still don't work.

This seems like an odd explanation though, since these can be taken apart by destroying the heat stakes, and then snapped back together and they work fine. Hmmm...

I wonder if all the contacts are just dirty..?

Any suggestions?

Re: Pioneer keyboards

*Message #3 Posted by **Randy Sloyer** on 12 Nov 2003, 2:20 a.m.,*
in response to message #2 by gifron

Heat stakes are not your problem. Dirt is not your problem. Age is the problem.

You'll find the sweet spot to actually be above the 1/x key. The keyboard connector has lost contact with the logic board. The far right column of keys is at the far end of the connector, right below the 1/x key. It is not making contact.

The problem is the foam pad that holds the two in contact has lost it's spring. You'll have to open the unit and shim the pad if the problem persists. Sometimes the pad is installed out of position making the problem worse. You can remove the pad without damage and reposition if you soak it first with UN-DU (heptane). Let it dry out before reinstalling.

Many times they'll be fine for months after flexing the case or pushing on the bezel in the right spot.

Re: Pioneer keyboards

*Message #4 Posted by **gifron** on 12 Nov 2003, 10:15 a.m.,*

in response to message #3 by Randy Sloyer

Bingo, Randy! You hit the sweet spot, where all the keys work easily, and the tests pass. Can't seem to make a permanent difference yet though - I'll keep working on it. I sure don't want to take it apart.

Thank you.

Re: Pioneer keyboards

*Message #5 Posted by **Ed Look** on 12 Nov 2003, 7:07 p.m.,*
in response to message #4 by gifron

My goodness! Sounds like a 34C, except you have to squeeze all over the place!

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HP-IL story continues...

*Message #1 Posted by **Pavel Korensky** on 11 Nov 2003, 9:05 p.m.*

Couple of days ago, I mentioned here that I got an old rusty HP82161A unit.

I disassembled it, carefully washed the PCBs in warm soap water and I let them dry.

When everything was dry, I desoldered the HP-IL parts (IC, transformer, inductor, capacitors, resistors etc.) and I put them on a prototyping board. I attached this board to my ATMega103 development board, wrote a piece of software and BINGO - I have a nice HP-IL analyzer which is attached to my PC notebook via RS-232 connection. Software is not yet completely finished (I need to implement all HP-IL message tables), but it seems that both IC and transformer are working. The transformer seems a bit dirty, but it works.

During this week, I should receive the 64MB MMC card. When I will have it, I will start to implement the mass storage which will mimic the HP82161A. In the first design, it will be necessary to use the RS-232 port for "tape exchange". There would be 500 "tapes" available on 64MB card, each tape will have name and the LIF files will be stored inside normal DOS/FAT files. This way, it will be possible to write some PC software for LIF files organisation (something like "select those HP-41 files and copy them to file TAPE01 on MMC).

Re: HP-IL story continues...

*Message #2 Posted by **Christoph Klug** on 12 Nov 2003, 5:29 a.m.,*
in response to message #1 by Pavel Korensky

Dear Pavel,

please go on with your work about Hp-IL Mass storage Unit. Also add an battery power supply for portabel applications. Your system would be a nice extension for I/O-Board and IL2000 system (hardware interfacing / measurement / data logging).

If you need, I can make available some IL-Transformers and IL-Chips for your project :-)

Best wishes from Germany - Christoph Klug

Re: HP-IL story continues...

*Message #3 Posted by **Pavel Korensky** on 12 Nov 2003, 4:15 p.m.,*
in response to message #2 by Christoph Klug

Yes, there will be the battery power supply.

I do not need the IL parts. At least not until I will fry the chip which I desoldered from HP82161A. :-)

But, there is another problem. I am planning to release all schematics, sources etc. as a Open Hardware. But the IL chips and transformers are hard to find and it is strange to start the design description with something like "1. Find a broken HP-IL unit and desolder the IL chip and transformer from it...."

I can imagine, that I can duplicate the IL chip (with minor modifications - only digital inputs) in form of CPLD. But I am a terrible analog desinger and I can't figure out, how to design the replacement for a transformer.

Did you tried to develop some analog front-end with optocouplers and/or operational amplifiers ?

Re: HP-IL story continues - request for comments

*Message #4 Posted by **Pavel Korensky** on 12 Nov 2003, 4:24 p.m.,*
in response to message #3 by Pavel Korensky

Today, I wrote some more software and I have one question.

What features do you want to have in Analyzer mode ?

Currently, I am capturing HP-IL messages and the microcontroller is doing the analysis on message level (message classes, data bytes etc.) and it is sending the informations to the PC via RS-232.

Anyone have some ideas what the analyzer should do ? Triggering on some message ? Higher level decoding (printer, mass storage etc.) ?

Way to go, man! was(HP-IL story continues - RFC)

*Message #5 Posted by **Giuseppe Marullo** on 13 Nov 2003, 3:26 a.m.,*
in response to message #4 by Pavel Korensky

Pavel, short form of my comment: see title

Long form: BEWARE: I have yet to see a single printed page about the 41 manuals, so don't flame me too much if you read something completely wrong. I am a rookie here.

HPIL serial dump A HPIL->RS232 "stupid" converter is good, I am interested in building one by myself, but if you have one ready, I will gladly beta test it for you (building one by myself, maybe using a Z8 Encore, a pic or a isopod board. This will avoid me to buy a second HP-41. A bi-directional link would be a plus.

Christoph, please contact me off list, I leave you the guess about what :))

HPIL Sniffer As a sniffer project, you could mimic the features of already available network sniffers, one of the clever one is (was) Expert Sniffer from NAI (formerly Network General). It let you see the same packet of data with different "meanings", one every level, from phisical to application level. It goes even further, diagnosing potential problems, starting from syntoms. Obviously, it is a pricey software, you could simply display the lowest level. Contact me offlist, I could try to write some Windoze code to display frames graphically.

PC CARD "EMULATION" One of the most interesting project I see is a "emulation" of the PC card, so you could connect your 41CV using a serial/usb cable to the laptop without having an ancient ISA bus. One plus could be a support by both EMU41 and the "other forbidden on this site emulator" that should be able to support serial communication with low overhead. Dealing with the serial port is feasible both for DOS applications and windows, so you could bypass problems related to windoze drivers. This is not the same as having the HPIL->RS232 module, obviously. Another choice is USB support, but you could not support dos applications (not easily I suppose). A USB->RS232 should (or better could) do the trick for those that don't have serial ports.

HPIL->YOUNAMEITSTANDARD GATEWAY This could be seen as a gateway to use I2C

devices for example. It should be feasible with standard like II2, 1 wire, S.N.A.P. etc.

Isolation & portability : better have it, no dubt.

HPIL CONNECTORS Yes they are a problem, but please avoid DIN, usually they don't have .1 spaced terminals (protoboarding) and the boxing is way difficult. Conecting and disconnecting them stresses the board and it is not easy to build cables.

Maybe a better reasoning is to find a scheme where you don't have to put transformers for every peripheral you put in the bus, something like a bridge (a gateway) between the current loop of actual hp41 peripherals (they already have transformers) and the *new* hpil/ng, where the long distance and low noise are not so important.

Is not possible to separate the standard from the media? If so, maybe the phisical connection could it be quite different from the original hpil. HPIL over TCP/IP?

There is no need (and indeed a lot of problems) trying to keep the same connectors, AFAIK they are not available.

HPIL CHIP Emulating it is excellent, but this is not the only problem, we need to find a suitable replacement for the transformers too. The chips is somewhat available, but what about the transformers?

I would gladly contribute about what I know, as long it is a hobby paced project, and it is in the GPL or low profit spirit.

If appropriate, I could setup a portal where this kind of discussions are held, just not to poison the forum too much with low level details.

Thank you,

Giuseppe Marullo

Re: HP-IL story continues...

*Message #6 Posted by **James MacPhail** on 12 Nov 2003, 6:41 p.m.,*
in response to message #3 by Pavel Korensky

An optocoupler receiver sounds like a good idea to me; however you (probably) still want a transformer for transmitter isolation, so maybe two of those is easier. I suspect there are a few people with the equipment to help figure out an easy to make (or buy) pulse transformer replacement.

Another problem will be the connectors... Perhaps someone should establish a standard alternate connector, then only one adapter is necessary? I'd consider one of the readily available configurations of mini-DIN connector (similar to a PS/2 keyboard connector), but a DE-9 would likely be cheaper.

Once you add up the problems of obtaining connectors, the IL chip, and transformers, maybe you end up saying you need to scavenge all the parts?

Good luck!

Re: HP-IL story continues...

*Message #7 Posted by **Pavel Korensky** on 12 Nov 2003, 7:28 p.m.,*
in response to message #6 by James MacPhail

This is a question. Is it really necessary to isolate the trasceiver ? We are not talking about development of some commercially manufactured industrial bus. We are talking about the possibility to play with legacy equipment.

The total isolation was perfectly valid during the days when HP developed and manufactured the HP-IL devices. Those devices was used in various environments etc.

But today ? I can imagine the HP-IL loop on the table of some collector, hobbyist or in some area where devices are supposed to do one thing, do it reliably and forever.

The connectors are a problem, you are right. On the other side, you have both types of connectors on each HP-IL cable. So, doing the HP-IL/MiniDIN convertor is cheap and simple. Or better, we can use RJ-45/RJ-11 connectors. They are cheap, you do not need a soldering iron for connecting them to the cable and you can use them also for +5V power distribution.

Maybe I am a bit biased. :-) The main reason for my effort is to have fun and to be able to use my HP-41 in modern environment (like printing the TRACE to my PC, be able to read some old programs from some kind of mass storage or to be able to emulate modules which are too expensive for me on EBay).

Re: HP-IL special parts

*Message #8 Posted by **Christoph Klug** on 13 Nov 2003, 3:10 a.m.,*
in response to message #7 by Pavel Korensky

Dear Pavel,

as I told you, I can make available IL-Terminals, IL-transformers and IL-Chips to your HP-IL Mass Storage Unit project. I have some of them in my stock and I need not all of them for completing the rebuild HP-IL/PC Interface Card or the hardware interfacing projects I/O-Board and IL2000 System.

Therefore your project seems to be a nice and advanced application to give some of my parts a new home - soldered to your pcb :-)))

Best wishes from Germany - Christoph

Re: HP-IL story continues...

*Message #9 Posted by **James** on 13 Nov 2003, 4:40 a.m.,*
in response to message #7 by Pavel Korensky

> Quote:
>
> Is it really necessary to isolate the transceiver?

I'd guess that if the receivers are fully opto-isolated, then you may not need to isolate the transmitter. Though I would suggest having transmitter protection against short circuits and short to ground and +/-12V (or more)

In the case where the item is some instrument that has other connections to the outside world, then there is the risk that the unisolated transmitter will affect the local ground voltage, distorting measurements, etc.

Using other pins on the loop connector to supply power would help establish a common ground

to avoid transmitter/receiver common mode problems. I think it would be a good option for a low power digital system, but it could interfere with sensitive analog measurements. Those could have their own power supply, and if necessary, could be internally isolated from the IL circuitry.

RJ connectors might be a reasonable choice. I find the limited configurations of sockets is a nuisance, and you don't have much choice with the cable, but it is cheap, and twisted pair.

For breadboarding (though one can use flying leads, so I don't feel this is a big problem myself), an 0.050" ribbon cable onto which connectors are crimped is particularly convenient, and gives the choice of easy conversion between dual row headers or DIP plugs (easy breadboarding) and D connectors (cheap, panel mount, and also solder/PCB versions). Long runs can be made with twisted pair/shielded cable.

I suppose this stuff is useful to think about, but until you get close to having a working IL chip replacement, and a quantity of devices to put it in, it may be best to scavenge parts, get some from Christoph, etc. and work on the more immediate/interesting problems.

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No Division -I'd like to see this calculator

*Message #1 Posted by **Bill (Smithville, NJ)** on 11 Nov 2003, 3:27 p.m.*

I've been reviewing the status of various silly rules on acceptable calculators that various schools, tests, etc. have come up with. I ran across the following:

"SAICA does not have a list of calculators that are allowed to be taken into the exam room. The onus is on you to make sure that it does not contain the full alphabet and is not programmable. You basically need a calculator that can add, subtract, multiply and subtract. Examinations Officer "

So... your calculator doesn't need division.....

And oh yes - just remove one of the letters of the alphabet (I'd select "Z") and you're home free.

Re: No Division -I'd like to see this calculator

*Message #2 Posted by **Joerg Woerner** on 12 Nov 2003, 7:44 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

Bill,

You are a HP-Fan - you know Corvus.

Corvus ? Yes the HP-35 clone called Corvus 500.

Aaahhh - you remember! Corvus was the sales brand of Mostek - the chipmaker of the early HP calculators.

I guess they want a remake of this calculator:

Red LED, 6-digits, no multiplication, no division, just plain addition and subtraction. And a fixed decimal point. Okay, let us add one memory. Best would be a contious memory implemented in P-MOS logic. It is soooo power hungry.

You know this cutie ? Just visit it here: http://www.datamath.org/Related/Corvus/CheckMaster.htm

Greetings from the "other" calculator museum,

Joerg

Re: No Division -I'd like to see this calculator

*Message #3 Posted by **Bill (Smithville, NJ)** on 12 Nov 2003, 7:56 a.m.,*
in response to message #2 by Joerg Woerner

Hi Joerg,

I had forgotten about the check book calculators. Thanks for reminding me of the Corvus Checkmaster.

Was it really that power hungry that it took 6 AAA's? You'd only be using it when you balanced the checkbook. I would guess they wanted to achieve several months of use - thus the large number of batteries.

You have a nice museum site and some very interesting calculators.

Re: No Division -I'd like to see this calculator

*Message #4 Posted by **Joerg Woerner** on 13 Nov 2003, 6:46 a.m.,*
in response to message #3 by Bill (Smithville, NJ)

Hello Bill,

The Checkmaster draws 3mA from the batteries - in the OFF-position of the switch. This is 72mAh per day or 14 days per set of batteries. No, they don't sell calculators - they sell batteries. Or was it Xerox-paper or Gilette blades, or printer ink...

Regards, Joerg

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MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #1 Posted by **Bill (Smithville, NJ)** on 11 Nov 2003, 3:07 p.m.*

Just ran across the following MIT Department of Chemistry web site: "Examples of Acceptable Calculators for 5.111 and 5.112 Fall 2003":

http://web.mit.edu/5.111/www/Fall03/calculator.html

Forturantely for the students - the HP-42S is listed as acceptable but not the HP-32SII.

I always wonder how they make the determination that Calculator XX is acceptable but Calculator YY is not.

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #2 Posted by **Dave** on 12 Nov 2003, 10:56 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

I never have understood the fascination here and elsewhere for the 32SII calculator. It seems so limited in capabilities

Edited: 12 Nov 2003, 3:37 p.m. after one or more responses were posted

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #3 Posted by **Valentin Albillo** on 12 Nov 2003, 11:00 a.m.,*
in response to message #2 by Dave

Dave posted: *" I seems so limited in capabilities"*

I beg your pardon, but do you actually mean: *"I seem so limited in capabilities"* or else *"It seems so limited in capabilities"* ? :-)

Now seriously, the 32SII is a wonderful calculator in many aspects, its only killer drawback being it has an utterly preposterous, ultra-small amount of user's RAM, just 384 bytes ! :-(:-(:-(

As every line in a program takes a minimum of 1.5 bytes, this means only a theoretical maximum of 256 lines is feasible. But many other features and functions take a lot more. Real numbers other than small integers take 9.5 bytes per number (1234 for instance would require that amount instead of the typical 4 bytes in most other calculators). "Integrate" requires 140 bytes, plus the bytes taken by your function or equation, plus any necessary setup.

Thus, we sadly find that many other earlier calculators can run rings around the 32SII in terms of feasible programming tasks, such as the HP-15C from HP and most any SHARP programmable handhelds, even the humblest. This unfortunate situation wasn't new: the HP28S was also released with a breathtaking array of advanced, even revolutionary, capabilites, yet only 2 Kb RAM which for that machine amounted to next to nothing.

Best regards from V.

Edited: 12 Nov 2003, 12:27 p.m.

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #4 Posted by **Massimo Gnerucci (Italy)** on 12 Nov 2003, 12:47 p.m.,*
in response to message #3 by Valentin Albillo

Sorry Valentin:

> Quote:
>
> *the HP28**S** was also released with a breathtaking array of advanced, even revolutionary, capabilites, yet only 2 Kb RAM*

That was the 28**C**, HP28S first incarnation... ehm... plastification(?) ;-)

Massimo

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #5 Posted by **Valentin Albillo** on 12 Nov 2003, 12:55 p.m.,*
in response to message #4 by Massimo Gnerucci (Italy)

Massimo posted: *"That was the 28C, HP28S first incarnation... ehm... plastification(?) ;-)"*

Certainly, certainly, a typo on my part. The most obfuscated word I can think of instead of "incarnation" or "plastification" would be "transmogrification" :-)

I saw an HP-28C as soon as it was released and, frankly, was absolutely unimpressed. With that little RAM, new (at the time) RPL language ("transmogrified RPN") and primitive symbolic capabilities it seemed to me more of a 'toy' than a professional instrument as the 41 was. I didn't buy one at the time and still have none though I later acquired an HP28S.

Best regards from V.

Off-topic: vocabulary error

*Message #6 Posted by **W. B. Maguire II** on 12 Nov 2003, 7:57 p.m.,*
in response to message #5 by Valentin Albillo

Valentin wrote:

> Quote:
>
> Massimo posted: "That was the 28C, HP28S first incarnation... ehm... plastification(?) ;-)"
>
> Certainly, certainly, a typo on my part. The most obfuscated word I can think of instead of "incarnation" or "plastification" would be "transmogrification" :-)

"**Plastification**" is not a word. I believe that you both meant "**plasticization**".

Bruce.

Re: Off-topic: vocabulary error

*Message #7 Posted by **Ed Look** on 12 Nov 2003, 10:51 p.m.,*
in response to message #6 by W. B. Maguire II

Forgive me and allow me to weigh in here.

While it is true that even an up to date (American) English dictionary may not have [imaginary] "plastification", I think the intended meaning is different from the [real] "plasticization": the latter refers to a(n increase) change in elastic, mechanical properties of a material whereas I believe Massimo may mean a (degradation) change in quality.

Even back in the sixth grade (and for me, that's a while) a classmate and I, after looking at some new products in the five-n-dime, lamented, "As man invents, everything gets more plastic!" We both understood that he didn't mean polymers or resins; he meant the loss of quality, as to a child, the relative (to metals, etc.) inability to withstand manhandling of items manufactured in some plastics led to his observation!

Upshot: if it ain't a word, it oughtta be. ;)

Memory limitations at model introduction

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 12 Nov 2003, 1:21 p.m.,*
in response to message #3 by Valentin Albillo

32 S II: memory is a severe limitation and the model (sadly) was never upgraded (even the 33 S, having more physical RAM, seems not to be able to take advantage of it)

28 C: Upgraded as "new" model, 28 S. 2 KBy was too little memory.

48 G: Upgraded as 48 G+ (While I don't like RPL machines, I concede that a 48 G is rather useable with "only" 32 KBy)

41 C: Upgraded as "new" model, 41 CV, but the original was of course expandable with Memory Modules, Quad RAM, etc... In my opinion, the original 41 C, with only 64 registers (448 bytes... not far from the 32 S II capacity) was useable but somehow limited until you added extra RAM.

Granted: Less than half a kilobyte was more reasonable in 1980 (41C) than in 2000 (32 S II), and the 41C is more efficient in RAM usage.

It seems that the case for "undersized memory" happened many times in the past.

Just my $ 0.02

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #9 Posted by **bill platt** on 12 Nov 2003, 11:12 a.m.,*
in response to message #2 by Dave

It is the *only * RPN scientific machine produced since the early 90's, and it has all the features (as well as some new ones) as the 11c (and the 34c generally, as well) and enough memory to do many useful programs. And, most functions are only one or two keypresses away. What's not to like? It used to be $59.95 and small and compact. No, it's no 15-c, but it is close enough for most hand calculation tasks!

In short, it was the only RPN machine on the market for the last decade!

Regards,

Bill

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #10 Posted by **Dave** on 12 Nov 2003, 3:42 p.m.,*
in response to message #9 by bill platt

Yeah, just because it was the only one does not make it good. I think some of this boards fascination with the 32SII led to the 33S design choices...

It went to the old 67 style cluttered keypad

Perception that memory access or amount is unimportant

Oh well, I hope HP has future design plans around superior calculator designs.....

Edited: 12 Nov 2003, 3:43 p.m.

32sii

*Message #11 Posted by **bill platt** on 12 Nov 2003, 4:06 p.m.,*
in response to message #10 by Dave

Hi Dave,

I agree that being the only one does not make it good. However, from my own experience, it seemed quite good at the time:

1981: bought 11c for $130 great machine. a marvel.

1995: lost 11c so bought the 32sii. Cost: $60. same amount of program lines. 33 registers instead of 21. All 12 comparisons rather than 8. Alphanumeric prompting. Storage registers alphabetic. Equations, solve (both in equ and rpn) integrate (both in eqn and rpn). Dynamic memory allocation. Vastly improved memory and program management. Downside: keyboard layout not as perfect as the 11c. Felt less expensive (but was!). Could have been much more, at the same price, considering the technology at the time. But when designed (late 80's) may have been unattainable.

So, for an 11c user, the 32sii was a definite upgrade. But as I have read Valentin's posts, (and earlier when a German co-worker showed me a Sharp) I now realize that I could have got much more for my money at the time (95) buying a sharp.

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #12 Posted by **W. B. Maguire II** on 12 Nov 2003, 8:07 p.m.,*
in response to message #10 by Dave

Dave (which Dave?) wrote:

> Quote:
>
> ...I think some of this boards [*sic*] fascination with the 32SII led to the 33S design choices...

Do you really think that the opinions of a literal handful of people on this site influenced HP-33s design choices? That would speak wonders about the influence and power of MoHPC Forum participants. Although I doubt it, I wish it *were* so! Maybe we could counteract the inane influences of the marketing department!

;-)

Bruce.

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #13 Posted by **jonstot** on 16 Nov 2003, 2:34 p.m.,*
in response to message #12 by W. B. Maguire II

My own 'fascination' with the 32SII has very little to do with its programming capability. In fact, I don't believe I've written a program for any of my HP calculators since the first Mac was released ('84, I believe). But I love my 32SII and use it practically every working day. Why the fascination? Simple: ergonomics, esthetics, and RPN. It's small(ish), lightweight, fits in my shirt pocket, it has the old HP-quality feel to the keypad, the color scheme is perfect, it has all the functions I need, and it's RPN (God rest its unappreciated soul). Alas, my 32SII is on its last legs and I'm beginning to panic, what with nothing comparable available now. 33S? You gotta be kidding! And the new graphing calculators leave me unimpressed - too big, too ugly, too complicated for what I need. Now I'm trying to muster the courage to buy a "new in the box" 32SII that will cost as much as an entry-level desktop computer.

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #14 Posted by **Ed Look** on 16 Nov 2003, 6:55 p.m.,*
in response to message #13 by jonstot

Now, I love my 32SII and use it as my main machine (I don't take it anywhere, though, especially given the outrageous prices people ask for it) because it is so much like the 34C. But I think that either the 48G series or 49G series calcs could do, though terribly complicated and more than you might want or need, as they are still RPN with (now an infinite) stack. You don't have registers anymore, but is that too different from storing in a variable? If you do program and use indirect addressing, it could be a pain, but since you don't, it may be more economical than paying a ransom for a 32SII, cute as it is.

A possible solution Hp17Bii

*Message #15 Posted by **Ron Ross** on 17 Nov 2003, 8:32 a.m.,*
in response to message #13 by jonstot

This calculator can be set to RPN, has better stats, More RAM (7 K), and a great Solver. And it has the same keyboard and basic layout as your present Hp32s.

Downside. No Trig, but can be implemented via solver, but not as good as the 32s for a scientific.

And they are still relatively cheap and well made (I doubt if the newest Hp17Bii+ is much better than the Hp10Bii, but I hope for Hp's sake that it is). If the newer Hp17Bii+ is a good quality calculator, it is now on the market to replace (and therefore deflate the value) the Hp17Bii.

Re: MIT Chemistry Course Accepts HP-42s But not HP-32SII

*Message #16 Posted by **Karl Schneider** on 13 Nov 2003, 1:53 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

Bill from Smithville posted:

> Quote:
>
> I always wonder how they make the determination that Calculator XX is acceptable but Calculator YY is not.

My guess is that, in the case of the 32Sii vs. 42S, the "examining board" saw the 26 letters of the alphabet printed on the keyboard face of the former, but not on the latter.

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linux 82240A Emulator

*Message #1 Posted by **Brian Perkins** on 11 Nov 2003, 12:06 p.m.*

Would anyone be interested in playing with a 82240A emulator for linux? I have written something in perl that kind works. You need to have LIRC (Linux Infrared Remote Control) working, and some sort of postscript viewer.

I suspect it would be a fairly simple transition from to an 82240B.

Re: linux 82240A Emulator

*Message #2 Posted by **Holger Weihe** on 12 Nov 2003, 3:22 p.m.,*
in response to message #1 by Brian Perkins

Hello Brian,

I wouldn't have any _real_ use for it, but that sounds interesting. (Don't have a use for my real 82240,too). If you post it, I would like to play around with it.

Holger

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Please vote: Which is YOUR FAVOURITE CALCULATOR ?

*Message #1 Posted by **Statistics** on 11 Nov 2003, 11:37 a.m.*

###################### PLEASE VOTE ####################

1) Which is your favorite calculator ? (give 1 or more with ranking)

############ OPTIONAL (BRIEF) COMMENTS: ###############

2) Why ?

Controversy is welcome. Also non-HP are allowed

THANK YOU IN ADVANCE !

###

Edited: 11 Nov 2003, 12:01 p.m. after one or more responses were posted

Far too simple

*Message #2 Posted by **Valentin Albillo** on 11 Nov 2003, 11:53 a.m.,*
in response to message #1 by Statistics

You can't simply ask for "the best calculator ever built", because there are many specialized calculators for special needs, which really don't compare.

Just for instance, there are financial calculators (HP-12, Sharp PC-1421), scientific calculators (HP-15C, Sharp PC-1350), graphic calculators (HP48/49), computer science calculators (HP-16C), statistical calculators, etc, etc.

IMHO, you can't meaningfully compare a Financial HP-12C calculator versus a Computer Science HP-16C, or the HP-16C versus the HP42S, they're really very different beasts and its kinda comparing apples with oranges.

Thus, I'd suggest that you modify your request to specify cathegories as well: Best Financial Calculator, Best Scientific Calculator, Best Graphic Calculator, etc, etc.

Even so, probably it wouldn't be fair comparing vintage machines versus newer ones: Is an HP42S better than an HP-65 ? Isn't that unfair to the HP-65 ? But I won't go into that ...

Best regards from V.

Re: Far too simple

*Message #3 Posted by **Statistics** on 11 Nov 2003, 12:03 p.m.,*
in response to message #2 by Valentin Albillo

Valentin, you are completely right! Sorry!

I already have changed the formulation. Hope it's alright now ...

Thank you for your advice, best regards, S.

##

For those who read the thread and do not know about what has been discussed here, here is my explanation:

I had asked for

1) the best calculator ever built (your own subjective/personal opinion)

2) your favorite calc

3) if not identical: Why is your favorite not the best calc ? (this may be different although not in general: e.g. "your favorite is the hp-12c because you are a banker, but the best calc is the hp-49g+")

But see Valentin's concerns regarding the formulation of the question. And indeed he is right, so I have changed the text of the voting request.

Edited: 11 Nov 2003, 12:24 p.m.

Re: ### Please vote: WHICH is the BEST CALCULATOR ever built ?

*Message #4 Posted by **Dave** on 11 Nov 2003, 12:05 p.m.,*
in response to message #1 by Statistics

1) What is the best calculator ever built ? (give 1 or more with ranking)

Only one that can be the best is the HP-41 series

2) What is your favorite calculator ?

Why ask after my first answer - the HP-41 series

3) If 1) not equal 2): Why isn't the best calc your favorite ? :-)

Boy these are silly questions - do not accept any other answer other than the obvious - the HP-41 series DUH!

4) Why is the chosen calc the best? (main reason(s) only)

It led the way in many ways and was basically infinitly expandable and was a calculator and not a computational instrument (ie no CAS)

It was fun and has never been topped as a calculator...

Who said we were congenial????

Again .. accept no substitutes or imitations... The Hp-41 series rules and will never be subplanted as the best calculating system ever!

Controversy is welcome.

There is no controversy as there is only one right answer!

Re: ### Please vote: WHICH is the BEST CALCULATOR ever built ?

*Message #5 Posted by **Masao Kinoshita** on 11 Nov 2003, 2:50 p.m.,*
in response to message #4 by Dave

IMHO, the HP 65 was the greatest calculator ever built. No other calculator, AFAIK, got BANNED by the FSU Chemistry department for use on exams.

Re: ### Please vote: WHICH is the BEST CALCULATOR ever built ?

*Message #6 Posted by **Masao Kinoshita** on 11 Nov 2003, 2:58 p.m.,*
in response to message #5 by Masao Kinoshita

IMHO, the HP 65 was the greatest calculator ever built. No other calculator, AFAIK, got BANNED by the FSU Chemistry department for use on exams.

*** The HP 65 was just plain AWESOME in its day!!! *** Later calculators may have been more powerful, e.g. HP 67, HP 41CVX, HP 48SX/GX, but they just did not have the same awe inspiring feeling of the HP 65.

Hp-42s is the BEST ever !!!

*Message #7 Posted by **Ray F.Dutta** on 12 Nov 2003, 9:54 a.m.,*
in response to message #4 by Dave

My choice:

absolutely clear: Hp-42S is much better than everything, than Hp-48, Hp-49, Hp-71b !

It is even MUCH better than the good Hp-41cx !!! (Dave, I cannot understand your extreme vote before although Hp-41 is also a good machine)

WHY ? Because ...

MORE SPEED: Hp42s is 10 times faster than the Hp-41cx

MORE FUNCTIONALITY: 64 kByte of ROM, the Hp-41cx has only 24 kByte of ROM (so do NOT come with the argument of plug-in ROMs ! Hp42s has already all important ROMs implemented !)

MORE RAM: 32 kByte are possible, with Hp-41cx only 6,5 kByte (including 2x XMemory!)

SMALLER FOOTPRINT: Although much better as described above, it is much smaller than Hp-41cx !

Edited: 12 Nov 2003, 12:01 p.m.

Re: Hp-42s is the BEST ever !!!

*Message #8 Posted by **Dave** on 13 Nov 2003, 8:57 a.m.,*
in response to message #7 by Ray F.Dutta

Excuse me, but what good is the increased memory capacity when one has to enter EVERYTHING by keystrokes and there is no way to backup programs?????? Yes the 42S is nice, but it is severely crippled for real use due to this limitation.

Re: Hp-42s is the BEST ever !!!

*Message #9 Posted by **Ray Dutta** on 13 Nov 2003, 9:55 a.m.,*
in response to message #8 by Dave

Yeah, but the Hp-41 is VERY limited at other places!!

It is as slow crook ... !!! You can use it as calc but not really as programmable because technical calculations are too slow.

And ... What is 2200 Bytes ? And if you have XMem, the additional 4200 is only RAMDISK, so you cannot use it as real program space!!

The Hp-42s can be expanded to 32000 Bytes ... WOW!

...and the worst screen I've ever seen (no text)

*Message #10 Posted by **R Lion (España)** on 13 Nov 2003, 12:13 p.m.,*
in response to message #7 by Ray F.Dutta

Re: ...and the worst screen I've ever seen (no text)

*Message #11 Posted by **Ray** on 13 Nov 2003, 12:29 p.m.,*
in response to message #10 by R Lion (España)

Why is the screen the worst ???? I cannot understand ! Look at the ridiculous Hp-41 "screen", 12 digits with 14 segments :-)))). That's much much worse then the great complex number double line display of the Hp-42s.

Ok, forget the graphing. But the rest is good compared to others...

Re: ...and the worst screen I've ever seen (no text)

*Message #12 Posted by **Nelson M. Sicuro (Brazil)** on 13 Nov 2003, 1:23 p.m.,*
in response to message #11 by Ray

The contrast and glare of the HP-42S display is terrible! (the old ones, at least. I have a HP-17BII that uses the same display, but its contrast is much better, the one with a stepped bezel). The capacity and resolution is fine.

For the best contrast ever, I vote for the HP-15C and second the HP-41CV.

Regards,

Nelson

Re: ...and the worst screen I've ever seen (no text)

*Message #13 Posted by **R Lion (España)** on 13 Nov 2003, 6:10 p.m.,*
in response to message #11 by Ray

> Quote:
>
> Why is the screen the worst ???? I cannot understand !

I said that because the contrast: if you adjust it for working on the table, you will see nothing with the calc in hands. But, in spite of it, I think is one of the best calcs in the world.

Re: ### Please vote: Which is YOUR FAVOURITE CALCULATOR ?

*Message #14 Posted by **Arnaud Amiel** on 11 Nov 2003, 4:29 p.m.,*
in response to message #1 by Statistics

TI Little Professor as it is the calc that taught me how to count. My parents got me the LCD one but I was so jaleaous of people with the big LED one. So the big LED TI Little Professor as if you know how to count you don't need calcs so much.

Arnaud

HP 41

*Message #15 Posted by **James-n-Tx** on 11 Nov 2003, 5:58 p.m.,*
in response to message #1 by Statistics

I agree with Dave on all counts. HP 41

James

an interesting variation...

*Message #16 Posted by **hbanner** on 12 Nov 2003, 12:29 a.m.,*
in response to message #1 by Statistics

You could ask what calculator would you take with you (and you can take only one) if you were in a scenario which required some sort of back-up computational device should your main computer go down, say being in an ocean crossing yaught or an orbiting space station. This puts the emphasis on functionality and reliability over aesthetics. Even though I find my personal choice to be as sexy as it is capable.

There can be only one ...

Re: an interesting variation...

*Message #17 Posted by **Arnaud Amiel** on 12 Nov 2003, 3:23 a.m.,*
in response to message #16 by hbanner

In that case it would have to be a slide rule as it has to be small enough not consume any power as I don't know how long I will be stranded and has to survive a nuclear blast. I don't see any hp or other fitting the bill.

Arnaud

Re: an interesting variation...

*Message #18 Posted by **Stephan (Germany)** on 12 Nov 2003, 11:08 a.m.,*
in response to message #17 by Arnaud Amiel

I agree. I'd take my Faber-Castell Novo Duplex. It's made of durable plastics, has all desirable fuctions on it and is large enough to be used as paddle, shovel and to defend yourself.

12345 to delete

Re: an interesting variation...

*Message #19 Posted by **Raymond Del Tondo** on 12 Nov 2003, 2:02 p.m.,*
in response to message #17 by Arnaud Amiel

In that case I'd definitely vote for a Curta, which is a masterpiece of a mechanical calculator, also uses no batteries, and last but not least, it's kinda RPN ;-)

Raymond

Re: an interesting variation...

*Message #20 Posted by **Malcolm** on 12 Nov 2003, 4:51 p.m.,*
in response to message #19 by Raymond Del Tondo

The Curta RULES.

As much as I like my 67 and the 34C the feeling of calculating on the Curta is just sweet.

It feels great looks great needs no batteries and...

you have to *think* to use it

Thanks Malcolm

Re: an interesting variation...

*Message #21 Posted by **Arnaud Amiel** on 13 Nov 2003, 8:31 a.m.,*
in response to message #19 by Raymond Del Tondo

I wish I had a Curta, they seem great but not easy to come by except on ebay where they are not cheap. However, I guess that however well built they are, they must be much easier to break than a slide rule and I guess it is much harder to calculate logs or trigs with them.

Arnaud

Re: an interesting variation...

*Message #22 Posted by **Trent Moseley** on 12 Nov 2003, 3:23 p.m.,*
in response to message #16 by hbanner

How about one of those old hand crank jobs. This is going back a stretch - I remember back in the late fifties or early sixties a salesman came to our office trying to sell a small device made in of all places Liechtenstein! You cranked it backwards to do division. It was small, say about 6 inches wide, 8 inches deep and the height of about 2 inches in front sloping to about 4 inches at the rear. I wonder who made it.

tm

Re: an interesting variation...

*Message #23 Posted by **Frank B. (Germany)** on 12 Nov 2003, 4:06 p.m.,*
in response to message #22 by Trent Moseley

A Curta? More expensive than HP calculators nowadays.

Frank.

Re: an interesting variation...

*Message #24 Posted by **John Mosand** on 14 Nov 2003, 1:34 p.m.,*
in response to message #23 by Frank B. (Germany)

Trent's description doesn't fit the Curta. Must be a different machine.

Re: ### My choice

*Message #25 Posted by **Mike (Stgt)** on 12 Nov 2003, 9:08 a.m.,*
in response to message #1 by Statistics

1) (a) HP-41C and it's successors (20/20 points), (b) HP200LX (20/20), alas successor missing (codenamed Garfield)

2) both fit exactly my needs at their time, the 200LX still today (and on the 200LX runs J-F Garniers emu41 <G>)

Ciao.....Mike

Re: ### Please vote: Which is YOUR FAVOURITE CALCULATOR ?

*Message #26 Posted by **Victor Koechli** on 12 Nov 2003, 11:10 a.m.,*
in response to message #1 by Statistics

Easy:

Favourite: 15C, because of everything.

Best ever: 48GX (overall), 49G (functionality). Probably 49G+ will surpass them both, but I haven't seen it yet. Prime criterium is functionality

Why #1 <> #2: See above.

Yet another 2 cents, Victor

Re: ### FAVORITE

*Message #27 Posted by **Frank** on 12 Nov 2003, 11:38 a.m.,*
in response to message #1 by Statistics

1) the best calculator ever built (your own subjective/personal opinion)

HP-48GX, because it does so much, feels so good, and has the best documentation and programming flexibility.

HP-32Sii, because of its very satisfying ergonomics.

HP-15C, because of it's incredible balance of size, power and simplicity.

2) your favorite calc

HP-16C

3) if not identical: Why is your favorite not the best calc ?

There's nothing else quite like a 16C, and for what it does there's nothing better, but it's not quite general-purpose.

Re: ### FAVORITE

*Message #28 Posted by **Norm** on 12 Nov 2003, 2:48 p.m.,*
in response to message #27 by Frank

Why the HP-34C of course. Because its the best, that's why!

HEY my buddy Ralph is over here, he says add his vote on also. He votes for HP-34C.

Oh, my girlfriend Linda, she says definitely HP-34C, add her vote too.

Wait, Ernie next door, he says be sure to tally another vote for HP-34C.

Oh and then Great-Aunt Edna just spoke up from her rocking chair, she says definitely HP-34C.

Be sure to count their votes also.

Re: ### Please vote: Which is YOUR FAVOURITE CALCULATOR ?

*Message #29 Posted by **Raymond Del Tondo** on 12 Nov 2003, 2:16 p.m.,*
in response to message #1 by Statistics

1) HP-48GX of course, then HP-41 series

2) your favorite calc HP-48GX/G+ , then HP-41CX

Both of them are the best HP calcs regarding the user interface, programming capabilities, expanding, interfacing (ok, the 71B, too;-), documentation, and keyboard reliability & ergonomics .

My 2 Euro-Cents...

Raymond (HP calc user/programmer since ca. 1980)

My vote

*Message #30 Posted by **R Lion (España)** on 12 Nov 2003, 3:55 p.m.,*
in response to message #1 by Statistics

The best calc ever made: 48GX & 15C

The first one if you need a "special", "sophisticated" calculator. The second one if you want a numeric scientific calculator.

Re: ### Please vote: Which is YOUR FAVOURITE CALCULATOR ?

*Message #31 Posted by **Stefan Vorkoetter** on 12 Nov 2003, 4:48 p.m.,*
in response to message #1 by Statistics

Best: Toss up between three: HP-41CX, HP-42S, and HP-34C.

Favorite: HP-34C. Why? I don't know, but I own one of each of the above (and a 32E and 19C as well), and the 34C is the one that I always use.

Re: ### Please vote: Which is YOUR FAVOURITE CALCULATOR ?

*Message #32 Posted by **Ed Look** on 12 Nov 2003, 11:02 p.m.,*
in response to message #31 by Stefan Vorkoetter

Stefan, to me, it's the ease of using it. Having had it for decades, I know every label on every button.

Also, despite the preferences of some for menus instead of extra shifted labels on keys, I think it is faster to make keystrokes using shifted label keys, as on that wondrous 34C. Too bad mine is, well, showing its age. For that reason, I use mainly the 32SII, which to me is a very similar calculator, one reason why I now love that one almost a much. I bought a 48G before the 32SII; when I finally got the 32SII, I was amazed at how "34C-like" it was!

INTERMEDIARY RESULT

*Message #33 Posted by **Statistics** on 13 Nov 2003, 3:13 a.m.,*
in response to message #1 by Statistics

Here is a first INTERMEDIARY RESULT:

BEST* calc ever:

1) HP-48GX (4)

1) HP-34C (4)

1) HP-41 series (4)

4) HP-15C (2)

4) HP-32SII (2)

4) HP-42S (2)

7) HP-49G/G+ (1)

7) HP-67 (1)

7) HP-65 (1)

7) HP-200LX (1)

7) HP-16C (1)

7) TI-Little Prof (1)

*) as most answered on "best calc ever" and not on "my favorite", I used this as listing criterion.

Edited: 13 Nov 2003, 3:42 a.m.

Best calc ever: HP-48GX

*Message #34 Posted by **HrastProgrammer** on 13 Nov 2003, 10:56 a.m.,*
in response to message #1 by Statistics

Then HP-71B, HP-42S and HP-41C/CV/CX ...

Re: Best calc ever: HP-71B

*Message #35 Posted by **Veli-Pekka Nousiainen** on 13 Nov 2003, 1:55 p.m.,*
in response to message #34 by HrastProgrammer

HP-71B is the best My favourite is hp 49g+ Why? I don't want to use too much of the 71B CALC mode, the bits are all ready falling off (-; # VPN #

THE TIMELESS HP-41 SYSTEM

*Message #36 Posted by **Werner** on 14 Nov 2003, 2:02 a.m.,*
in response to message #34 by HrastProgrammer

Dear “HP”(=HrastProgrammer),

yes, of course the HP-48GX is really an admirable machine! Nevertheless, I personally prefer the HP-41 as the No.1. Although it is an older machine based on more ancient technology, I do not think that it is less powerful than a HP-48GX.

So my question:

Is a HP-48GX still really more powerful than a tuned halfnut HP-41CX (using synth. programming and mcode – I know, also a HP48 can utilize such expanded ways of programming), if the following plug-in RAM’s/ROM’s/extensions are also completely or partly connected (or their ROM images have been loaded into an MLDL-RAM) ? :

Double-X-Memory-Module, bank-switched 16k-ZEPROM's, a RAMBOX/MLDL (e.g. W&W or Eramco or HP-41CY, etc. with 32k or 64k or 128k, e.g. with full soft-bank-switching access), HEPAX-Module, CCD-ROM, PPC-ROM, ZENROM, Sandbox-ROM, DAVID Assembler, Forth ROM, Advantage ROM, Wand, Card Reader, IL with periphery and advanced I/O processing like by the IL2000 solution from Christoph Klug.

In the near future the HP-41 System will hopefully be further extended by Meindert Kuiper’s MLDL2000 including very large RAM space for ML+UL+Data+ROM-Images and USB PC interconnection. Internal use of 4-times bank-switching would lead to a huge address space especially if you take into account the high RAM efficiency of HP-41 program language.

With ML/MCode you can fully exploit the internal 13-digit accuracy and can define very fast macros, e.g. for fast large scale vector and matrix transforms or for a fast and convenient HP42S-like complex arithmetic implementation.

Further, the HP-41 System has to be seen in an environment of flanking great and fast emulators like EMU41, Warren Furlow’s V*41, your HP-41E, which can run on a modern 3GHz notebook. In combination with Jean-Francois Garnier’s extremely fast HP-IL emulator EMU41, real and virtual (emulated) IL/41 worlds are perfectly merged into one single domain with all available periphery and ROM resources. It further supports the HP-41 with a sort of ultra-fast “HP-41 Workstation/Docking-Station” that utilizes the same HP-41 language for software development (also perhaps with a nice assembler surface on a PC) and for high-complex or long-term calculations. Such a mixed calc-emu-environment is right according to the motto “hardware – software – it’s all the same” …

The benefit of such a calculator-workstation combination can be illustrated by the following example: E.g. use a real HP-41CX to key in the routines, further use it for data collecting and for full mobile use. And, e.g., use it for a coarse 10 parameter evaluation in, e.g., one minute runtime, then when you have found the parameter space of further interest use your fast emulator/”HP41 workstation” on your notebook-PC and do the same calculation with 20,000 detailed parameters also in one minute only (indeed, an EMU41 or a

HP41E on a 3GHz machine is about 2000 times faster than a normal HP-41 !). The nice RPN program code can exactly be reused on the HP41 calculator and on the “HP41-workstation”.

To conclude:

If you add all these great technical and highly efficiently designed supplements from a decade (1979-1990) of extremely dedicated enthusiasm from user groups like PPC and CCD and from professional third-party companies like VM Electronics, Zengrange, W&W, Eramco, CMT, and if you add great today’s developments - like MLDL2000, IL2000, ROM hardware emulators, HP41 software emulators, the virtual IL loop from EMU41 - to the “Good-Old-HP-41”, then I think that the HP-41 with its “clean”, easy and flexible user interface and internal architecture is THE unbeatable system in the world of HP calculators.

I think that it cannot be beaten neither by a HP-48GX nor by a HP-49G/G+ although especially the HP-48GX with SysRPL and a lot more is really an admirable handheld computing device.

In my personal opinion, the HP-48GX is ranking directly after the HP-41-System as the No.2. HP-48GX has to share its place with the also great HP-71B-System being a superb IL controller and having also wonderful extensions (like Math, Forth, Assembler, etc.).

All other non-open calculators like HP-42S, HP-32*, HP-15C, HP-34C cannot be compared to the classes of open machines and full systems like HP-48, HP-49, HP-71, HP-75, and HP-41. This group is a class-of-its-own, the handheld computing class. It is separated from the class of pure calculators as is the HP-42S. The HP-42S for instance is of course a marvellous and complex machine, but it is “only” a calculator.

Best regards from Germany,

Werner

P.S.: BTW, please further support your HP-41E, not only your nice HP-41X, because the "E" is a great emulator, too. It is extremely fast on a modern notebook, you can do multi-run calculations with highest complexity in near zero time. Please implement a virtual IL loop as already done in EMU41. I think you already did some emulation of IL but as far as I know you have not yet implemented it in your HP-41E ?

Edited: 15 Nov 2003, 3:39 a.m. after one or more responses were posted

Re: THE TIMELESS HP-41 SYSTEM

*Message #37 Posted by **Ángel Martin** on 14 Nov 2003, 3:08 a.m.,*
in response to message #36 by Werner

Werner,

I just printed your message and hung it on the blackboard,. It is *phenomenal*, thanks for your super summary!

Best, ÁM.

PS. Ordered a wooden frame for it already! :-)

Re: THE TIMELESS HP-41 SYSTEM

*Message #38 Posted by **Werner** on 15 Nov 2003, 4:16 a.m.,*
in response to message #37 by Ángel Martin

Angel,

thank you very much for your kind words, I am pleased to hear that from you!

These remarks also refreshed the good feeling that I am not allone with my opinion, although it was already clear to me that there are many HP enthusiasts around who also think that the original technical design of the HP-41 and its further successive evolution over many years has set a standard for handhelds, even more if you look at it as a complete system.

HrastProgrammer, also thank you for your kind comments! Yes, I can understand you well that everyone has his own preferences, my preferences concerning the HP-41 are of couse also characterized by the 1980's decade throughout which I was infected by the "41-virus". The reason for this "41-epidemic" was of course the birth of the new personal computing age (all young guys wanted to play with programmables) but - I believe - ALSO the "heavyweight" of the HP-41 technical design.

Thanks and best regards,

Werner

P.S.: Hrastprogrammer, do you intend to implement HP-IL to your HP-41E ?

Re: THE TIMELESS HP-41 SYSTEM

*Message #39 Posted by **HrastProgrammer** on 16 Nov 2003, 2:23 a.m.,*
in response to message #38 by Werner

Hrastprogrammer, do you intend to implement HP-IL to your HP-41E ?

Not at the moment, I am afraid. I implemented HP-IL in HP-71X for HP-48/49 and it works very well. Perhaps I will implement HP-IL for HP-41X, too (when I will have some time).

I don't work on HP-41E for Windows anymore. It was my developer platform while I have been working on HP-41 emulator for HP-48/49. When I decided to implement some feature in HP-41X, firstly I implemented it in HP-41E for Windows and then reimplement for HP-48/49.

Sorry ...

P.S. Perhaps V41 will have HP-IL support in the future?

Re: THE TIMELESS HP-41 SYSTEM

*Message #40 Posted by **Werner** on 16 Nov 2003, 6:06 a.m.,*
in response to message #39 by HrastProgrammer

Thanks for your answer! Yes, I understand. One has to focus, one cannot do everything as often there is not enough spare time for all those nice projects. It would have been a very good thing because your HP-41E is one of the most powerful and fastest, but I understand ...

You are right, V41 and EMU41 also belong to this group of as powerful PC based emulators and I am happy to have the V41 and the full IL-version from Jean-Francois.

Regards,

Werner

Re: THE TIMELESS HP-41 SYSTEM

*Message #41 Posted by **HrastProgrammer** on 17 Nov 2003, 2:26 a.m.,*
in response to message #40 by Werner

It would have been a very good thing because your HP-41E is one of the most powerful and fastest, but I understand

And it has the most advanced debugger of all 41 emulators. I have an internal (2.00) version and I can mail it to you if you want. It doesn't have HP-IL support and there are perhaps some bugs but it could be interesting to play with it for a little. With no technical support, of course, because currently I really don't have time to work on it :-)

HP-41E Emulator

*Message #42 Posted by **Werner** on 17 Nov 2003, 7:12 p.m.,*
in response to message #41 by HrastProgrammer

Oh yes ... ! :-)

I would be happy if you could send me your 2.0 internal version of your great HP-42E ! It doesn't matter if there are some bugs and that there is no technical support. Any extra item that helps me to step a bit forward is always very welcome! And the good debugger is an important advantage.

At the moment I also have the problem of having no time for this hobby due to my job but I hope that in the future I will find time to realize some ideas for mcode routines. I hope that then I can give something back to the helpful and friendly HP community ... :-) (hopefully!).

Can you send me the emulator to my email address given above (...gmx.de) ? That would be very kind of you!

Thank you very much and best regards,

Werner

Re: THE TIMELESS HP-41 SYSTEM

*Message #43 Posted by **Veli-Pekka Nousiainen** on 16 Nov 2003, 9:06 a.m.,*
in response to message #39 by HrastProgrammer

Currently my favourite would be a 41CV+Card Reader EMU for the 49G(+). I'm willing to betatest that (and a EMU42S, too) in my 49g+. Note that port 1 ERAM is only 128KB on 49g+. # VPN #

Re: THE TIMELESS HP-41 SYSTEM

*Message #44 Posted by **HrastProgrammer** on 17 Nov 2003, 2:18 a.m.,*
in response to message #43 by Veli-Pekka Nousiainen

HP-41X (which has card-reader support built-in) works with only one 128K bank but I haven't tested it on HP-49G+ yet because I don't own one ... Waiting for an HP-49G+ emulator ...

Re: THE TIMELESS HP-41 SYSTEM

*Message #45 Posted by **Veli-Pekka Nousiainen** on 18 Nov 2003, 10:44 p.m.,*
in response to message #44 by HrastProgrammer

Don't hold your breath while waiting for the PC emulator of the 49g+. Mean while I repeat my offer to betatest your programs on a real 49g+ # VPN #

Re: THE TIMELESS HP-41 SYSTEM

*Message #46 Posted by **HrastProgrammer** on 19 Nov 2003, 12:40 a.m.,*
in response to message #45 by Veli-Pekka Nousiainen

I know, developing an HP-49G+ emulator isn't a trivial job, especially due to the lack of information.

I think I sent you demo version of HP-41X for HP-49G some time ago. You can try it on HP-49G+ ...

Best regards.

Re: THE TIMELESS HP-41 SYSTEM

*Message #47 Posted by **HrastProgrammer** on 14 Nov 2003, 8:54 a.m.,*
in response to message #36 by Werner

Hello Werner,

Very nice post ...

It is very hard to judge which one is the best and it is all based on personal preferences. Everyone has some favourites, so do I - it is HP-48GX. This is, of course, only my personal opinion ...

Best regards.

A Tough Choice

*Message #48 Posted by **james (uk)** on 13 Nov 2003, 2:37 p.m.,*
in response to message #1 by Statistics

Very difficult decision between the 34C and the 41CV/CX - by a whisker I guess my favorite is the HP34C because it's just so darn attractive - nice size, looks like I want an HP to look (the keys shout HP at you), that lovely red led display (aaargh I'm turning into Norm!) - there's just something so appealing about it.

However, I'm also a great fan of the 41 - my first HP - and I think that it is unsurpassed as a calculating system when you consider user definable keyboard, alphanumeric programming, rom pacs, the HP-IL interface, card reader or bar code input, etc (plus it doesn't chew batteries like the 34C although a 41 with a red led display (and the high keys) gets my mouth watering) and to top it all, it's also got that HP look (and you just want to pick it up and calculate something, anything, just for the sheer pleasure of using a quality tool) - something that all its successors, other than the Voyagers, lack.

Best

James

FINAL RESULT

*Message #49 Posted by **Statistics** on 14 Nov 2003, 12:04 p.m.,*

in response to message #1 by Statistics

Here is the FINAL RESULT: (nevertheless, if anyone still likes to vote I will update this result later).

As there was more ranking info at the last inputs, I decided to give points: 3 pts for ranking #1, 2 pts for ranking #2, 1 pt for ranking #3, no points for #4...

Calc ranking in points:

1) HP-41C/V/X (20)

2) HP-48GX (17)

3) HP-34C (12)

4) HP-71B (7)

4) HP-15C (7)

4) HP-42S (7)

7) HP-49G/G+ (6)

8) HP-32S/Sii (5)

9) HP-67 (3)

9) HP-65 (3)

9) HP-16C (3)

9) HP-200LX (3)

9) TI-Litt.Prof (3)

Edited: 18 Nov 2003, 9:28 a.m.

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48sx and 41cv app pac manuals

*Message #1 Posted by **art blick** on 11 Nov 2003, 9:59 a.m.*

I recently found a 48sx with a Topcon fc-48 survey card and tds 256k ram card at a flea market. Where can I get the manual(s) for the application pac and ram card?

Included was a 41cv with the following modules: surveying 1 math/stat strc anal x

Are there manuals available for any of these?

I need to replace the spring/contact in the 41's battery pack. Any suggestions for a source?

thank you for any help, art

Re: 48sx and 41cv app pac manuals

*Message #2 Posted by **murfmaster** on 13 Nov 2003, 2:31 p.m.,*
in response to message #1 by art blick

I would just suggest that you go to Google and search for hp41cx stuff and look at those pages.

Re: 48sx and 41cv app pac manuals

*Message #3 Posted by **art blick** on 13 Nov 2003, 2:52 p.m.,*
in response to message #2 by murfmaster

Thanks for the info. I'll give it a shot.

I thought I had gotten lucky when I found the calculators. The 48 was just locked up, and when I rebooted, it came to life. The 41 is in pretty bad shape, but after a little cleaning, it's presentable. Only problem was, when I tried to use the software that was included, I realized I didn't have a clue....sorta typical for us old folks <grin>.

Thanks again for the lead

art

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HP Calculator

*Message #1 Posted by **K. Ethiraj Reddy** on 11 Nov 2003, 9:21 a.m.*

Dear Sir, My brother is a Astrologer He wants a calculator with following functions, 1. Placidus House Calculation. 2. Plants Positions. 3. siderial time Calculators,

If the above product is avalable please send me the details immediatly

Regards,

K.Ethiraj Reddy

ROTFLMAO! Excellent K. Ethiraj! (n/t)

*Message #2 Posted by **bond (uk)** on 11 Nov 2003, 9:39 a.m.,*
in response to message #1 by K. Ethiraj Reddy

;-)

Re: HP Calculator

*Message #3 Posted by **Valentin Albillo** on 11 Nov 2003, 10:05 a.m.,*
in response to message #1 by K. Ethiraj Reddy

Hi K.,

There are a number of astrological programs available in this very Museum of HP, namely:

```
HP-67 Astrology Solution Book (ported to HP-41C)
          Astro 1 - Mean Obliquity of Ecliptic & GST
          Astro 2 - Moon Asc Node, Nutation, Vernal Pt
          Astro 3 - Local Siderial Time, Geocent Lat
          Horoscope Construction
          House Cusps - Campanus Methods
          House Cusps - Koch Methods
          House Cusps - Placidus Method
          House Cusps - Regiomontanus Methods
          House Cusps - Topocentric Methods
          Mundoscope, Campanus
          Mundoscope, Regiomontanus
```

follow this link and scroll down till you find the individual links for each program.

They seem to be available in its original form for the HP-67, and here you'll find the 41C versions, translated automatically using the card reader, so you could run them using either an HP-67, HP-97, HP-41C, HP-41CV, HP-41CX, or an HP-42S.

Best regards from V.

Let me get this straight

*Message #4 Posted by **Mike** on 11 Nov 2003, 10:18 a.m.,*
in response to message #1 by K. Ethiraj Reddy

You want a calculator that has functions that produce bogus results?

Re: HP Calculator

*Message #5 Posted by **Massimo Gnerucci (Italy)** on 11 Nov 2003, 12:15 p.m.,*
in response to message #1 by K. Ethiraj Reddy

Dunno if this does all you need but you can have a look here: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2964100118&category=19267

Massimo

Re: HP Calculator - astrology

*Message #6 Posted by **Tom (UK)** on 12 Nov 2003, 3:34 a.m.,*
in response to message #1 by K. Ethiraj Reddy

You need to find an HP calculator with a random number generator. This is all you need to give you results with the required acuracy for the tasks you mention.

Astrology and Mathematics

*Message #7 Posted by **Tom Sherman** on 13 Nov 2003, 9:55 a.m.,*
in response to message #1 by K. Ethiraj Reddy

The founder of modern trigonometry, including the spherical trigonometry used for positional astronomy, was Johann Muller (known as Regiomontanus), who was an astrologer as well as a genius of mathematics and astronomy. Johann Kepler (of elliptical orbits and Kepler's Laws)was an impassioned astrologer. Isaac Newton had some interest, but was mostly absorbed with alchemy and theology instead.

Astrology has to use the same mathematics as conventional astronomy to predict the movements of the planets, moon, sun, and stars. You and I may reasonably doubt that the movements of the celestial bodies should be interpreted in terms of human destinies, but it is not unreasonable that people of all times might do so. Think of the effects of diurnal cycles and of the seasons upon all life and upon the wind and weather. And modern cosmology and general relativity suggest that the properties of any microcosm are related to the macrocosm as a whole -- that even the inertial mass of the pen in your hand or the molecules in your body is related to the existence of the whole universe around us.

Sounds like a sermon, but sometimes the stars carry me away.

Tom

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Humor: Eavesdropping at KinHPo ...

*Message #1 Posted by **Valentin Albillo** on 11 Nov 2003, 7:56 a.m.*

Hi all, here's some fragments on an alleged discussion at KinHPo's, not so long ago:

```
P.: But J., we need to do something about this, it's plain frustrating
    for the user, having 32 K RAM and being unable to use it ! It just
    doesn't make sense ! Why on Earth would we include a 32 Kb RAM chip
    in the new HP33S and let the user unable to use it ?


J.: We're including that dreaded 32 Kb chip because it's the *cheapest*
    one available. Any bigger or smaller and they cost more, because of
    obsolescence issues. Besides, Marketing said that it would look
    good in the specs sheet, as a sales point. And what d'you mean
    'unable to use it' ? Isn't the chip included or what ? As long as
    it is, they can't sue us.


P.: It is, but we haven't changed the original firmware ... out of those
    32 K, you can use *less* than 1 % for your data, variables and such !
    Not to mention matrices: not only does it lack matrix support in
    firmware, but the user can't write  software to cater for it, as he
    can't even fit matrices that the venerable HP-15C ate for breakfast,
    20 years ago, and in just 0.5 Kb ! It's preposterous !


J.: So what ? At least they can use it for programs, or its internal
    workings or whatever, right ?


P.: But that's hardly so. As it is, the user's got just 26 labels, which
    can't be duplicated and reused, and any non-trivial program will
    need at least a few. With just 26 labels for 32 K, and as we don't
    allow branching to numbered steps, there would need to be more
    than 1 Kb worth of program lines between consecutive labels, on the
    average !


J.: Big deal !


P.: But J., this means you'll run out of labels long before you can use
    that much memory. We actually need to upgrade the firmware, J., to
    provide indirect access to more data registers, more labels, or at
    least let the user re-use the labels or branch to any step ! We did
    it on the HP-34C, eons ago, it even had *automatic* memory allocation
    between program and data, and it only had 210 bytes of RAM, for
    crying out loud !


J.: We-Don't-Change-The-Firmware !! Changing the firmware does *cost*
    money and so reduces any profits this thing can make us, which I
    doubt, so We-Do-Nothing, is that clear ?  Besides, we can always say
    those blasted 32 Kb are used internally, to maximize efficiency or
    remove memory restrictions, or whatever !


P.: But that's not true, J.! The original 32SII firmware was so starved
    for memory that most advanced functions would easily run short of it.
    That's why the Integrate function wouldn't work together with Solve,
    the reverse being true as well, unlike such primitive models as the
    34C, which would indeed allow that. Users know this, and having so
    much RAM they'd logically expect that this restrictions are removed,
    so they can integrate implicit functions or find roots of functions
    defined by integrals. For heaven's sake, the 34C did it, the 15C did
```

```
    it, everyone and his uncle did it ... but the new, 32Kb-33S doesn't !!
    And there's no reason why we don't remove this restriction !


J.: Read my lips, P.: There-Is-A-Reason, and I'm getting real *sick* with
    you don't getting it: any such improvements require some firmware
    changes, big or small. Any firmware changes does cost us money,
    big or small. And any extra costs reduce our profits, big time ...


P.: But the users deserve ...


J.: ... and it goes without saying that if profits aren't as expected,
    *your* head and mine will be up on a pole fast. This is *not* a
    charity, but a profit-driven corporation. C.'s company policy is
    crystal-clear: we must maximize profits, and every department has
    some profitability goals to meet. Do you really think we're making
    any big money selling these RPN things that noone wants ? Do you think
    that it will sell "like mad", despite that stupid phone-like aspect
    and rushed algebraic mode that Marketing forced upon us, to try and
    attract some unsuspecting students ? Would you imagine many a
    respectable engineer or valued professional being caught *dead*
    using something like THIS ?


P.: ... no, not really ...


J.: Well then, stop pestering me with your RAMs and ROMs and firmwares
    and see if you can get some big order for these things. Go !
```

Best regards from V.

ROTFLMAO! Excellent Valentin! (n/t)

*Message #2 Posted by **james (uk)** on 11 Nov 2003, 8:10 a.m.,*
in response to message #1 by Valentin Albillo

;-)

"Our lawyers will be contacting you."

*Message #3 Posted by **C.F.** on 11 Nov 2003, 1:05 p.m.,*
in response to message #1 by Valentin Albillo

Your information is totally false (the engineers intials were not P & J). The information was confidential and not meant for distribution.

Re: Keyboard design costs

*Message #4 Posted by **rsenzer** on 11 Nov 2003, 11:08 p.m.,*
in response to message #1 by Valentin Albillo

... Of course the real cost was the design work in building a calculator keyboard that would prevent carpal tunnel lawsuits.

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HP 48GX: where's the Order command?

*Message #1 Posted by **Bill in Dayton** on 10 Nov 2003, 9:17 p.m.*

I'm trying to switch from a 48SX to 48GX. Does anyone know if the GX has a command to reorder the programs in a directory? On the SX it was [memory][order] after making a list.

The [memory][move]command on the GX only seems to be able to move programs to another directory. Thanks.

Edited: 10 Nov 2003, 9:22 p.m.

Re: HP 48GX: where's the Order command?

*Message #2 Posted by **Graham Wilson** on 10 Nov 2003, 9:29 p.m.,*
in response to message #1 by Bill in Dayton

[left shift] [MEMORY] [DIR] [ORDER]

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Long term storage of calcs.

*Message #1 Posted by **Graham Wilson** on 10 Nov 2003, 9:05 p.m.*

Hi all

Does anyone have any tips about the long term storage of HP calculators? I have a couple of spare machines that I am keeping as backups.

Is it better to remove the batteries (assuming programs are backed up onto paper or PC)?

Is it better to store unused uncharged rechargeable battery packs (such as NiMH or NiCd) in a fridge to increase their life?

Thanks
GW

Re: Long term storage of calcs.

*Message #2 Posted by **David Ramsey** on 10 Nov 2003, 9:13 p.m.,*
in response to message #1 by Graham Wilson

> Quote:
>
> Is it better to remove the batteries (assuming programs are backed up onto paper or PC)?
>
> Is it better to store unused uncharged rechargeable battery packs (such as NiMH or NiCd) in a fridge to increase their life?

Yes and yes.

Re: Long term storage of calcs.

*Message #3 Posted by **unspellable** on 10 Nov 2003, 9:37 p.m.,*
in response to message #2 by David Ramsey

Speaking as a reliability engineer, I would say you should power up the calculator for a few minutes once every other month or so to keep the dielectric formed in any electrolytic capacitors the calculator may have. Between power ups, remove the batteries.

Re: Long term storage of calcs.

*Message #4 Posted by **Paul Marin** on 13 Nov 2003, 6:45 a.m.,*
in response to message #1 by Graham Wilson

Just a question, while you're on the topic of re-chargables. I have n old 33E, which has a battery which will not charge. What can I buy to replace it? Any solutions?

Any ideas grateful

Paul

Re: Long term storage of calcs.

*Message #5 Posted by **David Smith** on 13 Nov 2003, 1:34 p.m.,*
in response to message #4 by Paul Marin

Take your old pack down to the local Batteries Plus, Batteries, Etc or any similar battery store. For a rather reasonable fee, they will take it apart and rebuild it with new cells. I use 1800 maH NiMH cells in all my calculators. They are compatible with the charger and will run the machine for three times as long as the originals (as long as you charge them for three times as long).

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HP 49G+

*Message #1 Posted by **Andreas Archenti, Stockholm** on 10 Nov 2003, 5:19 p.m.*

Hi HP-friends.

I have a problem.. My HP 49G+ will not start any more, it's says "Try to recover memory? Yes or Now". all over again...

I have tried all basic things "at least thats what i think", Reset button etc.

Any ideas, can it be the batteries ?

greatfull for any ideas

Best regards Andreas

Re: HP 49G+

*Message #2 Posted by **r. d. bärtschiger.** on 10 Nov 2003, 5:25 p.m.,*
in response to message #1 by Andreas Archenti, Stockholm

When this happened to my HP-49G+, I removed all the batteries, main & back-up, for about 15 minutes. After this the calculator functioned properly. May or may not work with yours.

rdb.

Re: HP 49G+

*Message #3 Posted by **Tom Scott** on 10 Nov 2003, 7:55 p.m.,*
in response to message #1 by Andreas Archenti, Stockholm

My 49G+ did the same thing when the batteries got low (I think) and I didn't notice. A paperclip reset gave me the "Recover Memory? Yes or No" message. I said yes and it apparently recovered everything and put it in a new directory.

Tom Scott

Re: HP 49G+

*Message #4 Posted by **Jim Chumbley** on 11 Nov 2003, 12:51 p.m.,*
in response to message #1 by Andreas Archenti, Stockholm

I had the same problem, especially under ROM 1.20. When the machine asks for a response to "...Memory? Yes/No" I found that the YES key, F6, was locked. I tried first pressing the F5 key and then the F6 key, and that worked for me.

Re: HP 49G+

*Message #5 Posted by **Andreas Archenti, Stockholm** on 11 Nov 2003, 4:48 p.m.,*
in response to message #4 by Jim Chumbley

Hi friends, I think my problem is solved "for now", I removed all batteries, main & back-up, for the night. Then I changed them for new and made a reset... After this the calculator functioned properly.

Maybe there is a softwere flag that needed to be reseted befor it could start upp again ??

I want to tank all help full peapoles on this great forum romanum!!

Have a great day to you all Andreas

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Need HP 15c

*Message #1 Posted by **Joe Edwards** on 10 Nov 2003, 3:40 p.m.*

Hey folks, some here earlier provided me with a few retail site that sell old HP calcs. Unfortunetly, my system went down and I lost me email. If anyone has info on folks who sell HP15c HP11c HP 41c models I would appreciate it.

Joe

Re: Need HP 15c

*Message #2 Posted by **Raymond Del Tondo** on 10 Nov 2003, 5:54 p.m.,*
in response to message #1 by Joe Edwards

Here you go: http://www.fixthatcalc.com/forsale.htm

Raymond

Re: Need HP 15c

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 10 Nov 2003, 7:05 p.m.,*
in response to message #1 by Joe Edwards

I know this site:

http://www.hpcalcman.com/pages/1/index.htm

Regards,

Nelson

Re: Need HP 15c

*Message #4 Posted by **gifron** on 11 Nov 2003, 8:33 a.m.,*
in response to message #1 by Joe Edwards

http://members.aol.com/tbcab/private/hewlettpackard.htm

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(42S) Why an AIP & no AFP?

*Message #1 Posted by **Sean McNamee** on 10 Nov 2003, 3:39 p.m.*

The AIP cmd on the wonderful 42s puts the Integer Part into the Alpha reg, but there is no cooresponding Fractional Part cmd. I'm going to write it, if there's no built-in method.

Re: (42S) Why an AIP & no AFP?

*Message #2 Posted by **Raymond Del Tondo** on 10 Nov 2003, 5:52 p.m.,*
in response to message #1 by Sean McNamee

Just do FP, then 1E2 * , then AIP ;-) Depending on the decimal places you want adjust the multiplicator. If the 42S had something like MANT, it would be even easier.

Raymond

Re: (42S) Why an AIP & no AFP?

*Message #3 Posted by **Valentin Albillo** on 12 Nov 2003, 7:57 a.m.,*
in response to message #1 by Sean McNamee

Sean posted: *" Why an AIP & no AFP?"*

AIP is an utility function taken from the Advantage ROM, included just for convenience. Its intended use is to quickly and effortlessly append a subindex extracted from the first part of a control number in nnn.mmm format to some matrix element in the Alpha register, for displaying or printing, such as "A(2)= 27.1023". Sample fragment of code (HP-41C, Advantage ROM):

```
50 LBLC           loop to retrieve and display each coefficient
51 MRIJ           recalls the current value of the index
52 "A"            begins to form the prompt to display each coefficient
53 AIP            ... appends the index to the prompt
54 "|-="          ... completes the prompt
55 MRR+           retrieves the value of the current coefficient from the vector
56 ARCL X         ... appends the value of the coefficient to the prompt
57 PROMPT         shows the value to the user and waits for execution to resume
58 FC? 10         are we done showing all coefficients ?
59 GTO C          not yet, go back to display the next coefficient
```

Without AIP you'd need to disturb the control number (23.037) to take its integer part, change the display to FIX 0 and no decimal point, alpha-recall the resulting contents of X to append the first part of the control number to the alpha register, and then probably restore the previous FIX-n display, and RDN, LASTX to restore the control number to its previous state. Instead, a single AIP removes all that drudgery, doesn't disturb LASTX, and makes constructing alpha prompts that much more simple.

As it is, AFP does not exist, but if it did, it would proably do the same with the *second* part of the control number, i.e.: with 23.037 in the X register, some hypothetic AFP would append 37 to the contents of the Alpha register. That probably isn't what you intended.

Best regards from V.

AFP

*Message #4 Posted by **Sean** on 12 Nov 2003, 5:18 p.m.,*
in response to message #3 by Valentin Albillo

OK, I wrote it:

```
01 LBL "FP2A"
02 STO 01
03 RDN
04 STO 02
05 RDN
06 STO 03
07 RDN
08 STO 04
09 RDN
10 AIP
11 RCL 01
12 FP
13 X=0?
14 GT0 02
15 +"."
16 LBL 01
17 10
18 *
19 AIP
20 FP
21 X=0?
22 GTO 02
23 GTO 01
24 LBL 02
25 RCL 04
26 RCL 03
27 RCL 02
28 RCL 01
29 RTN
```

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Was Re: Therapy: Please repeat after me . . .

*Message #1 Posted by **Valentin Albillo** on 10 Nov 2003, 1:10 p.m.*

Paul Brogger posted:

"Therapy: Please repeat after me ... H-P is producing several RPN models again ... "

KINPO is producing several RPN models ...

"The new models, whatever their quirks, represent attempts to respond to customer requests ... "

The new models, whatever their quirks, do NOT represent attempts to respond to customer requests but pathetic attempts to still milk some profits from the dying RPN cow at the least possible cost. They merely copy-paste older models, blindly, inefficiently, so they do not take advantage of the much more modern hardware at all (HP33S's 32Kb RAM, yet only 26 data registers), and besides they do introduce careless bugs (HP12CP 'GOTO'-bug, etc).

"There are positives and negatives associated with everything -- just because the new models don't live up to the old company's standards in all ways, they still have their worthy attributes ... "

There are positives and negatives associated with everything -- but the new models don't live up to the old company's standards in ANY ways whatsoever, they merely copy-paste attributes without any innovation at all, even the ultra-logical ones, yet with degraded quality and usually bug-ridden, no attention to detail or Q&A at all despite the premium price.

"I should resolve to see progress as well as shortcomings, and to balance the one with the other ... "

I will see progress when there IS progress. As of now, I only see shortcomings, so there's no possible balance and further they want me to pay dearly for it.

"I am an H-P calculator addict. I cannot cure my devotion to their old models, I can only control it."

I am NOT an HP calculator addict at all. I'm addicted to nothing whatsoever in this world, and re calculators, I only like and collect worthwhile, quality machines, be they HP, SHARP, Casio, or whatever. I really pity real addicts, that are fully blinded by their mindless addiction and simply cannot see the true facts even if they're painfully obvious to any objective mind.

The moment KinHPo does produce a worthwhile machine, I'll get it. Meanwhile I refuse to surrender to the defeatish view that we must be obligued to KinHPo for the low-quality items it's producing, and thus we must express our thanks by purchasing said lowly-but-expensive items, lest KinHPo would cease production, horror, shock !!

Some years ago, I was indeed indebted to HP's USA-based engineer teams, as they would go to extreme lengths to deliver the absolutely very best, no compromises. They would charge an extremely hefty premium price, but they would deliver, in spades. To these incredible people I'm indebted for life, and I don't regret any of the many cents I spent acquiring their wonderful products.

This I cannot say at all about the current offerings, and such a person as me won't degrade to beg for some lousy

taiwanese-produced RPN crumbs to calm my RPN hunger. I won't worship this false idol, but you can do as you see fit.

Ah, and thanks a lot for your 'well-meant Therapy', but If you think that mocking my rational stand in this theme requires it, perhaps it's you who's in need of major therapy yourself, to cure that serious and blinding addiction you've got.

Best regards from V.

Therapy: Hey, I'm already in treatment!

*Message #2 Posted by **Paul Brogger** on 10 Nov 2003, 2:16 p.m.,*
in response to message #1 by Valentin Albillo

Obviously, your position is well thought out, and your conviction is deeply felt. I applaud your passion!

By the way, I've got a SHARP PC-1360 on the way, based entirely upon *your* recommendation. If it isn't everything you promised, I don't know whether I'll be able to forgive you!

(The last sentence is a joke, too . . .)

Re: Therapy: Hey, I'm already in treatment!

*Message #3 Posted by **Valentin Albillo** on 11 Nov 2003, 6:19 a.m.,*
in response to message #2 by Paul Brogger

Paul Brogger posted:

"By the way, I've got a SHARP PC-1360 on the way, based entirely upon your recommendation. If it isn't everything you promised, I don't know whether I'll be able to forgive you!"

Let's hope that you'll find it acceptable, then. Anyway, though the SHARP PC-1360 is an extremely fine vintage machine, its layout is not that of an standard scientific calculator, but a BASIC-language pocket computer. This means you won't find a [SIN] key or a [LOG] key, say; you must spell them out on the command line, so you don't do

```
30 [SIN]
```

but instead

```
[S][I][N] 30 [ENTER]
```

There are a number of SHARP models that do indeed feature the best of both worlds, featuring BASIC-language programming and full algebraic expressions evaluation plus a numeric keypad which includes calculator-type keys (SIN, etc) and calculator-style evaluation (30, SIN), so that you can use the operating style that best suits the situation and your mood. One such a model would be the SHARP PC-1403H, that also features 32 Kb of RAM (fully usable, unlike the HP33S') and a 24-char alphanumeric display.

Nevertheless, your SHARP PC-1360 is far better, IMHO. It has a wonderful 4-line x 24-char display, bot alphanumeric and 32x150 graphics, pixel-addressable so you can do very fancy displays and menus (even with icons, Windows-style), has full I/O, can drive a printer/plotter with a full set of BASIC commands (including CIRCLE, labels, etc), and can accept up to 64 K RAM expansion. It's also user-programmable in machine language (PEEK, POKE, CALL). A wonderful machine, indeed, if you're even a little 'hacker' you'll have an extremely good time controlling external devices with it and writing lightning-fast machine-code routines.

As for the lack of calculator-type keys like [SIN], you can assign keys on the keyboard to perform any

function or expression you want, when prefixed with DEF, so you'll be able to assign, say "SIN" to some key for faster execution.

Congratulations on your purchase. I hope you'll give it a fair chance and will actually study its possibilities and get fully used to it in order to make a fair judgment. But I want to help as well, so as a bonus to express my appreciation for your brave attempt to break your limits and broaden your knowledge, please post a valid e-mail address (if briefly) and I'll send you my Othello program for your SHARP PC-1360. It uses menus, takes full advantage of the graphics display by showing the 8x8 board at all times, will accept entries either by coordinates or using a graphics cursor, can suggest hints, offers several openings and playing strategies (including a randomized one than guarantees the program will never play the same way), keeps the score, checks for illegal moves, and will do the final counting and announce the winner, all in less than 100 lines of pure BASIC.

It needs at least 8K to run, but it makes an impressive demo of the machine's capabilities, can teach some interesting programming techniques (such as keeping the strategy in an ever-shrinking string array and custom-graphics creation), and last but not least, offers an interesting playing challenge as well. :-)

Best regards from V.

Re: What a generous offer . . .

*Message #4 Posted by **Paul Brogger** on 11 Nov 2003, 12:40 p.m.,*
in response to message #3 by Valentin Albillo

Thanks for your information and offer of help.

I looked at all the models mentioned in your previous post -- the one full of links to various SHARP models.

The 1460's do look more calculator-like and shirt-pocket-portable. In fact, the 1360 was the first of either type (IIRC, 1350/60 or 1460/1/2) that I found for what seemed like a good price on eBay.

I suspect that the lack of an off-unit storage option will be a hindrance at first (and any pursuit of such on my part will be a sure indication of continued interest).

I look forward to an email exchange.

I've included a near-valid email address with every single post I put up here -- just take the "NoHormel" out of the email address in the link above, and fire away. (I mangle it in what seems to me to be a pretty obvious manner in a so far successful attempt at avoidng spam.) BTW, The Hormel Co. is the maker of the widely-loathed "Spam" meat product for which unwanted email has been named. (If you already knew that, I'm sorry if I sound condescending.)

-- Paul B.

Re: Was Re: Therapy: Please repeat after me . . .

*Message #5 Posted by **bill platt (les Estats Unis d'Amerique)** on 10 Nov 2003, 2:44 p.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin,

I bought some extra 20s calculators some time ago--because I felt that, in the long run, the algebraic logic was less of a problem than the potential of having a bad keyboard. In other words, I don't mind using algebraic--especially a nice one like that 20s has (swap, last, 10 storage registers, keystroke programming)--if it means

that the buttons are good, the machine is reliable, and the results can be trusted and verified by good documentation etc.

You are right about the false idol business. If I had my druthers, I guess I would start a new calculator company--and build them in Europe or Canada, where there are dedicated workers willing to produce a good product, less liablity and business/CEO bloat, and ultimately more interest in the business community in making things. Unfortunately, in the US, there is no interest in making things anymore--the financial markets shy away from manufacturing.

(Norm: your comments too, please)

So, that is what is so special about the HP's we know: they are the last in a long line of great American ingenuity in the industrial age. The new HPCOMPQ or whatever is not the same, and we should vote with our pocketbook.

Regards,

Bill

Re: Was Re: Therapy: Please repeat after me . . .

*Message #6 Posted by **Michael Meyer** on 10 Nov 2003, 10:15 p.m.,*
in response to message #1 by Valentin Albillo

Am I addicted?

I have no desire to purchase calculators just for the sake of buying....and I turn down opportunities daily. I'm a collector, and I'd add the newer HP's only if I could purchase them for what they're worth to me... (not much).

But I love the antiques. I have gone to some lengths to complete a collection of HP models up until and including the Pioneer series. And I have trouble going to bed at night if I've received a non-functional HP in the mail that I know I can repair....

Well, I guess I'll get back to basics here in defining "addiction":

I very much enjoy and get a euphoria from the restoration and use of the beautiful machines of the past. I definitely have a degree of "craving", and even some "withdrawal" when I haven't enjoyed the hobby for awhile. Still, I enjoy the whole realm of the collection: obtaining, restoring, and then learning to use each model. I'll even pull a different machine off the shelf and play with it for several days. Luiz calls them, "his babies", and they do have special meaning to me.

I'll propose that not all "addictions" are unhealthy, but it may simply be a bastardized use of the term; most of us are "addicted" to love, family, etc.

(BTW, I think one of the biggest addictions in modern days is the addiction to refined carbohydrates: sugar. But that's another topic.)

I applaud anyone who is free of all addiction, but I would propose that some are healthy. But again, it may simply be my definition. Would "obsession" be better?

I do have a couple of cheaper, newer HP's in the collection, if nothing else to historically document the decline in quality over the years. They were gifts-- non-functional upon receipt.

If addiction is a blind obsession, then hopefully I'm not addicted. But, is a purposeful and historical collection an addiction? If so, I'm not alone... example being the very site we're on.

I'm not trying to be contrary; just commenting on the term. I'm still missing some key machines, but I have to wait until the time and price is right.

Michael

Just as I was saying . . .

*Message #7 Posted by **Paul Brogger** on 10 Nov 2003, 10:30 p.m.,*
in response to message #6 by Michael Meyer

The good, philosophical doctor (with the fine license plate) wrote:

"*... I'm still missing some key machines, but I have to wait until the time and price is right.*"

I rest my case. Repeat again, "I am an H-P calculator addict. I cannot cure my devotion to their old models, I can only control it."

;^)

Re: Was Re: Therapy: Please repeat after me . . .

*Message #8 Posted by **Juan J** on 10 Nov 2003, 11:55 p.m.,*
in response to message #6 by Michael Meyer

When referring to Oppenheimer, the late Edward Teller used to say that while he did not question his knowlegde, he did question his loyalty and judgement. The quote is not exactly literal, and no offense is intended, but this comment has come to my mind lately when reading Valentin's posts.

Your arguments are good and your reasoning is remarkably solid, Valentin. As one of the contributors wrote, I would much like to attend a lecture of yours in Mathematics. Your knowledge is certainly valuable. But...

"Addict" is a very delicate word to use, and care should be taken with it. Maybe I am wrong, but most of us take pleasure in dealing with our machines, have fond memories about them, enjoy using and repairing them, among other things. And we all prefer RPN when it comes to dealing with a calculator. Yes, it was an efficient way of using limited memory space; yes, it provided intermediate answers that enabled us to track our calculator results better and yes, it is becoming a thing of the past. Yes, calculations can be made a thoudand times faster on a PC. And yes, HP as we knew it is gone. But a user turned into collector is no freak hunting after every HP calculator he/she finds, and is definitely not a person who deserves pity (which in turn, is another word to be used with caution.)

If me or any other RPN/HP enthusiast likes to collect, restore and enjoy, it is because we choose to do it, be it because of nostalgia, efficiency or whatever reason. From our point view, it is a nice activity or hobby or pastime, you name it. And nobody should label other people's likes using words that can become harsh if used without proper caution.

A wise man/woman always knows when to behave properly. And how to state his/her position both carefully and tactfully. We all know what happened to Teller and Oppenheimer, and we all know better than that.

Re: "Addict"

*Message #9 Posted by **Paul Brogger** on 11 Nov 2003, 12:43 a.m.,*
in response to message #8 by Juan J

I think I was the first person to use "addict" in connection with this discussion -- and it's not the first time I've caused offense with ill-considered humor.

Please accept my apologies, any who may have taken my "cute remarks" as an affront.

'Addict' ?

*Message #10 Posted by **Valentin Albillo** on 11 Nov 2003, 5:32 a.m.,*
in response to message #8 by Juan J

Hi, Juan J:

Juan J posted: *"'Addict' is a very delicate word to use, and care should be taken with it [...] nobody should label other people's likes using words that can become harsh if used without proper caution."*

First of all, thanks for your mesurate, non-flaming reply. Things can always be discussed politely and there's never any excuse to resort to personal attacks, and this forum's contributors and contributions are the finest example I know of.

That said, as Mr. Paul Brogges has already admitted, he was the one who mentioned the term "addict", not me, implying that I was one, even if it was an unsuccessful attempt at humor. Now, for me, "addict" is indeed a very strong word which has nothing to do with me, but might be applied to a number of HP fans, see these dictionary definitions and judge by yourself:

```
ad·dic·tion

    1. Compulsive physiological and psychological need
       for a habit-forming substance

    2. The condition of being habitually or compulsively
       occupied with or or involved in something


 Source: The American Heritage® Dictionary of the English
         Language, Fourth Edition
         Copyright © 2000 by Houghton Mifflin Company.

    1: being abnormally dependent on something that is
       psychologically or physically habit-forming

    2: an abnormally strong craving

 Source: WordNet ® 1.6, © 1997 Princeton University
```

I honestly think that (2) and (2) above do apply to many, many, many HP fans, in relation with their calculators. They spend an inordinate amount of time using them, collecting them, repairing them, talking about them, reading news and forums related to them, buying books about them, scanning eBay and adds sections for them, browsing the Internet for anything on them, and eagerly posting and reading any topics related to them. Can you see the pattern ?

Anyway, my definition of "addict" and "addiction" is probably stronger than the one in the dictionaries. For me, an addict is a person whose rational judgment is strongly biased by the addiction itself, to the point where the person can no longer see objective truths if they contradict the object of his/her addiction, and will invent whatever excuses and reasonings he/she finds comfortable with to justify it, even if they don't make any rational sense. Such a person loses objectivity, is 'blinded', and will even take decisions that are objectively wrong as long as they fit with the addiction, truth and sound insight take second place.

That, I don't want to become.

Best regards from V.

Re: 'Addict' ?

*Message #11 Posted by **Michael Meyer** on 11 Nov 2003, 2:15 p.m.,*
in response to message #10 by Valentin Albillo

Valentin,

I see your point. Defined in terms of loss of judgment, "addiction" is a bad state for collectors.... (see some of the insane prices paid in the past for these calculators. I'm glad, as a collector, that we're in a bit of a lull right now on eBay).

It's how I functionally define the difference between mania and hypomania: loss of judgment.

In the milder definitions; one of a compulsion, I fit it to a degree. I certainly spend some time on it, but it doesn't consume me, and hopefully hasn't clouded my judgment.

Well, maybe a little. <grin> I'll always be an open-minded skeptic. (I was born in Missouri, USA... "SHOW ME.")

Be well, Michael

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To Arnaud and Luiz

*Message #1 Posted by **Juan J** on 10 Nov 2003, 12:42 p.m.*

Hello Arnaud,

I received the manual you sent me and appreciate it. Thanks you so much. I am not sure if my confirmation message made it to your mailbox, so I am posting it here.

Hello Luiz,

I've been trying to reach you lately but haven't been able to contact you. Could you please drop me a note? I have some questions for you.

Hello, Juan!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 10 Nov 2003, 3:56 p.m.,*
in response to message #1 by Juan J

Hey, my friend; are you well?

Please, be my guest:

lcvieira@quantica.com.br

Nice reading from you. I hope your health is recovered.

Best regards.

Luiz (Brazil)

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Just found this new 35S prototype;)

*Message #1 Posted by **Thomas Radtke** on 10 Nov 2003, 12:36 p.m.*

http://www.creationindigital.com/album_pic.php?pic_id=192

- full metal case w/ some design elements from earlier models, locked by just one screw (to clean the interior from Cola, read on) - very small and slim - pcb mounted on rubber sockets to survive heavy shocks - best ever color scheme borrowed from 20S - memory limited stack (32kB? more anyone?) - two-line display - extended keystroke programming similar to 32SII functionality, new: messages appear above the input prompt; some other minor modifications were made to allow for a tiny user interface - programs can be assign to three CuSTom keys - root solver with further developed CAS, minimizes the use of the secand algo (hi Linda;), interface exactly the same as on 18C - Levenberg-Marquardt model fitting - MENU key toggles anti-boring full-screen menu and stack view - introduces some 'delay' functions e.g., pressing MENU >=1s gets you back to the menu root - menu tree contains the complete functionality for statictics (incl. hypothesis tests), matrix and vector calculations, equation solver etc., some often used functions are also on the keypad - OO operators to be used on any datatype - introduces the 'Set' datatype including intersection, union, A\B etc. - full range of coordinate systems including geodesic (degree,min,sec) system - IrDA and USB - speech generator, '5' key w/ vertical bar, braille pattern on some operator keys (not shown;) - plasic keys mounted on a matrix; seperated from capacitive sensor layer by a protective sheet resistant to Cola, US-beer and other agressive chemicals - increased availability by omitting Minehunter game - Optionally available cowcatcher to be mounted at the top of the calc for use on track; make sure to have your seat aligned accordingly

Beside some new features, this calc assembles the power of the 48/49 series plus extras and the ease-of-use of an 32S(II) into a truly pocket sized quality designer case where form perfectly follows function. Took three days to design:). Non-destructive comments welcome.

Thomas (beeing bored and having way too much time)

Re: Just found this new 35S prototype;)

*Message #2 Posted by **Mark Ordal** on 10 Nov 2003, 1:44 p.m.,*
in response to message #1 by Thomas Radtke

If the HP35S becomes a reality, I'll be buying one! It really sounds like what some of us were hoping the 33S would be. So much so, that I can't help but wonder if the "photo" of the 35S isn't just someone's 3D rendering of what a pocket-sized HP calculator OUGHT TO BE!

The large ENTER key seems particularly suspicious to me.

Oh well, I can only hope that this is the real deal. (-:

--Mark

Re: Just found this new 35S prototype;) re: x^2 key

*Message #3 Posted by **Bill Wiese** on 10 Nov 2003, 2:06 p.m.,*
in response to message #2 by Mark Ordal

Hi... Please please have an [x^2] (x-squared) key - with it as the main (unshifted) function.

My 32S has sqrt(x) as the primary func, w/x^2 as a shifted func, which is not a keystroke saver: sqrt(x) should be the shifted func.

Bill Wiese
San Jose CA

Re: Just found this new 35S prototype;)

*Message #4 Posted by **Raymond Del Tondo** on 10 Nov 2003, 4:40 p.m.,*
in response to message #1 by Thomas Radtke

Hi,

this is a great thing! Congratulations!

Let me add some comments. I'd swap the 'CPLX' and '+/-' keys, and in the position of your 'y^x' key I'd set the backarrow/clear key, of course;-)

Regards,

Raymond

Re: Just found this new 35S prototype;)

*Message #5 Posted by **Thomas Radtke** on 11 Nov 2003, 8:05 a.m.,*
in response to message #4 by Raymond Del Tondo

Hi Ray,

thanks!

I have the bs/del functions on shifted keys. Stack entries can be dropped with the 'on' key.

Thomas

Re: Just found this new 35S prototype;)

*Message #6 Posted by **jimc** on 10 Nov 2003, 8:37 p.m.,*
in response to message #1 by Thomas Radtke

Is it April 1st? ;)

I'd buy one tomorrow!

12345

Re: Just found this new 35S prototype;)

*Message #7 Posted by **Graham** on 10 Nov 2003, 9:43 p.m.,*
in response to message #1 by Thomas Radtke

Thomas
Well done!

Your design looks so much more professional than the (yuck!) "cowcatcher 33S"
And I like its small size and that I can easily open the machine to clean or repair it
HP, take a hint please.

Re: Just found this new 35S prototype;)

*Message #8 Posted by **Juan J** on 11 Nov 2003, 12:10 a.m.,*
in response to message #7 by Graham

Could a clock/timer function be added? Like the good old 41CX time functions?

Re: Just found this new 35S prototype;)

*Message #9 Posted by **Arnaud Amiel** on 11 Nov 2003, 4:01 a.m.,*
in response to message #7 by Graham

Given that the majority of customers target for this kind of clac would be high school students, could you please add a cowcatcher design, brand recognition is very important for the youth market. And could you please also make sure that the calc can be openned as it would be all too easy for the young ones to fiddle with it and break it. Call it 33s to show that it is not as upmarket as the 35s and I will buy it.

Arnaud

Re: Just found this new 35S prototype;)

*Message #10 Posted by **Thomas Radtke** on 11 Nov 2003, 8:15 a.m.,*
in response to message #9 by Arnaud Amiel

Hi Arnaud,

you mean it should _not_ be possible to open it and you're right of course. Well, your ideas are really great. Such machines would sell like hot cakes. Back to reality, I don't think the 33S will have too much success. The younger people can impossibly be so much targeted on non-ergonomic devices. But then there are some quite strange cell phones too. Hmmm...we'll see.

Thomas

Not bad, Tom! But...

*Message #11 Posted by **Karl Schneider** on 11 Nov 2003, 12:12 a.m.,*
in response to message #1 by Thomas Radtke

--- I have some questions:

1. I see nothing about graphing, despite the hi-res display. If it isn't why use 4 buttons for directional-arrow functions?

2. How does "CPLX" work?

-- 32Sii: "Just Plus? No, *Simon Says* Complex Plus"

-- 42S: "C->R and R->C"

-- 28C/S: "A full menu -- C->R; R->C; Re; Im; Conj; Sign; Mag; R->P; P->R; Abs; Neg; Arg"

3. Why is "Hyp" so prominent and not adjacent to the trigonometrics?

That product-design biz ain't so easy, is it? ;-)

Re: Not bad, Tom! But...

*Message #12 Posted by **Thomas Radtke** on 11 Nov 2003, 8:00 a.m.,*
in response to message #11 by Karl Schneider

Hi Karl,

the CPLX button is needed when there is no explicit complex datatype (how should the software decide whether there are four reals or two complex on the stack?). Might not be true on the 35S:). Up'n'down is for stack navigation.

You're completely right, the product design should certainly take more time than a few days:). But in the end I will never be in a position to bring such a device to the market.

Thomas

Re: Not bad, Tom! But...

*Message #13 Posted by **Nelson M. Sicuro (Brazil)** on 11 Nov 2003, 10:11 a.m.,*
in response to message #12 by Thomas Radtke

I still prefer the usage of complex numbers of the HP-15C and the functions that 'decide' if a result can be a complex one of the HP-42S. The only 'complex' function is the one that you can enter a complex number, like the I on the 15C, using a complex stack (full 4 entry)...

Can this design be modified to the 'landscape' HP-15C-ish format??

Regards,

Nelson

Re: Not bad, Tom! But...

*Message #14 Posted by **Valentin Albillo** on 11 Nov 2003, 10:44 a.m.,*
in response to message #13 by Nelson M. Sicuro (Brazil)

Nelson posted:

"The only 'complex' function is the one that you can enter a complex number, like the I on the 15C, using a complex stack (full 4 entry)..."

The HP-71B/Math ROM also does it quite well:

```
COMPLEX Z, V
Z = (2,3)*(4,5)/(6,7) + SIN((1,1)) - EXP((2,5)^(3,2))
V = SQR(Z) + SINH(Z) * LOG(Z)/TANH(Z) - ABS(Z)
PRINT POLAR(Z), RECT(Z), CONJ(Z), PROJ(Z)


COMPLEX SHORT A(10,10), B(10,10)
MAT A = ((2,5))
MAT B = A*A
MAT PRINT USING 'C(2D.D,2D.D,"i")'; A


COMPLEX X(40,40), Y(40,40), Z(40,40)
MAT X = SYS(Y,Z)
```

```
IF Z # (0,0) THEN CALL XREFINE(Z, (1E-5, 1E-5)) ELSE 'DONE'


DESTROY ALL @ OPTION BASE 1 @ DIM P(6) @ COMPLEX R(5)
MAT INPUT P
MAT R=PROOT(P)
MAT DISP R
```

By the way, "complex stack (full 4 entry)" should be " ... plus complex LastX"

Best regards from V.

Re: Not bad, Tom! But...

*Message #15 Posted by **Nelson M. Sicuro (Brazil)** on 11 Nov 2003, 11:14 a.m.,*
in response to message #14 by Valentin Albillo

Yes, I forgot the LastX...

The entry format of the 71C is great for a computer-like calculator, but for a numeric calculator (7 segment display?) the 15C is very good. I don't know the complex functions of the (?) Math Pack (/?) for the HP-41 is better or not.

P.S.

I have all three (15C, 42S, 41CV), and the best keyboard is a mix of the mechanics of the 41CV and the 42C's layout with the "landscape" orientation of the 15C, with 2 shifts and less menus, in my humble opinion... I don't have any fancy 3D-rendering software to do a visual on it, I'll try some day on Photoshop...

Best regards,

Nelson

Re: Not bad, Tom! But...

*Message #16 Posted by **Valentin Albillo** on 11 Nov 2003, 11:36 a.m.,*
in response to message #15 by Nelson M. Sicuro (Brazil)

Hi, Nelson:

Both the Math ROM and the Advantage ROM complex functions are implemented in user code (RPN), as a 2-level stack and thus can't compare at all with the HP-15C's native ones. The only classical machine that compares is the 42S, though it can't enter 4 complex numbers on the stack at a time directly, which the HP-15C can.

Assuming you haven't got an HP-71B, you really should. They're very affordable, even on eBay, and it's a very pleasant, inmensely powerful machine, with a keyboard second to none. If you can get one with extra RAM and a Math ROM, that's a winning combination. A Forth/Assembler ROM would top it all ...

Best regards from V.

Re: Not bad, Tom! But...

*Message #17 Posted by **Thomas Radtke** on 11 Nov 2003, 2:24 p.m.,*
in response to message #15 by Nelson M. Sicuro (Brazil)

Hi Nelson,

would love to see your 'landscape' solution since I like these designs too. However, I do not own one and don't know if they are usable in single-hand action which would be important for me (coffee mug in one hand and no space left on the desk, that is;).

Thomas

Re: Not bad, Tom! But...

*Message #18 Posted by **Nelson M. Sicuro (Brazil)** on 11 Nov 2003, 3:06 p.m.,*
in response to message #17 by Thomas Radtke

I'll try to design one, I just haven't much time now.

I use my HP-15C mostly in my desk, but with only one hand isn't much good. If you use it as a "gamepad", holding with two hands and pressing the keyboard with your thumbs, is very good!

Best regards,

Nelson

Re: Just found this new 35S prototype;)

*Message #19 Posted by **Ed Look** on 11 Nov 2003, 2:04 a.m.,*
in response to message #1 by Thomas Radtke

If you might want to make a version exactly the same, but called 34S and gave it a dot matrix red LED display (no rechargeable NiCds, please) and sell it only to the forumites!

I'd buy both!

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AT&T Information Systems

*Message #1 Posted by **Morey** on 9 Nov 2003, 10:47 p.m.*

Why are there so many HP-75C computers that say AT&T Information Systems one em? Whay did AT&T use them for?

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HP95LX/200LX IR reception

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 9 Nov 2003, 9:57 p.m.*

Hi to all,

I need to know if the IR receptor of the HP-95LX or/and HP-200LX have the capability of receive RED-EYE HP printer format. I know that they can transmit. I'm planning to build a software to "read" print-outs from my HP-42S and HP-17BII to read their ROMs. I cannot use another way right now, as the only IR receivers that I have is on the palmtops, I don't have any HP-48xx calculator.

Thanks!

Nelson

Re: HP95LX/200LX IR reception

*Message #2 Posted by **Bill Smith** on 10 Nov 2003, 12:44 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

I'm not sure i exactly understand your question, but will give it a shot.

There are several programs at SUPER for the IR port. One of them causes the 200LX to emulate an HP "red eye" (i think the 82240B). I will look through my own collection and see if this can be dug up, should you not be able to find it on the web any more.

best regards, bill

Re: HP95LX/200LX IR reception

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 10 Nov 2003, 12:56 p.m.,*
in response to message #2 by Bill Smith

I'm searching a way to the 200LX (or 95LX) to receive IR printings from the HP-42S and 17BII "emulating" a printer. If I can get enough info on how the IR works I can do a program myself in assembler or Turbo Pascal to it. If is already a program that do that, it'll save some time.

Best regards,

Nelson

Re: HP95LX/200LX IR reception

*Message #4 Posted by **Bill Smith** on 10 Nov 2003, 9:11 p.m.,*
in response to message #2 by Bill Smith

After looking through a couple programs, i think i agree with Mikes post. the program i recalled was for printing to a red eye.

i do recall reading posts a few years back, and running some trials of my own. i used a 41 with the IR module, and was able to filter using a couple escape sequences some of the goobledygook from a PRP to a file on the 200LX which seemed sorta useful, until i suddenly had a 82164A which worked straight up.

best of luck

bill

Re: HP95LX/200LX IR reception

*Message #5 Posted by **Mike (Stgt)** on 10 Nov 2003, 4:21 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

AFAIK there is a program from Thomas Rundel to print a screen shot of the 200LX to an IR-printer. But up to today I did not find a program neither for the 200LX nor the 95LX to receive the IR signal from "Blinky" (the IR printer ROM for the HP-41) or the Pioneer calculators. If you find some or do one on your own, pls let me know (see at http://ourworld.compuserve.com/homepages/NutEm/nutem.htm#re). BTW, I asked some experts and none did bite the hook, one even doubts if the timers of the 200LX are stable enough to decode a one-way IR transmision. There is an article in this HP-museum which advices to use the sound card of a PC as stable timer.

Ciao.....Mike

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HP-75 power adaptor

*Message #1 Posted by **Adam** on 9 Nov 2003, 9:04 p.m.*

does anyone know where i can get a power supply ac adaptor for an HP-75?

-adam

Re: HP-75 power adaptor

*Message #2 Posted by **Tom Sherman** on 9 Nov 2003, 9:31 p.m.,*
in response to message #1 by Adam

Adam,

It is the same as for the HP-71 or HP-41 or their printers, etc: HP 82059D battery charger. There are usually many available on eBay for $10-15.

If you have old battery packs, keep them. They can be re-built with new cells. See the articles at the HP Museum.

Tom

Re: HP-75 power adaptor

*Message #3 Posted by **db(martinez,california)** on 9 Nov 2003, 10:11 p.m.,*
in response to message #2 by Tom Sherman

There are is an overabundance of that model right now on ebay, with boxes. Some guy must have found a trailer load. Search for hp calculator adapter.

Re: HP-75 power adaptor

*Message #4 Posted by **Adam** on 9 Nov 2003, 10:46 p.m.,*
in response to message #3 by db(martinez,california)

The HP-75C uses an Hp-82041B/C/D adaptor according to this site and the Hp-82041A that is on ebay should not be used. So i guess im looking for an Hp-82041B/C/D.

Re: HP-75 power adaptor

*Message #5 Posted by **Tom Sherman** on 10 Nov 2003, 9:13 a.m.,*
in response to message #4 by Adam

Adam,

Look on eBay for alexandracarter selling the "HP Calculator 82059D Charger" @ $9.95 plus $4 shipping, or for anyone else selling the HP 82059D. You won't go wrong: it fits the 41, 71, 75, and

all sorts of peripherals.

I don't know where this 82041 number came from -- perhaps it was an early number that HP assigned to it. But 82059D is what you want today.

Tom

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Calculators used in firefighting

*Message #1 Posted by **Renato** on 9 Nov 2003, 5:19 p.m.*

This ebay auction for a HP-71B includes:
"US Forest service Notebook Guide for using HP-71B for calculating Fire behavior".
It also includes four modules, two labeled "SINGAPORE FIRE BEHAVIOR", and two labeled "SINGAPORE FIRE DANGER RATING".

This auction for a TI-59 includes a software module labeled "FIRE BEHAVIOR NFDRS".

Both came in a hard case, with matching printers and accessories.

Looks like US National Forest Service used calculators for firefighting, and they contracted custom software development from HP and TI.

Does anyone know anything about it ? It is not quite interesting as the HPs in space, but a very interesting usage of calculators. Must have been replaced by a ruggedized notebook in a hard case - can you imagine a firefighter having to deal with a Windows crash while working at a California forest fire ? Ouch...

Try an HP-33S for firefighting.

*Message #2 Posted by **NH** on 10 Nov 2003, 3:23 a.m.,*
in response to message #1 by Renato

Try an HP-33S for firefighting. It would make a good shovel because if you mount it to the end of a wooden handle, its kind of shaped like one.

Re: Calculators used in firefighting

*Message #3 Posted by **James-n-Tx** on 10 Nov 2003, 8:57 a.m.,*
in response to message #1 by Renato

Check the following site for more information on National Fire Danger Rating System

http://www.seawfo.noaa.gov/fire/olm/nfdrs.htm

It is more for pre-planning, establishing when to implement burn bans, increasing staffing level, ect. It takes into account the temperature, humidity, moisture content of the fuel (brush), amount of fuel.

I have never seen one used on the front lines but the only fires I have been involved in are East Texas woods fires. No comparison to the fires in California.

Calculators are also used for hydraulics calculations on pumper operations, friction loss, pressure at the nozzle, ect.

James, Captain, Grapeland VFD

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HP 17BII Plus

*Message #1 Posted by **Post a New Message** on 9 Nov 2003, 2:23 p.m.*

I was about to make a move on it but I saw that the thing got trashed on several Amazon reviews. Whats the consensus here, is this calculator really a piece of crap?

Re: HP 17BII Plus

*Message #2 Posted by **Raymond Del Tondo** on 9 Nov 2003, 4:25 p.m.,*
in response to message #1 by Post a New Message

If you have a chance to try it in the store, just do it, and build your own opinion;-)

Raymond

Re: HP 17BII Plus

*Message #3 Posted by **Scuba Diver** on 10 Nov 2003, 11:33 a.m.,*
in response to message #2 by Raymond Del Tondo

Well, I contacted HP Canada to find out where I could try one. The 17BII+, 48GII and 49G+ will only be available via special order through Staples Business Depot.

So, the closest thing to trying a 17BII+ is the 10BII!

I was thinking about ordering one, but I'd really rather hear from some others users first, so if anyone has any insights, please share them!

Is the keyboard any better than the 10BIIs?

B.

Re: HP 17BII Plus

*Message #4 Posted by **Veli-Pekka Nousiainen** on 14 Nov 2003, 6:08 a.m.,*
in response to message #3 by Scuba Diver

The new keyboards have a tactile feedback, but they do make a lot of noise (can't use in a library) despite the short comings they are much faster/have more memory or both (49g+, 17BII, 12C Platinum) # VPN #

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Hp 42s newbie Q:

*Message #1 Posted by **Sean McNamee** on 9 Nov 2003, 2:18 p.m.*

How do I store using the Y stack register indirectly? If I press STO, then '.', I get the IND or 'ST Y' choices, but using 'ST Y' stores to the Y register (directly), and pressing IND removes the stack register options... ? Thanks

Re: Hp 42s newbie Q:

*Message #2 Posted by **Holger S.** on 9 Nov 2003, 2:34 p.m.,*
in response to message #1 by Sean McNamee

That's easy: Just type (STO) (.) (IND) (.) (ST Y) Isn't it a marvelous device? It works just as it should. I didn't even need to look up the manual to figure it out in seconds. Try that with a 48..

Re: Hp 42s newbie Q:

*Message #3 Posted by **Sean McNamee** on 9 Nov 2003, 3:43 p.m.,*
in response to message #2 by Holger S.

That us cool - thanks!

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Hepax Rom Box on ebay

*Message #1 Posted by **Emmanuel, France** on 9 Nov 2003, 8:05 a.m.*

I have some experience but it's the first time I see this sort of Eprom Box for HP-41. I think how to program its 27C256. Please visit: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3056777108&category=11713

Re: Hepax Rom Box on ebay

*Message #2 Posted by **TI-joe59** on 9 Nov 2003, 9:26 a.m.,*
in response to message #1 by Emmanuel, France

Maybe this can help:

Another hepax rombox showed up at ebay already in August, see

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=11713&item=3041863180

An hp expert/collector (?, I think he is one, his ebay alias is "hp-collector") won the auction, so he is certainly able to give you all the technical information you still need...

Re: Hepax Rom Box on ebay

*Message #3 Posted by **Matthias** on 9 Nov 2003, 10:56 a.m.,*
in response to message #2 by TI-joe59

Emmanuel and I are very familiar.. He has seen my item on our meeting in September... I won the unit and you can see it on my homepage.

Matthias

Re: Hepax Rom Box on ebay

*Message #4 Posted by **TD** on 9 Nov 2003, 1:46 p.m.,*
in response to message #3 by Matthias

what the hell is a hepax rombox? is it worth to bid on the item? price is already high, 80 bucks or so

Re: Hepax Rom Box on ebay

*Message #5 Posted by **Raymond Del Tondo** on 9 Nov 2003, 4:21 p.m.,*
in response to message #4 by TD

Depends. It's a 16K EPROM box for the HP-41, and for a collector, it can be nice to have;-)
Judging from the design, it's at least twenty years old.

Raymond

Re: Hepax Rom Box on ebay

*Message #6 Posted by **Emmanuel, France** on 9 Nov 2003, 4:27 p.m.,*
in response to message #5 by Raymond Del Tondo

Hand made !!! For me (user) it can be nice to have it too. ;o)

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Pioneer model question?

*Message #1 Posted by **Mike Brady (San Francisco, USA)** on 8 Nov 2003, 11:45 p.m.*

Given the serial number is stamped on the back of the calculator's case, is it also stamped inside the calculator? Cause, I've come upon a unit where the outside serial number is physically gouged out. Since HP kept records of owners and their serial numbers, might this unit be stolen or what? Any comments?

Re: Pioneer model question?

*Message #2 Posted by **John Limpert** on 9 Nov 2003, 1:47 a.m.,*
in response to message #1 by Mike Brady (San Francisco, USA)

I would be suspicious. I can't think of a legitimate reason for someone to erase the serial number. There are ways of recovering a defaced serial number if it's stamped into metal. They probably wouldn't work on plastic.

Re: Pioneer model question?

*Message #3 Posted by **Raymond Del Tondo** on 9 Nov 2003, 5:20 a.m.,*
in response to message #2 by John Limpert

Hello,

I've seen various HP calcs with scratched serial numbers. In most cases these are returned and later remarketed units.

Raymond

Re: Pioneer Serial Numbers

*Message #4 Posted by **Randy Sloyer** on 9 Nov 2003, 8:04 a.m.,*
in response to message #1 by Mike Brady (San Francisco, USA)

There are no identifying numbers inside Pioneers. The serial number on the case back is the only one.

I have seen several with obscured serial numbers as well, I believe Raymond is correct that HP did this with returned units that were later resold.

Re: Pioneer Serial Numbers

*Message #5 Posted by **John Stewart** on 10 Nov 2003, 6:18 a.m.,*
in response to message #4 by Randy Sloyer

I was in sales at HP Canada for 19 years so got to see many things. Wes Pulling was for a long time the service manager for the calculator group. In many cases the customer got only his original case returned, but everything inside had been replaced. As a result S/N's may not match.

The Character "S" in the middle of the S/N indicates built in Singapore. If the character is "A" then it is

built in America.

I have a 67, 75 & two 71B's. HPIL on one of the 71B's includes a mag tape, 9114B & interface to a PC. One of the 71B's has a 96K RAM from Handheld Products. I use it to keep track of my bicycle miles.

Just now beginning to have keypad problems with the 67 which I have used since 1975. Anyone have some ideas?

Cheers, John Stewart

Re: Pioneer Serial Numbers

*Message #6 Posted by **Veli-Pekka Nousiainen** on 14 Nov 2003, 6:16 a.m.,*
in response to message #4 by Randy Sloyer

They are most probably warranty repair units. HP does not sell used goods. Sometimes you may stumble on a blank serial. Keep it - it's a collectors item. Some workers did not engarve the serial (by mistake...or lazyness/lack of time?).

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Help with HP-42S

*Message #1 Posted by **Steve in Seattle** on 8 Nov 2003, 9:43 p.m.*

Help. My father just gave me a 1985 HP-42S calculator. The batteries were dead so I put in new 1.5 volt batteries and all it does is constantly beep which I think it is suppose to do when there is an error. Is there a way of resetting the calculator. I keep trying to put the new batteries in and it keep doing the same thing,... beeping. The only way to get it to stop is pull the batteries out. Thanks Steve in Seattle

Re: Help with HP-42S

*Message #2 Posted by **Raymond Del Tondo** on 8 Nov 2003, 10:14 p.m.,*
in response to message #1 by Steve in Seattle

Are you sure it is an HP-42S ?

Could there be a stuck key, which forces the beep?

Raymond

Re: Help with HP-42S

*Message #3 Posted by **Steve Mathews** on 8 Nov 2003, 10:21 p.m.,*
in response to message #2 by Raymond Del Tondo

Raymond I am positive its an HP-42S RPN Scientific calculator. I checked the buttons and they all seem to be depresssing and springing back out. Thanks for the response.

Re: Help with HP-42S

*Message #4 Posted by **John Limpert** on 8 Nov 2003, 10:53 p.m.,*
in response to message #3 by Steve Mathews

Try removing the batteries and briefly short circuit the battery terminals inside the calculator with a piece of wire.

It's safer...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 8 Nov 2003, 11:05 p.m.,*
in response to message #4 by John Limpert

... keeping the batteries in the compartment while briefly shorting the calculator's terminals. If this procedure is briefly executed, as John mentioned, the batteries will not be damaged and no more than 4.5 Volts will be applied to the batteries terminals. This way, the chances for an ESD (ElectroStatic Discharge) and consequent damage to the calculator are fairly reduced.

Just an additional information.

Luiz (Brazil)

Re: Help with HP-42S

*Message #6 Posted by **Steve in Seattle** on 9 Nov 2003, 12:16 a.m.,*
in response to message #4 by John Limpert

Thanks John. You sure it won't hurt the calculator??

Re: Help with HP-42S

*Message #7 Posted by **John Limpert** on 9 Nov 2003, 1:28 a.m.,*
in response to message #6 by Steve in Seattle

It shouldn't cause any problems.

I double-checked the HP-42S Owner's Handbook. Here is what it says:

Now turn the calculator back on. If it does not function, you might have taken too long to change the batteries or inadvertently turned the calculator on while the batteries were out. *Remove the batteries* again and lightly press a coin against both battery contacts in the calculator *for a few seconds*. Put the batteries back in and turn the calculator on. It should display **Memory Clear**.

Thanks for the Help with HP-42S

*Message #8 Posted by **Steve in Seattle** on 9 Nov 2003, 3:26 a.m.,*
in response to message #7 by John Limpert

Thanks a lot John I really appreciate the help. I will give it as try.

If I am not wrong...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 8 Nov 2003, 10:56 p.m.,*
in response to message #3 by Steve Mathews

Hi, Steve;

some time ago, one of our contributors mentioned this sort of symptom, and in his case (was it Randy Sloyer?) it was necessary to resolder the RAM chip.

I cannot tell you for sure, but that's what came to my mind right now. This is sort of a "final solution", but may bring your 42S back to life. These pioneers (HP27S, 42S and 17B/BII) are quite fearless, and they generally survive to soldering.

Opening the case is another story, and many guys in here have the skills and experience to share, if you wanna try it.

Success!

Luiz (Brazil)

HP-42S Help from Luiz

*Message #10 Posted by **Steve in Seattle** on 9 Nov 2003, 12:25 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Thanks Luiz Trying to take it apart and soldering it is probably over my head. Is there someplace we could send it in for repairs?? I think I will try the battery terminal short curcuit first.

Re: HP-42S Help from Luiz

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 9 Nov 2003, 12:54 a.m.,*
in response to message #10 by Steve in Seattle

Hi, Steve;

I read here some guys mentioning a sort of "repair center", not an HP repair center, that offers service for some HP calculators. Both HP41 and HP42S are included.

The fact is that (sadly) HP no longer offers service for the HP42S. The only way is trying the "off-line" repair centers. I myself repaired some HP42S, and I also upgraded at least five units to 32KBytes RAM. That's why I remember reading about the continuous beep. BTW, to those interested on this sort of upgrading, I found compatible 32KRAM chips in some "ancient" HD boards. No, they are not MFM units, instead some 170MBytes to 480MBytes IDE units. I'm collecting the HD's and related chips ID's so I can further search for their characteristics.

I'm sure you'll find people closer to you that will help you in any way you need. Anyway, be sure that I'd help as well, but as I mentioned, my spare time is "none". I think I'll be ready to get my daily HP-related activities back after the mid December, while I'm resuming some HP-related activities in the course.

I'm just resting for a while as I'm writing a brief tutorial (in Portuguese) related to LaTeX instalation and use in a Linux environment. And it's already 3:50 AM in Brazil. I'm taking a nap and getting back to the keyboard in a few hours, if you don't mind.

Success!

Luiz (Brasil)

Re: HP-42S Help from Luiz

*Message #12 Posted by **Graham Wilson** on 9 Nov 2003, 2:51 a.m.,*
in response to message #10 by Steve in Seattle

Steve
You might want to investigate Fixthatcalc.com:
http://www.fixthatcalc.com/
if none of the suggestions work.
I haven't sent any repairs to Fixthatcalc, so can't give a recommendation. Perhaps others who have used them can give feedback.
Hope you get it working -- the 42S is a great machine.
GW

Re: If I am not wrong...

*Message #13 Posted by **Erik Ehrling (Sweden)** on 9 Nov 2003, 4:14 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

This behaviour - where the 42S beeps constantly - is exactly the same problem as I had when upgrading one of my 42S's to 32K RAM. The reason then was that one of the legs of the new RAM

chip was not soldered sufficiently.

So, if nothing else helps, I would suggest attempting a 32K upgrade :-) (Probably, Randy Sloyer could help you with that if you feel uncomfortable opening up the calc yourself).

Best regards, Erik Ehrling (Sweden)

Re: Help with HP-42S

*Message #14 Posted by **Mike Brady (San Francisco, USA)** on 9 Nov 2003, 12:47 a.m.,*
in response to message #1 by Steve in Seattle

I'm no expert, but I remember reading in the archives that when the HP-42S calculator goes into it's beeping mode, it can mean one of two things:

First: the calculator has a self protecting and anoying feature, as it sounds off automatically (beeping) warning you that my batteries are low and I need changing now! before I loose my continous memory and you loose your mind. Persistant little bastard thinks it's a smoke detector!!! Actually, when the calculator is off, it can detect a low-battery condition and an internal system flag is set which will make the calculator beep non-stop. So make sure you have some FRESH batteries handy, Silver Oxide batteries, i.e. Energizer's 357/303 also known as "357BP" or Duracell's D303/357B are best, or FRESH alkaline Duracell's PAX76A675AB also known as "76A" will do too. Also make sure the battery terminals are free of any corrosion or hand oils, handle the batteries by their edge, use a little alcohole and Q-Tip to clean the battery contacts and faces if you fingered them.

Any way: Resetting the Calculator is simple and it does not matter if the calculator is ON or OFF: Simply hold down the EXIT key while you press and release the SQUARE ROOT key once, then release the EXIT key. Repeat if necessary. That should stop the beeping and the display will show either "Machine Reset" in the top line's Y registry or in your case "Memory Clear", since it's been without power for a long time. Press the EXIT key to clear the display and your ready to go.

Also: If you unknowingly turned the calculator ON while the batteries were out, the calculator can misbehave. Remove the batteries and lightly press a coin against both battery contacts in the calculator for a few seconds. Put the batteries back in and turn ON the calculator. The display should say "Memory Clear". Reset the calculator as needed.

Second: is your calculator could have an open connection somewhere inside, maybe between the LCD and the PCB, and it will need servicing. One of the guys receintly posted his story of having to re-solder his do-it-yourself 32K memory chip exchange upgrade in order to stop his calculator from beeping, as he was not able to reset his calculator after his first soldering job. After re-soldering, he corrected an unknown bad solder connection and was able to get his calculator to comply with the above reset procedure.

I think the following is still valid. You can contact Calculator Support: Hewlett-Packard, Calculator Support, 1000 N.E. Circle Blvd., Corvallis, OR 97330, USA, (503) 757-2004, 8:00 a.m. to 3:00 p.m. Pacific Time, Monday through Friday

Edited: 9 Nov 2003, 3:23 p.m. after one or more responses were posted

Re: Help with HP-42S

*Message #15 Posted by **Steve Mathews** on 9 Nov 2003, 11:00 a.m.,*
in response to message #14 by Mike Brady (San Francisco, USA)

Mike Brady Thanks for the great help Mike, San Francisco. is a great town with lots of smart people. Oh, by the way, thats where I was born. Thanks again.

Re: Thanks to Everyone for Help with HP-42S

*Message #16 Posted by **Steve in Seattle** on 9 Nov 2003, 6:03 p.m.,*
in response to message #15 by Steve Mathews

I have tried everybody's suggestions, bought new batteries, did the reset buttons by pushing down on the exit key and the squareroot sign key, shorted the battery terminals with and without batteries installed and it still beeps. Just a wonderful thanks to everyone for the suggestions. Great website you got here with responsive smart people all over the world. Maybe my last resort is to contact Randy Sloyer for repairs. Does anybody have his email address? Otherwise I will be selling it on EBAY ID (smatgo2pv) and buying a new one.

Steve in Seattle, The Boeing Engineer.

HP-42S Repairs

*Message #17 Posted by **Randy Sloyer** on 9 Nov 2003, 6:44 p.m.,*
in response to message #16 by Steve in Seattle

DON'T SELL IT!!

I just caught up with this thread and would like to clarify some points in Mike's post:

1) The 42S does not have a smoke detector feature. There is no beeping alarm to warn of low battery voltage. I don't know where he might have read that, but it just ain't so. The low battery alarm is an annunciator on the LCD, it does not beep. It is also not terribly reliable either. Just ask anyone who does a lot of I/R printing. The 42S will prevent you from printing due to a low battery but the low battery annunciator never comes on until it's too late to save memory contents in many cases.

2) On and SQR ROOT together do a soft reset with no loss of memory contents. It's only useful when you have a run-away looping program. A hard reset can be done holding down the E+ and XEQ keys together and then pressing the ON key. If that doesn't work, the of course the coin reset trick is the best way to start at ground zero.

3) A loss in connection between the logic board and LCD? Huh? What does that have to do with a beeping machine? Dead pixels maybe...

It has been my experience that a beeping 42S has a fractured solder connection on the external ram chip, typically pin 14 or 15, or that the ram is bad. It is the power-up self test that detects the loss of external ram and starts the beeping. A very simple test is to press on the back of the calculator directly behind the 4 and 5 keys then try turning it on while you press. If it powers up okay, you've got a cracked ram connection.

Dave has been kind enough to list a link to my website here in the "Repairs & Batteries" section. As it is my policy not to solicit repair work, I leave it to you to you to click through and find the details if you want outside help. If you know it's the ram connections and you're comfortable with resoldering a surface mount device, there is a very good piece in the Articles section on how to open a Pioneer by Paul Brogger.

PS: Are you the Boeing Steve I skied with in NZ back in '85?

Re: HP-42S Repairs

*Message #18 Posted by **Steve in Seattle** on 9 Nov 2003, 8:24 p.m.,*
in response to message #17 by Randy Sloyer

Randy Your the man, the hard reset did it. No I am not the Steve you went skiing with. You just saved me the cost of a repair or a new calculator. Thankyou so much for great advice. I'm a Mechanical Engineer at Boeing and if you are ever in Seattle, I'll buy you a beer. Steve Mathews At Boeing Thanks again.

Re: HP-42S Repairs

*Message #19 Posted by **Randy Sloyer** on 9 Nov 2003, 8:42 p.m.,*
in response to message #18 by Steve in Seattle

The Steve I skied with was a Boeing Structural Engineer. I guess the world isn't THAT small!

I would not discount the possibility that one or more of the ram connections are fractured. The power-up beeping is a sure sign. They do tend to be intermittent. Squeezing the case may restore the connection for days, weeks, months, who knows how long. It's one of the more difficult problems to find as you need at least 5 to 10X magnification to see the cracks.

Check out the used 42S prices on eBay, I think you'll find you'll want to keep yours in good running condition.

Re: HP-42S Repairs

*Message #20 Posted by **richard** on 10 Nov 2003, 10:01 a.m.,*
in response to message #19 by Randy Sloyer

I couldn't resist adding a cheer to all of the above! I'm a 42s guy and have had the beeps once (after a calc was in checked luggage when flying). It was while ago so I was able to call HP service in the UK and was very nicely told about removing the batteries and shorting the contacts. It worked...though the "Memory Clear" message was not a happy sight.

Generally, I change the batteries once a year whether they need it or not...unless the total voltage is still right up above 4.5v. Checking batteries occasionally with a voltmeter, which is easiest to do while they are still in the calculator, has spared me any similar problems for a long time. I have discovered batteries with a total voltage around 3v still working the calc. nicely.

I think I've only seen the low-battery indicator twice in 10 years or so. The first time I just casually worked on (I was in the field surveying) and changed the batteries at the end of the day. The next time, on a different calc., I didn't even have time to switch it off before it went blank and lost its memory. This probably has more to do with the batteries than the calc., though, so now I always use good batteries.

The 42-s is a truly great machine...under rated, even...because of its Achilles' heel: when you have to re-program it.

Many thanks for the thread above,

Richard (in Athens)

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HP33S Manual Is Here!!!

*Message #1 Posted by **Katie** on 8 Nov 2003, 3:43 p.m.*

Big news! The long awaited HP 33S manual is now on HP's web site, so the calculator can't be far behind!

It's sort of a disappointment in that it's a near exact 32SII clone with 32K bytes (that's right BYTES!) of memory. But you can only use that memory for programs and equations, not registers (not even indirectly). The extra memory doesn't even allow for nested subroutines beyond the 32SII limit of 7. In algebraic mode you get 13 levels of nested parenthesis and you can use complex numbers in them -- a nice touch! And programs can be written in either algebraic mode or RPN (looks like that translate into RPN to run them, they say that they run slower in algebraic mode).

No I/O, same flags as on the 32SII, same BASE stuff, same STAT stuff. Built-in constants look good and a much welcomed (at least to me) integer divide and remainder function are new.

It uses 2xCR2032 batteries, one backs up the other when you change them so there's little chance of memory loss (good thing with all that memory).

The manual looks very complete and so far I haven't seen any mistakes. Lots of examples!

Here's your bedtime reading....

http://h20015.www2.hp.com/en/taskPageSelect.jhtml?reg=&plc=&lc=en&cc=us&prodId=hp33sscien370806&pagetype=manual&docparent=manual

Re: HP33S Manual Is Here!!!

*Message #2 Posted by **Ben Salinas** on 8 Nov 2003, 3:53 p.m.,*
in response to message #1 by Katie

I had just found this about 5 minutes before you posted (i was looking for a module for the 49g+ and noticed the 33s was listed in the support) So, apparently there is a HP 33s font. I wonder if HP will release it. It would be very helpful when typing out programs Still waiting for the other files to download... I really wish my internet was faster -ben

Re: HP33S Manual Is Here!!!

*Message #3 Posted by **Gene** on 8 Nov 2003, 4:33 p.m.,*
in response to message #2 by Ben Salinas

I imagine we'll be able to get any fonts for calculators released. HP is very responsive these days.

The new 49G+/48GII font is available. I'm sure any other future calculator fonts HP uses will be too.

Good times appear to be coming.

The eternally pessimistic can keep using their 34c's. :-)

Gene

Re: HP33S Manual Is Here!!!

*Message #4 Posted by **Gordon Dyer** on 9 Nov 2003, 10:06 a.m.,*
in response to message #3 by Gene

Gene, can you post a link to where we can obtain the new 49g+ font?
Thanks.

It was handed out at HHC2003...

*Message #5 Posted by **Gene** on 9 Nov 2003, 1:18 p.m.,*
in response to message #4 by Gordon Dyer

I have it, and I'll try to put it on my comcast webspace and post a link. My hope is that each new machine will have a font going forward...that would REALLY contribute to users being able to write material for it.

Try this:

*Message #6 Posted by **Gene** on 9 Nov 2003, 2:15 p.m.,*
in response to message #5 by Gene

http://home.comcast.net/~genela/49GPLUS.TTF

That ought to work, but ...

Worked, but I had to CTRL-CLICK the file in OSX

*Message #7 Posted by **Gene** on 9 Nov 2003, 2:17 p.m.,*
in response to message #6 by Gene

Clicking directly on the link opened the file up in my browser, but in IE I woudl think you could choose to download the link and it should come down to the PC.

Re: HP33S Manual Is Here!!!

*Message #8 Posted by **Frank B. (Germany)** on 8 Nov 2003, 4:25 p.m.,*
in response to message #1 by Katie

And here is the HP-39G+ manual.

Frank.

...and here's typical flaw:-))

*Message #9 Posted by **Raymond Del Tondo** on 8 Nov 2003, 7:02 p.m.,*
in response to message #8 by Frank B. (Germany)

Thanks for the link.

But it's typical: In the German and the English version of the 39G+ manual pdf, on page V-2 (Vorwort) resp. P-2 (Preface), secondlast paragraph, you can see that they don't even know how to write their name !

The words are: "Copyright 2003 Hewlette-Packard Development Company, L.P"

BTW, it's the page where they state that they're not responsible for any errors in the manual (LOL:-)))

Raymond

Re: ...and here's typical flaw:-))

*Message #10 Posted by **Frank K** on 8 Nov 2003, 7:15 p.m.,*
in response to message #9 by Raymond Del Tondo

not to mention the hardware errors

Re: ...and they are responsible.

*Message #11 Posted by **Stephan (Germany)** on 9 Nov 2003, 4:51 p.m.,*
in response to message #9 by Raymond Del Tondo

Who else should be? I guess want they want to say is they don't want to be held responsible.

12345 to delete

Re: ...and here's typical Meaningless Legalese

*Message #12 Posted by **bill platt (les Estats Unis d'Amerique)** on 9 Nov 2003, 4:59 p.m.,*
in response to message #9 by Raymond Del Tondo

That "not responsible" thing has got to be yet another example of how in the US leagal system, if it quacks like a duck, and walks like a duck, and even swims like a duck, it is not a DUCK, and not even a goose; it is a lemon ;-)

regards,

Bill

Re: HP33S Manual Is Here!!!

*Message #13 Posted by **Namir Shammas** on 8 Nov 2003, 6:10 p.m.,*
in response to message #1 by Katie

Good work Katie!!!! Thanks for the tip. WIll give me something to read this weekend!

Re: HP33S Manual Is Here!!!

*Message #14 Posted by **Norm** on 8 Nov 2003, 8:42 p.m.,*
in response to message #13 by Namir Shammas

hey does the manual say why the keyboard is shaped like a cowcatcher ?

Re: HP33S Manual Is Here!!!

*Message #15 Posted by **Katie** on 8 Nov 2003, 10:56 p.m.,*
in response to message #14 by Norm

Norm, Yes they do explain the need for the cowcatcher design in the manual. Here's the excerpt...

Quote:

Engineers at Hewlett Packard have put great effort into the overall design of this precision instrument. For example, many hours of effort went into the format of the "cowcatcher" keypad layout. Aside from making sure users were kept on their toes when entering data, the primary goal was to facilitate easy repair of your new HP33S calculator.

The repair division had been using the rail of mainline Burlington Northern railroad tracks to "fix" improperly closing cases on the earlier "Pioneer" series calculators. The same repair technique applies to this next generation of HP calculators and engineers wanted to make sure that cows would not get in the way of a speedy remedy for a malfunctioning device.

Edited: 8 Nov 2003, 11:00 p.m.

let that post be a lesson to us all

*Message #16 Posted by **db(martinez,california)** on 8 Nov 2003, 11:16 p.m.,*
in response to message #15 by Katie

Don't try to B.S. Katie. You'll be up against a pro.

Re: HP33S Manual is Here!!!

*Message #17 Posted by **Norm** on 10 Nov 2003, 3:25 a.m.,*
in response to message #15 by Katie

LOL! ROFLMAO! Did it really say all that ?

Re: HP33S Manual Is Here!!!

*Message #18 Posted by **Mike Brady (San Francisco, USA)** on 9 Nov 2003, 1:32 a.m.,*
in response to message #13 by Namir Shammas

That's not a cowcatcher, it a car's radiator grill. And nobody, but nobody, in this country would design such a ugly thing. If someone gave out an award for a truely bad industrial design, we'd have a winner! I'm sorry, but HP behavior reminds me of FORD's advertised policy of Rollover Value !!! Have You Rolled Over A FORD Lately?

Edited: 9 Nov 2003, 1:36 a.m.

Re: HP33S Manual Is Here!!!

*Message #19 Posted by **Ben Salinas** on 8 Nov 2003, 8:45 p.m.,*
in response to message #1 by Katie

At first I was amazed that they put all the RPN stuff together, and left the algebraic for an apendix. Then i realized they did that only so they would not have to totally rewrite the manual. Many of the examples, and most of the advanced features sections were all from the 32sii manual (i reread it just a few weeks ago) There is a bit of new stuff in there, but at least it has 31kb of memory -ben

Re: HP33S Manual Is Here!!!

*Message #20 Posted by **Valentin Albillo** on 9 Nov 2003, 2:06 a.m.,*

in response to message #1 by Katie

Katie posted:

"It's sort of a disappointment in that it's a near exact 32SII clone with 32K bytes (that's right BYTES!) of memory. But you can only use that memory for programs and equations, not registers (not even indirectly)."

Let's see if I've understood it correctly ... are you saying that KinHPo has 'upgraded' the 32SII with an amazing 32 Kbytes of RAM, yet you can't have more than 26 or so data registers, so that you can handle matrices only up to 5x5 !?

Because most of my vintage SHARPs, even models much smaller in size than the 33S, can easily define in excess of 1,000 data registers or matrix elements (10 Kb), my incredibly small Casio FX-7500G (easily the smallest calc I own, despite its 8 lines x 16 char graphics screen) can allocate as many as 526 memories (3.9 Kb), and even my superb, 20-year old HP-15C (0.5 Kb) can handle 8x8 matrices.

If true, this does nothing but reinforce my point: there's no enjoyment nor pride in owning such a calculator, as we are painfully aware of just how little thought and effort have been invested in creating it.

Do you think the great HP engineer teams of the past, which painstakingly fine-tuned every feature of the calcs they designed to ensure utterly optimum performance for their intended professional customers, would've ever designed something like this ? 32 Kb for programs, yet no I/O and you can handle just 25-30 data elements ? Wouldn't have they felt completely ashamed if such a glaring case of bad engineering and careless design had slipped by ?

I rest my case: the former valued, respected, professional customers that we once were have yet again been absolutely neglected by KinHPo, which will only strive to maximize their profits by releasing sub-sub-optimal products, where noone has invested any time at all to try and improve neither features nor quality. It was easier to copy-paste the 32SII ROM and manual, add a little here and there, and that's all. So the user cannot use those 32 Kb for data ? Who cares ? After all, neither could the HP-12C Platinum user use those 400 bytes for extra registers. We're including a 32 Kb RAM chip because it costs next to nothing nowadays, but making firmware modifications so the user can actually use it *does* cost money, so there you are, take it or leave it.

Proud of owning such a state-of-the-art, quality product ? Enjoyment ?

Not me. This only adds insult to injury.

Best regards from V.

A masterful short essay, Valentin...

*Message #21 Posted by **Karl Schneider** on 9 Nov 2003, 3:08 a.m.,*
in response to message #20 by Valentin Albillo

Valentin --

That really "hit the nail on the head" and "cut through the cr@p" (or any other similar idiomatic expression).

Based on what I've been reading here, I have no inclination to reward "KinHPo" by purchasing any of these "upgrades". Consider:

12C Platinum -- Slower TVM algorithm despite presumably faster processor; extra RAM but no practical means of using it; no improvement to limited programming capabilities; algebraic mode added without parentheses.

49G+ -- Terrible quality control and buggy ROM.

33S -- Bizarre stylized keyboard; much extra RAM but no practical means of using it; failure to address limitations of predecessor 32Sii (e.g., "pidgin" complex-number functionality and no built-in matrix functionality) that were not limitations in the long-discontinued 15C and 42S.

What's the chance of a well-done new product?

Valentin is absolutely right -- they simply took the predecessor products and tacked on a few things in a slipshod fashion, using updated hardware, but without "sweating the details".

==========

BTW, Valentin, on an unrelated topic:

I appreciate your offer of assistance with the 71B. It may be a while before I ask for some.

I don't plan to take the time to become a real expert. Instead, I just want to learn my way around it, write and download a few programs to run, and generally see what it's all about.

Best,

-- Karl Schneider

I disagree, Valentin

*Message #22 Posted by **Gene** on 9 Nov 2003, 7:40 a.m.,*
in response to message #20 by Valentin Albillo

I look at it this way.

The entire project took perhaps 12 months. In that short time period, HP appears to have said:

"Wow, since the 32SII was discontinued, we haven't had a product at that price/performance point. What can we do in the next 12 months to remedy that?...Let's make a 33S. It will be the same functionality as the 32SII. What size memory chips are available? ... If they are the same price, let's drop in the 32K chip...perhaps our users can make use of it."

The modifications you mention WOULD in fact have required massive changes to the internals of the 33s.

It would not have been done in 12 months...particularly given the large # of tasks underway (49G+, 48GII, others).

Want something new and completely different? Be patient.

The 33S will be selling for a lot less than the discontinued 32SII on ebay. People can have the functionality of the 32SII, probably faster (I dont' know) and have it for a lot less.

Oh, by the way, there's a lot more memory than the 32SII for programs.

Gene

Re: I disagree, Valentin

*Message #23 Posted by **Victor Koechli** on 9 Nov 2003, 10:05 a.m.,*
in response to message #22 by Gene

IIRC, it took HP 9 months from the beginning of the project to production of the first HP 28C protoype. That was an entirely new calculator. So, 12 months to release an already existing calculator with minor modifications sounds not impressive to me.

I think Valentin is right: They put the least possible effort in this product, which is probably almost zero...

Just my 2 cents, Victor

Different times...

*Message #24 Posted by **Gene** on 9 Nov 2003, 1:21 p.m.,*
in response to message #23 by Victor Koechli

HP had a boatload of people working on the 28C, and according to the HP Journal article, it took much more than 9 months.

They do not today. A great deal is outsourced. They also have reissued/redone the 12c platinum, the 17BII+, the 49G+, the 48GII, and according to manuals found on HP's website, a 39G+ and 33S. Not to mention the rumored high-end finance machine.

That's a lot for the small amount of resources they have.

Again, half-full or rip-off, gone-to-the-dogs, Engineer-hating half-empty?

Gene

Re: Different times...

*Message #25 Posted by **Victor Koechli** on 10 Nov 2003, 1:24 a.m.,*
in response to message #24 by Gene

Hmmm... My memory was wrong, then. This happens once you're old enough :-(Besides, I'm not unhappy at all. I thought, like many probably did, that HP had abandoned the calculator business forever, and the relaunch of new calculators comes as a positive surprise to me. I'm especially speaking of the 49G+ which improves all that we didn't like on the 49G.

OTOH, judging from the papers, the 33S doesn't impress me so far. Not a lot of effort sems to have gone into its development. That's actually what I wanted to say. See, we're spoiled by the degree of perfection a 15C can offer. A lot of us had probably hoped that a successor of the 32Sii would be more like a 15C, or 42S. But it's, as you say, different times. The amount of resources that go into the development of calculators appears to be only a fraction of what it used to be.

Then again, judging from the 32S/Sii prices on ebay, these calcs aren't sooo bad even just the way they are...

Chers, Victor

Re: I disagree, Valentin

*Message #26 Posted by **Ben Salinas** on 9 Nov 2003, 11:29 a.m.,*
in response to message #22 by Gene

Personally, I think that HP is not making their new products for those who already have 40 calculators.

At least based on the color schemes, and addition of Algebraic mode, it seems to me that they are trying to get a foot into the student market. The 33s will fill a niche.

Go to the store today and try to find a programmable scientific calculator. Better yet, try and find an RPN calculator. How about finding a scientific calculator that can actually take numbers above 10^99. I am pretty certain that you will not find a current scientific calculator that will do it.

They are aiming this product at the youth, who don't have the all-powerful HP-15c, or 42s, or 41cv. They are aiming it at my generation, and I am going to buy one as soon as the are released. The 32sii that I call my own really belongs to my school, so as soon as I graduate (next year), I will no longer have a good scientific calculator.

I still have hope for the 33s. If you notice in the product specs released on the HP website, there is a direct reference to the types of keys. "The Material of The Key Top : Plastic"

Furthermore, there obviously was some work on the ROM, and for that I have much thanks. On my 32sii, I very often use the curve fitting features, but not every function is linear.

It is also quite obvious that they have adapted the calculator since the first picture was released. Notice they moved the "ALG" and "RPN" key. Personally, I believe this will be a decent calculator It will not compare to the 41, or the 15, or the 42, but notice who HP has to compete with now. There are no longer companies making good sturdy calculators. If you want a scientific calculator now, you can buy a TI-30 or its like, a Casio (which is probably the best that you can buy today), a Sharp 4 function, or one of those free "pocket calculators". I believe that with the proper marketing (such as sending some models to high schools because it is teachers who have the most influence on the calculators that kids buy), that the HP33s can have the market.

I know it will have the market in Texas. My school is planning on buying 20 or so as soon as they come out for our UIL team.

-Ben Salinas

Re: I disagree, Valentin

*Message #27 Posted by **Arnaud Amiel** on 10 Nov 2003, 12:01 p.m.,*
in response to message #26 by Ben Salinas

It is good to have some young people with a bit of sense on this forum. I will as well buy the 33s as soon as I can. I will have a 32sii and a 20s in one calc without fear of losing them. I am sure lots of people who buy calcs because they need them will be impressed with it. If enough publicity is made.. I even think the cowcatcher design might me more ergonomic than the straight one. I want my 33s NOW!

Arnaud

Therapy: Please repeat after me . . .

*Message #28 Posted by **Paul Brogger** on 10 Nov 2003, 10:37 a.m.,*
in response to message #20 by Valentin Albillo

"H-P is producing several RPN models again ... "

"The new models, whatever their quirks, represent attempts to respond to customer requests ... "

"There are positives and negatives associated with everything -- just because the new models don't live up

to the old company's standards in all ways, they still have their worthy attributes ... "

"I should resolve to see progress as well as shortcomings, and to balance the one with the other ... "

"I am an H-P calculator addict. I cannot cure my devotion to their old models, I can only control it."

...

Annunciators

*Message #29 Posted by **Massimo Gnerucci (Italy)** on 10 Nov 2003, 1:24 p.m.,*
in response to message #1 by Katie

Thanks Katie!

So, in the end, that strange icon on the display someone was wondering about is the "B"usy annunciator...

Massimo

Re: Annunciators

*Message #30 Posted by **Katie** on 10 Nov 2003, 3:06 p.m.,*
in response to message #29 by Massimo Gnerucci (Italy)

I wonder how long the "busy" indicator will be on for? If is was well engineered from a software standpoint [which is a big question] it should run pretty fast. They seemed to have traded space for faster execution time [or maybe just for bad programming]. Although the manual gives no explicit list of how much memory each instruction takes up the program examples show it now uses 3 bytes minimum per instruction with (all?) numbers taking up 12 bytes!

I'm not at all sure what they put in all those bytes, but they sure have a lot of room for more functions, etc.. Also I'm really curious about this keyboard symbol/ascii listing. Does this hint at some sort of printer interface?

Edited: 10 Nov 2003, 3:06 p.m.

Re: Annunciators

*Message #31 Posted by **Arnaud Amiel** on 11 Nov 2003, 3:25 a.m.,*
in response to message #30 by Katie

I believe an hp33s font should be available somewhere to help write docs. ASCII Ma (Taiwanese Chinese so it comes from Kimpo)on the left is the ASCII code. I don't know what the item column is and as far as I am concerned it could be removed. Symbol is what the font will display when you use this character. So you can show the key press in your documents. ZiYuan on the right is the usual character associated with that ASCII code. Now I just need the font and a 33s. Please hp-Kimpo soon!

Arnaud

. . . and concern grows . . .

*Message #32 Posted by **Paul Brogger** on 10 Nov 2003, 5:00 p.m.,*
in response to message #1 by Katie

I poked around in an attempt to assuage my worst fear concerning the 33s: that the two-line display isn't supported or used in the manner that we (especially 42s users) might expect.

The only thing that seems to offer hope is the discussion of COMPLEX mode, and how the imaginary part, in Y, is displayed on the first line, with the real part in the second line (X). (That's *still* kludgy enough, given there are 14 digits to play with . . .)

That would lead me to believe that Y is generally displayed above, and X below, as I would hope. (I would also hope that two lines of program are displayed, not one, while in program mode.)

Well, I haven't actually READ the whole thing, but some keyword searches haven't turned up much else. There doesn't seem to be any explicit statement of whether Y is generally displayed above, in addition to X below. I didn't notice any extension of the programming capabilities to utilize the two displays rather than one. (Somebody, help me!)

There is, however, page 2-3, which explains that the X<>Y key is often used twice in succession, to briefly view the value in register Y and return it . . .

I can pretty much write off the cowcatcher as a bad marketing idea, and 26 registers with 32K program memory as a hasty approach to adding something without drastically changing the 32sII code base. But if the hyped two-line display is really a one-line display with another line for *whatever*, well that will be another enormous bummer!

I worried about this when I first saw the product sheet, and hope is fading fast . . . I may have to join the complainers with this one.

Re: Don't worry, it's there!

*Message #33 Posted by **Victor Koechli** on 10 Nov 2003, 7:59 p.m.,*
in response to message #32 by Paul Brogger

Just refer to page 2-2 of the 33S manual:

The X and Y–Registers are what you see except when a menu, a message, or a program line is being displayed.

Nothing is said, however, about two program lines being visible when reviewing a program. Much more severe is the fact that there are only 26 variables (plus the six statistics variables) and only 26 lables to fill 32kBytes of memory! I have used a lot more labels in my HP-41 programs that couldn't be nearly as large...

Cheers, Victor

Re: Thanks for locating that . . .

*Message #34 Posted by **Chicken Little (Paul B.)** on 10 Nov 2003, 8:54 p.m.,*
in response to message #33 by Victor Koechli

Well, I guess it's not quite as bad as I feared.

I notice that immediately below the diagram with the two "displayed" registers in bold outline, it says 'The most "recent" number is in the X-register: *this is the number you see in the display*'. [Emphasis theirs, but I concur.] Apparently that graphic is one of the few changes made -- and the text hasn't exactly been gone over with a fine-toothed comb.

I noticed elsewhere that the VIEW command (e.g., "VIEW X") apparently causes "X=" to be put in the upper line, and the X value in the lower. (I wondered, if *that's* all they're doing with that upper line . . .)

H-P, please forgive my concern. Never should I have doubted ye! ;^)

Remember...

*Message #35 Posted by **Gene** on 10 Nov 2003, 10:30 p.m.,*
in response to message #34 by Chicken Little (Paul B.)

My guess is HP said something like this:

"We're really moving the 32SII to a new package and aren't going to be making many changes to it at all. We can't sell the old one because we can't make them any more. We face a choice guys...the cost of a 2K chip is the same (within pennies) as a 32K ram chip...which do we put in?"

They went with the 32K ram. Will it be entirely useful? I don't know...I expect perhaps not.

But, it is there to try to use.

If HP reads this, perhaps next time they decide to use the 2K chip.

Lot of people here are of the "half empty" type. Try thinking "half-full" at least once a day. You'll live longer. :-)

As usual, you're right on.

*Message #36 Posted by **Paul Brogger** on 11 Nov 2003, 2:44 p.m.,*
in response to message #35 by Gene

I used to think of myself as generally having a "half-full" kind of outlook -- I'll have to ponder that . . .

Yes, I'm sure that "more" sounded better than "some" for the same price.

Bottom line: "more" than 390 bytes is all I wanted (storage-wise, at least) in a successor to the 32S/SII. No sense getting worked up about the program vs. variable space being out of balance, so long as there's more of the former than there used to be.

No doubt we'll be in-lining even lengthy subroutines to conserve labels!

Maybe the 33sII will allow for two-character labels and variable names?

-- Paul B.

Re: Remember...

*Message #37 Posted by **Wayne Brown** on 12 Nov 2003, 1:30 p.m.,*
in response to message #35 by Gene

> Quote:
>
> Lot of people here are of the "half empty" type. Try thinking "half-full" at least once a day. You'll live longer. :-)

I'm the "half full" type in most things, but not where HP is concerned. It seems to me like they've thrown away the half-full glass altogether and replaced it with a nearly-empty, leaky

paper cup, and hired a pack of lying weasels to convince us it's a brim-full crystal decanter.

If it sounds like I view HP with cynicism, distrust and contempt then you're getting the right impression. Over the past couple of years I've come to assume at the outset that *anything* HP does is a cheat or a swindle of some kind, and the onus is on them to prove me wrong.

Re: Thanks for locating that . . .

*Message #38 Posted by **Victor Koechli** on 11 Nov 2003, 2:05 p.m.,*
in response to message #34 by Chicken Little (Paul B.)

I haven't checked yet, but maybe not only the calculator, but also the manual was more or less coiped from the 32Sii? That would explain these incosistencies. I mean, why should they rewrite the manual if the calc is essentially the same? And in the 32Sii, only the x register is displayed...

Just another 2 cents, Victor

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New cells for the 41C´s battery pack

*Message #1 Posted by **Jon** on 8 Nov 2003, 10:56 a.m.*

I have repaired a dead battery pack 82120A. I have used new 1/3AAA NiMH cells (150mAh). I have charged it for three hour with the adapter 82059D and it works just fine. I have charged just three hours because I know the rechargeable cells are very sensitive to overcharge. I would like to know how long must I keep it charging for a full charge. I think original cells are 1/2N NiCd (75 mAh aprox.) so the total charge time should be the double. Does anybody know the recommended charging time for the original battery pack?.

Thanks in advance

Jon

82120A charging rates and 1/3AAA cells

*Message #2 Posted by **Randy Sloyer** on 8 Nov 2003, 6:08 p.m.,*
in response to message #1 by Jon

The 82120A manual says 12 to 16 hours for a full charge.

With respect to the 1/3AAA cells, Gold Peak says 16 ma for 16 hours. It just so happens the charge rate of the 82120A is 16 ma. So 16 hours should yield a fully charged pack.

They will typically reach 5.80 volts open circuit when fully charged. I have seen no cell heating (checked with I/R thermometer) after 24 to 36 hours so I would not be overly concerned about overcharging. I charged one for a week once to see what would happen - it seemed to decrease its capacity until it went through two or three discharge charge cycles - it now seems fine and maintains a 16 ma discharge rate for about 10-12 hours.

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HP-IL Sniffer

*Message #1 Posted by **Giuseppe Marullo** on 8 Nov 2003, 9:23 a.m.*

Hi all, I just received a 41CX, a DEVILROM plus a EXT I/O rom. I have a 80160A adapter too (another one is possible).

Just wondering which are the "System requirements" to run a HP-IL sniffer on a second calculator. Could I simply grab another 41C with some mem expansion or it is mandatory to use at least a CV. I have seen somewhere that thare are 110+ registers as memory requirement, so at least I need a 41C with some memory. Are there other ways to have a HP-IL sniffer that is not the usual pc card?

Thanks in advance,

Giuseppe Marullo

Re: HP-IL Sniffer

*Message #2 Posted by **Raymond Del Tondo** on 8 Nov 2003, 6:43 p.m.,*
in response to message #1 by Giuseppe Marullo

Hi,

I think it would be easier to use an HP-71B as the sniffer, since it's a bit difficult to have 2 HP-41's in the same loop.

However, since it's a loop, your sender gets back what it submits, so your sniffer could be your first HP-41;-)

Regards,

Raymond

Re: HP-IL Sniffer

*Message #3 Posted by **Giuseppe Marullo** on 8 Nov 2003, 9:12 p.m.,*
in response to message #2 by Raymond Del Tondo

Raymond, thanks for your answer. It is not clear to me how to interact with the bus while at the same time use the calculator as a sniffer. Would it be much simple (and cheaper) to have another one that is performing this task (if this is possible with a C/CV).

About the HP-71, maybe is cheaper to get a 75, that has a standard hpil port. I don't remember which is best at hpil stuff between the two.

Giuseppe Marullo

Re: HP-IL Sniffer

*Message #4 Posted by **Raymond Del Tondo** on 8 Nov 2003, 10:11 p.m.,*
in response to message #3 by Giuseppe Marullo

Hi Giuseppe,

for HP-IL functionality beyond the standard protocol maybe Christoph Klug and Jean-Francois Garnier are the persons who may have the answers;-)

AFAIK the HP-71 has the most advanced HP-IL implementation ever made.

Regards,

Raymond

Re: HP-IL Sniffer

*Message #5 Posted by **Giusepe Marullo** on 8 Nov 2003, 10:36 p.m.,*
in response to message #4 by Raymond Del Tondo

Raymond, I have already contacted Christoph, and ordered his manuals :)

Actually it seems that a HP-71 is rather expensive compared with a 75. Which could be a reasonable price for both? The 71 does not have a HP-IL port/module, so you must add its price, while in the 75 it should be standard, am I right?

BTW, I have both devilrom and ext i/o rom, so it is natural to place both on different 41 and have one "sniff" the other' operations. They were not cheap by my standard, better use them.

Giuseppe Marullo

Re: HP-IL Sniffer

*Message #6 Posted by **Vassilis Prevelakis** on 9 Nov 2003, 1:31 a.m.,*
in response to message #1 by Giuseppe Marullo

Yes you can use a second 41 as a sniffer but you need the HP-IL Development ROM. This is because the ROM on the 41 IL module assumes that the 41 is a controller. In contrast the IL Dev ROM software is desinged for sniffing. You can get the Dev ROM manual from the MoHPC CDROM.

I have actually used this combination and its very powerful.

Having said that, the 71B is the best IL controller made so using this machine is probably a better idea.

**vp

Re: HP-IL Sniffer

*Message #7 Posted by **Giuseppe Marullo** on 9 Nov 2003, 11:14 a.m.,*
in response to message #6 by Vassilis Prevelakis

Thanks Vassilis, so you would purchase a 71 as a sniffer? Anyone knows which is a right price for it, in good shape and with or without hp-il interface?

Re: HP-IL Sniffer running on PC

*Message #8 Posted by **Christoph Klug** on 10 Nov 2003, 3:33 a.m.,*

in response to message #7 by Giuseppe Marullo

Dear HP-IL enthusiasts,

remember that it is also possible to use a PC with EMU41 or the new EMU71 plus HP-IL/PC interface card for monitoring the interface loop. Using the PC you get one or two virtual handhelds plus much more advanced features....

Best wishes from Germany - Christoph Klug

Re: HP-IL Sniffer running on PC

*Message #9 Posted by **Giuseppe Marullo** on 10 Nov 2003, 12:57 p.m.,*
in response to message #8 by Christoph Klug

Christoph, the problem is that the pc board is rather expensive, and you win another piece of history,---> the PC. My current pc does not have a ISA slot, so I should equip my 41CX with a heavy peripheral!

I am searching for such a board anyway, but a USB porting of the board would be greatly appreciated.

Giuseppe Marullo

Re: HP-IL Sniffer

*Message #10 Posted by **Mike (Stgt)** on 10 Nov 2003, 4:59 p.m.,*
in response to message #1 by Giuseppe Marullo

As Vassilis already sayed, an HP-41 (even an old 41C) with a "Devil"-ROM is sufficient as IL-sniffer. Just start MONITOR on it before you switch on an other controler in the loop. That's all. BTW, what are you going to do? Just currious <G>.

Ciao.....Mike

Re: HP-IL Sniffer

*Message #11 Posted by **Giuseppe Marullo** on 10 Nov 2003, 6:20 p.m.,*
in response to message #10 by Mike (Stgt)

Hi Mike, just wanted to learn from scratch a programmable calculator, just as I did *several* years ago, with a ti-59.

Anyway it started as a cool terminal to be used to setup a minisumo robot on the dojo. I don't want to use a laptop, there are a lot of people around and actually *nobody* knows the 41 around the people I know (within my same age). Now, the more I dig, the more I would like to do.

At first, I will try to drive my robot using a HPIL->RS232 interface, then maybe a home made HPIL->GPIO or a HPIL->RS232, but the smallest possible.

Another interesting project would it be using a pic to emulate some rom, I have found an interesting kit that is able to read files from a FAT32 SD card, using a pic.

I don't have any software to preserve, so my point of view is VERY different from most, if not all of you. Maybe others would build something very different.

Who knows, I am still missing the CX "basic" manuals...go figure. there is no guarantee that I will go much further than 2 ENTER 2 + stuff.

Re: HP-IL Sniffer

*Message #12 Posted by **Mike (Stgt)** on 12 Nov 2003, 9:21 a.m.,*
in response to message #11 by Giuseppe Marullo

2 ENTER 2 + stuff is "User Language", I suppose you go for MCode <G>

Ciao.....Mike

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Warning: HP-49G+ display may get damaged

*Message #1 Posted by **Ernie Malaga** on 8 Nov 2003, 6:22 a.m.*

The leather pouch that comes with the 49G+ is very nice, but the metal (magnetic) clasp can damage the delicate surface of the display.

When you put the calculator in the pouch and press the clasp to close it, you are exerting pressure over the display's bottom portion. In order to avoid damage, put the calculator backwards (facing the back of the pouch). That will protect the display.

-Ernie

Re: Warning: HP-49G+ display may get damaged

*Message #2 Posted by **Raymond Del Tondo** on 8 Nov 2003, 6:37 p.m.,*
in response to message #1 by Ernie Malaga

That's why serious devices have a zipper case;-)

Raymond

Re: Warning: HP-49G+ display may get damaged

*Message #3 Posted by **Ed Look** on 8 Nov 2003, 9:42 p.m.,*
in response to message #1 by Ernie Malaga

I saved the bubblepack material and cut out the outline of the calculator, without as little of the side areas as possible and inserted that into the leatherette pouch. This provides, I think, enough protection against accidentally damaging the display when closing the clasp. As for the potential scratch, I think the paint along the edge of the display is more at risk for being scratched than the face of the display itself.

Ah, the old zipper cases!

Re: Warning: HP-49G+ display may get damaged

*Message #4 Posted by **Ernie Malaga** on 9 Nov 2003, 1:19 a.m.,*
in response to message #3 by Ed Look

> Quote:
>
> Ah, the old zipper cases!

I miss the type of pouch that came with the HP-65, with a velcro clasp. When I bought a 67 (which came with the typical -- and oversized -- artificial pouch), I made it a point to buy from HP an HP-65 pouch to use instead.

But the zipper cases worked well too.

-Ernie

Re: Warning: HP-49G+ display may get damaged

*Message #5 Posted by **Ernie Malaga** on 9 Nov 2003, 1:34 a.m.,*
in response to message #3 by Ed Look

> Quote:
>
> I saved the bubblepack material and cut out the outline of the calculator, without as little of the side areas as possible and inserted that into the leatherette pouch. This provides, I think, enough protection against accidentally damaging the display when closing the clasp.

I'd caution you that putting a plastic cover on top of the plastic display may scratch BOTH surfaces.

-Ernie

Re: Warning: HP-49G+ display may get damaged

*Message #6 Posted by **Ed Look** on 9 Nov 2003, 11:47 p.m.,*
in response to message #5 by Ernie Malaga

Ordinarily, I'd say you're right. But in this case, the cutout (edges sanded down first with a fine grade sandpaper) is held snugly by the pouch itself and since there's no motion inside especially when the calculator is in it (it's a snug fit, as I'm sure you see), I don't foresee any scratching of the plastic screen. Remember also that the contours of the blisterpack cutout make it rest on the edges of the calculator offsetting it from the calculator a little bit and that the screen is recessed about almost a millimeter or so below the edges. I'm using it as a shield against inadvertent hits against the screen while in the pouch.

Re: Warning: HP-49G+ display may get damaged

*Message #7 Posted by **Eddie** on 12 Nov 2003, 10:12 a.m.,*
in response to message #6 by Ed Look

Ed, I took your advise a while back and did the same thing to my calculator. It works great, thank you

Re: Warning: HP-49G+ display may get damaged

*Message #8 Posted by **Ed Look** on 12 Nov 2003, 11:09 p.m.,*
in response to message #7 by Eddie

Oh, don't thank me, at least not ultimately. I first saw this trick, I think on the comp.sys.hp48 newsgroup in a post by, at the time, a high school kid! Probably was related to Ben Salinas.

For my (all too) soft 48G gray nylon case, I also glued (taped, now, I think as the glue didn't really hold) a slightly thicker and stiffer piece of plastic on the cutout over the screen area of my 48G(/G+).

Re: Be careful in describing what you ask for ...

*Message #9 Posted by **Paul Brogger** on 10 Nov 2003, 9:20 a.m.,*
in response to message #3 by Ed Look

Make that ***nylon*** zippered cases.

I've found a couple of early LED TI's recently, with original cases. Their aluminum-toothed zippers seem designed *for the purpose* of chewing on plastic finishes.

BTW, in all communication about desired features, I think it's best to be as expicitly clear and complete as possible. Keep in mind that you engineers are dealing with a culture gap if you're communicating with H-P product designers (read: marketing), and that *they're* dealing with both language and culture differences in transmuting specifications into product.

For example, I imagine someone wrote somewhere, not too long ago, "It needs to have plastic, not rubber keys; and they need to have a tactile 'click' when they're pressed." Good specifications, but something about a connection between the tactile feedback in the action of closing the key contacts may have been left out . . .

Storage Case Alternative

*Message #10 Posted by **Paul Brogger** on 10 Nov 2003, 2:10 p.m.,*
in response to message #1 by Ernie Malaga

The 49G+ storage case is nice, but it doesn't leave room for much other than the calculator.

For the active, modern, on-the-go graphing calculator user, consider this: Office Depot (in my area, at least) is clearing out zip-up Mead "FiveStar" TI calculator pouches with a sorta-rigid external case, an internal elasticized calculator pocket with velcro-closed, TI-logo-emblazoned cover flap, and (on the opposite side) a pen loop and a funky pad of pseudo-graph/note paper. (Only $1.44 .)

After cutting the stitching to remove the velcro and cover flap, replacing the supplied notepad with a decent spiral-bound item, and inserting a nice Parker gel pen, I've got more than a calculator -- I've got a calculator *use and support system*. ;^)

(Actually, it's bulkier, but more complete. Unfortunately, it won't quite store the USB cable too. Time will tell if I actually make use of it . . .)

Re: Storage Case Alternative

*Message #11 Posted by **Ed Look** on 11 Nov 2003, 2:56 a.m.,*
in response to message #10 by Paul Brogger

Actually, Paul, I went to buy one at Staples a month or so ago. They looked nice. I'm not sure how it fits the 49G+, as at the time, all I had was a 48G and it did fit, but too snugly. I feared long term damage from pressure on the calculator case, so I didn't get it. It was cheap, too (not $1.44, but still quite cheap). I think it really was meant to fit the TI-83 only.

Re: Storage Case Alternative?

*Message #12 Posted by **Paul Brogger** on 11 Nov 2003, 6:55 p.m.,*
in response to message #11 by Ed Look

Yeah, I ended up cutting out the internal elastic pouch entirely, and velcro-ing the 49G+ to the inside front cover. It fits there nicely, and the pad & pen are included, but when closed up, the whole thing looks a *little too pocketbook-ish* for my taste. (I'm just not that secure! ;^))

So, this little experiment may well turn out a minor bust -- we'll see what turns up next.

Re: Storage Case Alternative?

*Message #13 Posted by **Ed Look** on 11 Nov 2003, 10:29 p.m.,*
in response to message #12 by Paul Brogger

Well, I suppose they'll be glad I'm posting this, but I found out that CalcPro still sells, at ten bucks a pop, which is probably worth it, the gray soft cases for the 48G series calculators.

I have just tried it with my 49G+ in my 48G's case- it works, may just ever so slightly too snugly. If you worry about protecting the LCD screen, some thin piece of stiff polymeric material (like blisterpack stuff) or like the walls of the thinner pencil boxes they sell for elementary school kids, cut to size, ought to be inserted in the case and placed between the front of the calculator and the inside of the case.

I have also seen some guys, I forget whether it was here or comp.sys.hp48, a long time ago, suggest getting one of the smaller plastic toolboxes from Sears and stuffing foam rubber in to hold the calculator. I like the protection afforded by the box, but am not thrilled by it because it is, after all a large 13 inch or so box.

Re: Storage Case Alternative

*Message #14 Posted by **rsenzer** on 11 Nov 2003, 10:46 p.m.,*
in response to message #10 by Paul Brogger

Perhaps the purse section at the department store, etc. might yield an appropriate case. Or an inappropriate case, depending upon your taste. ...

Re: Stores that have bags to fit graphing calculators

*Message #15 Posted by **Frank Travis** on 12 Nov 2003, 10:22 a.m.,*
in response to message #14 by rsenzer

I have found large padded cases (some of them designed for camera equipment) from the following stores:

Kmart Wal-Mart Kohl's Various camera stores.

They provide plenty of room and protection for my HP 48 series (SX/GX/G/G+) graphing calculators. The cases are generally priced between $10 and $20. I measured the dimensions of an HP 48G as 7" long, 3 1/4" wide, and 3/4" deep.

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Help with HP-97S needed

*Message #1 Posted by **Holger Weihe** on 8 Nov 2003, 2:57 a.m.*

Hello,

yesterday I got an HP-97S. :-) Unfortunately I can't get it to work. When the power is connected, the Low-power-LED goes on. When I additionally insert a battery-pack, the LED goes out again. (The battery isn't good, but my other HP-97 works fine with it).

Switching the calculator on causes a short flash of a zero (or similar) at the last digit. After that nothing else happens.

Is this behaviour known to anyone of you? Where can I start? I took the calculator apart and cleaned the contacts of the switches etc, but that didn't help. Could it be a problem of the connector pins between Mainboard and Keyboard part?

Another thing: The HP-97S came with a plastic device (seller called it HP-Console) that holds the calc and the Interface box. The main screws of calc and box are longer than normal to fix them with the console. Is this console a standard HP part?

Thanks!

Holger

Re: Help with HP-97S needed

*Message #2 Posted by **Katie** on 8 Nov 2003, 11:36 a.m.,*
in response to message #1 by Holger Weihe

I've never seen the plastic holder that you've described, I don't think that it was made by HP.

You might want to try a good (newly rebuilt) battery pack in the 97S or better still, an external DC power supply. The 97S draws slightly more power than the plain 97 does because of the interface pod. It's only about 30 ma more, but that might be enough to drop the voltage on the batteries enough to cause the display to shut down.

Re: Help with HP-97S needed

*Message #3 Posted by **Holger Weihe** on 8 Nov 2003, 6:14 p.m.,*
in response to message #2 by Katie

Thanks, Katie and David!

I'll try an external DC supply first before rebuilding the battery. (I hope I won't toast it... :-))

If it doesn't work, I think there was a service manual on the museum dvd, but probably it will be to high for my rudimental electronics skills...

Holger

Re: Help with HP-97S needed

*Message #4 Posted by **David Smith** on 8 Nov 2003, 12:39 p.m.,*
in response to message #1 by Holger Weihe

Generally, you need a good battery in an HP97 for it to operate properly. Some machines can get by without one (if no printer or card reader is used), but many will be totally dead without one.

Further help with HP-97S needed

*Message #5 Posted by **Holger Weihe** on 9 Nov 2003, 1:16 p.m.,*
in response to message #1 by Holger Weihe

Hello,

By now I have tried to run the HP97 with the AC-cable connected and an additional 5 volts DC supply at the battery connectors. Nothing happend. I increased the voltage until at about 8 volts the display went on (showing a mutaded zero at the right side). The printer moved. But the calc doesn't respond to any keypresses. By the sound of the printer I got the impression that it is stuck somehow. Could this prevent the HP-97S from properly starting?

When running it without DC supply, the printer makes some humming sounds when I press the paper-feed button. But it doesn't seem to move.

Any advice what I should try know?

Thanks!

Holger

Re: Further help with HP-97S needed

*Message #6 Posted by **David Smith** on 9 Nov 2003, 3:26 p.m.,*
in response to message #5 by Holger Weihe

Yes, a bad printer can cause the machine to lock up. When powered on, the machine wants to see the head in the HOME position. Some firmware versions even cycle the print head whenver the machine is powered up. If the printer is jammed it will stay dark or say ERROR.

Re: Further help with HP-97S needed

*Message #7 Posted by **Katie** on 9 Nov 2003, 5:17 p.m.,*
in response to message #5 by Holger Weihe

Holger,

Don't crank up the voltage on the external DC supply, 5.0 - 6.0 should be fine. Is the supply able to provide enough current? The printer and card reader need quite a lot maybe 500 ma to 1 A peak. Even with neither of those running but just the display, it will use up to 250 - 300 ma. If your supply can't provide enough current, it may very well sound like your printer is stuck. Did you try turning the printer gears by hand to see if it is in fact stuck?

-Katie

Re: Further help with HP-97S needed

*Message #8 Posted by **Holger Weihe** on 10 Nov 2003, 2:08 p.m.,*
in response to message #5 by Holger Weihe

Thanks, again!

My DC supply can deliver 2.5A, that should not be the problem. Nevertheless I bought some new cells today and will build up a good battery pack. Then I will have a closer look to the printer. Checking the resistors and diodes there should also be possible for me. I don't have an osciloscope, but my DMM can measure frequencies. Maybe that'll help to follow some signals after I studied the service manual. (If I understand enough of it...)

I'll come back to the forum when I succeed, or when I am able to ask more detailed questions... :-)

Holger

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Does 48G have a "CAT" (49G+) or "CATALOG" (28C/S) -like feature?

*Message #1 Posted by **Paul Brogger** on 7 Nov 2003, 11:54 a.m.*

I've been using the "CAT" (commands CATALOG) menu on my 49G+ regularly, and recall the "CATALOG" feature of my 28S.

I've poked around on my 48G (but haven't dug out the manual ...) and can't find any similar list of available commands. Does the 48G even have such a list?

(It's probably somewhere obvious, but I'm missing it.)

Noz built-in...

*Message #2 Posted by **Raymond Del Tondo** on 7 Nov 2003, 6:25 p.m.,*
in response to message #1 by Paul Brogger

...some years ago I started to make a CAT like in the HP-38G, with a master-detail browser and function categories, etc. , but it was too slow to use seriously it.

You could program your personal CAT easily using a list of lists of each command/fcn, then feeding it into a browser, like CHOOSE, or the SpeedBrowser (recommended), and on the highlighted item, you could apply a call to USAG, which exists as G/GX version, too.

So far for the theory.

Maybe something similar like CAT exists on hpcalc.org , I dunno. If not, maybe someone will do it. We could start a mini challenge, who develops the smallest *and* fastest version.

Too bad I don't have the time right now (ORACLE upgrade), else I would start immediately:-) Maybe in two weeks, if there'll still need...

Raymond

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HP41CV Display fading out

*Message #1 Posted by **Dave Aune** on 7 Nov 2003, 9:14 a.m.*

The problem I'm having with my HP41CV is the display is fading out, but only on the bottom of the characters. I have to turn the calculator to see the whole display. I just changed the batteries about a week ago. Any suggestions would be appreciated.

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49g+ first impressions...

*Message #1 Posted by **harryb** on 7 Nov 2003, 5:26 a.m.*

I picked up the 49g+ from the local uni bookshop today, and after paying them I opened the box on their counter (in the event something was wrong with the unit and I could just get my money back there and then - it was a special order so its not like they could replace it).

Firtsly I examined the unit: top left hand corner rubber foot was partially disintegrated; hp badge on front was stuck slightly askew; unit felt very light, less dense to what I am accustomed to with the 48GX and 49g at home.

After inserting the batteries, I ran the diagnostics and everything checked out. The display initially felt somewhat convex even though it's totally flat and flush with the surface plane. Ran through some calculations and operations to get a feel for the response and was pleasantly surprised. It felt very snappy, considerably faster than the 48gx and the 49g. The keyboard was fine, although it does require above average pressure to get the tactile feedback. Once you get used to it its fine. I noticed the intermittent flickering on the bottom 2 pixel rows of the screen. This can be distracting as it occurs with the frequency of a hearbeat. Its something else one has to accustom themselves to, but it is not as bad as it sounds.

The case was a surprise. It looks rather upmarket. The manuals seem to get sadder with each incarnation - how much could it cost - across each unit sold to hire a writer for a couple of months to jazz up the manuals?

I finally took the unit and left the bookshop, heading for the cafeteria for some more investigation. In case you're wondering, I was not particularly fazed about the rubber foot and from reading this newsgroup I gather that a ROM upgrade is going to correct the "hearbeat".

My overall impression is that the calculator division at HP rushed this product out unashamedly. The flickering is simply unacceptable for a product of this generation. The skewed orientation of the logo is an ironic testimony of the evolution of hp philosophy since Carly took the reins. Perhaps Fred (Valdez) is to blame. Whatever the case is, people like myself with a long history of ownership of hp computing products (and I'm talking hp67 here) have a preconception that I suspect cannot be fulfilled any longer.

Would I recommend you buy it? Certainly! Compared to what's out there it's a great computing device that is superior to its predecessors. The quality control is not what one would expect from hp or any other company of that nature, however.

It's all about RESPECT

*Message #2 Posted by **Valentin Albillo** on 7 Nov 2003, 6:05 a.m.,*
in response to message #1 by harryb

harryb posted:

"People like myself with a long history of ownership of hp computing products (and I'm talking hp67 here) have a preconception that I suspect cannot be fulfilled any longer."

[harryb, please notice this reply does not address you *personally*, but all of us people interested in HP calcs]

Oh yes it can. It's only many such people are sadly missing the target: instead of wasting your hard-earned money in such Chinese-junk, defective products, released by a company that no longer shows the slightest trace of RESPECT for their long-time loyal, professional, knowledgeable customers, you'd rather be advised to instead shift your targets to the really truly excellent vintage machines of the past, such as classic HPs and SHARPs, among others, which despite 20+ years having elapsed, still can run rings in quality and usability around any abortion KinHPo throws down on us.

Some would argue that modern models are much more powerful than vintage ones. First of all, that's absolutely debatable, as it fully depends on the intended uses and how well does the particular machine fit those uses. Me, I have no use for CAS on a calculator at all, whatsoever.

Secondly, there's the vital 'enjoyment' factor. We used to fully ENJOY former HP machines when they were released, and we did ANYTHING, including selling the former one or fasting on water and bread for several months [hello, Tapani] in order to get the cash to buy the new machine, because we KNEW that it would be a wonderful achievement, state-of-the-art handheld computing device. There was always the 'I want more RAM' or 'I want more speed', but everyone was delighted with the HP-65, the HP-25, the HP-67, the HP-15C, the HP-41. No sacrifice was too big as we KNEW it was well worth it, absolutely.

We were DELIGHTED, with capitals, for lack of a better word. Those of you who, like me, have been through the 25, 67, 41, fully know the experience and can relate to that heart-and-mind enthralling FEELING.

Now, can any of you say the same about any of the new KinHPo offerings ? Are you DELIGHTED with them ? Do they raise goose bumps ? Do you feel ecstatic ? Do you feel you've got a truly quality item that you're proud to own and to show everyone, no matter the cost ?

Or on the contrary, are you trying hard to get used to that dreaded keyboard, and inventing excuses to justify it doesn't work as reliably and ergonomically as it should ? And that nasty flicker ? That 'hollow' feeling ? The manuals ? The umpteenth ROM upgrade which cures a bunch of bugs and introduces yet anothers ? Can you trust the results ? Can you enumerate the nasty bugs the HP-67 had ? And those of the HP-15C ? Would you consider the HP-41C bugs (which opened the door to synthetic programming) to be nasty ? What about the HP-41C Owner's Handbook ? And the 4-colour, spiral HP-67 Owner's Handbook ? What about the HP-15C's keyboard ? What about ENJOYMENT and PRIDE, when users where considered outstanding professionals and valued customers, and RESPECTED like such ?

Me, I'll take disrespect from NOBODY, and much less pay for it.

Can you say the same ? What new excuse will you come up with ?

Best regards from V.

Re: It's all about RESPECT

*Message #3 Posted by **Gene** on 7 Nov 2003, 7:40 a.m.,*
in response to message #2 by Valentin Albillo

Hi Valentin. Couple of thoughts:

1) "Can you trust the results?"

Gene: Certainly, especially for all non-CAS functions. Since you say you have no need for a CAS, you would have no concerns at all about what the calculator returns.

2) DIsplay flicker?

Gene: My guess is this has to do with powering down the ARM processor into some sort of rest state. It

happens about 1.5 seconds after you press ENTER for example. Someone has posted a fix (Pressing ON uparrow) that makes this go away. I just can't believe people are so fixed on this. Who would have ever guessed a slight flicker primarily on the bottom row of the display would be such a show-stopper indicating HP would never again make anything worth owning!

3) Hollow feeling?

Gene: Well, as industry gets more and more advanced, functions can be put into smaller and smaller spaces. I guess HP could have put some lead into parts of the case. That would have stopped these complaints, but that would make no sense.

4) Rom upgrades?

Gene: The 49G+ is probably 50X more complex (or more) than the 41c. The 41c had BAD rom bugs the first time it was out too. Remember not saving X to LASTX when doing a SIGMA+ operation? Technology allows these to be fixed without having to send the machine back to the factory. I consider it a good compromise...more functionality/complexity carries a risk. If I dont' want any bugs, I can go back and use a much less complex machine, I guess.

5) Delighted with the kinpo offering?

Gene: The people to whom I have shown my 49G+ and 48GII HAVE in fact thought they looked great. They are amazed at what these machines can do...things one cannot do with an HP67, HP34C or HP41c.

6) Keyboard?

Gene: It certainly appears that early machines have keyboard problems. It ALSO appears (Harryb stated this specifically) that his keyboard does NOT have these problems. The problem appears to have been corrected. People who bought very early who have keyboard complaints have a remedy too.

Summary?

Are there things I wish HP would improve? Sure, of course. I wish the manuals were at the 99% complete level. I wish they had fewer mistakes, grammar and otherwise.

I do not see things with the doom and gloom you present.

I see the glass as almost full.

Some see it not quite full and feel ripped off.

Cordially, Gene :-)

HP49G+ is a JOKE

*Message #4 Posted by **Linda** on 7 Nov 2003, 12:11 p.m.,*
in response to message #3 by Gene

Gene: I can only support Valentin, he is COMPLETELY right!

A graphing calculator is ABSOLUTELY NONSENSE ! It is for pupils (maybe students, but only because the do not have any money to spend) that make their first steps in analysis and algebra, it is not for engineers, not for professionals.

For example you cannot see any details of a functional curve on such a coarse and small LCD display. There are even no numbers at the axes. Imagine a 3D plot! That is a JOKE ! It is like a text editor on a

cell phone (with 10 number keys), absolutely ridiculous. It is a TOY only ! Not a serious instrument !

Not only graphics, also algebra/analytical calculus: Such a HP49G+ is only a toy if compared to MATHEMATICA, MAPLE, MATLAB. If you once have used Mathematica or Matlab (high complexity but indeed easy to use!), you can only laugh on toys like HP49G+. And HP49G+ speed is 1000 times slower than Mathematica and Matlab on my 1.2 GHz subnotebook (imagine if you had a 3 GHz notebook!).

I would say the HP49G+ is only the afterglow of an ending history, the history of the technical calculator. They will die out very soon and be replaced by strong software packets that can be installed on a handheld multimedia device as will be the PDA of the next generation. Such an item will have all the office software, mp3 music tank, personal photo galery, built-in digital camera, built-in cell phone, built-in internet via wireless LAN, built-in GPS with maps, and much more.

Maybe having these different options like plug-in modules (remember the HP-41 plug-in concept with user flexibility). Such a PDA will have calc emulators that you want to have AND IT CAN HAVE SOFTWARE LIKE MATHEMATICA/MATLAB.

As HP49G+ is not a serious, a professional instrument but only a toy to play with, better take the HP-41CX to play with. It is much more FUN! Valentin is completely right here!

Linda

Edited: 7 Nov 2003, 12:11 p.m.

Re: HP49G+ is a JOKE

*Message #5 Posted by **Tom Scott** on 7 Nov 2003, 12:46 p.m.,*
in response to message #4 by Linda

You may be right that the 49G+ is mostly a "toy" but for me, that's what all my calculators are. As you say, with modern scientific/math software, complex problems can be more easily solved and displayed graphically with a computer. However, even though I enjoy the quality feel of my HP=67s, HP42s, etc., I still enjoy "playing" with the 49G+ because it has so many more features. Of course many of these features could be programed into the earlier models but often it's nice to have them at your fingertips (so to speak). I find my biggest use of calculators is using them as I read various technical journals to double check certain numbers and answer questions of my own. For this purpose, the 49G+ with it's built-in constants library, etc. is very handy.

Tom Scott

Graphing Calculators

*Message #6 Posted by **Tom Sherman** on 7 Nov 2003, 2:49 p.m.,*
in response to message #4 by Linda

Not to say that the small screen on a graphing calculator is as nice as a full-size computer monitor, nor that the functionality approaches that of Mathematica, but:

1) Details of any part of the graph can be examined by use of the Zoom feature.

2) The coordinates of any point on the graph can be seen by using the Trace mode.

3) Many interesting studies can be made. For example, it is illuminating for a student (or a retired college professor) to see how closely a Taylor series approximates a function such as the sine curve

as the number of terms in the polynomial is increased. A web plot of a non-linear system approaching chaos can be made. The exponential flux of materials through a multi-compartment system can be investigated. Etc. etc.

It doesn't have to be a toy unless that is what you want it to be.

This is a separate issue from whether or not anyone should consider that calculators made by Kinpo, such as the 49G+, have any relation to the HP represented in this Museum. HP calculators could be becoming like designer jeans: somebody else makes them, HP just puts its logo on them, sometimes getting them crooked at that.

Tom

Re: HP49G+ is a JOKE

*Message #7 Posted by **HrastProgrammer** on 8 Nov 2003, 1:37 a.m.,*
in response to message #4 by Linda

A graphing calculator is ABSOLUTELY NONSENSE ! It is for pupils (maybe students, but only because the do not have any money to spend) that make their first steps in analysis and algebra, it is not for engineers, not for professionals.

Sorry to say this, but if you don't know how to use a graphing calculator then don't use it, but don't make negative comments about it. They are built for the real professionals who know how to use and program them. I am sick of people who are constantly praising their old calculators because they are so simple and intuitive to use. For me, HP-48GX is the best calculator HP ever made. And it is simple to use as HP-41C. I also love old calculators, like HP-41C, HP-42S and HP-71B, very much. I fact, I love all of them so much that I emulated HP-41C/CV/CX/42S/71B on my new and extremly powerful HP-48GX. And I still don't know which of them is the best because each of them is the best for some particular thing. And, believe me, I know what I am talking about. I love HP-49G a little less because of the poor keyboard and display but not because it is a graphing calculator.

So, Linda and all the others, stop shitting about HP-48S/SX/G/G+/GX and HP-49G/G+ if you are not capable to understand them and use them properly. Just return to your old toys (perhaps you can find one on eBay for >500 USD). Or use Mathematica because there is nothing wrong about it.

I agree that HP-49G+ has some flaws but this is due to a quality control and some bad design desicions ... not because it is a graphing calculator.

Could not let it pass... (brief appearance so far)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 8 Nov 2003, 10:45 p.m.,*
in response to message #7 by HrastProgrammer

Hi, Hrast; good reading your posts again.

After about ten days without reading the MoHPC messages (shame on me...), I read some late posts and I found myself nostalgic: where have they gone, those tech chats we used to find here at tons? Well, maybe it's a sign of the times: new calcs, new subjects. For these days I'm in a rush teaching Linux (basic), IBM-PC based architecture and connectivity and Interface Design, and spare time is something I'm begging for...

I can't help myself, Hrast: I must agree with you in many aspects. If "ancient" technology prevails, no tech development is required, no design engineers are needed, and we would simply

see the old stuff being sold as new, and the only new achievement would be the brand new "coat". I think that we should not close our eyes to the new and simply keep the past technology, because both new and old technology can coexist. Any of us that have already dealt with vacuum tubes know what I'm talking about. Some weeks ago, I saw an announcement where an IBM-PC compatible mainboard was shown with a built-in sound system where a vacuum tube is used as the output stage. I saw it in a flash, but that announcement made me remember that some of the most expensive, professional CD players used to have vacuum-tube based analog circuits. What to say? The fact is that we do not see this sort of "course of action" in some companies, that are only in search for profit, profit and profit. In these companies (would HP be elected this way?), R&D dept. is a waste of money, what matters is sales, no matter what to sale. If one can sale the same product all the time, that's profit. If the existing product needs improvement and redesign, that's waste. Anyway, I'd not throw away my solid-state, digitally controlled sound system (with home-built output stage and sound boxes) for a vacuum-tube based sound system, even if vinyl players are included. I like the way CD's "sound". In time: no low-quality, 128K MP3, please.

I developed many stuff with the help of RPL-based machines. I program them as well (user RPL only, no SYS RPL neither machine coded SW), as I also plot small graphs so I can have an idea of what's going on in some situations. The only thing I have not done yet is extensively using a computer-based math SW. I tried MathLab at the university because the teacher suggested it was useful for neural net applications. I felt it somehow boring and I asked the teacher if I could implement all neural net applications (learning database) in an HP49G. He simply told me: "If you can do so..."

And I did it. With small routines. The complete listings were about half a "letter-size" page, Helvetica 10 font. The routines were slow, but worked perfectly fine. And I neither used a computer, nor an specific SW; instead, a US$190 graphing calculator. Oh, yes: I still have the "Electronics International", where the HP41CV is announced at 325 bux! (June 2 1981 issue, p.231)

Just to add my points of view.

Best regards.

Luiz (Brazil)

Edited: 9 Nov 2003, 12:19 a.m.

Re: Could not let it pass... (brief appearance so far)

*Message #9 Posted by **HrastProgrammer** on 9 Nov 2003, 2:05 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hello Luiz ... How are you? Nice to hear from you after a long time, my friend. I missed your posts which were always excellent and full of information ... I hope you will be more active in the future :-)

Implementing AI routines ...

*Message #10 Posted by **Artur** on 10 Nov 2003, 7:06 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hi, Luiz, interesting: I'm also a Brazilian and took the same reaction when was asked to implement the BackPropagation algorithim (I don't know how to write this in English). I just implemented it in my HPGX !

Lets talk about AI and calculators -my passion! Artur

Re: Implementing AI routines ... and message to all

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 14 Nov 2003, 9:46 p.m.,*
in response to message #10 by Artur

Hi, Artur;

I sent you an e-mail.

Please, folks, forgive me. I'm taking all measures in order to get back soon, and I'm sometimes reading posts in a 6- do 10-day checking basis.

I'm setting up some stuff, and after I'm up to go, I'll post about some stuff I've promised. which includes:

- Tandberg TCD 300 maintenance data;
- Load Flow program for the HP42S and some former HP41's listings;
- Collecting data, Data acquisition, Linux and HP calculators (Hey, Tony Duell; I think I need some guidance here about the best way to collect data (HW) and show it graphically in Linux. Have you done something like this? GTK, TK/Tcl, C-routines, whatever... Anyone else with related data or interest?).
- if applicable, AI and Neural Network with RPL-based calculators (is there an easy, low memory consuming way to do this in an RPN-based calculator?), after Artur's call.

I'm feeling I'm getting back "home" (here) soon...

Cheers, to all.

Luiz (Brazil)

Edited: 15 Nov 2003, 10:41 p.m. after one or more responses were posted

Re: ... and message to all

*Message #12 Posted by **james (UK)** on 15 Nov 2003, 4:10 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

Hi Luiz

Hurry back. Looking forward to hearing about your exploits.

Best, James

Linda.....

*Message #13 Posted by **Norm** on 8 Nov 2003, 3:36 a.m.,*
in response to message #4 by Linda

Linda.....

Eloquent words about the 49G+ I couldn't agree more.

How about a date ?

:o)

Classic HP is like a good old bottle of wine

*Message #14 Posted by **Linda** on 8 Nov 2003, 7:01 a.m.,*
in response to message #13 by Norm

;-) .BTW, the HP-34C is indeed a great machine ... And the HP-41, and the HP-15C (e.g./there are more of course ...)

BTW, a good "feeling", a good keyboard CANNOT be emulated by any emulator in the world, neither on PC nor on PDA. So it seems to be a good choice to cover both worlds, to use a complex multimedia machine (small PC or future PDA) - of course also incorporating a good emulator of a great classic HP - and to own and use a great classic calculator that conserves the feeling of real thrill.

Valentin wrote: "We were DELIGHTED, with capitals, for lack of a better word. Those of you who, like me, have been through the 25, 67, 41, fully know the experience and can relate to that heart-and-mind enthralling FEELING [...] What about ENJOYMENT and PRIDE [...]"

Yes, that's it, Valentin, you've got it! One cannot add any further word to it ...!

OK, maybe still one sentence: Life is too short to drink a red win for 1.5 bucks a bottle, and life is too short to spend a huge amount of your valuable spare time to handle a suboptimal*) device ...

P.S.: --- LONG P.S. ----

*) a typical example for a very suboptimal device is the HP-49G+: HP (i.e. the new "Compaq-HP-Agilent" shareholder value oriented company") tried to implement an over-complex functionality in a device, in order to become the "calculator of the calculators". But "HP" failed. "HP" had to fail. Because such a complexity (submenus over submenus) is on the one hand no longer efficiently adressable via human interface (only if you spend all your spare time in learning and not forgetting to use it) and on the other hand not meeting professional demands.

Will there be any engineer or researcher, writing a long routine for complex calculus on a tipsy 49G-calcy, then downloading it to PC, converting/re-writing the code on a PC, then at last displaying/printing convenient plots with Matlab or Origin ;-) ?

I think this is no professional way of working. For solving real mathematical problems all researchers, physicists and engineers I know only use the professional software on a PC or notebook but NEVER an overloaded plastic toy. Sometimes you see an HP-48 or so on their desk but they only use them for "1 enter 1 +" or "sin(pi)".

But if they see your HP-15C or your HP-41CX on your desk, their faces brighten and they say ... "oh, you still use such a great old HP calc? ... Yes, they were great ... I am missing them"

Edited: 8 Nov 2003, 11:22 a.m.

yeah right on, red wine = red LED's

*Message #15 Posted by **Norm** on 8 Nov 2003, 2:31 p.m.,*
in response to message #14 by Linda

Linda, I like your posts. They are refreshing. By the way RED LED's can be considered

similar to your vintage RED WINE..... either is a prize. They are so crisp and intriguing to look at. In a word, RED LED's are FUN.

Know what's pathetic? Any corporation could restart the production of a cool looking display like that. Just the same one from before.... but with modern low-power LED technology so the batteries would last a long time.

Hey they could go multi-color, they could do a field of LED pixels. There's all sorts of things they could build that would be inspired and intriguing (grey LCD is boring in comparison to the original red LED's).

The reason they don't take a leap is because these are not the inspired and visionary innovators who built the originals. These are corporate rot, parasites and fakers, who are feasting upon the fruits of the original visionaries. The originals are long gone.

The fakers remain to feast upon the labors of the original inventors, and that's about all the huge corporation and their excessive take home pay, all created thru the original people with a vision. But they can't build what the original guys built. They just build a bunch of trash until we are tired of them. Finally it takes some other company to proceed in their place (I believe Agilent would be that company, a company that could restart the building of calculators that technical and academic professionals would be proud to use).

Other examples would be Boeing Co. (after building somethign so cool as the original 747 in the 70's, complete with 'James Bond' spiral staircase, now they can't be bothered to try anything clever and new, not even so much as that near-sonic cruiser, they just want to knock out more 737's for Southwest Airlines, yawwwn).

How about Cessna corporation, building that same old Cessna 172 for beginning aviation..... designed in the 1930's ?!? It sure was. Engine and everything. After 70 years, can't be bothered to innovate, only the original people did that.

Everywhere you look, overpaid business/marketeer types carefully eliminate the products we want to buy, and offer us something ghastly instead. Was talking with a gal who agree'd with me and had her own story..... she had been trampling thru all the stores trying to find a ladies LCD wristwatch, an elegant, thin, chrome-type of thing. They were all over the place in the past. Men had bigger watches, ladies had the thin ones. All she can find is "sports" ladies watches, that are big hulking black plastic things. It was an obvious coup of the marketeers, to eliminate what she wanted to buy..... but she did win out at the end..... the models that were suppressed by the marketeers.... well she found a few on the internet! The internet is the one way that we can try to get around these berzerk marketeers who discontinue what we want.... if you look real real hard, there often is still some supplier somewhere, then you don't patronize these mega-corporations who tried to shut off the flow of good product.

Re: yeah right on, Sorry Norm, I gotta disagree

*Message #16 Posted by **jimc** on 8 Nov 2003, 3:46 p.m.,*
in response to message #15 by Norm

Norm, usually I agree with you, but this time you went just a little too far. Your aircraft industry analogy was right on, except when you said:

"How about Cessna corporation, building that same old Cessna 172 for beginning aviation..... designed in the 1930's ?!? It sure was. Engine and everything. After 70 years, can't be bothered to innovate, only the original people did that."

This is one of the reasons we covet the old HP's. The previous incarnations of the HP calc. was diluted in the quest for innovation and "gizmos" to make more money. I think you were referring to the evolution of the product rather than the complete re-designing/re-inventing. While each generation was improved, there came a time when the suits ruled the gears - thats when Kinpo came in to the equation.

I suspect that if the mfg of the 172 were cut off tomorrow, you'd find a "172 Museum" where people would be doing what we do here. Bash Boeing, but I think Cessna is sticking with a winner...kind of what I'd like to see HP do.

12345

Re: yeah right on,

*Message #17 Posted by **Norm** on 8 Nov 2003, 8:46 p.m.,*
in response to message #16 by jimc

Actually I like a lot about the Cessna 172, but it was designed in the 1930's (? at least that's the rumor) and so was the engine.

I like the high-wing airplane. The 172 allows you to ride along and see the ground very well, and the wing tends to provide you with shade. It's also nice for doing the walkaround inspection (terrible in a crosswind however, high-wing can tip the whole thing over).

Say you like high wing. Even so, it has a mild pitch instability because the mass of the plane is hanging well below the wing. The resulting symptoms are called "pitch cycles". It would be so easy to put in a little electronic system to eliminate the pitch cycles..... and the whole thing could cost about $500 or less, and make it much nicer to fly. But then.... that would require *gasp* innovation! Can't have that !!

Re: yeah right on, Off Topic

*Message #18 Posted by **bill platt** on 9 Nov 2003, 3:13 p.m.,*
in response to message #17 by Norm

My father owned a Cessna 172 in the 1960's--he sold it around 1970. It was the older fast-back style with the more upright vertical tail. He had tricycle gear, no wheelpants, and got about 25 mpg at something like 90 or 100 knots. I can just barely remember it, but he even flew us to vacation in Canada, and he took some xcontinet trips in it.

It cost him USD $10,000. His number was N7500T. I remember because every airplane I ever drew when I was little had that number on it :-)

He still has all the cool slide rules, the VOR-TAC stuff, the pee-in-a-bucket set-up etc.

Anyway, one day it was blowing really hard, so he went down to Fair____ airfield (now called Balt. Wash Int'l) and there he found his airplane flying itself--a few inches off the ground--against the tie-downs!. He said it was pretty amazing to see!

Re: Linda.....

*Message #19 Posted by **Linda** on 9 Nov 2003, 4:28 a.m.,*
in response to message #13 by Norm

Norm,

proposal accepted. Please advise: where and when?

I will be wearing a nice red-led 34c around my neck.

12345

This forum is used for everything, even for dating ...

*Message #20 Posted by **Lonely Man** on 9 Nov 2003, 11:49 p.m.,*
in response to message #19 by Linda

... and wine, and Cessnas, ...

Re: Linda.....

*Message #21 Posted by **Norm** on 10 Nov 2003, 3:35 a.m.,*
in response to message #19 by Linda

Linda..... what state are you in ?

I don't mean psychologically, but more like geographical.

As to me, I will also bring an HP-34C on this dinner date. Not only is it a match made in heaven, it will be easier for us to do our calculations in that dimly lit restaurant!

:o)

Re: Linda.....

*Message #22 Posted by **David Smith** on 11 Nov 2003, 3:32 p.m.,*
in response to message #19 by Linda

Linda,

Stay away from Norm. His real name is Abe Normal. He drools on classic keyboards...

Re: HP49G+ is a JOKE

*Message #23 Posted by **Arnaud Amiel** on 8 Nov 2003, 3:38 a.m.,*
in response to message #4 by Linda

I am an engineer and I find that using a graphic calc, I usually get a good understanding of my system faster than the time it would take me to go back to my desk or boot my PC. Of course when I want the details I use a PC but in my work I do spend as much time getting a rough understanding of systems behaviours (calc) as getting into the details.

Arnaud

Re: HP49G+ is a JOKE

*Message #24 Posted by **JasonG** on 8 Nov 2003, 2:41 p.m.,*
in response to message #4 by Linda

Hi there

Linda wrote: 'A graphing calculator is ABSOLUTELY NONSENSE ! It is for pupils (maybe students, but only because the do not have any money to spend) that make their first steps in analysis and algebra, it is not for engineers, not for professionals.'

Well, as an engineer, and a professional, I have to disagree most strongly. I use Matlab, Octave, Mathematica, Mathcad AND a variety of calculators, both graphing and plain scientific, and I really have to say that the calculators most definitely have their place.

Mathematica et al are certainly very powerful and good to use (once you learn how!) but they are often far more than is needed. Some calculations often need to be carried out 'in the field' and a laptop is usually just too much hassle. You may think that ~$700 for a laptop and $1200 for Mathematica, $1000 for Matlab (and $0 for Octave, but that's another discussion) or any similar setup is 'peanuts' but _my_ employer (a large UK electronic engineering employer) won't pay that sort of money for something that won't be used to it's full potential. I have to agree with them actually...if I show that using a modern, powerful, graphing calculator can't make the grade then my boss will happily sign the requisition for Mathematica but I doubt if waiting 10 minutes for my shiney new 49g+ would be a good reason. Mind you, I also regularly use a slide rule (I have a few!) and thoroughly enjoy using them. Again, they have their place and used in that situation they excel. Unlike Excel. :-)

Don said: 'A squid eating dough in a polyethelene bag is fast and bulbous, got me?'

And he's right you know. :-)

t'ra

JasonG

Re: HP49G+ is a JOKE

*Message #25 Posted by **Hugh Wong** on 13 Nov 2003, 4:45 p.m.,*
in response to message #4 by Linda

You guys complains too much, we all in a panic when we found out HP no longer makes RPN calculators a few month ago. Now HP give us some light and we complain !

You bet you're right! ;^)

*Message #26 Posted by **Vieira, Luiz C. (Brazil)** on 14 Nov 2003, 9:23 p.m.,*
in response to message #25 by Hugh Wong

I completely support your words, Hugh! Well said!

Luiz (Brazil)

Luiz iz back !

*Message #27 Posted by **Norm** on 15 Nov 2003, 2:08 a.m.,*
in response to message #26 by Vieira, Luiz C. (Brazil)

Hey Luiz, hadn't seen you post in awhile. Took time out myself.

Did you ever figure out anything more on why the HP Spice calculators are vulnerable to "2 disease" ??

Best wishes to Brazil.

Yeap! I'm doing my best to...(was: Luiz iz back !)

*Message #28 Posted by **Vieira, Luiz C. (Brazil)** on 15 Nov 2003, 10:46 p.m.,*
in response to message #27 by Norm

Hey, Norm! Thanks for mentioning! (my regards to Captain Zener, please)

So far, not much from what I've been reading about. The last news were from one other contributor asking about the "2 disease" and your supporting reply.

Have you read this post of mine? I'm a lot interested on going "in deep"! As many subjects as possible, "2 disease" included. Any tips, tricks and valuable ideas? Don't you have any schematics?

Best regards, Norm. Be well!

Luiz (Brazil)

Re: It's all about RESPECT

*Message #29 Posted by **Angel Martin** on 7 Nov 2003, 3:14 p.m.,*
in response to message #2 by Valentin Albillo

Valentin, Kudos to your posting. I may not have expressed it with such vehement clarity but I do suscribe to the spirit of your text.

I don't know, perhaps it's got something to do with generational changes, and shifting of percieved and/or real value. Whatever reasons we had to react how we did are well gone these days. Not saying it was better, just that it was.

But whatever is is, I still regard our way (as weird as it could feel to others) as the most pleasurable of all:-Unfortunately it's bound to make us feel the new fads as disrespect!

Best wishes,

AM.

Re: It's all about RESPECT

*Message #30 Posted by **harryb** on 8 Nov 2003, 12:31 a.m.,*
in response to message #2 by Valentin Albillo

Indeed. You have encapsulated what I feel on a bad day. When I zoom out and see what products out there, aside from calculators, have maintained a high standard of quality I am reminded that very few have. I look at my wrist and see a faithful Rolex Sea Dweller that I purchased 20 years ago still ticking perfectly, but everywhere else I look I see the irrevocable law of economics that has supplanted the leadership of so many companies out there - make as much profit as possible by delivering the least possible.

Why should Carly, and I say Carly because no other leader at HP has so fundamentally changed the culture

at HP, invest in this product line when there are far more viable income streams associated with production and sales of paper and other consumables. Why make a fine calculator key that costs $1 when you can make one for $0.20 that does a reasonable job? The key (pardon the unintended pun) is in the spread of profit.

Old dinosaurs like us (I'm 38) who once had the romantic affair with HP products must realize that HP does not exist anymore, nor likely will it ever exist again. The economic models simply will prevent it. We must bite the bullet and either purchase a product that makes our stomach churn or head towards TI. Unfortunately, my love for RPN has always been a factor in not heading TI's way.

If you desire the sort of timeless quality of product that the old HP had I suggest you look towards other companies like B&O, Rolex, etc. They do not make calculators, but they do make products that "meet real needs and provide lasting value". Their business model will ensure that quality will never be comromised for market share (I have never seen an economy Rolex).

The old HP is dead. It will never return. That we must accept. It does not prevent us from dreaming, however: a scaled down port of Mathematica running on a PDA device would solve (pardon the pun) our problems. Most of them anyhow. Unlikely that Mr Wolfram would be interested despite the obvious new markets that such a port would create. Perhaps if we all beseeched him he would consider it. Who knows how the mind of a mathematical genius works?

Thus we must await for the suitable hardware that will make Mathematica physically portable in the sense that a calculator is portable. I suspect a high end tablet device with a small form factor designed by Apple (the PC company that has demonstrated the most commitment to innovation and integrity - here, here Mr Jobs!) running the excellent OSX OS and Mathematica would be the computing device that we could comfortably migrate to. Think of writing equations on the screen and manipulating OpenGL graphics! Let HP turn into some GE clone and totally ignore their products. Except for the paper for the HP Laserprinter of course...

Re: It's all about RESPECT

*Message #31 Posted by **Ernie Malaga** on 8 Nov 2003, 1:20 a.m.,*
in response to message #30 by harryb

> Quote:
>
> running the excellent OSX OS

Excellent? Certainly not. After fiddling with OS X since its release, I got so sick of it that downgraded to 9.2.1. OS X (10.2.6) gave me nothing but trouble and was full of bugs. For example, I used to get the same file listed two or even three times in Finder windows. That and crashes and freezes (so much for protected memory and preemptive multitasking). Since I went back to OS 9, the problems have ALL gone away.

"Excellent" is hardly the word I'd use to describe X. Not only is it bloatware, but it turns my 350 MHz G4 into a slug, crawling oh-so-slowly instead of flying.

Really.

-Ernie

Re: It's all about RESPECT

*Message #32 Posted by **harryb** on 8 Nov 2003, 1:52 a.m.,*

in response to message #31 by Ernie Malaga

Without this morphing from nostalgic and sometimes hopeless rants on a once faultless company that made legendary products to a discussion on the merits of Apple's OS X, I must say that since OS X.2 and particularly X.3 the OS is excellent. And I say this with the experience of having been involved in virtually every aspect of PC/workstation use from Win 3 to XP, from Finder 4 to X.3 and from Irix 2.4 to 6.5. The OS is now very stable and very fast. Truly, the first incarnation of OS X was really a beta version and suitable only for hardcore enthusiasts (should not have been for sale). But since then it has matured beautifully and performs head and shoulders above all other OS's in performance, security and stability. My G4 workstation has not crashed for over 8 months (of daily use including testing all sorts of downloaded apps) and has never been virally infected (never had to use any anti-viral tools).

Mac OS X is trash

*Message #33 Posted by **Ernie Malaga** on 8 Nov 2003, 3:41 a.m.,*
in response to message #32 by harryb

> Quote:
>
> I must say that since OS X.2 and particularly X.3 the OS is excellent

Anyone can call anything "excellent," but that just doesn't make it so. OS X has gone the way of the bloatware. When installing it on a Mac, you are never given a choice as to which components you want to install -- it's either all or nothing (unlike versions <= 9). And since I have absolutely no use for iPhoto and iMovie and other iNonsense, I have to delete useful stuff from the disk only so I can update the OS that contains useless junk. Then I have to go through the installed products and delete those I don't need, and restore the good files I had to delete beforehand in order to make room.

The problem of bloatware isn't particular to the Mac. It's a trend in which all software manufacturers participate. In fact, Microsoft was probably the first bloatware developer.

> Quote:
>
> And I say this with the experience of having been involved in virtually every aspect of PC/workstation use from Win 3 to XP, from Finder 4 to X.3 and from Irix 2.4 to 6.5.

Most participants in this forum probably have similar qualifications, so I'm not impressed.

> Quote:
>
> But since then it has matured beautifully and performs head and shoulders above all other OS's in performance, security and stability.

I call that wishful thinking. My personal experience is diametrally opposite. OS X performance is about 40% of OS 9. As I mentioned in my earlier post, I have just downgraded from 10.2.6 to 9.2.1, and have noticed a _sharp_ increase in performance. As far as the so-called "stability", I wish I had jotted down the dates and times my Mac crashed under X. I'm positive it would make an impressively long list.

> Quote:

> My G4 workstation has not crashed for over 8 months (of daily use including testing all sorts of downloaded apps) and has never been virally infected (never had to use any anti-viral tools).

Your claim has no merit unless you describe your system. Mine is a 350 MHz G4 with 256 MB RAM and it crashed under X almost every day. Since I went to 9.2.1 (about three weeks ago) it hasn't crashed even once.

I must stand by my comments.

-Ernie

OT: Mac OS X is trash

*Message #34 Posted by **John Limpert** on 8 Nov 2003, 4:13 p.m.,*
in response to message #33 by Ernie Malaga

Funny, my Mac running Mac OS X hasn't crashed for many months. It used to crash almost every day with Mac OS 9.X. It's a PowerMac G4 450 MHz DP with 768 MB of RAM. It crashed a few times with Mac OS X 10.0. Subsequent releases of Mac OS X have been rock solid.

I like the installer. I want it to just shut up and install everything.

You might check your system for bad RAM. One of Apple's faults is their refusal to support parity-checked or ECC RAM. A flakey DIMM can look like buggy software.

Mac OS X is _NOT_ trash

*Message #35 Posted by **harryb** on 8 Nov 2003, 5:55 p.m.,*
in response to message #33 by Ernie Malaga

Wow Ernie... I guess you must have had some bad experiences... With the Mac OS.

Incidentally, have you considered using the option feature of the installer where you can choose which OS components are installed (from printer drivers to language support, from BSD subsystems to additional applications)? It's easy to miss I guess..

As for my experience, I only wanted to contextualise - not to impress. I do realize what type of person would have owned and loved a HP. And I do realize that I am in the company of some esteemed enthusiasts.

However, I do USE these OS's daily for professional reasons and can comment with the confidence and conviction of someone who has had to deal with many frustrating crashes and who will not resort to the accomplished IT manager (who just prefers to reformat, reinstall OS and reload back-up) until many a post-midnight hour has passed. I have NEVER had to do this on an OS X machine. When I use the term "excellent" it is with no exaggeration, I assure you, it is with gratitude.

The G4 that I'm speaking of is a 2 year old second generation 800Mhz with 1Gb RAM.

In your records have you been able to note what was the cause most often in the crashes?

Re: Mac OS X is _NOT_ trash

*Message #36 Posted by **Ernie Malaga** on 9 Nov 2003, 1:29 a.m.,*
in response to message #35 by harryb

> Quote:
>
> Wow Ernie... I guess you must have had some bad experiences... With the Mac OS.

I guess you could say that. As far as I'm concerned, things started going downhill with System 7.6 which, IMHO, was the buggiest and least stable of them all. OS 8 was much better, but then it started slipping again.

> Quote:
>
> Incidentally, have you considered using the option feature of the installer where you can choose which OS components are installed (from printer drivers to language support, from BSD subsystems to additional applications)? It's easy to miss I guess..

It must be. I've never seen it, and I have installed OS X several times on the same machine during my attempts to fix the unstability problem.

> Quote:
>
> The G4 that I'm speaking of is a 2 year old second generation 800Mhz with 1Gb RAM.

Both you and John have better CPUs than mine. I suppose OS X shouldn't be recommended on weakling Macs like mine, in spite of Apple's blessing of all G4s for OS X usage.

> Quote:
>
> In your records have you been able to note what was the cause most often in the crashes?

There's no pattern, except that in all cases it was OS X in the background. I thought about the RAM chips possibility, but that wouldn't explain why now that I have 9.2.1 the crashes have stopped.

It can't be a virus either -- I've reformatted the hard disk at least twice, reinstalling things after that.

It would be better to stop this off-topic thread before the first ripe tomato hits us on the face. If you want to continue it in email, my address is "kajzero AT earthlink DOT net".

-Ernie

Re: Mac OS X is _NOT_ trash

*Message #37 Posted by **Mark Ordal** on 9 Nov 2003, 3:22 p.m.,*
in response to message #36 by Ernie Malaga

I have to disagree with Ernie Malaga's comment:

"I suppose OS X shouldn't be recommended on weakling Macs like mine, in spite of Apple's blessing of all G4s for OS X usage."

I've been running OSX (10.0, 10.1, & 10.2.8) on a lowly Revision A iBook---the first generation iBook, with 300 MHz G3 and 288 M of memory. OSX works great! No crashes or lockups since the "second public beta" (aka 10.0).

Note that I don't have the original hard drive in it: as soon as my one year warranty was up, I replaced the original 3.1 G drive with a 30 G Toshiba.

Re: Mac OS X is trash

*Message #38 Posted by **David Ramsey** on 9 Nov 2003, 1:49 p.m.,*
in response to message #33 by Ernie Malaga

Quote:

> Anyone can call anything "excellent," but that just doesn't make it so. OS X has gone the way of the bloatware. When installing it on a Mac, you are never given a choice as to which components you want to install -- it's either all or nothing (unlike versions <= 9). And since I have absolutely no use for iPhoto and iMovie and other iNonsense, I have to delete useful stuff from the disk only so I can update the OS that contains useless junk. Then I have to go through the installed products and delete those I don't need, and restore the good files I had to delete beforehand in order to make room.

Actually, with the "Customize" button, you can indeed elect not to install large portions of the system-- although admittedly the iApps are not listed as options.

The cumulative size of all the latest iApps (iDVD, iPhoto, iMovie, and iTunes-- is well under two gigabytes. A complete all-options OS X install _with_ the developer tools is < 5 gigabytes. Are you really so hard up for hard disk space that this is a significant issue?

I confess I don't understand the nostalgic attachment people have to OS 9 and earlier versions. I've worked with Macs since the day they were introduced. OS X doesn't crash like OS 9. OS X doesn't lock up the whole computer while I hold a menu down. With OS X, I can actually use the computer to do something else while a long compile or download is going on (you could under OS 9, technically, but the response would be so sluggish I generally wouldn't bother).

I can carp about things I don't like in OS X, either, but I'd never go back.

Re: Mac OS X is trash

*Message #39 Posted by **Ernie Malaga** on 9 Nov 2003, 10:04 p.m.,*
in response to message #38 by David Ramsey

Quote:

> I confess I don't understand the nostalgic attachment people have to OS 9 and earlier versions.

I suppose it's for the same reason some people get nostalgic about an old neighborhood, an old car... or an old HP calculator.

In my case, however, it's not nostalgia, but practicality. OS X gave me grief while OS 9 didn't. Just that.

-Ernie

Re: It's all about RESPECT

*Message #40 Posted by **Frank Wales** on 8 Nov 2003, 5:35 p.m.,*
in response to message #30 by harryb

> Quote:
>
> If you desire the sort of timeless quality of product that the old HP had I suggest you look towards other companies like B&O, Rolex, etc.

Although I agree with the thrust of your comments, I wouldn't have chosen Bang & Olufsen or Rolex as comparable to the HP quality of old. To me, they're both "lifestyle" brands that command a significant premium price for the quality of the product that you get, and neither represents the best in their respective markets, IMHO.

They also seem to attract disdain from at least some quarters in a way that I never encountered for the classic HP machines.

> Quote:
>
> (I have never seen an economy Rolex)

I believe they're called 'Tudor'.

While I've found some companies that I think make pretty good products that offer lasting value (Eton shirts, Canon cameras, Leatherman knives), the only ones whose products gave me the HP-of-old feeling are Mercedes-Benz and Loewe. Oddly enough, both German companies. Unless I'm mistaken, Germany was HP's second-biggest market for calculators; probably just coincidence, though.

Re: It's all about RESPECT

*Message #41 Posted by **Steven Kutoroff** on 9 Nov 2003, 10:47 a.m.,*
in response to message #30 by harryb

I bought a Rolex in 1976 for over $1000. It needed $400 repair and cleaning 10 years later and 5 years ago it stopped working due to a problem with the crown. Estimate to repair and clean $585. Thank you very much, but the quality escapes me, but timelessness it has a plenty. However, the idea was to tell the time with a little style. Lots of style, not much time. On the topic of HP calculators, my HP-35 bought in 1973 still works, no repair, and has only need two new batteries over its life. Not bad.

Re: HP returning to making quality calculators (LONG)

*Message #42 Posted by **Frank Travis** on 7 Nov 2003, 3:57 p.m.,*
in response to message #1 by harryb

I have seen messages from other persons stating that they would pay 30% (or even more) to get the HP

keyboard, etc. quality of old. I bought my first HP 48SX in July 1992 from the now defunct Educalc (no relation to current Educalc.net) from $274 and some cents. It lasted for nearly six years before it finally stopped working (one of the very few HP calculators I have purchased that ever went bad). But there was no problem with the keyboard. A couple of weeks before my HP 48SX died (in February on 1998) I purchased an HP 48GX from the now defunct Calculating Edge for about $200. It is still working fine to this day.

When I found that some of the plug-in application cards (mainly Sparcom/DaVinci) designed for the HP 48SX did not totally work properly on the HP 48GX I tried to find out where I could get a working HP 48 SX. I purchased a working HP 48SX calculator for $100 from Don O'Rourke of International Calculator in Orlando, Florida website www.internationalcalculator.com I have since gotten two more working HP 48SX calculators (and copies of the old HP 48SX manuals, both two piece spiral bound and one-piece square shaped) from Ebay auctions, for a similar amount. A high school or college student can not afford the prices that a working professional (scientist, surveyor, computer programmer, engineer, etc.) can. HP might want to have reasonabley priced calculators for the education market and higher priced models for working professionals. I saw a message from a surveyor a few months ago that he could not wait to purchase an HP 49G+ when it became available. Dedicated surveying devices such as the Allegro, SMI Titan, and TDS Ranger are $2,000 and up. See websites www.smi.com and www.tdsway.com

Some persons feel that general purpose use PDAs will replace calculators. To me PDAs will be the dominant handheld that is used. However, calculators will still have a niche market. Also, some PDAs cost up to $800. No calculator sold new in the last 25 years (including HP 41C/CV/CX, HP 28C and HP 28S--not calculators sold as collectors items/antiques) cost that much. HP needs to know what persons want in future HP calculators. I have been sending them e-mail which is being forwarded to their Product Development persons. To meet the automobile competition from Europe (mainly Germany) and Asia (mainly Japan), U.S. manufacturers GM, Ford, and Chrysler (now Daimler-Chrysler) increased product quality. HP can do the same. But HP needs feedback from a lot of calculator users.

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HP 85 unsecure

*Message #1 Posted by **Franz Vida** on 7 Nov 2003, 3:08 a.m.*

I can unsecure HP 85 programs without the password. If someone is interested please let me know. Franz

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11C Problems

*Message #1 Posted by **John Rodriguez** on 6 Nov 2003, 8:59 p.m.*

Anybody have an idea how to fix my beloved 11C? (Actually, my beloved's beloved 11C; I have a 15C.) Here's the scoop:

1. Calculator turns on by pressing any of these keys: ON, f, g, STO, RCL.

2. When f is pushed with calculator on, "f" does not appear in the display. None of the f functions work, i.e., I cannot change from SCI to ENG. "g", however, does appear in the display when g is pressed, and g functions correctly, i.e., I can change RAD to GRAD.

3. No multi-digit number can be entered. If you try to enter 45, first 4.0000 will appear, then 5.0000 will appear.

4. All functions seem to be working, meaning multiplication, addition, subtraction, CHS, exp(x), sin, and so on.

Calculator fails the +, x, / tests with Error 9.

Thanks for any advice!

Re: 11C Problems

*Message #2 Posted by **Karl Schneider** on 7 Nov 2003, 1:48 a.m.,*
in response to message #1 by John Rodriguez

John --

The 15C manual says simply that, if "Error 9" is obtained for the self-test, the calculator requires service.

However, it also says that if the user wants to continue using the calc, a memory reset (ON/-) should be done.

Re: 11C Problems

*Message #3 Posted by **Renato** on 7 Nov 2003, 2:49 p.m.,*
in response to message #1 by John Rodriguez

I´d start by doing a memory reset (ON - Minus). Then I would try a keyboard test (ON - Divide)

Maybe changing batteries would help also.

Good luck,

Renato

Re: 11C Problems

*Message #4 Posted by **David Smith** on 7 Nov 2003, 3:17 p.m.,*
in response to message #1 by John Rodriguez

The ultimate HP10/11/12/15/16 reset is to short across the outside of the battery string for a second or so with a wire or paper clip while the batteries are in the machine (and YES it says this in the manual).

Another very likely problem is some kind of internal short or (often invisible) contamination on the circuit board. Clean it well with 91%+ isopropyl alcohol. Keep it off the display window or you will get a white stain.

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Can 49G do cramer's rule

*Message #1 Posted by **Fred Miller** on 6 Nov 2003, 6:47 p.m.*

I was wondering if the 49g has a function for solveing cramer's rule. Meaning you could enter in the system of equations and pick the one you want to solve for and it performs cramer's rule on the manipulated matrix. I know you can use det() but then you have to take the determinate twice and divid blaa blaa blaa. If it is possible or if there is a program that will do it and anyone knows it would be greatly appreciated

Re: Can 49G do cramer's rule

*Message #2 Posted by **Namir Shammas** on 6 Nov 2003, 7:01 p.m.,*
in response to message #1 by Fred Miller

Cramer's rule is SOOOO inefficient that it is taught for historical purposes and is practical ONLY for solving two (and maybe three) equations. The HP49G can do LU decomposition, QR decomposition, and SVD. These methods rule over Cramer's rule (no pun intended)!!

Namir

Re: Can 49G do cramer's rule

*Message #3 Posted by **Ed** on 6 Nov 2003, 8:05 p.m.,*
in response to message #2 by Namir Shammas

Just use SOLVE command.

3: [x+y=5 x-y=1] 2: [x y] 1: SOLVE

Can handle as many equations as you need. After gettign the array of equations, you can just use LNAME command to get all variables (2:..)

Re: Can 49G do cramer's rule

*Message #4 Posted by **Karl Schneider** on 7 Nov 2003, 1:57 a.m.,*
in response to message #2 by Namir Shammas

Namir stated:

> Quote:
>
> Cramer's rule is SOOOO inefficient that it is taught for historical purposes and is practical ONLY for solving two (and maybe three) equations.

The 20S has Cramer's Rule built in for solving a system of 3 linear equations (called "3 bY 3") -- use "LOAD" to copy it from the calc's ROM into user program memory. However, I'm not sure how the function can be easily used to solve a system of 2 equations, because some determinants would be zero.

If you are interested...

*Message #5 Posted by **Raul L (España)** on 7 Nov 2003, 2:40 a.m.,*
in response to message #4 by Karl Schneider

... I could mail you a little RPL program that given the system matrix, it gives you the Cramer's determinants.

Re: Can 49G do cramer's rule

*Message #6 Posted by **Namir Shammas** on 7 Nov 2003, 7:04 p.m.,*
in response to message #4 by Karl Schneider

Most Numerical Analysis books will not even mention Cramer's rule anymore! The method is so wastefull of CPU effort (for 4 equations and more) that people who crunch numbers will frown upon using it. The LU decomp is the current method of preference.

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48G memory expansion, is it possible?

*Message #1 Posted by **spencer** on 6 Nov 2003, 4:58 p.m.*

I have heard rumors that it is possible to "memory expand" the 48G from 32K user available memory to 128K. Anyone know how to do that?

Re: 48G memory expansion, is it possible?

*Message #2 Posted by **Randy Sloyer** on 6 Nov 2003, 8:33 p.m.,*
in response to message #1 by spencer

Yes. Instructions:

1. Open calculator.
2. Remove 32K ram.
3. Install 128K ram.
4. Close calculator.
5. Enjoy.

Edited: 6 Nov 2003, 8:34 p.m.

Re: 48G memory expansion, is it possible?

*Message #3 Posted by **Ed Look** on 6 Nov 2003, 10:59 p.m.,*
in response to message #1 by spencer

Actually, Randy can be contracted to do this service for you; you can check his website. The link is found in this Museum.

Re: 48G memory expansion, is it possible?

*Message #4 Posted by **Erik Ehrling (Sweden)** on 7 Nov 2003, 11:07 a.m.,*
in response to message #1 by spencer

I have used www.cynox.de for upgrading several of my HP48G/GX's and have always been satisfied with the result. (Once the keyboard overlay was not fitted perfectly after the upgrade but they fixed that for free and I only had to pay for the shipping costs one way).

They also have several interesting options for the HP48G, one being a 1.2MB module - which upgrades the HP48G to have as much memory as you would have in the HP48GX with both a 128K and a 1MB card installed - another option being a double speed module - which in reality gives about 50% increase in speed.

There are some drawbacks with the speed upgrade, e.g. the clock goes faster as well and batteries last shorter time, but all in all I find a 1.2MB + double speed upgrade worthwhile! (It should cost around 110 Euro + postage)

Best regards, Erik Ehrling (Sweden)

Re: 48G memory expansion -- key is how you open the calculator.

*Message #5 Posted by **Paul Brogger** on 7 Nov 2003, 11:50 a.m.,*
in response to message #1 by spencer

I've done a couple. 128K is easy.

256K is doable, but the lazy way I did it (trying to solder-bridge the upper memory chip pins to those on the lower chip) didn't last long at all. If you do 256K, find some way to firmly connect the second memory chip's pins to those of the first.

I've heard of three methods of opening the calculator:

1. taking off the keyboard overlay to get at the tops of some internal "heat stakes" (plastic posts with melted, mushroomed ends that hold the front & back of the calculator together);

2. cutting the heat stakes from behind the IR lens and from within the battery compartment; and

3. somehow (?) just prying the thing apart.

I don't trust the first to leave the keyboard face fully intact, and can't believe the third leaves no marks on the case. (There are probably people who will dispute these assumptions.) The only one I've tried is the second, and there are several web sites with descriptions of how to do it. It does require that holes be cut into the back case, but in places that are usually hidden, so I think it is the best alternative.

Re: 48G memory expansion -- key is how you open the calculator.

*Message #6 Posted by **Erik Ehrling (Sweden)** on 7 Nov 2003, 1:03 p.m.,*
in response to message #5 by Paul Brogger

> Quote:
>
> I've heard of three methods of opening the calculator:
>
> 1. taking off the keyboard overlay to get at the tops of some internal "heat stakes" (plastic posts with melted, mushroomed ends that hold the front & back of the calculator together);
>
> 2. cutting the heat stakes from behind the IR lens and from within the battery compartment; and
>
> 3. somehow (?) just prying the thing apart

It appears to me that Cynox uses the first alternative. If you look carefully between the keyboard overlay and the edge at the top you can barely see the tops of two screws, which I assume replaces the removed "heat stakes"

Best regards, Erik Ehrling (Sweden)

PS. By the way, does anyone know where you can get a HP48*SX* upgraded to double speed? (There are descriptions of it on the net, so it can be done...)

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48G memory expansion, is it possible?

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HP21 batteries

*Message #1 Posted by **Bill** on 6 Nov 2003, 3:48 p.m.*

Hi there, new to the forum. I have an HP21 which I bought for fun at a garage sale but am currently relying upon as I lost my beloved 41CV. I don't see how to remove the rechargable AA batteries from the pack/holder. The calc. will only work now when plugged in, I would like to replace the batteries, any suggestions? thanks in advance....

Re: HP21 batteries

*Message #2 Posted by **David Ramsey** on 6 Nov 2003, 4:09 p.m.,*
in response to message #1 by Bill

Actually, replacing the batteries is pretty simple.

Use wire cutters or a knife to trim out the central plastic spline that runs between the two batteries.

Now you can easily remove the old batteries, clean out any corrosion, and simply insert a fresh pair of "AA" alkaline or NiCads. Make sure you get the polarity right!

Re: HP21 batteries - link

*Message #3 Posted by **jimc** on 6 Nov 2003, 4:13 p.m.,*
in response to message #2 by David Ramsey

http://www.hpmuseum.org/howtohp/howtohp.htm

and

http://www.hpmuseum.org/batts/battery.htm

Re: HP21 batteries - link

*Message #4 Posted by **Bill** on 6 Nov 2003, 4:43 p.m.,*
in response to message #3 by jimc

I cut the back piece as shown, thanks for the help! I think the batteries I pulled out are circa 1975 like the calculator

Re: HP21 batteries - link

*Message #5 Posted by **R** on 6 Nov 2003, 4:46 p.m.,*
in response to message #4 by Bill

Be sure to clean off the battery terminals of the pcb from corrosion, if applicable;-)

Raymond

Re: HP21 batteries - link

*Message #6 Posted by **Bill Plaxton** on 6 Nov 2003, 6:00 p.m.,*
in response to message #5 by R

ok now here's a dumb question, can I run nickel-metal-hydride batteries in place of the NiCDs which I haven't been able to find? thanks again...

Re: HP21 batteries - link

*Message #7 Posted by **David Smith** on 7 Nov 2003, 3:19 p.m.,*
in response to message #6 by Bill Plaxton

Yes, NiMH cells work wonderfully in these machines. 1800maH cells will run it for three times as long as the originals (if you charge them for three times as long).

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HP-IL mass storage

*Message #1 Posted by **Pavel Korensky** on 6 Nov 2003, 3:39 p.m.*

Hello,

today I got (free of charge) another HP82161A tape unit.

The unit is not working. Maybe, something is wrong with the motor, because the tape is not moving and the rewind does not work. I did not have time to test it yet.

But I got one idea. If the HP-IL part is working, it should be possible to build some kind of mass storage and put it inside the 82161A plastic case.

I was thinking about some microcontroller (ATMega or maybe SC-12) and MMC card or CF card. The card connector assembly can be glued to the cassette door (for simple media exchange).

Anybody tried to do something similar ?

The second possibility, how to use the HP-IL components is to build something like HP-IL/USB or HP-IL/Ethernet convertor and use PC with USB or Ethernet for connection to the HP-IL system. The PC can simulate the mass storage, printer, etc.

Re: HP-IL mass storage

*Message #2 Posted by **Raymond Del Tondo** on 6 Nov 2003, 4:43 p.m.,*
in response to message #1 by Pavel Korensky

Hello Pavel,

AFAIK similar solutions exist. Are you sure the battery of the drive isn't just too flat or even dead? The battery must have a specific minimal charge level to allow the motor to work correctly.

As for the HP-IL <-> PC mass storage. Just use something like TRANS41, maybe it even runs with your IL-RS232 interface somehow ?

Regards,

Raymond

Re: HP-IL mass storage

*Message #3 Posted by **Pavel Korensky** on 6 Nov 2003, 5:06 p.m.,*
in response to message #2 by Raymond Del Tondo

This is not a problem with batteries. The unit was stored for a lot of years in a very wet environment (cellar) and the corrosion worked on it. I suppose that all mechanical parts are useless. There was some mould (is it a right term for for a nasty grey/green organism ?) inside the box.

I will disassemble the unit to parts and I will try to clean and dry them. I was thinking about the possibility to use the case and HP-IL components and made some kind of battery operated mass storage from those components.

In the meantime, I got a third idea. Maybe I can build the HP-IL analyser. Just connect the HP-IL chip to some PIC or Atmel microcontroller and hook the whole design to USB and write some PC software. Or hook the HP-IL to the SC-12 and connect it to the PC via Ethernet. The rest is only software on PC side.

Re: HP-IL mass storagen and PC interface

*Message #4 Posted by **Christoph Klug** on 7 Nov 2003, 3:35 a.m.,*
in response to message #3 by Pavel Korensky

Dear Pavel,

for both HP-IL applications you describe exist solutions :

1: Mass storage = the CMT RAM-Disk-Unit with up to 512 Kbyte RAM and RS232 option (I am looking this nice device...)

2: PC interfacing = full version of EMU41 which includes HP-IL support (and works with HP-IL PC interface card)

Your idea about creating a IL-mass storage device is absolutely nice - this solution would expand the actual development projects of HP41 ROM/RAM storage systems (plug in module or card reader case). Furthermore your solution would be interestig for any handheld which supports HP-IL (for example HP71)

Best wishes from Germany - Christoph Klug

Re: HP-IL mass storagen and PC interface

*Message #5 Posted by **Pavel Korensky** on 7 Nov 2003, 4:19 p.m.,*
in response to message #4 by Christoph Klug

I was reading some materials today and I was thinking about the mass storage. Probably, I will use ATMega microcontroller and MMC card. The 64MB card will be formated as a set of 512 files, each file 128KB long. The LIF medium filesystem will be implemented inside each file. With this arrangement, the whole system can behave like HP-IL cassette drive with 512 cassettes. For "tape exchange", there will be some push buttons and some display.

But firstly, I will use the HP-IL chip for the implementation of HP-IL analyzer. I need to find what commands are used by HP-41 for communication with the tape unit.

Or better, do you know where to find the listing of device dependent commands for HP-IL mass storage peripherals ? I am too lazy to read the whole HP cassette control ASM listing.

Re: HP-IL mass storagen and PC interface

*Message #6 Posted by **Raymond Del Tondo** on 7 Nov 2003, 5:59 p.m.,*
in response to message #5 by Pavel Korensky

Hi Pavel,

for the DDL/DDT commands: IIRC, there are tables of the related commands in the tape drive

manual.

Regards,

Raymond

Re: HP-IL mass storagen and PC interface

*Message #7 Posted by **Pavel Korensky** on 7 Nov 2003, 8:34 p.m.,*
in response to message #6 by Raymond Del Tondo

I am really sorry.

Of course, you are right. I forgot that this manual was written during the old, better times.

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question about 41c peripherals

*Message #1 Posted by **jimc** on 6 Nov 2003, 10:00 a.m.*

OK, I have finally obtained my (once missing) petroleum pac for my day job. Now, I would like to expand my system. The question is; what should they be? What would you consider the minimum components for a fairly serious 41 user? Card reader? Video interface? Printer? PC gateway? Advantage pac? What components would you get the most use of of?

Waiting on your input....

12345

Re: question about 41c peripherals

*Message #2 Posted by **Valentin Albillo** on 6 Nov 2003, 11:52 a.m.,*
in response to message #1 by jimc

Minimum:

```
Card reader
Advantage ROM
Printer
```

Recommended:

above, plus:

```
a Quad RAM Module [if 41C]
Extended Functions/Memory ROM [if 41C/41CV)]
2 Extended Memory Modules [if 41CX, else only one]
Mass storage (tape or floppy, may require HP-IL ROM)
```

Best regards from V.

Re: question about 41c peripherals

*Message #3 Posted by **David Smith** on 6 Nov 2003, 1:55 p.m.,*
in response to message #1 by jimc

Card reader, printer, Advantage ROM, PPC ROM

Re: question about 41c peripherals

*Message #4 Posted by **Håkan Thörngren** on 6 Nov 2003, 4:17 p.m.,*
in response to message #1 by jimc

More RAM.

I find the timer module very useful.

Some means of storage outside the 41:

HP-IL is useful to interface to a computer or a mass storage, such as the 9114 floppy disk.

The wand can also be of use if you do not want the expense of HPIL and have a means of producing bar code for your programs.

The card reader can also be an alternative.

Håkan Thörngren: Thanks!

*Message #5 Posted by **Angel Martin** on 7 Nov 2003, 12:38 a.m.,*
in response to message #4 by Håkan Thörngren

Hello Håkan ,

Just wanted to give you my belated thanks for your MCODE articles in those old PPC Journal's! I have added a few of your superb routines to the SandBox ROM (a compilation ROM), you may have read the thread?

I've got a couple of questions on some aspects I couldn't sort out very succesfully, too tecky for this thread, can you reply to my email address?

Best wishes, Angel Martin

Re: question about 41c peripherals

*Message #6 Posted by **Bill Smith** on 6 Nov 2003, 4:34 p.m.,*
in response to message #1 by jimc

for me the answer has evolved to:

external storage

either a 9114 or 82973A (and the IL module to run either). my card reader (specifically the cards) is deteriorating, and it is a real pain to have a large program fail on cards. also, the bar code wand is relatively simple and inexpensive, but is a one way device. if i could only have one of the above devices, it would be the 82973A. also, with the appropriate software the PC can provide the printer.

Re: question about 41c peripherals

*Message #7 Posted by **Raymond Del Tondo** on 6 Nov 2003, 4:38 p.m.,*
in response to message #1 by jimc

Ok, I'll throw my suggestions here, too.

Most important: 1. Quad Memory module 2. X-Functions module

3. HP-IL module

Then either 4a. Advantage Pac or 4b. CCD module

The Advantage Pac offers numsolve and integ, the CCD module the best user interface, both offer matrix ops, which were from the CCD module to the Advantage Pac.

HP-IL mass storage device, either 5a. tape or 5b. disk

6. HP-IL printer

Raymond

Re: question about 41c peripherals

*Message #8 Posted by **Christoph Klug** on 7 Nov 2003, 3:51 a.m.,*
in response to message #7 by Raymond Del Tondo

Dear jimc,

best would be to have the HP41CX with internal X-Functions and Time module. Expand the internal X-Memory by one or two plug in X-Memory module or better by an Double-X-Memory module. Next install the CCD module. Than install HP-IL module plus EXT-I/O for interfacing to external world :

Use the full version of EMU41 on your PC : This replaces some real IL devices (mass storage, printer, barcode print, video screen). Furthermore you get an advanced emulator and a gateway to PC-world and exchange by internet...

Therefore the best today HP41 system solution is :

HP41CX Double-X-Memory CCD EXT-I/O EMU41 (advanced emulator, mass storage, printer, barcode, video screen, gateway to PC and web...)

For HP41 interface applications to real world and for measurement data logger applications take the HP82166A IL-Converter and I/O-Board or IL2000 System ...

Best wishes from Germany - Christoph Klug

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strange hp 34c on ebay, anyone knows what it is ?

*Message #1 Posted by **pascal** on 6 Nov 2003, 3:13 a.m.*

See http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3057298142&category=11713

Can anyone tell me what it is ???

Thanks.

Pascal

Re: strange hp 34c on ebay, anyone knows what it is ?

*Message #2 Posted by **John Limpert** on 6 Nov 2003, 4:08 a.m.,*
in response to message #1 by pascal

There used to be an organization, Science for the Blind, that adapted scientific equipment for use by the blind. I suspect that is what is up for auction, a calculator that was modified to be usable by a blind person.

That is what I could find on Google. There were references to Thomas Benham, a blind professor at Haverford College.

Re: strange hp 34c on ebay, anyone knows what it is ?

*Message #3 Posted by **Pascal** on 6 Nov 2003, 9:57 a.m.,*
in response to message #2 by John Limpert

Did you find something specific for this hp-34 ? what features for the blinds were added ?

Re: strange hp 34c on ebay, anyone knows what it is ?

*Message #4 Posted by **John Limpert** on 7 Nov 2003, 12:37 p.m.,*
in response to message #3 by Pascal

I don't have any more information on the calculator. My guess, based on its age, is that they decoded the LED display signals and used them to drive some sort of braille device.

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HP-41C Video interface PAL/NTSC?

*Message #1 Posted by **Giuseppe Marullo** on 5 Nov 2003, 9:10 p.m.*

Hi, I would like to buy a HP-IL video interface module, but it is not clear to me if it will support PAL standard. Any clue?

Thanks,

Giuseppe Marullo

Re: HP-41C Video interface PAL/NTSC?

*Message #2 Posted by **Vassilis Prevelakis** on 5 Nov 2003, 9:44 p.m.,*
in response to message #1 by Giuseppe Marullo

The HP one (82163A) comes in either PAL or NTSC.

The Mountain Computer inc (80 column) (MC00701A, alias HP92198) allows the user to select the video format.

**vp

Re: HP-41C Video interface PAL/NTSC?

*Message #3 Posted by **Giuseppe Marullo** on 5 Nov 2003, 9:52 p.m.,*
in response to message #2 by Vassilis Prevelakis

Hi Vassilis, thank you for your answer. I don't have the module, I should ask the seller to check. Since he is in the States, I guess it will be NTSC, any hint on how to check it other than testing it? He does not have a 41C at the moment.

It could be used thru the monitor port anyway? What kind of monitor signal is?

Thanks again,

Giuseppe Marullo

Re: HP-41C Video interface PAL/NTSC?

*Message #4 Posted by **Diego Diaz** on 6 Nov 2003, 4:49 a.m.,*
in response to message #3 by Giuseppe Marullo

Hi Giuseppe,

I don't think you must care about this. As for early 80's TV sets were designed to handle one specific system PAL, SECAM, NTSC... but remember those are colour modulation system, so the colour information in the composite video signal becomes useless from one system to the others. But colour is

not an issue with HP-41 system, as they only offer B&W.

Next thing to care is luminance (the real B&W image), and again, nothing to care about, signals are compatible at this level.

Synchronism is the last point, PAL uses 625 interlaced horizontal lines and 50Hz vertical refresh rate, while NTSC handles 525 interlaced lines and 60Hz vertical refresh... This sound quite different, but they aren't. In fact almost every TV set manufactured since early 90's handles both systems efficiently.

So you can symply plug it into your TV set video input (usually an RCA type coaxial connector) or to the V-IN line if you are going to use an Euroconnector (Scart).

The signal itself is a composite 1Volt peak to peak assymetric video. Video info goes from 0 to +0.7v while sync pulses go from 0 to -0.3v.

Anyhow, you must be carefull if you are intended to use an old B&W monitor, as those are usually suitable for one specific video system.

Hope this help

Re: HP-41C Video interface and LCD-Monitor

*Message #5 Posted by **Christoph Klug** on 6 Nov 2003, 5:04 a.m.,*
in response to message #4 by Diego Diaz

Dear Giuseppe,

as Diego explaines in his answer, the IL-video interface box generates an FBAS signal. This is compatible to valve-monitors.

If you interface the FBAS singnal to an modern LCD screen you get an incomplete screen display, because the line format of LCD monitors is different from the line format of valve-monitors. That is terrible because a small LCD screen (used for automotive applications) would be a nice extension for your IL-system...

Alternatively to the IL-Video interface box you are able to use your PC-monitor as screen display. For example the software soultions TRANS41 and EMU41 includes a screen display feature. Furthermore this solution (I prefer EMU41) gives you much more advanced features, much more than a poor screen dispay output. Refer to the articles forum item 311 : "HP41-PC gateway & emulator"...

Best wishes from Germany - Christoph Klug

Re: HP-41C Video interface and LCD-Monitor

*Message #6 Posted by **Holger Veit (DE)** on 6 Nov 2003, 10:37 a.m.,*
in response to message #5 by Christoph Klug

Just for the record:

"FBAS" is a German acronym (Farbsignal,Bildinhalt,Austastung, Synchronisation"), the internationally better known term is CVBS (color,video,burst,sync).

Holger

FBAS

*Message #7 Posted by **Andrés C. Rodríguez (Argentina)** on 6 Nov 2003, 3:15 p.m.,*
in response to message #6 by Holger Veit (DE)

An appreciated and much needed clarification, thank you!

Re: HP-41C Video interface PAL/NTSC?

*Message #8 Posted by **Giuseppe Marullo** on 6 Nov 2003, 6:29 p.m.,*
in response to message #4 by Diego Diaz

Thanks for your answers. I will purchase them, if I have understood well the signal is 1Vpp composite, so any frontal RCA / SCART connector will let me see the images.

Christoph, are you saying that a HP-IL LCD module would sell well? :)

Giuseppe Marullo

Re: HP-41C Video interface & LCD monitor

*Message #9 Posted by **Christoph Klug** on 7 Nov 2003, 4:09 a.m.,*
in response to message #8 by Giuseppe Marullo

Dear Giuseppe,

LCD monitors I tested are not able to display any line of the IL Video Interface correctly - form this result incomplete characters. That is bad, because the LCD´s have a small size, which is pratical for a portable system :-(

Personally I prefer EMU41, this includes also an Video Interface screen output running inside a DOS window...

Best wishes from Germany - Christoph Klug

Re: HP-41C Video interface & LCD monitor

*Message #10 Posted by **Giuseppe Marullo** on 8 Nov 2003, 9:34 p.m.,*
in response to message #9 by Christoph Klug

So I only have to interface a LCD display (like a 128x64) to a HP-IL bus, right? Wow, another project.

Re: HP-41C Video interface & LCD monitor

*Message #11 Posted by **Raymond Del Tondo** on 8 Nov 2003, 9:59 p.m.,*
in response to message #10 by Giuseppe Marullo

BTW: There exist at least two versions of LC displays from CMT for HP-IL...

Since these are relatively rare, it would be nice if someone will be able to develop a new solution.

Regards,

Raymond

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ugrade from 1.18 ->1.22?

*Message #1 Posted by **Gitte** on 5 Nov 2003, 4:52 p.m.*

I have my old hp49g(rom 1.18), and I want to upgrade to 1.22. Is that necessary? What will change? What is the difference between 49g and 49g+? Thanx! :)

Re: ugrade from 1.18 ->1.22?

*Message #2 Posted by **Raymond Del Tondo** on 5 Nov 2003, 5:44 p.m.,*
in response to message #1 by Gitte

I don't know if such an upgrade is even possible. Did you take a look at the feature list of the + ? The hardware is different, the configuration may be incompatible. Unless someone can state the opposite, I'd suggest to upgrade your 49G to ROM 1.96 or 1.97 (if available)

Raymond

Re: ugrade from 1.18 ->1.22?

*Message #3 Posted by **John** on 5 Nov 2003, 9:21 p.m.,*
in response to message #2 by Raymond Del Tondo

You cannot upgrade the 49G with 49G+ roms. The highest available for the 49G is the "unofficial" (but very stable) 1.19.6.

I have heard that there is a 1.19.7, but I have not seen it.

John

Re: ugrade from 1.18 ->1.22?

*Message #4 Posted by **Jordi Hidalgo** on 6 Nov 2003, 12:02 p.m.,*
in response to message #2 by Raymond Del Tondo

There were rumours the version 1.22 for the 49G could be (easily?) extracted from the 49g+ file. But would it be of any good? I don't think so.

Jordi

Re: ugrade from 1.18 ->1.22?

*Message #5 Posted by **Raymond Del Tondo** on 6 Nov 2003, 4:28 p.m.,*
in response to message #4 by Jordi Hidalgo

IMHO you would have to patch the image in various places, since it uses some new opcodes (81Bx) which are not available in the 49G, and the compiled display offset constants are different, of course.

I don't think that it's worth the effort. People who can't live without a 49G-like calc should consider selling their 49G, and buy a 49G+. The 49G+ is better than the normal 49G in all and every aspect.

However, I'll stay with my 48GX, which is even better IMHO;-)

Raymond

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17BII - place and date of manufacture

*Message #1 Posted by **bmclaurin** on 5 Nov 2003, 3:48 p.m.*

I'm trying to find out the years (and places) of manufacture of 17BII's. I'm aware of how to decipher the serial codes to determine this information for individual units. What I'm interested in is where and when, generally, production occurred for this model. Were any 17BII's made in the USA, or were they all foreign made? I understand that production was roughly between 1990 and 2002, but I don't know what countries were involved. Any help would be appreciated.

Re: 17BII - place and date of manufacture

*Message #2 Posted by **Raymond Del Tondo** on 5 Nov 2003, 5:39 p.m.,*
in response to message #1 by bmclaurin

I've seen 2 country codes on 17BII units so far, S for Singapore and ID for Indonesia. I'm sure the latest units have CN for China as code. Others could include Brazil.

Raymond

Re: 17BII - place and date of manufacture

*Message #3 Posted by **Randy Sloyer** on 5 Nov 2003, 7:09 p.m.,*
in response to message #1 by bmclaurin

To the best of my knowledge, only the 17B was manufactured in the USA. The 17Bii did not appear in the lineup until Pioneer production had moved to Singapore. So, no USA built 17Bii's exist. They possibly had a brief run in Malaysia before moving to Indonesia. I'm basing this on 32Sii production as I have never seen a Malaysian built 17Bii. They were probably built in Brazil as well, but most of those where for in-country consumption due to their importation laws way back them.

They also followed the same slide in quality as the 32Sii, that is to say once they were made in Indonesia, the key legends where printed on. All the Singapore units where double molded keys so the legends would never wear off, one of the hallmarks of HP quality.

Re: 17BII - place and date of manufacture

*Message #4 Posted by **bmclaurin** on 6 Nov 2003, 11:05 a.m.,*
in response to message #1 by bmclaurin

Thanks for the replies. That's just the info I needed. So I gather that the first 17BII's were made in Singapore. I have a 2001 Indonesian-made model, and the keypad quality is less than stellar. I'm thinking of selling that one and trying to find a good/excellent condition "early" model (early 90's), presumably made in Singapore.

Re: 17BII - place and date of manufacture

*Message #5 Posted by **Scuba Diver** on 6 Nov 2003, 11:31 a.m.,*
in response to message #4 by bmclaurin

Hello!

I found a bunch of 17BIIs at an electronics store a while back, and I bought up the lot. Sold most of them on eBay.

Here's what I found;

The last Singapore unit in the lot was made in late 1995. All of the units manufactured in 1996 (in this lot) were made in Indonesia. The interesting thing is that some of the Indonesian units are in boxes that say "Calculator Manufactured in Singapore". I guess that they shipped the leftover boxes to Indonesia so that they weren't wasted (how prudent of HP!)

The keypad quality was noticeably different between the Singapore and Indonesian units. If you're looking for a Singapore unit, you don't need to look for one from the early '90s. I have two Singapores from 1995 and they meet my expectations of keypad quality and feel.

Hope that helps! B.

Re: 17BII - place and date of manufacture

*Message #6 Posted by **bmclaurin** on 6 Nov 2003, 2:09 p.m.,*
in response to message #5 by Scuba Diver

Thanks a ton. That's exactly what I needed to hear. Nice to know that I don't have to limit my search to early 90's...sounds like any good/excellent condition Singapore unit will do.

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How long should I charge the batteries

*Message #1 Posted by **Arnaud Amiel** on 5 Nov 2003, 1:33 p.m.*

I have rebuilt my 45 battery pack and used 650mAh NiCad. I believe the original was 450mAh and had to be charged for 14h. Am I right in thinking I should charge mine for 20h.

Thanks for your input

Arnaud

Re: How long should I charge the batteries

*Message #2 Posted by **Bill (Smithville, NJ)** on 5 Nov 2003, 1:49 p.m.,*
in response to message #1 by Arnaud Amiel

I've always used the following for NiCds:

(1.5) times (battery capacity) divided by (charger capacity) = hours

Assuming the HP-45 charger is 50 ma, then

1.5 x 450 / 50 = 13.5 hours

1.5 x 650 / 50 = 19.5 hours

So, 20 hours should be about right.

Re: How long should I charge the batteries

*Message #3 Posted by **David Smith** on 5 Nov 2003, 3:42 p.m.,*
in response to message #1 by Arnaud Amiel

Most of the original HP packs were 600 maH. Some very early ones were 500.

Re: How long should I charge the batteries

*Message #4 Posted by **JasonG** on 8 Nov 2003, 2:55 p.m.,*
in response to message #1 by Arnaud Amiel

Aha!

Charge them all the way to the end, right from one end to the other. Anything else leads to a big bulge at one end and then it won't fit into the battery compartment.

Wooooooooha!

JasonG...

PS: Sorry for the frivolity...it's just a wild reaction against a very crap week...

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82120A assembly questions

*Message #1 Posted by **Bill Smith** on 5 Nov 2003, 12:39 p.m.*

several months ago, i disassembled an 82120A pack with the intent to replace the cells. naturally, i didn't get back to this project until after the snow flew, and now can't recall exactly what came from where. seems there are some extra parts.

i've soldered the new cells in series, and know which end to attach to the circuit board. this assembly seems to only fit one way into the case, so no problems there. the extra parts consist of a curved plastic board about the length and height of the case, and two metal V-shaped springs. my questions are: where do the board and springs fit in relation to the batteries? are all the batteries supposed to make contact with the 41 coppery contacts? (i only have the N-cell holder to compare, and note that each cell is individually sprung). the soldered battery assembly seems like it may be too stiff to make good even contact against the 41. comments, suggestions, and especially pictures would be much appreciated.

thanks, bill

You have mail:-)

*Message #2 Posted by **Raymond Del Tondo** on 5 Nov 2003, 12:50 p.m.,*
in response to message #1 by Bill Smith

n/t

Re: 82120A assembly questions

*Message #3 Posted by **David Smith** on 5 Nov 2003, 3:47 p.m.,*
in response to message #1 by Bill Smith

The plastic strip fits between the case and the back of the battery string. If you used smaller batteries than the originals you may need to use a fatter strip to take up the space.

The spring clips connect to the outside two cells and are where the calculator battery contacts touch. The inner two cells do not use them. Look carefully in the holder and you will notice little "pockets" in front of each cell position on one half of the case. The curved part of the spring goes in the pocket.

Re: 82120A assembly questions

*Message #4 Posted by **Bill Smith** on 6 Nov 2003, 12:46 p.m.,*
in response to message #3 by David Smith

thank you both for the quick responses. with your help i have ressembled the pack, and it is recharging just fine. i did use the smaller NiMH cells, and they are a bit loose. i assume this means possible premature failure of the soldered tabs, but i'm too jazzed at the moment to take it apart again to rectify that.

next project is to rebuild the 88014 pack for my disk drive.

thanks again.

bill

Re: 82120A assembly questions

*Message #5 Posted by **Raymond Del Tondo** on 6 Nov 2003, 1:58 p.m.,*
in response to message #4 by Bill Smith

> next project is to rebuild the 88014 pack for my disk drive. >

This is easy. The suitable cell pack (not the drawer itself;-) can be ordered from Panasonic and other vendors.

Raymond

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Simulations

*Message #1 Posted by **Walter** on 5 Nov 2003, 1:18 a.m.*

Tried the fabulous HP25 simulation - very nice! It was my first HP, too. Unfortunately, the simulation will close when I leave the net. Is there any good HP calculator simulation available for PC to be used without the net or did I miss anything? I use MathU for my palm 515 already.

Re: Simulations

*Message #2 Posted by **Mike (Stgt)** on 5 Nov 2003, 8:04 a.m.,*
in response to message #1 by Walter

Not simulations but emulations see here: http://privat.swol.de/ChristophGiesselink/index.htm

Ciao.....Mike

Re: Simulations

*Message #3 Posted by **Mike (Stgt)** on 5 Nov 2003, 8:07 a.m.,*
in response to message #1 by Walter

And here: http://ourworld.compuserve.com/homepages/nutem/pioneer.htm

M.

Re: Simulations

*Message #4 Posted by **Frederic** on 5 Nov 2003, 10:43 a.m.,*
in response to message #1 by Walter

If you really want a very good Virtal HP41C on your PC, you just have to use Warren Furlow's one ....

It is simply the best in my own opinion !!!!!!!

It seems that it is impossible to write here a link to his web site ..... I really don't know why ..... it's sad !!!!

Frederic

Re: Simulations

*Message #5 Posted by **Mike (Stgt)** on 6 Nov 2003, 11:19 a.m.,*
in response to message #4 by Frederic

Warren's has the best MMI (Man-Machine-Interface) but JF Garnier supports HP-IL.

If you realy want to know why it's not possible to publish a link to V41 (currently R8beta2 available) try to contact me offlist, see http://ourworld.compuserve.com/homepages/nutem/nutem.htm#re

Ciao.....Mike

Edited: 6 Nov 2003, 11:32 a.m.

Re: Simulations

*Message #6 Posted by **Bill (Smithville, NJ)** on 5 Nov 2003, 10:51 a.m.,*
in response to message #1 by Walter

Since you have a Palm, you may want to look at the HP emulators for the Palm. I use P41CX, which is a true emulator of the HP-41CX. The registered version comes with a Rom mangement program which allows you to emulate changing the four mudules. Comes with the rom images for most of the major roms, including the Advantage. Also includes images for the CCD, PPC, and ZenRom.

There's also a emulator for the HP-48/49 called Power48. It's a free program that emulates the 48SX, 48GX and the 49G on the palm. Not sure how fast it would be on a Palm 515. I'm using it on a Sony Clie NX60 with OS5 and other than the slow loading, runs great.

Power 48 URL: http://power48.mobilevoodoo.com

I believe I read that there's also a simulator for the HP-35 that runs on a Palm. Not sure where to find it or how good it is.

Hope above helps.

Re: Simulations

*Message #7 Posted by **hugh** on 6 Nov 2003, 9:01 a.m.,*
in response to message #6 by Bill (Smithville, NJ)

do you know if its possible to run power48 without a sd card?

also, the csim hp35 for the palm works well. there might be a new version now for the other classics.

Re: Simulations

*Message #8 Posted by **Valentin Albillo** on 6 Nov 2003, 12:50 p.m.,*
in response to message #1 by Walter

Walter posted:

"Tried the fabulous HP25 simulation - very nice! It was my first HP, too. Unfortunately, the simulation will close when I leave the net. Is there any good HP calculator simulation available for PC to be used without the net or did I miss anything? "

Yes, seems to me you missed the fact that there's a link to the source code for the Java applet. If you've got some proficiency in creating Java applets and applications, that's all you need to create a stand-alone Java simulation that will run locally, off-line. It can be easily translated to VB.net as well, if desired.

Anyway, apart from the "oh-so-cute" factor, I would recommend using instead V41 available for free from a well-known-but-censored-out-here-for-undisclosed-reasons web site. This is an amazing piece of software that will give you an exact lookalike of a real 41, with all RAM, X-Functions/X-MEM ROM, Advantage ROM, etc, nearly indistinguishable from the real thing, except it's several times faster (and some I/O capabilities, of course).

Best regards from V.

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32Sii 99 digit PI program

*Message #1 Posted by **rbaird1@ihug.com.au** on 5 Nov 2003, 12:39 a.m.*

I have been trying the "99 Digits of PI on an HP 32SII" program, from the Articles forum on my 32Sii and I cant seem to get it to work. It just runs and runs and runs.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=281

Has anyone else seen this problem, and can anyone else help fix it?

I have noticed a couple of bugs in the program: - N13 should be DSE i not DSE - E13 should be ISG i not ISG I

Is there another bug I have missed - because my LBL R checksum is 1FF0 not AF06 ?

Re: 32Sii 99 digit PI program

*Message #2 Posted by **Katie** on 5 Nov 2003, 2:10 a.m.,*
in response to message #1 by rbaird1@ihug.com.au

Hi,

You're right about those two errors in the listing, I've just corrected them, thanks!

I reentered the program from the listing and verified that the checksums and byte counts are correct. The program does run for a while, about 11 minutes on my 32SII. I'm not sure why you're getting a checksum error in LBL R, what byte count are you getting?

-Katie

Re: 32Sii 99 digit PI program

*Message #3 Posted by **Christoph Giesselink** on 5 Nov 2003, 2:49 a.m.,*
in response to message #2 by Katie

I entered the program for a while in an emulator and after fixing the obvious two typos all checksums are also ok in my case.

BTW, really nice software. Congratulations!

Christoph

Re: 32Sii 99 digit PI program

*Message #4 Posted by **Graham Wilson** on 5 Nov 2003, 1:01 p.m.,*
in response to message #3 by Christoph Giesselink

Christoph

>> ... in a ***[32 sii] emulator***
You big tease ! :)
GW

Re: 32Sii 99 digit PI program

*Message #5 Posted by **bill platt** on 5 Nov 2003, 4:02 p.m.,*
in response to message #3 by Christoph Giesselink

Hi Christoph,

Did you Really make a 32sii emulator!?

Re: 32Sii 99 digit PI program

*Message #6 Posted by **Graham Wilson** on 5 Nov 2003, 11:08 p.m.,*
in response to message #5 by bill platt

Bill
There's a brief description of Emu32 and other emulators by Christoph Giesselink not yet released.

I've managed to get Emu42 working with downloaded ROMs from my own 42S and 17BII calculators. Emu42, while still only a beta, works very well indeed.

Regards
Graham

Emu32, Emu42 and others

*Message #7 Posted by **Graham Wilson** on 5 Nov 2003, 11:13 p.m.,*
in response to message #6 by Graham Wilson

Sorry forgot to post the link:
http://ourworld.compuserve.com/homepages/nutem/pioneer.htm

RE: 32Sii 99 digit PI program

*Message #8 Posted by **rbaird1@ihug.com.au** on 6 Nov 2003, 6:48 p.m.,*
in response to message #2 by Katie

Thanks guys. Sorry to be a pain. I must have made a typo the first time (although I stepped through 6 times and couldnt find it!). I retyped the program and now it works perfectly :)

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OK, I am missing something?

*Message #1 Posted by **Scuba Diver** on 4 Nov 2003, 11:57 p.m.*

A few weeks ago, there was a post that quoted the HP website. The quote said something about there being 11 HP calculators; the 9G, 9S, 30S, 10BII, 12C, 12CP, 17BII+, 48GII and 49G+ have already been launched, and the 33S is forthcoming. The person posting wondered what the last calculator would be, and I assumed it was the 19BII+.

Today I decided to look on the HP site myself, and I came across this comment in the press release for the 48GII;

"Within the next several weeks, HP plans to launch two additional new calculators: one graphing and one scientific. The forthcoming graphing calculator, together with the HP 48gII, HP 49g+ and the entry-level HP 9g, are designed to fulfill the needs and budgets of a broad spectrum of users."

I don't know about you, but I wouldn't consider the 19BII+ a "graphing" calculator, would you? Wouldn't it have made more sense to describe it as a financial? Is it possible that they were trying to disspell the optics of having almost 50% of their product line "financial" calcs? 5 of the 11 will be financials...that's enough to make the MBAs grin and the engineers shiver :)

Although I'm not paranoid, I wonder whether the 19BII+ is really a go; the graphing line has some good offerings in the $100 and over category, but maybe they're planning something like a 38G+ for the $60-$70 range...

So, I was wondering, has anyone heard anything more concrete about the remaining calcs? I know we've all seen loads of info on the 33S, however I haven't seen anything that official for the 19BII+...

Thoughts? B.

Re: OK, I am missing something?

*Message #2 Posted by **Steve Ramsey** on 5 Nov 2003, 12:22 a.m.,*
in response to message #1 by Scuba Diver

According to hpcalc.org, HP plans on releasing a "39G+". You can find a fact sheet for it at http://www.hpcalc.org/hp49gplus.php

Regards, Steve

Re: OK, I am missing something?

*Message #3 Posted by **Scuba Diver** on 5 Nov 2003, 12:23 a.m.,*
in response to message #2 by Steve Ramsey

Well, once the 33S is launched, that brings us to the 11 calculators that HP will have in its line.

I guess the 19BII+ is dead!

Does anyone have any evidence to the contrary?

B.

Re: OK, I am missing something?

*Message #4 Posted by **Jean** on 5 Nov 2003, 2:53 a.m.,*
in response to message #2 by Steve Ramsey

39G+ would be a very nice calc – in fact much simpler to use than 48 and 49 models and good enough for most of day-to-day tasks. In practical life I found 3 weaknesses in the 38G implementation:

1. Variable name in the solver: one character only. Nothing compared to 19B or 27S

2. Displaying numbers without 1000 separator. I believe that the last HP, which had the same weakness, was the HP 35 series

3. Poor scaling of graphics (there is a solution with a separate program however)

I did not found any hints, that the new 39G + resolved those problems

Jean (Switzerland)

Re: OK, I am missing something?

*Message #5 Posted by **Graham Wilson** on 5 Nov 2003, 1:20 p.m.,*
in response to message #4 by Jean

Hi Jean

>>Displaying numbers without 1000 separator... the last HP... was the HP 35 series<<

The 28 series (ca. 1986) is I belive the last HP calculator that can't display the separator (an inconvenient drawback in an otherwise very fine machine).

OK, am I missing something (else)?

*Message #6 Posted by **Paul Brogger** on 5 Nov 2003, 2:04 p.m.,*
in response to message #5 by Graham Wilson

28? What about the 48G/GX/G+, 49G, 48GII, 49G+? Or am ***I*** missing something?

Re: OK, am I missing something (else)?

*Message #7 Posted by **Bill (Smithville, NJ)** on 5 Nov 2003, 2:10 p.m.,*
in response to message #6 by Paul Brogger

The HP-48GX displays with the comma separator AFTER you hit the enter key. This is probally due to the fact that the calculator does not know what type of object is being entered until the enter key is pressed.

The HP-11C displays the separater WHILE you are entering the number. I prefer this method. But then the 11C doesn't have an asssortment of object types.

OK, I WAS missing something!

*Message #8 Posted by **Paul Brogger** on 5 Nov 2003, 2:22 p.m.,*
in response to message #7 by Bill (Smithville, NJ)

(. . . including my HP-48G(+) -- I lent it out recently and it's not yet back.)

My 49g+ wasn't displaying with commas, *even after* <ENTER> .

Of course, after experimenting I see that commas are entered for "FIX" number formats (and presumably for others), but not for "STD" format.

Re: OK, I WAS missing something!

*Message #9 Posted by **Bill (Smithville, NJ)** on 5 Nov 2003, 2:33 p.m.,*
in response to message #8 by Paul Brogger

I had forgotten that the 48/49 had a "Standard" format. Just checked on my 48GX and no commas. I wonder what the thinking was for the Standard mode??

Re: OK, I am missing something?

*Message #10 Posted by **Gene** on 5 Nov 2003, 7:34 a.m.,*
in response to message #1 by Scuba Diver

Perhaps the part of the HP quote you need to note is:

"Within the next several weeks..."

That sounds like HP has a wave coming but there may be waves after "the next several weeks" as well.

?

Gene

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eBay for runaways;-)

*Message #1 Posted by **Raymond Del Tondo** on 4 Nov 2003, 8:30 p.m.*

Look at the decription and try to not get blind:-)

http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&item=2569676655&category=9973

Re: eBay for runaways;-)

*Message #2 Posted by **Ernie Malaga** on 4 Nov 2003, 9:12 p.m.,*
in response to message #1 by Raymond Del Tondo

Ach, du Lieber!

Ich habe meinen Deutsch vergessen.

-Ernie

Re: eBay for runaways;-)

*Message #3 Posted by **Raymond Del Tondo** on 4 Nov 2003, 10:32 p.m.,*
in response to message #2 by Ernie Malaga

Wasn't too bad:-)

The text desert in the ad is just a copy of the user manual content table, so you didn't miss much;-)

Raymond

Re: eBay for runaways;-)

*Message #4 Posted by **gifron** on 5 Nov 2003, 2:28 a.m.,*
in response to message #2 by Ernie Malaga

Yeah, what he said!

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HP 49G+ My Disappointment

*Message #1 Posted by **Joe Edwards** on 4 Nov 2003, 6:40 p.m.*

Well, I just got my HP 49G+ this afternoon, and it is already on its way back to the HP calculator graveyard. Why? Like I need to tell you folks! I had such high hopes for a new HP calc to replace my late HP 48GX calc. I was sorely mistaken to trust that HP could change its ways. Within five mins (max) of using it, both of the Shift keys began to stick and the ON button completely stuck in the down position. Grrrrrrrr. It is sad to say that I finally broke down and bought a TI-89. :(Seriously though, could someone PLEASE explain why it is so dang hard for HP to design a calculator that at least matches the quality construction of the old Pioneers. I don't mind the color scheme of the new machine, and heck, I can even handle the new keyboard layout. But WHY can they not make a simple keyboard to match the Pioneer series? Is it that cost prohibitive to make a quality product? I would really like to hear your ideas on this. Thanks.

Joe Edwards A former HP customer.

Re: HP 49G+ My Disappointment

*Message #2 Posted by **Raymond Del Tondo** on 4 Nov 2003, 6:55 p.m.,*
in response to message #1 by Joe Edwards

Hi,

I'd take one of those 48GX's with b/w high contrast display. Why? You won't miss much of the 49x , but you'll have the good display, and the better keys & keyboard;-)

Raymond

Re: HP 49G+ My Disappointment

*Message #3 Posted by **Joe** on 4 Nov 2003, 7:10 p.m.,*
in response to message #2 by Raymond Del Tondo

I already knew that. The knowledge was just further justified after the 49g+ episode.

Re: HP 49G+ My Disappointment

*Message #4 Posted by **Bob** on 4 Nov 2003, 7:14 p.m.,*
in response to message #1 by Joe Edwards

I am sad to say that I too have made the switch to the TI though the screen and keys suck. I purchased mine about 8 months ago and at the time I knew that the 49G was not a good choice.

I had high hopes when I heard about the g+ I have considered buying one for the past few days. It looks like that wouldn't be worth while. I have gone through some of the Manual for the 49G+ and it seems much better written then the TI manuals. It really is disappointing that the once ruler of the calculator world can't even produce a calculator of similar quality to the ones they produced a few years ago.

I own 4 hp's and one ti and unfortunately at this point it look like I'll be owning the TI a little longer. I really miss the hp's but they just don't do the math anymore.

While we are talking about quality

*Message #5 Posted by **Naim** on 4 Nov 2003, 8:42 p.m.,*
in response to message #4 by Bob

Could someone tell me if the 17BII+ is a good investment, or should I get a 17BII while I can?

Re: While we are talking about quality

*Message #6 Posted by **Raymond Del Tondo** on 4 Nov 2003, 8:55 p.m.,*
in response to message #5 by Naim

If the 17BII+@xyz... housing nad keys are similar to the ones of the 10BII, then I strongly recommend the 'classic' 17BII (without the plus)

Raymond

Re: While we are talking about quality

*Message #7 Posted by **CalcKidd** on 4 Nov 2003, 10:14 p.m.,*
in response to message #5 by Naim

I have a 17BII+, though I haven't taken it out of the blister pack yet.

I does appear to be a 10BII on weak steroids.

I, too, agree that HP needs to stop the bullsh*t and make a 49GX with a better keyboard (at least they stopped the rubber keys; like the 49G has).

The only sane thing to do is have someone fabricate a new keyboard for the 49G+... hmm....

49G keys

*Message #8 Posted by **Karl Schneider** on 5 Nov 2003, 1:54 a.m.,*
in response to message #7 by CalcKidd

CalcKidd wrote:

> Quote:
>
> I, too, agree that HP needs to stop the bullsh*t and make a 49GX with a better keyboard (at least they stopped the rubber keys; like the 49G has).

I have a 49G and, like others, have found it difficult to enter anything quickly. The real problem, though, isn't the rubber keys; it's the fact that they aren't hinged. On any non-49G HP, you can strike a key off-center and it will register. On the 49G, if you hit a key on its corner, it just "lists" to that side. The keypad I have to use to open my garage door has the same problem, and I end up having to punch the code three times.

How can such fundamental things be forgotten or overlooked in product design?

Re: 49G+ keys -- hinges may have helped, but ....

*Message #9 Posted by **Paul Brogger** on 5 Nov 2003, 9:11 a.m.,*
in response to message #8 by Karl Schneider

My 49G+ apparently has hinged keys, but several still consistently register inconsistently [;^)]. On those keys, I can press on one side and get a better recognition rate than when pressed on the other.

Not having a 49G, I don't know how they compare. It does seem, however, that the 49G+'s tactile feedback is somehow divorced from its electrical contact, and that it's possible to have one without the other. Somehow, H-P *used* to be able to cause the tactile feedback be a MUCH more reliable indication of electrical contact.

A lost art?

Key debouncing

*Message #10 Posted by **David Ramsey** on 5 Nov 2003, 12:10 p.m.,*
in response to message #9 by Paul Brogger

As I recall, one of the justifications for the crappy-feeling keypads on the 49G and similar models was that the new key switches did not require software debouncing. The older HPs debounced keys in software using the main processor, which took a significant performance toll. My memory is that the 49G is about twice as fast as a 48 series machine with the same processor and clock speed, simply because it's not spending so many CPU cycles debouncing keys.

Anyone else remember this?

Re: Key debouncing

*Message #11 Posted by **Raymond Del Tondo** on 5 Nov 2003, 12:42 p.m.,*
in response to message #10 by David Ramsey

But in the HP-48 it simply works. Please remember that many 49G users had to adjust a constant (->KEYWAIT ?) manually, to reduce keypress registation errors, or even bounces.

Many users of both machines can tell keyboard entry on the HP-48 is much faster than on the 49G, simply because of the much better kbd mechanics, and thus more reliable user interface.

And for the speed: the 49G has many optimizations inside the OS compared to the HP-48, where the keyboard debouncing is only a very little part, which doesn't even count, because they had to introduce that (->KEYWAIT ?) mechanism, which burns valuable CPU time again when reading the user defined constant. Much more important regarding speed is the new memory management, the FLASHPointers, and the latest garbage collector. It was a very long way for them to get it going well;-)

Nevertheless I don't think the 49G is twice as fast as the HP-48G series. Many things are faster, some are slower.

Raymond

BTW: I'm not sure if the function is called ->KEYWAIT or only similar...

Re: Key debouncing

*Message #12 Posted by **Francesc Casanellas** on 7 Nov 2003, 2:24 a.m.,*
in response to message #11 by Raymond Del Tondo

The key debouncing function is ->KEYTIME (you can use the CATalog). I recommend you try a value of about 500 (500 ->KEYTIME in RPN).

The function is always used, so de processor is always looking at it as in any machine. The factory set value is too high, making the keyboard too slow. Changing the value does not decreasse processor speed.

Edited: 7 Nov 2003, 2:26 a.m.

Re: 49G+ keys -- hinges may have helped, but ....

*Message #13 Posted by **Raymond Del Tondo** on 5 Nov 2003, 12:14 p.m.,*
in response to message #9 by Paul Brogger

> A lost art?

Yes, seems to be this way...

It started with the horrible keyboard of the 49G and it's relatives (39G, 40G), not counting the doorstop crap (6S, ...) , and not talking about the spoiled keyboard layout.

AFAIK they had to reduce cost as much as possible to be profitable, but the long-term consequence is 'hp' looses customers because of those incredible cost & quality savings...

Raymond

Re: 49G+ keys -- hinges may have helped, but ....

*Message #14 Posted by **CalcKidd** on 5 Nov 2003, 1:48 p.m.,*
in response to message #13 by Raymond Del Tondo

Apparently, HP thinks that making cals in China with sub-par keyboards reduces costs. Yes and no.

It reduces inital costs (I assume), but increases returns and causes loyal HP customers to look elsewhere for quality.

It seems that Americans are getting used to sub-par products and services. Just go to almost any checkout line and see what kind of service you get from the teenager at the register. Call you local utility company or cell phone company and see how many buttons you have to push to get into "hold hell".

Customer service is nearly dead. Customer satisfaction is not far behind. The bottom line is now the top line. We are being "fed" crap on a spoon and just supposed to accept it.

Anyway, until some of us can get onto the "board" at HP, we're gonna get what we get. All we can do is hope there is an after-market company startup that takes these calcs and turns them into what they should've been to begin with.

(rant over)

Re: 49G+ keys -- hinges may have helped, but ....

*Message #15 Posted by **Joe** on 5 Nov 2003, 3:18 p.m.,*
in response to message #13 by Raymond Del Tondo

But, how much of a savings is there per machine to construct a 48GX style keypad compared to the 49G+ keypad?

As I stated, the new layout is fine with me. I miss the BIG enter key, but I can live without it.

What I cannot handle is a keypad that doesn't register my keystrokes or has keys stick in place within five minutes of use.

Does anyone actually know the approximate differences in cost to manufacture those two style keypads?

Joe

Re: Don't know calcs but can quote for phones

*Message #16 Posted by **Ron Ross** on 5 Nov 2003, 3:58 p.m.,*
in response to message #15 by Joe

Manufacturing different types of phone keypads is as little as 0.50$ to $2-3 difference depending upon the complexity (a phone does have fewer contacts). But multiply this by millions of units sold and the CEO's at Hp immediately see the bottom line savings of using the cheaper keypad.

They cannot imagine anyone would return such a fine instrument, since it looks so good, back for a replacement or a refund. Cowcatchers are in! Functionality are OUT! Get with the program!

My last Hp I bought new was an Hp10BII. What a POS!!! When I heard about soft keys and no consistancy, I had NO idea what these people were talking about. They must be on DRUGS! Then I opened the 10BII and used it for about two minutes. The upper right corner keys were flat. If it were a $5-10 calculator, so what? But Hp list's this POS for $30. If a $30 Hp20s had a good keypad, why can't a $100 Hp have a good keypad? Hp only recently quit making the 20s (about a year or two ago). Get THAT keyboard technology back!!!

Re: Don't know calcs but can quote for phones

*Message #17 Posted by **Joe Edwards** on 5 Nov 2003, 4:14 p.m.,*
in response to message #16 by Ron Ross

I understand that completely. I would have paid and extra $10.00 for a quality keyboard!!!

I just picked up the last 3 HP20s models from my bookstore. They may not be RPN, but they are my choice to work with on a day to day basis for number crunching.

I realize that the early 21st century may not gives us personal jet packs, but how about giving us a keyboard of the same quality that was built no more than 5 - 10 years ago!!!

Boo HP.

Don't get me wrong. I was okay with the color (preferred the silver on the 48GII) and the capabilities of the machine, just not the CONSTRUCTION.

That's really unfortunate!

*Message #18 Posted by **Gene** on 4 Nov 2003, 11:33 p.m.,*
in response to message #1 by Joe Edwards

I have a VERY early 49G+ and although I get some key presses that don't register, I have had no problems at all like you mention.

I have used it more than 99% of those who have it and have not found it hard to use at all.

Newer units than mine have been said to have much much better response with the keyboard.

I think perhaps you just got a lemon off the production line.

Why can't HP make a $150 calculator that won't do that?

Why do Macintosh computers sometimes arrive at customer's houses and don't turn on?

Why do Dell's have hardware problems at times that I read about?

Why can't Microsoft make an OS that has its security holes plugged?

Buying a TI is not the answer, IMO. The 49G+ has many features the 48GX and TI models do not have.

Hard to know too if any reports might be forged by TI users...think that's beyond the realm of possibility? Perhaps, perhaps not.

(Note: I'm not suggesting this post if forged...but some might be)

Gene (and slightly paranoid!)

Re: That's really unfortunate!

*Message #19 Posted by **Ernie Malaga** on 5 Nov 2003, 12:02 a.m.,*
in response to message #18 by Gene

> Quote:
>
> Why can't Microsoft make an OS that has its security holes plugged?

I'm going to stick my neck out. The question I'd really like to have answered is, "Why can't Microsoft make software without bugs?" _Every_ piece of software made by MS has bugs of one kind or another; sometimes serious, others trivial.

Just this afternoon, for example, I was editing a document with Word. I highlighted a word, clicked to change its case (upper-, lower-, etc.) and nothing happened. I reduced the selection by one character (i.e., leaving one character out) and the "Change Case" command worked.

And we're talking about a product that has been around for at least 13 years!

-Ernie

Re: That's really unfortunate!

*Message #20 Posted by **Joe** on 5 Nov 2003, 7:09 a.m.,*
in response to message #18 by Gene

Gene, This has nothing to do with TI brand loyalty. Heck, I have used HP's since I was out of high school. I have owned a HP 41CX, a HP 32s, a HP 48G+, a HP 48GX, and the returned HP 49G+. I am not advocating TI over HP. I REALLY wanted that calc to work!!! Many of my friend could attest to that. :) In fact, I have been bitching constantly for over a month as to why an American company chose not to release them first in the U.S. (Not racist here, just impatient). I guess I could have gotten a lemon, sure. But that doesn't answer my question as to why HP chose to return to the calc scene with a calc that has a substandard keyboard. Even ignoring the stuck keys, why couldn't they just manufacture a keyboard like the 48GX in quality? How difficult would it be? I am not trying to be sarcastic, I really am curious as to the differece in the manufacturing process of the old and new keyboards.

Re: HP 49G+ My Disappointment

*Message #21 Posted by **Joe** on 5 Nov 2003, 6:58 a.m.,*
in response to message #1 by Joe Edwards

So, can anyone tell me as to why it isn't done? Profits? That can be the only reason. I really cannot believe that it isn't possible to build a keyboard like on the 48G series. How much extra would such a keyboard actually cost?

Re: HP 49G+ My Disappointment

*Message #22 Posted by **John Limpert** on 5 Nov 2003, 8:38 a.m.,*
in response to message #21 by Joe

It may be that the contractor (Kenpo?) does not have the knowledge or equipment to make old-style HP keyboards.

HP may not have any engineers left from the days of quality calculator construction, when the hardware design and manufacturing were done in-house.

I've seen something similar happen with PC keyboards. There has been a "race to the bottom", in quality and price.

Re: HP 49G+ My Disappointment

*Message #23 Posted by **Tom Scott** on 5 Nov 2003, 2:01 p.m.,*
in response to message #22 by John Limpert

You'd think that if HP would have used their old (HP48) keyboard engineering design scheme on the 49G+, they would have not only produced significanlty better keyboards but also would have saved money. Surely HP would provide that information to Kinpo.

Tom Scott

Does it worth to buy an HP49G+ ?

*Message #24 Posted by **Artur** on 5 Nov 2003, 8:35 p.m.,*
in response to message #1 by Joe Edwards

Hi,

I'm reading the comments and I becoming afraid of buying the new HP's calculator - not only the calculator, but today I was looking for a scanner and the HP49Gx keyboard ghost was in my mind all the time... worst to HP, which had a good name since I was a school student ... So, could someone give me a support, because I would like so much the new calculator ... Buy it or forget this idea forever???

Re: Does it worth to buy an HP49G+ ?

*Message #25 Posted by **Joesph** on 5 Nov 2003, 8:58 p.m.,*
in response to message #24 by Artur

Why not just buy it, and if the keyboard has problems take it back?

The other problem is with the blinking screen. This is irritating, but it seems like a software problem. I am hoping for a flash update.

If you want to see something amusing, read this: http://www-s.ti.com/cgi-bin/discuss/sdbmessageview.cgi?databasetoopen=calculators&topicarea=Graphing+Calculator+Comparisons&viewmethod=Thread&messageid=142953

It's a nice review, coming from the TI website!

Re: Does it worth to buy an HP49G+ ?

*Message #26 Posted by **John Limpert** on 7 Nov 2003, 2:05 p.m.,*
in response to message #24 by Artur

Another choice is just to wait for a while and see if HP corrects the initial design and production problems with the calculator. There is something to be said for waiting for version 1.1 of any hardware product.

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15c or 32s, which is better?

*Message #1 Posted by **Jim B** on 4 Nov 2003, 5:39 p.m.*

I have a choice between picking up either a 32s (Singapore 1991) or a 15c (US 1987). Both are in like new condition. The problem is that I can only pick up one of them and I'm having a hard time choosing. I thought I'd get the opinion of those of you who are knowledgeable about both calculators. So, which one should I choose????

Edited: 5 Nov 2003, 10:46 a.m. after one or more responses were posted

Re: 15c or 32s?

*Message #2 Posted by **Victor Koechli** on 4 Nov 2003, 6:37 p.m.,*
in response to message #1 by Jim B

Pick up both. I know you can't, but do it anyway. Borrow money from a friend, or go to the bank. Just get them. However, if you *really* have to choose, there are good arguments for either of these two. I'd take the 15C for the following reasons:

- It's the smallest of all HPs ever (except the HP-01, of course)
- It does matrix math
- It has a true complex stack
- It has more memory
- It's of superb quality
- It runs for decades on a single set of tiny batteries
- Nothing, really nothing beats a Voyager. I mean, the looks!

Cheers, Victor

The 15C hands down

*Message #3 Posted by **Valentin Albillo** on 5 Nov 2003, 6:08 a.m.,*
in response to message #1 by Jim B

It's really a no-brainer. The 15C is the one to choose for far too many reasons to mention.

Best regards from V.

Confirming Valentin and Victor's opinion

*Message #4 Posted by **Thibaut.be** on 5 Nov 2003, 6:58 a.m.,*
in response to message #1 by Jim B

If it's a OR choice, then the 15C is the choice. But if you can manage to pick up both of them then do it !

Consider the 32s for programming ...

*Message #5 Posted by **Paul Brogger** on 5 Nov 2003, 11:08 a.m.,*

in response to message #1 by Jim B

The main argument in favor of the 32s is:

If you're going to do ad-hoc programming -- especially if you're going to do it infrequently, then

The 32s and sII programming environment is surpassed only by that of the 42s (and, presumably, the 41C's), from the standpoint of simple, mnemonic, ease-of-use.

With all programmables employing 7-segment displays (and that includes the 15c), program lines are encoded and presented as row/column values describing the keyboard matrix. The user is constantly deciphering sequences of two-digit numerics, scanning the keyboard and translating into keystroke sequences, and thus the intended commands.

With the 32s, command codes are presented alphanumerically, and are MUCH more straightforward in interpretation.

Certainly, with experience, a given non-alpha calculator's keycodes can become second nature, but the casual or infrequent user will find alphanumeric command presentation to be much easier to pick up again & again. (Yes, an assumption of infrequent use is a counter-argument: it ain't that important 'cause you don't use it that often!)

ALSO (IIRC), the 32s will handle hexadecimal display and conversions much more nicely than the 15c. If you're to use it for programming & debugging rather than for matrix calculations, the 32s may be much better suited to the task.

ALL THAT SAID, the 15c is simply a less-readily-available beast than is the 32s/32sII. From the "calculator-ownership strategy" standpoint, you'll choose the rare one when it's available . . .

(I used "programming" in two ways)

*Message #6 Posted by **Paul Brogger** on 5 Nov 2003, 2:16 p.m.,*
in response to message #5 by Paul Brogger

To clarify a bit (not that anyone has expressed confusion yet),

The alphanumeric display of the 32s simplifies **programming** *the calculator itself*, while

The hexadecimal coversion feature (and BASE conversions in general, for any octal or binary unfortunates out there) help in any role involving **programming** and debugging *other systems*.

Re: 15c or 32s, which is better?

*Message #7 Posted by **Ron Ross** on 5 Nov 2003, 11:55 a.m.,*
in response to message #1 by Jim B

Most of us would chose the 15c, but that being said, both machines are top shelf.

If you want matrix functions, you need the 15c, if not you still have a choice and as Paul mentioned, the 32s is somewhat better to program (more clearly).

Layout of the keyboard will probably determine your choice. The 15c horizontal layout is very addictive once you use it, hence you should avoid it! I am serious with this statement. A 32s user could make do with a 48G ten years from now without to many complaints except that it is a big clunker on your desk or takes up room in a travel bag. A 15c user would also complain about the vertical layout and maybe would switch to a 12c rather than use a 48G (which is a mistake in my opinion).

10-15 years from now, you may have to replace it and then you will cry about not finding a suitable replacement. A 32s user can easily find 48G's. A 15c user will be crying about having to program a 12C.

I have both, and if I were buying, I would buy the 15c again. I started with a 15c, then got a 42s. The 42s gave me so much more that I could not stay with with my 15c any longer. But I never would have went from a 15c to a 48G without the 42s. And I wouldn't have started using the 48G except, I could not bear to part with it being stolen (such irony, my favorite tool, stays home).

I still like my 15c layout best. I miss it (I know, tears rolling down cheeks, etc...). But a 32s user can switch right over to a 48G, a 15c user may hesitate to touch such a beast, and instead opt for the lowly 12c. That is how well liked the horizontal format is, once it is used (some people never like this layout though either). That is your delimia.

Re: 15c or 32s, which is better?

*Message #8 Posted by **Joel B** on 5 Nov 2003, 10:42 p.m.,*
in response to message #7 by Ron Ross

How are the keys on the 32s compared to the keys on a 15c or 11c? I've used a 32sii (Indonesian made in 2001) and I wasn't impressed with the keys. I also own a 28s and like those keys very much. Just wondering how the keys on the 32s and 15c compare.

Re: 15c or 32s, which is better?

*Message #9 Posted by **RR** on 7 Nov 2003, 10:22 a.m.,*
in response to message #8 by Joel B

My suggestion is that you would be better served with an Hp32 (and anything made after 1999 does not reflect the true quality of these machines). For general use the 32sII actually has some useful conversions and a very good solver. My 32sII happens to be made in the Good Old USA (and my plain 32s is made overseas) I don't have an answer to that one.

My reasoning is the keyboard layout, plain and simple. Most people prefer the vertical arrangement. If by chance you use and begin to appreciate the horizontal layout, you will forever miss it, should you need to replace. Why go there? Both are RPN and very well made. Both will have to be purchased used. One will live 25 years, the other 20, but since the other is 5 years newer, well, you get the point (Most think they will last forever, and a few just might). But general use and ABUSE will kill each and everyone off, eventually.

Re: 15c or 32s, which is better?

*Message #10 Posted by **bill platt** on 5 Nov 2003, 2:03 p.m.,*
in response to message #1 by Jim B

Well, I use the 32sii most. But now that I own 8 calculators (and rising), what I am about to say is not so directly applicabhle to me, but is worth mentioning.

The 15c has Considerably more memory than either the 32s or 32sii. It has both mopre registers (over 60, vs about 27) and more potential lines of programming (over 400, insteaed of about 256).

So,

IF `you like either:

LONG programs,

LOTS of DATA,

MATRIX STUFF,

LOTS of DIFFERENT LITTLE PROGRAMS,

THEN 15c,

ELSE 32s

<END>

Regards,

BILL

My 32SII [long]

*Message #11 Posted by **Tizedes Csaba** on 6 Nov 2003, 4:01 a.m.,*
in response to message #1 by Jim B

I've got an 32SII and an 15C. My first programmable HP was the 32SII, that is that calc, what I use in every day.

(The following lists are not fulls...)

Things, what I like in my 32SII:

- it had vertical shape
- LN and e^x functions are not shifted (!important in engineering practice!)
- program listings are uses mnemonics
- simple program editing
- simple program deleting (with thats labels)
- equation editor
- 12 digit precision
- solver result structure: x:root1, y:root2, z:f(root1) t:f(root2)
- fast machine
- keyboard 'feeling'

Things what I don't like in my 32SII:

- too small memory (max. 256 steps)
- GTO label.line is non programmable (but it's not really problem)
- no GTO I (!missing, when I try to programming nested loops!)
- equations not editable (!just BS, then re-write!)
- INTEGRATE and SOLVE not useable at some time
- no AND, OR, NOT and XOR instructions
- no complex stack
- not all the mathematical functions and their inverses works with complex numbers
- not really slim
- plastic case, not metallic (???why the CASIO CAN to make very good metallic cases, like on my CASIO FX-850P: thats a beautiful slim machine with strong metal body, with REALLY screws! I dont understand this 'Barbie-plastic-world'???)

And my 15C? I think it came from an another world. It had mistakes, but the 15C is one of the best calculators of HP.

Csaba

My HP-15C vs. your 32S/SII

*Message #12 Posted by **Valentin Albillo** on 6 Nov 2003, 5:49 a.m.,*
in response to message #11 by Tizedes Csaba

Here are a few reasons why the HP-15C is better than the HP32S/SII:

- smaller, the most pocketable of all bar none.
- much more rugged and solidly built, will stand a lot of abuse without flinching, wears very little with age even in the worst environments. So far, 20 years up and counting ...
- clearer, very contrasty, segmented display, ideal for optimum visibility and legibility of numbers and numeric computations, like it should for a pure *calculator*.
- batteries last for *decades*, even under daily use.
- the 32S/SII usually gathers a lot of dust under the display, which is very annoying and extremely difficult to remove, if at all. The 15C doesn't, even if using it in extremely dusty places (e.g.: a year at the Sahara desert)
- *much* better keyboard, with classic molded keys, Helvetica font lettering, [f] and [g] keys, large ENTER key, ..., never failing to register a key or provide tactile feedback.
- *much* larger RAM, besides most instructions take 1 byte. The 32S is absolutely *starved* for RAM, and instructions take 1.5 or more bytes, so it uses it fast. For instance, the number 123 in a program takes just 3 bytes on the 15C, 9.5 bytes on the 32S !! This means that any given amount of RAM (say 200 bytes) will store much more instructions in the HP-15C than it does on the 32S/SII, so further compunding the problem.
- complete matrix functionality, including multiple matrices in memory, perfectly integrated with RPN: you can have matrices on the stack, on registers, do all kind of arithmetic functions with them, solve systems of linear equations with a single instruction, special functions to deal with complex matrices, etc, etc.
- complete complex number functionality, perfectly integrated with RPN: *all* standard functions work with complex numbers, including hyperbolics and inverse hyperbolics, 5-level parallel RPN stack, including LAST X, etc.
- the 15C can have up to 67 registers available for data. The 32S can have only 26 at most.
- the 15C has all 12 comparison test, the 32S doesn't. Many other instructions have test capabilities in programs as well, such as SOLVE, INTEGRATE, and a number of matrix operations.
- the 15C does have GTO (i) and GSB (i), for indirect branching, plus if the I register contains a negative number, it will perform rapid branching to *any* program *step*, no label needed. The 32S/SII has no such capabilities at all, which further cripples programming.
- The Hp-15C oozes quality. Every feature, from the extremely well-thought keyboard layout, to the microcode implementation of all its many functions, has been designed with utmost care, no

compromises. For instance, the HP-15C overloads operators to maximize every key's functionality. Take the [+] key, for example; would you believe it has *seven* different functionalities ? Namely:

1. to add up two real values
2. to add up two complex values
3. to add up two matrices
4. to add up some scalar to all elements of a matrix
5. to directly add up a value in the display to a register (STO+)
6. to directly add the value of a register to a number in the display (RCL+)
7. to specify a certain diagnostic test ([ON]-[+])

That's just the tip of the quality iceberg. The numerical algorithms are the best, most accurate in the world. The USER modes for entering/displaying matrix elements, with autoincrement, do-if-true capability, will even preview the name of the matrix and indexes of the affected element as long as the relevant key is kept pressed, performing the operation upon release or nulling it out upon timeout, etc, etc.

On the other hand, the HP32S/32SII is a machine full of compromises, with some good features intermixed with other half-baked ones or even frankly crippled. It's not an all-round product, at all. Just look at the overloaded [+] key example above: to add two complex numbers on the 32S, you must use an ad-hoc function for the task, CMPLEX +, as the obvious choice, the [+] key on its own, won't do it.

- The bottom line: the HP-15C is probably the best pure calculator ever built, period, and owning one is both classy and expensive. The 32S, though desirable, can't come up even close to that privileged status. It's just a fine but ultimately seriously flawed calculator. Comparing it to the 15C is kind of preposterous, the 42S is more like it.

In short, I'm not saying that the 32S/32SS aren't worthwhile machines, I've got several of both, they do a lot of work very well, and they are great, even excellent. But comparing them to the HP-15C ... !!! Come on !!! :-)

Best regards from V.

Edited: 6 Nov 2003, 12:05 p.m. after one or more responses were posted

Re: My HP-15C vs. your 32S/SII

*Message #13 Posted by **Tizedes Csaba** on 6 Nov 2003, 6:29 a.m.,*
in response to message #12 by Valentin Albillo

Dear Valentin,

I don't want to compare two calculators, I just wrote what I like and dont't like in my 32SII.

I own some of HP calc's, but I'm not a really collector. My 15C was my 2nd calc from HP. The 1st is my 32SII.

When I preparing to my controlling-exam, I use 15C for wrote programs to calculate cutting-frequency, to examine Nyquist- and Bode-plots, to examine stability of controlling systems with feedback and disturbance.

I never think to use 32SII. I use 15C. It was very powerful.

So, my heart is throbbed, when I begin to use it. ;)

The really problem about the valuation of calculators is that, who when started to use this machines, and which machines used.

I wasn't meeted with this calcs in the '80s, I'm not really feel what mean this era. But my feeling is 'nearest to the truth'.

Csaba

Re: My HP-15C vs. your 32S/SII

*Message #14 Posted by **bill platt** on 7 Nov 2003, 9:30 a.m.,*
in response to message #12 by Valentin Albillo

Hi Valentin,

I have to put a couple cents in....

1) My 15c has dust under the display---my 32sii does not have that--and cannot--as the LCD is not covered with a protection, like the 32s was.

2) The 32sii DOES have GTO (i) and XEQ (i) ....so yes, you can inderectly address a subroutine or a spagetti noodle in the 32sii. (Is this also true for the orig 32s?) BUT you are correct that you cannot program a line number Goto---but then again that is bad spagetti noodle practice anyway, yes?

3) You actually have 33 available storage registers in the 32sii---the statistics registers are accessible via indirection (i). This is no less cumbersome than the 15c--where *most* of the registers must be accessed via indirection. Doesn't the 32s allow this?

4) The 32sii has all twelve conditional tests. Is it true that the 32s does not?!

I have never owned or used the original 32s---so I am not familiar with its intricacies.

You know, if the 32sii had a lot more memory, then it would be far more powerful than the 15c--because you could write programs to handle the Matrix and Complex stuff. The only real cramp in the 32sii is the small memory. However, I am assuming the good old days of HP, where HP would provide the matrix and complex math programs in the manual.....

It will be interesting to see what the 33s brings...

Oh, one more question for you: A while back, you suggested that I really *must* get the 15c advanced functions book---(regarding numberical methods)----do you know is that the same as what I saw included on the Museum's CDROM?

Best regards,

Bill

Re: My HP-15C vs. your 32S/SII

*Message #15 Posted by **Valentin Albillo** on 7 Nov 2003, 10:11 a.m.,*
in response to message #14 by bill platt

Bill Platt posted:

"If the 32sii had a lot more memory, then it would be far more powerful than the 15c"

In Spain we have kinda proverb which roughly translates like this:

```
"Were my father to be round and red, he'd be a tomato ...
 But since he's not, he ain't."
```

Get the point ? If your statement above would be worth anything, then by the same token "if the 15c had a faster CPU and/or alphanumerics and/or a card reader it would be far more powerful than [insert any given calc here]" ... Alternate futures are interesting sci-fi devices, but I suggest we limit our arguments to actual *facts*, ok ? The 32sii does *not* have a lot more memory, and so it's *not* far more powerful than the 15c, period.

"... because you could write programs to handle the Matrix and Complex stuff."

Since when writing programs to do something is comparable to having the complete set of functionality implemented in microcode right in the internal ROMs ? As long as it is a programmable calculator, you can in theory write programs to do anything, but facts are that you frequently neither have the space to write all necessary programming (the HP-15C has a very comprehesive matrix functions set) nor do the resulting programs run as fast or as conveniently as the microcoded built-in set. So the fact that you could (in theory) write a program to do something is a given for a programmable calculator and adds nothing to the discussion.

"The only real cramp in the 32sii is the small memory.

Yes, if you so chose to ignore the lack of matrices and matrix operations, true handling of complex numbers, etc, etc, etc. I don't quite get it why you feel it correct to make such an statement, as if these and all other points were nonexistent or nonrelevant.

Anyway, Bill, do as you please. You want to think and believe that the 32S/Sii is better ? Do it, man, I don't get paid to promote the 15C, be my guest, that's entirely your issue, I couldn't care less ... :-)

*"one more question for you: A while back, you suggested that I really *must* get the 15c advanced functions book---(regarding numberical methods)----do you know is that the same as what I saw included on the Museum's CDROM?*

I don't have the Museum's CD-ROMs so I don't know.

Best regards from V.

Re: My HP-15C vs. your 32S/SII

*Message #16 Posted by **bill platt** on 7 Nov 2003, 11:02 a.m.,*
in response to message #15 by Valentin Albillo

Hi Valentin,

Thanks for your reply-----

Actually I do not think the 32sii is "better" than the 15c---clearly without the matrix stuff and the complx stuff, AND less memory, it is inferior...

The point of the bit about more memory and making the Matrix and complex stuff programmed rather than built-in is that not everyone uses matrix and complex numbers---I for instance rarely need either, yet I often run out of programming space.....

So, if you free the ROM (by making matrix anc complex optional) you also make the calculator

more versatile for some users.....

And, I am not a crack programmer, but would it not be reasonable and possible to duplicate the 15c Matrix and complex functionality in an RPN program set? Am I missing some fundamentals? (I ask these questions because your explanations are generally very well written and enjoyable to read!). Obviously the 32sii does not have enough memory available for that....but how about the 33s IF it has 32 kB?

Or in other words, just how much more programming lines could the 15c have had, had that ROM space been made available for the user (rather than used for matrix stuff). We also must not forget that a significant portion of the RAM in the 15c gets used in *manipulating* matrices and complex numbers----

And of course I am sure that the Matrix and complex stuff is *packed* in the ROM more efficiently than an RPN program of equal power would be----perhaps that is one of the careful trade-offs made way back in 1983.

The fact is, the 15c is realy cool----no doubt! I just thought it is interesting that the 32sii has all the programming features, except line number gotos.....so it is quite good for many tasks--just too small!

And regarding differences between the 32s and the sii that I raised---anyone have answers there?

Regarding numerical analysis, HP15c "Advanced Functions"----is that the one?

And I like the spanish proverb----that's a good one! How do you write it in Spanish (my son likes Spanish).

One more thing--your name appears in the Chess world a lot--is it you, or your doppelganger?

Best regards,

Bill

Re: My HP-15C vs. your 32S/SII

*Message #17 Posted by **Valentin Albillo** on 7 Nov 2003, 11:43 a.m.,*
in response to message #16 by bill platt

Bill posted:

"Actually I do not think the 32sii is "better" than the 15c---clearly without the matrix stuff and the complx stuff, AND less memory, it is inferior..."

Now we are making progress ... :-)

"not everyone uses matrix and complex numbers"

Fine. At the time of the 41C release, not everyone had a use for many of its advanced capabilities. But that didn't invalidate the fact that it was the superior machine. If you only need the basic four arithmetic functions, that won't mean that an HP-32S isn't superior to a $1 four-function banger, right ? In our present case, the fact that not everyone uses matrices and/or complex numbers does nothing to detract from the fact that the 15C is nonetheless the superior model.

"So, if you free the ROM (by making matrix anc complex optional) you also make the calculator more versatile for some users....."

I don't follow your argument here. ROM and RAM are very different beasties. "Freeing" ROM won't do a thing to increase your RAM availability, both were very differently priced at the time, and it was usually much more sound from an economical point of view to implement as much functionality in ROM as possible, just to save a few precious RAM bytes. That's why HP did include so many functions and features in the ROM, such as hyperbolics or recall arithmetic, because that would save the user a lot of bytes here and there. But if you chose not to use the ROM for said purposes, it would simply remain unused. The HP-45, for instance, had some pages of ROM available after implementing all projected functions. Havig nothing better to do with it ('trading' it for extra RAM being out of the question), they did include there the microcode for the HP-55 timer.

"would it not be reasonable and possible to duplicate the 15c Matrix and complex functionality in an RPN program set?"

That's a *VERY* tall order, for any programmer. The microcoded matrix algorithms were state-of-the-art, developed ad-hoc for the HP-15C, and going through every loop to achieve maximum speed and accuracy, even above and beyond the 13-digit internal precision. And as the HP-15C's matrix set is quite comprehensive, accurately emulating it in user-code software would be prohibitive for most any individual.

I ask these questions because your explanations are generally very well written and enjoyable to read!

Thank you very much, but trying to lure me with sweet words won't do you any good, I'll trash you all the same ... :-) :-)

"Obviously the 32sii does not have enough memory available for that....but how about the 33s IF it has 32 kB?"

That amount of RAM would be enough to implement a number of programs and routines simultaneously, even at the preposterous rate the 32S gobbles up RAM (remember the 1.5 bytes minimum per instruction, 9.5 bytes for all numbers not 0-99, etc). But in the case of the matrix operations, the difficulty lies not only in the RAM required, but in the complexity of the algorithms themselves. Of course you can implement a matrix inversion or solve a system with fairly compact programs, but not with the quality and accuracy of the built-in 15C matrix functions (also present in the HP-71B, 42S, etc).

"just how much more programming lines could the 15c have had, had that ROM space been made available for the user (rather than used for matrix stuff)."

None. See my explanation above. You just didn't trade RAM for ROM at the time. Either you used all the ROM available for useful or miscellaneous functionality, or else it was left unused. If I recall correctly, the HP-75's I/O ROM was another such case, with a certain amount of poetry being burned into spare ROM space, just for fun as it would be left utterly unused otherwise.

"I like the spanish proverb----that's a good one! How do you write it in Spanish (my son likes Spanish)."

My pleasure. The proverb goes like this:

```
"Si mi padre fuese redondo y colorado, seria un tomate."
"Pero como no es, no es."
```

My compliments to your son. This is for him:

```
Hola, me alegro mucho de que te guste mi idioma
nativo. A mi tambien me gusta mucho el idioma Ingles,
es precioso, potente, y permite comunicarse a gente
de todos los paises. Espero que sigas progresando
con el idioma Español y que algun dia te animes a
venir de vacaciones a España. Saludos de Valentin.
```

"One more thing--your name appears in the Chess world a lot--is it you, or your doppelganger?"

It's me. As far as I know, I am the only Valentin Albillo in the world ! :-)

Thanks for your kind words and interest, and best regards from V.

Edited: 7 Nov 2003, 11:45 a.m.

Does 15c feel as cheap as a 12c?

*Message #18 Posted by **John** on 10 Nov 2003, 5:52 a.m.,*
in response to message #1 by Jim B

I was in an Office Supply Store yesterday looking over their calculators, which were all TI's except for a 12c. Having never used a 15c (I have only used a 32sii) I was wondering if the 15c keyboard feels as cheap as the 12c does??

Re: Does 15c feel as cheap as a 12c?

*Message #19 Posted by **Wayne Brown** on 10 Nov 2003, 7:42 a.m.,*
in response to message #18 by John

When the 15C was being manufactured, neither it nor the 12C felt cheap. The current-production 12C, like everything HP makes these days,is inferior to what it once was. Try to find a 12C that was made about 10 years ago and you'll see a real difference in quality.

Re: Does 15c feel as cheap as a 12c?

*Message #20 Posted by **Valentin Albillo** on 10 Nov 2003, 7:52 a.m.,*
in response to message #18 by John

OK, I'll bite ...

The HP-15C (the US-made models, at least), along with all other models from the Voyager series (10C, 11C, vintage 12C, 16C) has one of the very best keyboards ever made for any handheld calculator, if not the best. Only the HP-71B's keyboard can compare.

None of the HP-15C's physical aspects feels 'cheap' in the least, quite on the contrary. It's solid as a brick, has a wonderfully clear, contrasty display, and as I've said before, it oozes quality.

By the way, should you try to test this humble opinion of mine, try and get an HP-15C, from eBay for example. You'll discover a new meaning for the word 'cheap' ... ;-)

Best regards from V.

"Don't You DARE ever post here AGAIN!!!!" 8o)

*Message #21 Posted by **Ron Ross** on 10 Nov 2003, 8:42 a.m.,*
in response to message #18 by John

That is really a bold and misguided statement to compare quality of a 15c to any of todays calculators.

Talk about guts!!!

Re: Does 15c feel as cheap as a 12c?

*Message #22 Posted by **Paul** on 10 Nov 2003, 8:53 a.m.,*
in response to message #18 by John

I had a 15C and a 28C, but felt the 15C needed more. So I traded it accross the ocean to the USA where an Engineer traded his 48G for the 15C that I had. I thought I had a good deal, until I found that the 48G was not made in the USA like the 15C. Quality, is not the word for the 15C. Supreme Excellence bar none. I done regret the swap because the 28C feels almost as rugged as the 15C. I'd never part with it. But the 48G.....a little disappointing. Cheap in its construction and sound speaker. Boy what a screach of a noise when beep is enabled. Now it runs silent, like a mute. Never again a non USA unit will I but, but what other option is there. They are all crap now. The old units leave them all for dead.

Paul

A 32s is much better than 2001 made 32sii

*Message #23 Posted by **John** on 11 Nov 2003, 6:43 a.m.,*
in response to message #18 by John

In comparing the 15c to the current 12c, I think I now believe what everyone's saying.

I had ordered a 32s from ebay and it arrived yesterday. I compared it to my 2001 Indonesian 32sii and was shocked at the difference in feel of the calculator. Every aspect of the 32s was better. The display, the keys, keyclick, everything. I will never doubt any of you again! I now know you can't compare the construction of a new 12c with a 15c. Thanks.

Edited: 11 Nov 2003, 7:23 a.m.

Re: A 32s is much better than 2001 made 32sii

*Message #24 Posted by **Raymond Del Tondo** on 11 Nov 2003, 8:04 a.m.,*
in response to message #23 by John

You're right, the older Singapore & U.S. made machines are ways better. The 32SII (all versions) has at least one advantage over the 32S: the display pixels are bigger;-)

...and one big drawback: The cluttered keyboard...

Raymond

Re: A 32s is much better than 2001 made 32sii

*Message #25 Posted by **Frank** on 11 Nov 2003, 9:51 a.m.,*
in response to message #24 by Raymond Del Tondo

I find the big, clear display of my 32sii cause enough to generally prefer using it over my 42s, which has the same clean keyboard layout as the 32s. I also find the shifted functions of the 32sii easier and faster to use than the nested menus of the 42s. In my hands, for simple tasks, the 32sii

wins, irrespective of keyboard esthetics.

Re: A 32s is much better than 2001 made 32sii

*Message #26 Posted by **Ed Look** on 11 Nov 2003, 10:38 p.m.,*
in response to message #25 by Frank

I'll agree with this last post. I've found the 32SII a joy to use, the only exception being its limited program memory (I hate erasing programs... I always have this biting feeling I might need it again, and soon!) MAINLY BECAUSE of its "cluttered" keyboard. I much prefer key, even if shift is required, access over menu access; the latter feels too much like trying to follow someone else's branched subroutines.

I only wish the 32SII keys felt as snappy and solid as the 34C (Spice series) calculators. I even like the old color scheme on my 32SII: all dark blackish brown with gold and blue shift keys and shifted key labels.

(OT for thread but on-T for NG- If the 48G series kept that same orange and blue system of labels, even with its green/gray case and faceplating, it would look pleasant, in my opinion, again.)

32S variations

*Message #27 Posted by **Randy Sloyer** on 12 Nov 2003, 2:09 a.m.,*
in response to message #25 by Frank

If you like the bigger characters of the 32Sii and like the keyboard of a 32S there is a solution:

Near the end the of 32S production, that is to say right before the 32Sii came out, the 32S went to the same stepped bezel as the other Pioneers. This eliminated the glare common with the lens over lcd design. When this was done, the lcd changed to the larger character size later used on the 32Sii.

So, you can have your cake and eat it too!

If you look at Dave's 22S photo, you'll see the bigger characters and the step bezel design. His 32S picture is of the older design. I think the bigger lcd's with stepped bezels tend to be much rarer than the originals but it doesn't seem to make much difference in the selling price :o)

Re: 32S variations

*Message #28 Posted by **Nelson M. Sicuro (Brazil)** on 12 Nov 2003, 8:27 a.m.,*
in response to message #27 by Randy Sloyer

My HP-32S have the big digits display and the stepped bezel. Is made here in Brazil in 1990 (S/N 3046B33967). Its display is way better (in contrast and glare terms) than my HP-42S with its old non-stepped bezel display. Even my 17BII (stepped bezel also) that has the almost same display have better contrast than the 42S.

(12345 to delete)

Best regards,

Nelson

USA, Singapre, Brazil, et al

*Message #29 Posted by **Scuba Diver** on 12 Nov 2003, 11:30 a.m.,*
in response to message #28 by Nelson M. Sicuro (Brazil)

Hi all!

With all the talk earlier about US and Singapore units vs. Indonesian and Chinese, I thought I'd throw my 2 cents (Canadian) in.

I recently acquired a Brazilian-made 19BII, and I find its quality to be identical to that of units made in the US and Singapore.

This is the only Brazilian unit I own, so I didn't want to make the blanket statement that Brazilian units were all on par with US/Singapore. Can anyone else confirm/deny this? I know that the 12C and 17BII were also made in Brazil...were those units of similar quality to US and Singapore ones?

B.

Re: USA, Singapre, Brazil, et al

*Message #30 Posted by **Julián Miranda (Spain)** on 12 Nov 2003, 3:28 p.m.,*
in response to message #29 by Scuba Diver

I have a brazilian made 12C and as far as I have used it (not too much, as Tony Duell says I don't have enough money to need a financial calculator) I can put it at the same level as my U.S.A. made 15C.

A comment off topic. I decided to buy a 12C to celebrate its 20 anniversary, I serched eBay and found someone from Corvallis, OR, who was selling a nice looking 12C and thought it will be a genuine U.S.A. made HP, I got it and was really nice but it was made in Brazil.

Re: USA, Singapre, Brazil, et al

*Message #31 Posted by **Stephan (Germany)** on 12 Nov 2003, 6:09 p.m.,*
in response to message #29 by Scuba Diver

My Brazilian 12C is definetely of the same quality as my 15C made in USA. The only difference is that it has repainted keys (keys are from a 15C).

Re: USA, Singapre, Brazil, et al

*Message #32 Posted by **Nelson M. Sicuro (Brazil)** on 12 Nov 2003, 7:20 p.m.,*
in response to message #29 by Scuba Diver

I have the 41CV, 15C, 11C, 32S, 17BII, 42S all brazilian and a USA 12C. All are excellent and the 15C and 11C are the same quality of the USA 12C. I also have a Singapore made 17BII and the quality is equal of the brazilian one. All abore have double-molded keyboard, and their construction is really good. In time, all brazilian-made HP calculators are only assembled here in Brazil, as far as I know, with USA boards and japanese displays (Epson, mostly). I don't know if the cases are molded here or just "stamped" with "Brazil" on it.

My R$0,02 (brazilian currency...)

Best regards,

Nelson

Re: USA, Singapre, Brazil, et al

*Message #33 Posted by **Scuba Diver** on 12 Nov 2003, 7:59 p.m.,*
in response to message #32 by Nelson M. Sicuro (Brazil)

Well, the interesting thing about my 19BII is that it has a Brazilian serial number (3627BXXXXX) but the body is stamped "Made in Indonesia"...my guess is that the body was made in Indonesia, then shipped to Brazil for manufacturing.

B.

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HP ICs' spare cross ref. guide

*Message #1 Posted by **Albert** on 4 Nov 2003, 4:25 p.m.*

Hi all,

Surfing inside google, looking for an 1858-0050-1D display / segment driver for my HP-67, I found out following HP ICs' spare parts cross reference guide.

http://www.chiark.greenend.org.uk/~alanb/doc/hp.txt

Wake-up, solder!

Albert

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Convert from .bin to .rom

*Message #1 Posted by **Poul Kaarup** on 4 Nov 2003, 1:28 p.m.*

How can I convert an hp41 ROM image from .bin format into .rom format? (I can do .rom to .bin)

Thanks in advance /Poul

Re: Convert from .bin to .rom

*Message #2 Posted by **hugh** on 5 Nov 2003, 6:18 a.m.,*
in response to message #1 by Poul Kaarup

not sure what the .rom format is. the v41 emulator comes with a conversion utiility thats handles formats; lif, p41, raw, dat, bin and txt.

Re: Convert from .bin to .rom

*Message #3 Posted by **Poul** on 5 Nov 2003, 2:50 p.m.,*
in response to message #2 by hugh

The ROM images that come with the V41 are in an uncompressed format like CCD1B.ROM (the CCD module). The ROM images used with Emu41 are in a compressed format like GAMES.BIN (the Games Pac). I know how to convert from .ROM to .BIN but not the other way around. The utility you mention is for converting USER code programs, and can't (as far as I know) convert a whole image.

/Poul Kaarup

Re: Convert from .bin to .rom

*Message #4 Posted by **J-F Garnier** on 5 Nov 2003, 3:49 p.m.,*
in response to message #3 by Poul

Bin format packs 4 words into 5 bytes (makes 40 bits):

```
byte
0       word0[7-0]
1       word0[9-8] + word1[5-0]<<2
2       word1[9-6] + word2[3-0]<<4
3       word3[9-4] + word4[1-0]<<6
4       word4[9-2]
```

and so on...

In the future releases of Emu41, I will support .rom format as well.

J-F

Re: Convert from .bin to .rom

*Message #5 Posted by **Poul** on 6 Nov 2003, 3:06 p.m.,*
in response to message #4 by J-F Garnier

Thanks for the information. Would it be possible for your CLBIN41 program to do conversion both ways in the future?

/Poul

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hp28 mention on smithsonian site

*Message #1 Posted by **ned** on 4 Nov 2003, 12:57 p.m.*

Just found this by accident. Interesting short read. This site deals with the history of math education in the United States. Gives credit to casio for the first graphing calc, but mentions the 28c.

http://americanhistory.si.edu/teachingmath/html/401.htm

~ned

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32s Manual

*Message #1 Posted by **Phil** on 4 Nov 2003, 12:14 p.m.*

I'm looking for the HP 32S manual for download.

If anybody know where I can download it, please, answare this...

Thanks

Sorry my english.

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Cheap chinese junk

*Message #1 Posted by **Dom Dinis** on 4 Nov 2003, 12:12 p.m.*

Are all hp calcs made in CHina now? I'd be curious to know how much cheaper are Chinese production costs compared to the US. They must be substantially lower if hp hopes to recover the additional expenses related to returned items, additional repairs under warranty, customer dissatisfaction and the irreparable damage to the firm's reputation.

DD

Re: Cheap chinese junk

*Message #2 Posted by **Bill Wiese** on 4 Nov 2003, 9:09 p.m.,*
in response to message #1 by Dom Dinis

Well, labor costs are very cheap in China - far cheaper than even Mexico. Lots of assembly labor there is essentially 'slave labor' - folks go unpaid, jobs are misrepresented as to hours/duties/wages, folks are held prisoner in factories (locked doors, managers hold employees' internal passports so they can't leave facility or town). Many of these firms are one step removed from the Chinese gov't or military and/or are run by favored cronies of the Politburo elite, not subject to prosecution for all but the grossest of crimes.

Even w/diminished quality, it seems to be the norm in the consumer electronics biz that the true mfgr "eats" warranty returns & some associated costs. It's the dirty little secret in the consumer elec. industry that 25+% items (other than TVs and stereos, which ordinary folks seem to be able to use without skills) are returned to seller. Oftentimes this is not due to any real defect/product problem but due to incompatibility w/platform or user skill in installing devices (for example, PC peripherals) or confusing usage due to poor user interfaces & firmware (VCRs, camcorders, etc.) Often, when you buy a 'refurbed' item there may be NOTHING wrong with it other than the customer couldn't figure out the logic of the product; the product is just reboxed/resealed and new paperwork is thrown in. Can't be sold as new (except at Fry's ;)

Many Chinese electronic firms operate on time value of money "float" for their profits: they get money upfront to build a widget, chip, etc. The work is done at cost, but the profit is gained on the float. Risky, and they are willing to live w/the small margins. (Many do go broke.)

In general, I don't know why we do business with Red China. I'd pay triple to avoid them. It is an avowed enemy state. I don't doubt we'll have a war with them in the next 50 years - maybe sooner if they try to take Taiwan. I try to avoid buying ANYTHING originating from there (sometimes difficult, but actually possible). Given such low labor costs, every dollar spent in Red China adds a significant kick to their internal oppression & military budget.

Bill Wiese San Jose CA

Re: Cheap chinese junk

*Message #3 Posted by **Vassilis Prevelakis** on 6 Nov 2003, 10:29 a.m.,*
in response to message #2 by Bill Wiese

```
Bill Wiese San Jose CA wrote:
> In general, I don't know why we do business with Red China.
```

I wonder about this myself, but I guess cheap always wins. Totally shortsighted which will lead to a lot of trouble down the road.

```
> I try to avoid buying ANYTHING originating from there
> (sometimes difficult, but actually possible).
```

I bought an X-10 PRO House filter and whan it arrived I found out its made in China. In most cases when I buy mail order I am not able to determine the origin of the goods.

Any hints?

**vp

Voyager 1

*Message #4 Posted by **bill platt** on 6 Nov 2003, 11:41 a.m.,*
in response to message #3 by Vassilis Prevelakis

Voyager 1 is still going strong--and sending signals back from the edge of the solar system---over 25 years in space and still functioning.....built when the spice series--or topcats maybe? were new.....

Just try THAT with chinese junk.

Oh well, so much for MADE IN USA. Now that the "Long March" launch vehicle is working and China has put a human into (sub?) orbit, I guess even space will be explored with tools that were MADE IN RED CHINA.

But god, I hope Bill is wrong---I sure hope my children do NOT fight a war with China in 50 years.

Re: Voyager 1

*Message #5 Posted by **Bill wiese** on 6 Nov 2003, 6:11 p.m.,*
in response to message #4 by bill platt

Hi Bill

Just so you & other readers don't mistake my words, my Red Chinese postings are not a racial comment. It is just that it will be exceedingly difficult for even the most innovative flexible societies (USA, Japan, Europe - and even Russia) to compete against an overpopulated, high-birth-rate society with cheap labor, lack of respect for intellectual property, etc. - R&D is funded thru a bit of 'fat' on product pricing, and the chinese mfg houses are essentially "stamp out a million cloned items for lowest price". We will end up fighting for the bottom not the mid-to-top of marketplaces.

Some sort of war will be inevitable. A Red Chinese takeover of Taiwan would cause gross world financial distress. {We need to get to the Taiwanese 'cross strait' businessmen, thru their gov't, and lay down the law that if we're gonna protect them, they've gotta not 'invest' (read: seek ultracheap slave labor) in China. It will not be a territory seeking war - we don't need to put 'boots on the ground' in China - but one to restrain its slave-driving tendencies and keep its military in check, and perhaps allow true democracy to take over (raising living standards).

Bill Wiese

San Jose CA

> Quote:
>
> Voyager 1 is still going strong-- {...snip...} Just try THAT with chinese junk.
>
> Oh well, so much for MADE IN USA. Now that the "Long March" launch vehicle is working and China has put a human into (sub?) orbit, I guess even space will be explored with tools that were MADE IN RED CHINA.
>
> But god, I hope Bill is wrong---I sure hope my children do NOT fight a war with China in 50 years.

Re: Cheap chinese junk

*Message #6 Posted by **Bill Wiese** on 6 Nov 2003, 5:59 p.m.,*
in response to message #3 by Vassilis Prevelakis

Hi Vassilis..

If you're mail ordering ask for country of origin of item. If they don't know, ask if you can return it (unused, w/all packaging) if you find out it's made in Red China. If they say no, don't order it ;) If they bitch & moan upon returning it, it was a 'sales condition' (get a tape recording!) and let your credit card co help out on refund.

I've not seen anything so necessary to my life that I really have to buy a Red Chinese product. Getting harder though for some consumer electronics items. Even lots of low- to mid-range "Japanese" electronics (Sony etc) is red Chinese made.

For freedom & nonenslaved markets, Bill

Re: Cheap chinese junk

*Message #7 Posted by **Steven Kutoroff** on 6 Nov 2003, 8:46 p.m.,*
in response to message #1 by Dom Dinis

I won't dispute that many products made in China are of low quality. I also won't dispute that there are factories in China that are as described in one of the replies. However, I have been to China (less than 2 years ago) and I visited several manufacturing facilites. Some for US companies and some companies owned by other nationalities. I did this while with a University group. The companies I visited had first rate facilities. Not the same as they would have in the US with OSHA requirements, but still very good and much better than I expected. I saw facilities owned by Emerson Electric, Nokia, and others. Most were making items not for export, but domestic Chinese consumption. If HP wanted to make really quality devices in China they would. But, if a company really wants to have the highest sales margins, they will find a way to cheapen any product and going to China is the first step. HP took it and have the product made just as they want it made. All of us that collect, own, and use "vintage" HP products because of what they were probably regret the cheapening of these items, I do. But I also can look the items I have bought in the past 5-10 years and assess that some decent products have come from China. The Chinese people I saw working were not working as hard as Americans, but they are paid a fraction of our wages and they are working to do the best for their families the same way you or I do for ours. I look forward to another visit there some day. The people I met were terrific and truly concerned for the events of 9/11. But, that was almost 2 years ago.

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hp 15c

*Message #1 Posted by **glenn sasser** on 4 Nov 2003, 11:10 a.m.*

I am looking to reset this calculator to the floating dismal?

Re: hp 15c

*Message #2 Posted by **Thibaut.be** on 4 Nov 2003, 12:33 p.m.,*
in response to message #1 by glenn sasser

The "floating decimal" does not exist on the 15C, neither on all pre-1990 calculators.

The only choice you can make is on the number of decimals, wich is selected by f FIX n, f SCI n, or f ENG n, where n is the number of decimals.

The default value of n is 4

Floating decimal

*Message #3 Posted by **Karl W. Schneider** on 5 Nov 2003, 1:40 a.m.,*
in response to message #2 by Thibaut.be

Thibault wrote:

> Quote:
>
> The "floating decimal" does not exist on the 15C, neither on all pre-1990 calculators.

If "floating decimal" (Glenn Sasser, the original poster, erroneously wrote "dismal") refers to the calculator's showing only the minimum number of decimal digits (rather than a fixed number) to represent a value to best-possible accuracy, then at least several of the Pioneer scientific models can do so. The 42S and 32Sii and 20S, released prior to 1990, have an "ALL" display mode. Don't know about the 21S and 27S...

However, I remember in the early '70s when "floating decimal" had a different meaning. One low-end 4-banger Commodore calc from that era had a slide switch for power and display mode -- off/no decimal/2 decimal places for monetary arithmetic. Otherwise, the user had to keep track of decimal places, slide-rule fashion. The true floating decimal was a later innovation...

Re: Floating decimal

*Message #4 Posted by **Holger S.** on 5 Nov 2003, 2:27 p.m.,*
in response to message #3 by Karl W. Schneider

My 27S, made in 1988, has an 'ALL' mode.

Re: Floating decimal

*Message #5 Posted by **GE (France)** on 5 Nov 2003, 4:28 p.m.,*
in response to message #3 by Karl W. Schneider

Another odd beast is one of the Sinclair Cambridge line (I think the 'Scientific'), which doesn't have a 'dot' key, it is always assuming you type a mantissa with one digit before the decimal point. For example, to type 0.15 you'd type [1] [5] [E] [-] [1], weird !!

Re: "Floating dismal"

*Message #6 Posted by **Paul Brogger** on 5 Nov 2003, 5:37 p.m.,*
in response to message #3 by Karl W. Schneider

I dunno . . . "floating dismal" sounds perfectly appropriate in other contexts.

For example, the "4" key on my 49G+ . . .

Re: hp 15c

*Message #7 Posted by **Richard Garner** on 4 Nov 2003, 12:38 p.m.,*
in response to message #1 by glenn sasser

The original setting for the 15C is FIX 4. I think it went f key, 7 key, then 4 key . Or it could be 4 Enter, f key, then 7 key. It has been awhile and I no longer have a 15C or manual to look at.

Re: hp 15c

*Message #8 Posted by **Thibaut.be** on 4 Nov 2003, 1:42 p.m.,*
in response to message #7 by Richard Garner

The correct setting is f FIX (up the 7 key) 4

Re: hp 15c

*Message #9 Posted by **Richard Garner** on 4 Nov 2003, 5:15 p.m.,*
in response to message #8 by Thibaut.be

It has been over 10 years sense I used a 15C. It's good to know that I still can remember some of the operations off of the top of my head.

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Clonix 41 module proyect, 2x upgrade.

*Message #1 Posted by **Diego Díaz** on 4 Nov 2003, 9:05 a.m.*

Hi all,

It's been pointed out in a previous thread about Ángel Martin's elegant SandBox ROM (my apologies for the intromission Ángel), that the Clonix modules will be little more than useless if they cannot run on 2x machines.

I assumed (while developing the hardware power control) that low power figures were more likely to be the main thing to care of. Anyhow I was probably wrong.

Running at 2x with current software implementation will drastically increase the power requirements while in STAND-BY mode (from 1mA to 20mA!), it's possible though.

Now I will accept the challenge to re-write the Clonix code and cope with both low power and 2x speed, this is only a personal proyect after all, and the more I play with it the more fun I get ;-)

I'm using an old over-clocked 41C with 1LE3-0001 processor (yes, it produces those nasty negative pulses into the SYNC timing), it runs OK at 610KHz (1.7x) and becomes really unstable around 620-630KHz.

I'd like to know about your experiences with, so called, 2x machines: real clock speed, processor type, machine type (C, CV, CX, Half, Full...), unstability issues, etc.

Your comments will be greatly appreciated and will, in turn, help to the Clonix 41 2x upgrade proyect.

It's a real pleasure to see such a number of ROM/RAM Box proyects blooming those days, may we get those oversized eBay prices to low down a bit with all this effort.

Thanks in advance.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #2 Posted by **Meindert Kuipers** on 4 Nov 2003, 11:01 a.m.,*
in response to message #1 by Diego Díaz

My HP41C runs at about 526 kHz (original was 357 kHz), with no stability issues at all, including any of the peripherals I have.

I have not tried to overclock my 41CV and 41CX, and I don't think I will attempt to point a soldering iron to these beauties.

I do think however that ebay prices will increase for module housings and cardreader housings ;-)

Meindert

Re: Clonix 41 module proyect, 2x upgrade.

*Message #3 Posted by **Diego Diaz** on 4 Nov 2003, 12:29 p.m.,*
in response to message #2 by Meindert Kuipers

That's a good point, Meindert. I'll be ready to accept your "overpriced" module housings :-)

Now, seriously, I'm trying to get a non working card readed to fit you MLDL kit in. In the meantime, playing with my Clonix is keeping me busy, and your info regarding clock speed served me as a reference. I've been browsing PPCJ's to see over-clocking related issues, and it seems that no-one pulled the 41 clock above 625KHz, wich means an increment of 173.6%, but those PPCJ articles were based on early machines, by the other hand the 1LF5-0002 built-in oscilator is nominally a 800KHz resonant circuit according to the chip specs, so later 41's could, theoretically, be pushed up to this clock frequency: a 222.2% increment!

Hope to see more messages in this thread, to make myself a more accurate picture of that.

Thanks for your comments.

Cheers.

Diego.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #4 Posted by **Raymond Del Tondo** on 4 Nov 2003, 2:00 p.m.,*
in response to message #3 by Diego Diaz

AFAIR, the CX, and especially the halfnut version, runs at a somewhat higher clock than the older C's and CV's .

Raymond

Re: Clonix 41 module proyect, 2x upgrade.

*Message #5 Posted by **Meindert Kuipers** on 5 Nov 2003, 3:53 a.m.,*
in response to message #3 by Diego Diaz

Diego,

There are several memory modules available at pretty low prices, for example:
http://cgi.ebay.nl/ws/eBayISAPI.dll?ViewItem&item=3056135106&category=11713

Buy a bunch of them and make a fortune, I still have some left for myself so I will not be the one driving up prices :-)

Re: Clonix 41 module proyect, 2x upgrade.

*Message #6 Posted by **Angel Martin** on 4 Nov 2003, 3:21 p.m.,*
in response to message #2 by Meindert Kuipers

I for one, wouldn't bother so much about 2x issues. IMHO it is *much* more important to have the lowest possible consumption, and won't trade that for "high" (?) speed.

If not, consider:

no Time Module support (Alarms included)

no Card Reader support...

Besides, how much faster does it get? Compared to modern calcs even 2x is very slow. Speed isn't the point of the 41 system, it never was but now less than ever.

Best wishes,

AM.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #7 Posted by **Helmut Kueppers** on 5 Nov 2003, 5:35 a.m.,*
in response to message #6 by Angel Martin

i have 200%(2x) 41cv + time. time module can be used with 200% speed!!! it has own clock/crystal. I using card reader. have switch - micro switch. card reader @ switch=0, speed @ switch=1. conclude: card reader and time module = no problem. helmut kueppers

Edited: 5 Nov 2003, 5:51 a.m.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #8 Posted by **Ángel Martin** on 4 Nov 2003, 3:24 p.m.,*
in response to message #1 by Diego Díaz

No intromission at all Diego...

besides, now you give me another thread to bring up my SandBox ! (just kidding, or am I?)

Best wishes, ÁM.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #9 Posted by **Diego Diaz** on 4 Nov 2003, 3:51 p.m.,*
in response to message #8 by Ángel Martin

Ha, ha, you're welcomed Ángel, my home is your home (sincerely)

Ok, I must admit (confess?) that the aim of this thread is double folded: I *really* want to know about the technical details of 2x 41's, as those reported by Meindert... and, poll the forum to see if the 2x machines are so common and they deserve the effort of re-coding the PIC.

Up to now, there seems to be no much interest in the issue, or no interest at all in the Clonix... time will tell.

Regarding Raymond post, I've got two HalfNut CX machines (s/n 2646S.... and 2819S....) and they run at 361 and 358Khz respectively. So, no speed up were provided by HP on late models.

I'll keep on tracking.

Kind regards from the Canaries.

Diego.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #10 Posted by **Werner** on 5 Nov 2003, 3:42 a.m.,*
in response to message #9 by Diego Diaz

Hi Diego,

you just said: "Up to now, there seems to be no much interest in the issue, or no interest at all in the Clonix... time will tell." Oh, I think there is a lot of interest, maybe yet not many messages here at this place. I am VERY interested in such a great option, please keep on working on it! It is a wonderful project!

From my point-of-view I cannot really decide what would be better (for me), double speed or low power consumption. (I have a "slow" and one speeded-up (x2) HP41CX, so fortunately I could use your module anyway)

Concerning power consumption: You mentioned 1mA vs. 20mA at standby.

Do you have numbers of former devices to compare with ? a) how much current is needed for the HP41CX without extension modules ? b) how much extra current would be needed for a X-Memory module, a HEPAX 8k/16k module or a ZEPROM module ?

Concerning the speed issue: There was a question in the sandbox thread with regard to the possible speed of ZEPROM modules. I tested my ZEPROM-16k module in my 2x speeded-up HP-41 and it still works fine. But I have not yet measured the power consumption !

Concerning your question on maximum speed for fullnuts and halfnuts: I found a note in the forum on a 3 to 4 times speed upgrade for halfnuts: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv006.cgi?read=11913

"The half nut circuits works great even without the mounted 150pF capacitor at 3-4x (BEEP sounds very different at that speed)."

I also had found another note a year ago in the web speaking about a times-4-upgrade of halfnuts. Unfortunately I did not save the document and cannot relocate it by Google. I still remember that there was written that the new halfnut circuitry was based on hardware technology of the later calculator models (e.g. HP-42s) und could thus be speeded up twice as much as the fullnut which could only be speeded up to 2 times maximum (sometimes less, dependend on the device). Nothing was written on the speed upgradability for X-Memory modules or, e.g., the HEPAX RAM. Can they also follow a 4x speed up? I do not know.

Does anyone have information or practical experience on the described x3-x4 upgrade ?

So far for the moment. Please keep on going with your nice project - independent if fast or "slow" - I can only congratulate you to that activity!

Best regards, Werner (Germany)

Edited: 5 Nov 2003, 3:47 a.m.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #11 Posted by **Christoph Klug** on 5 Nov 2003, 4:31 a.m.,*
in response to message #10 by Werner

Dear Diego,

your Clonix project sounds nice, and some of your modules are wellcome to the plug in ports of my

handhelds. I only use/need standard speed for my HP41 projects - not the 2x speed up feature. Speed is not a key feature of the HP41 system...

A good source for getting module cases would be creating Double X-Memory modules. And from them follows an optimal HP41 port configuration.

When you have finished your prototype design with positive results you have to complete the next step : Mass production of 20 up to 100 samples of your Clonix Module - including a nice Documentation, describing your system and the needed programmer tools.

I think it will also be possible to transfer function tested Clonix pcb´s to the user. Than they solder the terminal and complete the module shell...

Best wishes from Germany for your Clonix project -

Christoph Klug

Re: Clonix 41 module proyect, 2x upgrade.

*Message #12 Posted by **Diego Diaz** on 5 Nov 2003, 9:34 a.m.,*
in response to message #11 by Christoph Klug

Hi Christoph,

Glad to hear form you again, and of your interest in my personal proyect.

Yes, the module housings search issue is becoming the "Achiles' heel" of the whole proyect.

I'm trying to get them, (currently an ad with this aim is posted in this very site), but still no answers...

Probably my best chance is to offer an appropriate rebate to those potential customer that send me one or more spare modules.

I'm not very happy with the idea of offering the PCB's, this may turn into a source of question/troubles related to the manufacturing process. Anyhow, this may be a last resort if modules become unavailable at the end.

The best choice to program the Clonix is IC-Prog (www.ic-prog.com) it's freeware and runs really fine. A small PCB adapter (wich will go as the Clonix companion) routes the appropriate lines from the module connector to the PIC programmer DIL socket. I'm also preparing a full detailed documentation for the Clonix user, as well as a small program to make the PIC programming process as automatic as possible. This documents and the program will be freely available on the net (hopefully in the next 2 or 3 weeks). I bet you'll find them as soon as they show up...;-)

My first production run is planned to be of only 25 units (I must also pay my bill's and those PIC's are not the cheapest one can find :-), some of them, as I posted in a previous thread, will go to the main contributors on this proyect and of course I'll keep 2 or 3 for my own use. The rest will be ready for sale/auction at the pace shells become available.

Best wishes.

Diego.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #13 Posted by **Giuseppe Marullo** on 7 Nov 2003, 8:39 p.m.,*
in response to message #12 by Diego Diaz

Diego, any chance to use a bootloader in place of the pic programmer? You could use a simple smart cable and save the hassle to build the programmer.

Giuseppe Marullo

Re: Clonix 41 module proyect, 2x upgrade.

*Message #14 Posted by **James MacPhail** on 8 Nov 2003, 4:33 p.m.,*
in response to message #13 by Giuseppe Marullo

Giuseppe wrote:

> Quote:
>
> Diego, any chance to use a bootloader in place of the pic programmer? You could use a simple smart cable and save the hassle to build the programmer.

I think this is a much better use of Diego's time/effort compared to supporting 2x. Like most others, my 41C with speed-up modification has a switch for normal speed.

That's just my opinion, Diego should decide what he wants to do.

James

Re: Clonix 41 module proyect, 2x upgrade.

*Message #15 Posted by **James MacPhail** on 8 Nov 2003, 4:42 p.m.,*
in response to message #12 by Diego Diaz

Diego wrote:

> Quote:
>
> My first production run is planned to be of only 25 units (I must also pay my bill's and those PIC's are not the cheapest one can find :-)

I will be pleased to contribute in advance of the first-run, I suspect others will as well.

> Quote:
>
> I'm not very happy with the idea of offering the PCB's, this may turn into a source of question/troubles

I hope that unpopulated boards or kits will be available so that the price can be as low as possible (I expect to want a few). For this community, I would not fear accusations when trouble arises, but it should be made clear that unassembled boards/kits have no warranty. (I am assuming, and strongly recommend, that the boards will be 100% electrically tested.)

Good luck!

James

Re: Clonix 41 module proyect, 2x upgrade.

*Message #16 Posted by **Diego Diaz** on 5 Nov 2003, 5:28 a.m.,*
in response to message #10 by Werner

Thanks a lot for your enthusiasm and interest Werner. It looks like I've been a little bit unclear in my previous posts, and I'd like to poit out some facts:

I'm not going to give up. The Clonix module IS already a real thing, and it will work on 2x 41's, it's a simple question of time for re-coding the PIC and make some minor hardware modifications.

The 3x and 4x 41's are, for now, completely out of range, as there exist a technological limit for the PIC to run, determined by the number of PIC instruction cycles that can be executed between two consecutive 41's clock pulses. This limit is around 750Khz (2.1x), so this machine's users will have to slow down if they are interested in playing with the Clonix module. Sorry for that, but there's nothing I can do to modify PIC's specs... I can push it beyond the reasonable limit though, and make it run with a 20 or 25Mhz Xtal, (current implementation uses 12MHz Xtal.) but I don't think this worth the risk of internal malfunction/instability due to a severe 200% or 225% overclocking wich PIC are not supposed to cope with. But, of course, I'll also try this anyhow... ;-) One can never tell where the limit is without breaking it...

More to come.

Cheers Diego.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #17 Posted by **Jim Chumbley** on 12 Nov 2003, 12:50 a.m.,*
in response to message #16 by Diego Diaz

Diego, I cannot send email to you at the address: sulacoPASMON2000@hotmail.com . Could you please tell me how to do it?

Very sorry to post this request in the Museum.

Re: Clonix 41 module proyect, 2x upgrade.

*Message #18 Posted by **Bob H.** on 12 Nov 2003, 4:34 a.m.,*
in response to message #17 by Jim Chumbley

you have to delete the word "P A S M O N" out of the email string, that means "NO SPAM" in other order of the used letters ... With the residual letters it should work. Hopefully! Good Luck, Bob

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New HP-71B emulator with HP-IL

*Message #1 Posted by **J-F Garnier** on 4 Nov 2003, 1:56 a.m.*

Hello all,

I'm happy to announce a new version of my HP-71B emulator. It features now a full HP-IL emulation with display, mass storage, printer and DOS interface devices. Emu71 now gives direct access to LIF archives like the ones found on this site.

Please have a look at http://membres.lycos.fr/jeffcalc/emu71.html

It's still a text mode application (consistent with the HP-71B system look and feel) and runs well in DOS or command box in Windows 95/98/NT,2000, etc...

Some of you may notice that this new Emu71 has some resemblance with the basic system on HP9000 computers. It's not a true coincidence because: 1) I like very much HP9000 machines (I used a HP9845 during my first job), 2) Emu71 evolved like the 98xx serie by integrating the one-line display with a full screen display in a common device. With the additional great JPCROM enhancement (available on my site) which provides structured programming (REPEAT..UNTIL, SELECT...CASE, ...), the resemblance with RMB is even closer!

Like Emu41, basic Emu71 version is still freeware, and I propose an extended version with real I/O capability (with HPIL/PC board) for a small free.

Best regards from France!

J-F

Re: New HP-71B emulator with HP-IL

*Message #2 Posted by **Christoph Klug** on 4 Nov 2003, 3:44 a.m.,*
in response to message #1 by J-F Garnier

Dear Jean-Francois Garnier,

big gratulation for your actual work about EMU71 for the HP71 world. Now HP71 user get the same amazing power, as EMU41 brings to the HP41 system.

Emulators which includes real HP-IL support are the best today application for any HP41 and HP71 enthusiast - you get some virtual IL devices and a gateway to the PC world which includes internet applications : Connect your HP41 and now your HP71 to the world :-)

Best wishes from Germany - Christoph Klug

Re: New HP-71B emulator with HP-IL

*Message #3 Posted by **Mike (Stgt)** on 4 Nov 2003, 11:01 a.m.,*
in response to message #1 by J-F Garnier

Congratulation! And ***thank you***!!!

Ciao.....Mike

Re: New HP-71B emulator with HP-IL

*Message #4 Posted by **Gordon Dyer** on 4 Nov 2003, 6:43 p.m.,*
in response to message #1 by J-F Garnier

Thanks J-F, It is a great piece of work. Keep it going!

Re: New HP-71B emulator with HP-IL

*Message #5 Posted by **GE (France)** on 5 Nov 2003, 4:07 p.m.,*
in response to message #4 by Gordon Dyer

This looks like a very impressive piece of work. Do you think it could run on an HP200LX ?

Re: New HP-71B emulator with HP-IL

*Message #6 Posted by **J-F Garnier** on 7 Nov 2003, 6:56 a.m.,*
in response to message #5 by GE (France)

Hi,

Emu71 (as Emu41) will run on HP95/100/200LX, although Emu71 will run quite slowly. I presented pre-versions dedicated to such small machines during the Allschwill meeting (look at http://membres.lycos.fr/jeffcalc/allschwil.html for more details), I'm working to optimize these emulators to these machines.

J-F

Re: New HP-71B emulator with HP-IL

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 7 Nov 2003, 11:41 a.m.,*
in response to message #6 by J-F Garnier

If you need a hand in optimizing your (very good) emulators to HP-95LX and/or HP-200LX (I have both) in assembler, please let me know! I like very much to programm in assembler and Pascal (I have Turbo Pascal 6/Turbo Assembler/Turbo Debugger on them) and I'm thinking in port the EMU42 to them also. They are beautiful machines!

Best regards,

Nelson

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Replacing the CPU board on fullnut HP41

*Message #1 Posted by **Vassilis Prevelakis** on 3 Nov 2003, 6:16 p.m.*

Current technology allows us (with a small effort) to create a CPU board that will fit inside the case of an HP41 and be able to run original HP41 microcode. Assuming we do not try to be clever (i.e. increase memory, add more lines to the display, etc), this simulated 41 can be made to behave like an original HP41.

Why would anybody want to do this? Well speed may be one reason, and the ability to have lots of modules loaded in the base unit (and perhaps some extra e-disk memory).

The question is whether HP will accept this "product", or consider that this emulated 41C infringes their Intelectual Property.

Any ideas?

**vp

Re: Replacing the CPU board on fullnut HP41

*Message #2 Posted by **Dave** on 4 Nov 2003, 12:01 a.m.,*
in response to message #1 by Vassilis Prevelakis

All of the HP-41 coding has been released by HP I believe so their should be no issues. Run a Palm or Pocket PC engine and use HP-41 emulators....

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Bug or feature?

*Message #1 Posted by **Jostein Trondal** on 3 Nov 2003, 11:05 a.m.*

HP49g+ v1.22

I have a function like this:

<< -> X 'FLOOR(pi/ASIN(1/X-1)))' >>

f(2) should be 2, but the calc says its 1.

Whats wrong here?

-- Jostein Trondal

Re: Bug or feature?

*Message #2 Posted by **Valentin Albillo** on 3 Nov 2003, 11:13 a.m.,*
in response to message #1 by Jostein Trondal

Jostein posted: *"I have a function like this:*

<< -> X 'FLOOR(pi/ASIN(1/X-1)))' >>

f(2) should be 2, but the calc says its 1.

Whats wrong here?"

I'm probably badly misinterpreting something, but Google's calculator says:

```
pi / arcsin((1 / 2) - 1) = -6
```

Best regards from V.

Re: Bug or feature?

*Message #3 Posted by **Jostein Trondal** on 3 Nov 2003, 11:23 a.m.,*
in response to message #2 by Valentin Albillo

Oops

try

<< -> X 'FLOOR(pi/ASIN(1/(x-1)))' >>

-- Jostein Trondal

More like it [NT]

*Message #4 Posted by **Valentin Albillo** on 3 Nov 2003, 11:34 a.m.,*
in response to message #3 by Jostein Trondal

.

Re: Bug or feature?

*Message #5 Posted by **Arthur Drake** on 5 Nov 2003, 1:28 a.m.,*
in response to message #3 by Jostein Trondal

Hmmm... Just a guess, but the calculator might compute pi/asin(1) as 1.99999999999 or so. Check what it returns when you omit the floor command.

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Cardreader behavior

*Message #1 Posted by **Stephan (CH)** on 3 Nov 2003, 4:42 a.m.*

Good morning to all. Yesterday my cardreader showed a strange behavior. It accepts card wrighten long ago and I am able to work with those programs. Yet, when I wright a card it does it all right, this shows me the "xeq ver" operation. The display shows the correct letter "P" for program and the correct track which is only 1 in this case. But then it refuses to read the card wrighten before to its memory. The wording "working" flashes but in the end the calculator left me with the same amount of memory and the program was not in the CAT 1. The programm its self is functional as I have the program in Barcode and tryed to transfer it via the calculator to a magnetic card. Has anybody a solusion/conclusion to this? Thank you very much in advance for your help. Stephan

Re: Cardreader behavior

*Message #2 Posted by **Victor Koechli** on 3 Nov 2003, 12:39 p.m.,*
in response to message #1 by Stephan (CH)

You have probably written an empty card. To write a program to magnetic cards, position the calculator at the program you want to write (by pressing GTO.prgm_name or by using CAT 1, then stopping at the program in question), switch to PRGM mode and insert the card. Make sure the write protect tab has not been cut away, else you will have to set flag 14 (SF 14) to overwrite the card.

Does this help? Cheers, Victor

Re: Cardreader behavior

*Message #3 Posted by **Vassilis Prevelakis** on 3 Nov 2003, 6:08 p.m.,*
in response to message #2 by Victor Koechli

Do you have enough free memory in you HP41 to accommodate loading the program stored on the card?

**vp

Re: Cardreader behavior

*Message #4 Posted by **Stephan (CH)** on 4 Nov 2003, 3:02 a.m.,*
in response to message #3 by Vassilis Prevelakis

Hi Vassilis. Thank you very much for your thoughts to my problem. It looks to me the calculator has enough memory indeed. There are only two other programs (Distance conversion and Great Circle Navigation) in memory of my CX at this point in time. The temperature program of concern is not very big, or let's say long. As a matter of fact the program is stored already. Brought into the calc via the barcode reader. Yet I' ve tried to write it to the card and deleted the program after I've writhen it. Trying to get it back into memory via the cardreader, this procedure failed. The card its self is recognized by the calc all right as it prompts for the correct card kind and tracks. But the program won't be loaded to memory. I am a little bit clueless here. It seems to write on one hand (XEQ VER) but seems to fail on the other (no program). Greetings Stephan

Re: Cardreader behavior

*Message #5 Posted by **Stephan (CH)** on 4 Nov 2003, 2:40 a.m.,*
in response to message #2 by Victor Koechli

Hi Victor, thank you very much for your advises. Just to make sure I didn't miss a step I've tryed again to wright a card. Same result. The calculator shows me - by verifing the card - there must be "something" on it. Showing "P" for program and the correct amount of tracks. But you are right, it looks like a blank card when I try to reload the program. Is there a possibility that I own old, say unmagnetable cards? Greetings Stephan

Re: Cardreader behavior

*Message #6 Posted by **Victor Koechli** on 4 Nov 2003, 9:04 a.m.,*
in response to message #5 by Stephan (CH)

No, if your card would not keep magnetization, you'd be receiving checksum errors.

Some things to try:

- Make sure the calculator is positioned in a program that actually contains something. For example, make a short program containing only a few lines, save it to an empty card, delete it and try to reload it from the card. Does this work?

- Check the available memory, as Vassilis suggested. Press GTO.., then switch to program mode. You will see '00 REG xxx', xxx being the number of free registers. One card track can hold up to 16 registers, so if your program has 4 tracks, you will need at least 49 and up to 64 registers for it. To increase the number of free registers, either delete a different program or decrease the SIZE (using the SIZE instruction). BTW, do you see 'TRY AGAIN' after reading in a program card?

- Test the card reader with a card that has never been written to (will show 'CARD ERR' or probably 'CHKSUM ERR' when checked with VER). Write a program to it and see if VER displays the correct type afterwards. Alternatively, you can take a card of known type (let's say, 'P') and write something else onto it, like data (using .015 WDTAX) or Status information (using WSTS), and then check if the new type gets displayed by VER. If not, your card reader is most likely not writing anything. If you see the correct type and still can't read back your programs, then we'll have to think of something else...

Hope this helps. Keep us posted. Cheers Victor

Re: Cardreader behavior

*Message #7 Posted by **Stephan (CH)** on 5 Nov 2003, 2:43 a.m.,*
in response to message #6 by Victor Koechli

Hi Victor. Wow, quite a lot of things to do. Give me 2 days and I'll be back with the results. Thank you so much for your help. I let you know by Friday about the outcome. read you later:-) Stephan

Re: Cardreader behavior

*Message #8 Posted by **Stephan (CH)** on 7 Nov 2003, 3:14 a.m.,*
in response to message #6 by Victor Koechli

Good morning Victor. I have done the procedures you suggested. Here the results: The card reader seems to write. It showed "card err" with a blank card. Taken the blank card, it showed "type S track 1" and "type S track 2" for the WSTS procedure. Overwriting the card now with my program,

it showed "type P track 1", but didn't reload it to the calculator. I do not know, if there must be a special procedure or some flags has to be set for a program to write? But as I gathered from the manual (yes, I do read them not only for calculators) the only thing I have to do is to set the calc to the program in question and switch to program mode. Now sliding the card through should do the trick. It looks to my that my program causes the problem. But then why does the correct type and tracks show up on the display? If you have a clue or maybe another "thinking approach" to this let me know. Thanks again very much in advance. Stephan

Re: Cardreader behavior

*Message #9 Posted by **Victor Koechli** on 8 Nov 2003, 5:36 a.m.,*
in response to message #8 by Stephan (CH)

Hmmm... this is getting stranger and stranger. Is it the same with any program you want to write to card, or just a particular one?

And, of course, to read the program back in, you switch to RUN mode (*NOT* PRGM)....

If this all fails, write a short program to card and send the card to me, I'll check it with my own card reader. Then we'll know if there's something on it or not. I live in Switzeland too, so that would be easy... I'll send you my address via email.

Maybe someone else in this forum has an idea what the problem could be?

Cheers, Victor

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HP42 Malfunction

*Message #1 Posted by **Paul W** on 3 Nov 2003, 2:50 a.m.*

would anyone have any ideas concerning a work mates HP42 which is playing up.

a brief history of his troubles follows;

HP42 batteries went flat causing it to crash. new batteries were inserted, without causing the loss of program memory. The calculator now inserts a series of zeros (about 6 or 7) before any other number which has been typed usually leaving only enough space for a single digit. He hasn't tried any of the self testing procedures (he will when he finds his manual) nor has he tried the resetting procedures yet (but he will)

any thoughts or ideas would be welcomed.

regards Paul W

Re: HP42 Malfunction

*Message #2 Posted by **Raymond Del Tondo** on 3 Nov 2003, 5:40 a.m.,*
in response to message #1 by Paul W

Hello,

the first thing to do is a reset (ON+C). No fear, it works non-destructive.

Regards,

Raymond

Re: HP42 Malfunction

*Message #3 Posted by **Paul W** on 5 Nov 2003, 1:27 a.m.,*
in response to message #2 by Raymond Del Tondo

yes that worked Raymond thankyou for your help.

i no longer have a hp42 but i used to and i found them one of the best machines (almost better then the hp41 series)

regards Paul

Re: HP42 Malfunction

*Message #4 Posted by **TD** on 9 Nov 2003, 1:39 p.m.,*
in response to message #3 by Paul W

Why is a hp42 better than a hp41 ?

Re: HP42 Malfunction

*Message #5 Posted by **Veli-Pekka Nousiainen** on 14 Nov 2003, 6:13 a.m.,*
in response to message #4 by TD

42S + mostly compatible with 41C + both registers and named variables A..Z + buil-in applications + more memory + more speed + less weight & size + IR print - no I/O - no expansion ports - cumbersome ALPHA

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HP 15c

*Message #1 Posted by **sb** on 3 Nov 2003, 12:38 a.m.*

I need the owner's manual of HP 15C (French or English): in pdf format if possible.

Thank you / Merci

Buy the Museum's CDs or DVD

*Message #2 Posted by **Patrick** on 3 Nov 2003, 1:21 a.m.,*
in response to message #1 by sb

This Museum sells manuals on CD or DVD. They are scanned copies of the originals in PDF format. This is not exactly like a true PDF document in that you can't search for specific text, but they are inexpensive and help to support our esteemed Curator!

Your only other alternative, AFAIK, is to buy a manual off of eBay. They are often available and go for around $30.

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Business as usual at HP ?

*Message #1 Posted by **DanO** on 2 Nov 2003, 10:21 p.m.*

'Stevens v. HP' is an unfair business practices consumer class action filed in state court in Riverside County, California on or about July 31, 2000. Consumer class action lawsuits have been filed, in coordination with the original plaintiffs, in 32 additional states. The various plaintiffs throughout the country claim to have purchased different models of HP inkjet printers over the past four years. The basic factual allegation of these actions is that when the affected consumer purchased HP printers they received half-full or "economy" ink cartridges instead of full cartridges. Plaintiffs claim that HP's advertising, packaging and marketing representations for the printers led the consumers to believe they would receive full cartridges. These actions seek injunctive relief, disgorgement of profits, compensatory damages, punitive damages and attorneys' fees under various state unfair business practices statutes and common law claims of fruad and negligent misrepresentation.

[Text is from page 119 of the HP 2002 annual report to shareholders]

<<HP does not appear to deny the claim that it engages in this practice. Instead, HP seems to be arguing that it is not liable because it never promised to provide full ink-cartridges with each new inkjet printer.>>

Re: Business as usual at HP ?

*Message #2 Posted by **Clive Marner** on 3 Nov 2003, 7:08 a.m.,*
in response to message #1 by DanO

In the setting up instructions for my new Epson C64 printer it states that ink is used during the pass-off procedure for each printer & that the first time the consumer uses the printer extra ink is used to prime the printer heads, thus the consumer should not expect to get a full cartridge life from those supplied with the printer.

Now that's a good angle!

Re: Business as usual at HP ?

*Message #3 Posted by **Juan J** on 3 Nov 2003, 10:43 a.m.,*
in response to message #2 by Clive Marner

Shouldn't we call it a very ellegant form of "cover your ass by finding a nonsensical scapegoat?"

Re: Business as usual at HP ?

*Message #4 Posted by **unspellable** on 3 Nov 2003, 1:22 p.m.,*
in response to message #1 by DanO

I find this all too believable. For some time it has been my claim the manufacturer sells a printer at a loss in order to have a more or less captive market for the cartridges. If the cartridge that came with the printer is half full, then the profits start that much sooner. In some case a full set of cartridges will cost more than half the prinetr price.

This applies to the printer market generally, not just HP.

Re: Business as usual at HP ?

*Message #5 Posted by **Barltleby** on 3 Nov 2003, 4:36 p.m.,*
in response to message #4 by unspellable

I find that as the clark for a small law office, it is actually more efficient in total cost to use the computer only for doing number tasks, especially accounting. But rather than printing, I use a broad-nibbed pen and India ink to prepare documents--even copying the numbers off of the screen. (The computer is very helpful even without printing--its ability to compute large sums, leaving the inputs available for checking, is simply a marvel.)

This has saved us thousands of pounds each year in ink costs. Before we went to this method, we were spending £700 on ink-jet cartridges per ream of paper. And, at least three-quarters of that money was wasted on "check-prints." The cost of the india ink is, by comparison, cheap--only about £15 per ream of paper. And as you know, solicitors like to write reams!

Cheers,

Bartleby

Re: Business as usual at HP ?

*Message #6 Posted by **Jim L** on 3 Nov 2003, 4:55 p.m.,*
in response to message #4 by unspellable

I thought this was "the common wisdom". If you intend to use a printer a lot, you get a laser printer - preferably a workgroup model if you REALLY want to get the cost per page down.

Ink jet printers are just disposable razors. It's the blades that they're selling.

My first printer cost $3000 (back in the 70s when you could get a nice new car for the same price) and ribbons cost $15. But then even that $15 ribbon was around the price of a modern low end ink jet printer once you allow for inflation!

I recently bought a halogen lamp that included a no-name 100w bulb that emitted about half the light of other 50w halogen bulbs that I already had. I thought something was wrong with the lamp itself but a replacement bulb fixed it. But then they just said it included a bulb. They didn't say it was a good one :-)

Re: Business as usual at HP ?

*Message #7 Posted by **Joshua Belsky** on 4 Nov 2003, 3:40 p.m.,*
in response to message #4 by unspellable

This is why I tell people to buy Canon ink-jet printers. The ink costs $7 if you buy the authentic canon product, or you can buy the no-name brand for $5. HP, Epson, Lexmark and the others all play the buy-the-razor-buy-the-blade game, but Canon doesn't. Hence, they get my business!

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Series80.org off-line

*Message #1 Posted by **Vassilis Prevelakis** on 2 Nov 2003, 9:22 p.m.*

Due to a royal mixup between myself and Verisign, the series80.org DNS entry was deleted over the weekend.

I'll try to get things sorted out and hopefully the site will be back up with the same domain name.

Otherwise I'll just get another name and post it to the list.

Sorry for any inconvenience.

**vp

Series80.org service restored

*Message #2 Posted by **Vassilis Prevelakis** on 3 Nov 2003, 4:57 p.m.,*
in response to message #1 by Vassilis Prevelakis

OK, I am back on-line.

Depending on your DNS caching you may still have problems, but they will go away in a couple of hours.

Sorry again for the disruption.

**vp

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Tips for re-building Screw posts in HP-75D

*Message #1 Posted by **Jeff** on 2 Nov 2003, 8:15 p.m.*

Can any one offer suggestions for re-building the cracked or broken screw posts in a HP-75D?

Re: Tips for re-building Screw posts in HP-75D

*Message #2 Posted by **andy** on 3 Nov 2003, 11:13 a.m.,*
in response to message #1 by Jeff

Here's an article on repairing a 41cx. In the article there's a section on repairing the cracked plastic posts. This may be of assistance in repairing a 75 as well.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=2

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What will 33s have that 32sii doesn't??

*Message #1 Posted by **Justin T.** on 2 Nov 2003, 6:55 p.m.*

Besides a 2 line display and a modified keyboard, what will the new 33s offer that the existing 32sii doesn't have?

Re: What will 33s have that 32sii doesn't??

*Message #2 Posted by **Ben Salinas** on 2 Nov 2003, 7:37 p.m.,*
in response to message #1 by Justin T.

The 33s will have more memory (much more... some say as much as 32 kilobytes, although this is probably 32 kilobits, either way, it is much much much more than the 384 bytes of the 32sii)

It also offers the use of Algebraic mode (which is an advantage to some... I guess)

The 33s has more keys, and thus, less menus. According to the Datasheet (from hpcalc.org), it will have more advanced statistical functions (such as logarithmic and exponential)

It will not have Gradians mode (who uses that anyway)

It will have Integer division, a different random number generator (generates a random number between x and y) Finally, it will have 40 physics constants (but i believe that number includes the unit conversions and stuff)

I am also guessing (this is only a guess) that it will have a faster processor. I am speculating that this is the case only because of the trend in the other new releases (all of which use a non-Saturn processor)

Other than that, the only difference is that you can buy it for less than 180 bucks. -Ben

Re: What will 33s have that 32sii doesn't??

*Message #3 Posted by **Dave** on 2 Nov 2003, 11:28 p.m.,*
in response to message #2 by Ben Salinas

it will have a lousy keyboard....

Re: What will 33s have that 32sii doesn't??

*Message #4 Posted by **Norm** on 3 Nov 2003, 12:47 a.m.,*
in response to message #3 by Dave

33S has a keyboard shaped like a cowcatcher.

32Sii did not have that feature.

Spend your money accordingly.

Can't we see the positives for once ?

*Message #5 Posted by **Thibaut** on 3 Nov 2003, 3:52 a.m.,*
in response to message #3 by Dave

... 2 years ago we were here all flaming HP for abanondonning RPN.

The 33S, at least on datasheet and OK, apart from its keyboard, widely answers our wishes, and at a bargain price comapred to the current market.

Can't we say "HP, OK, you're on the right track with this one, go ahead..." instead of shouting at them ?

Re: Can't we see the positives for once ?

*Message #6 Posted by **Patrick R** on 3 Nov 2003, 6:31 a.m.,*
in response to message #5 by Thibaut

" Can't we say "HP, OK, you're on the right track with this one, go ahead..." instead of shouting at them ? "

Better: " COMPAQ, OK, you're on the right track with this one, go ahead... "

HP died some time ago.

Re: Can't we see the positives for once ?

*Message #7 Posted by **Ernie Malaga** on 3 Nov 2003, 10:15 a.m.,*
in response to message #5 by Thibaut

Thibaut:

Griping the way we do, we raise red flags on design flaws, bugs, and low quality -- problems that might otherwise go unnoticed. Of course then it's up to HP to listen and do something about it. Messrs. Hewlett and Packard would've listened (maybe even recalled the flawed products). Ms. Fiorina... well, do I have to spell it out?

So, yes, let's gripe all we can. Some of it may come to HP's attention.

It's no secret that quality has gone down to unheard-of depths. There are many HP-35s out there that still work after 31 years of use. How long will a 49G+ endure?

My 2 cents.

-Ernie

No grousing, Thibaut

*Message #8 Posted by **NH** on 3 Nov 2003, 5:37 p.m.,*
in response to message #7 by Ernie Malaga

There is no grousing ("shouting" etc) from us, Thibaut.

Note that a question was asked (difference between 33S and 32Sii).....

Myself and others are replying to the question.

If the information is factual, its not grousing.
I, for example, have noted that the keyboard is
shaped like a cowcatcher. This is neither shouting
nor grousing. It is just a factual truth.

While I am not familiar with the 33S, (I like 32Sii however)
tentatively, it also does not offer "RPN"
with a stack and "Enter" button. This is also just
more factual information, take it how you will and spend your money accordingly.

Re: Can't we see the positives for once ?

*Message #9 Posted by **Arnaud Amiel** on 4 Nov 2003, 3:32 a.m.,*
in response to message #5 by Thibaut

At work I have to use a 20s so I can lend it to my colleagues. I would rather use a 32s to have RPN. With the 33, it seems that I got the perfect solution.

Arnaud

Re: Can't we see the positives for once ?

*Message #10 Posted by **bill platt** on 4 Nov 2003, 10:08 a.m.,*
in response to message #9 by Arnaud Amiel

Why do you HAVE to lend your calculator? Just curious. (I keep a couple 20s's around to lend out, too...but use my 32 most of the time).

Regards,

Bill

no gradians!

*Message #11 Posted by **hugh** on 3 Nov 2003, 11:06 a.m.,*
in response to message #2 by Ben Salinas

really? i, personally, have never used them but i assume they are useful. civil engineering? anyone?

Re: no gradians!

*Message #12 Posted by **Valentin Albillo** on 3 Nov 2003, 11:31 a.m.,*
in response to message #11 by hugh

It's an old European geodetic-surveying thing, more specifically French:

```
  French Geodetic System


  The French equivalent of the Ordnance Survey, the Institut
  Géographique National (IGN), produces 1:50,000 and
  1:25,000 sheets using a Lambert Conformal Conic Projection
  based on the Clarke Ellipsoid 1880. The sheet boundaries
  are cast on lines of latitude and longitude using the
  French Geodetic System, which traditionally employs the
  Meridian of Paris (approx. 2°20'E) rather than Greenwich,
  and expresses angular measurements in gradians rather
                                          ^^^^^^^^
  than degrees (400grad = 360°).
```

```
A typical older 1:25,000 sheet (e.g. Institut Géographique
National, 1969) covers a quadrant 0.20 by 0.10 gradians
                                                ^^^^^^^^
and is labelled only in gradians.
                      ^^^^^^^^^
```

Best regards from V.

Re: no gradians!

*Message #13 Posted by **CME750** on 3 Nov 2003, 12:43 p.m.,*
in response to message #11 by hugh

The normal US term is "grads", not "gradians". I don't think that anyone in the US actually works with them.

Nonetheless, scientific calculators have traditionally included a grad option. It would be surprising if grads were lacking on the 33S, and I would be curious to know the source of this rumor.

The most detailed 33S specifications that I have seen, at http://www.hpcalc.org/images/datasheet33s.pdf, indicate that DEG, RAD, GRAD modes will be included. Furthermore, available images of the 33S, such as that at http://www.hpcalc.org/hp49gplus.php, show a GRAD annunciator at the top of the display.

The US military uses "mils", where 360 degrees = 6400 mils. Thus, one mil is approximately (but not exactly) equal to 1 milliradian.

Re: no gradians!

*Message #14 Posted by **James M. Prange** on 3 Nov 2003, 1:56 p.m.,*
in response to message #13 by CME750

> Quote:
>
> The US military uses "mils", where 360 degrees = 6400 mils. Thus, one mil is approximately (but not exactly) equal to 1 milliradian.

Various definitions of the angular mil have been used, including that one of course.

Unless I'm badly mistaken, when I was in the U.S. Navy, we defined 1 mil as being exactly 1 milliradian. The last that I heard, the UK military also defined it this way.

The mil isn't used for measuring large angles, so it's irrelevant whether you can define a full circle or right angle as an exact rational number of mils.

The purpose of the mil is for making (presumably small, in angular terms) corrections to gunfire. If your observer tells you that the projectile struck a certain number of units to the left or right of the target (from your own viewpoint of course), then you divide that number by the number of thousands of units of range to get the angular correction (in mils) to the bearing for the next shot(s).

This is for plain unguided gunfire, where no corrections to the path of the projectile after it's left the muzzle are possible; it's not for any type of guided or "smart" projectile. Given the uncertainties and lack of perfect repeatability in this situation, and that "missing" by a small distance may very well still destroy the target, it makes very little practical difference which definition of the mil is used.

Regards,
James

Re: no gradians! (My Mistake)

*Message #15 Posted by **Ben Salinas** on 3 Nov 2003, 8:01 p.m.,*
in response to message #13 by CME750

Sorry about that, I must have looked over that in the PDF datasheet when I posted last night. Indeed, it does say that there will be gradians also (or grads if you so prefer)

Sorry about that -Ben

Re: no gradians!

*Message #16 Posted by **unspellable** on 3 Nov 2003, 1:25 p.m.,*
in response to message #11 by hugh

How is it that so many calculators have grads but not mils? I'd have more use for angles in Mils. I have slide rules with the trig scales laid out in mils.

Re: no gradians!

*Message #17 Posted by **CME750** on 3 Nov 2003, 2:34 p.m.,*
in response to message #16 by unspellable

You can still get slide-rule type products for calculations in mils. They are marketed for snipers. For example:

http://www.ustacticalsupply.com/mildot-slope.shtml

http://www.snipercountry.com/InReviews/IOR_PocketMilRangefinder.htm

Never seen a comparable calculator product from any manufacturer. Perhaps there could be a market for an olive-drab HP-10C Tactical Edition.

Re: no gradians!

*Message #18 Posted by **Vassilis Prevelakis** on 3 Nov 2003, 6:25 p.m.,*
in response to message #17 by CME750

```
> Never seen a comparable calculator product from any
> manufacturer. Perhaps there could be a market for an
> olive-drab HP-10C Tactical Edition.
```

I've seen TI58C calculators used for these kind of ranging, although I would hardly associate the word "hardened" with these calculators.

(The TI58C was physically identical to the TI59, but it had a smaller memory. Unlike the TI59 the 58C's memory was non-volatile, hence the C designation).

**vp

Re: no gradians!

*Message #19 Posted by **James M. Prange** on 3 Nov 2003, 2:57 p.m.,*

in response to message #16 by unspellable

Which definition(s) of the angular mil should be used?

What need is there for it? The angular mil is intended for use by gunnery crews so that they can work out a reasonable approximation (say to the nearest whole mil, for example) of the spotting correction very quickly in their heads, not fool around with punching numbers into a calculator while they're involved in a live fire situation.

If anyone feels a need for such a unit in his calculator, it's easy enough to make a user-defined unit.

Of course it would have to be distinguished from the distance mil unit, defined as 1_mil=.001_in, and commonly used for thin coatings, films, and sheets. If you buy a package of plastic bags (in the U.S.A. at least) you'll probably see their thickness labeled in mils.

Regards,
James

Edited: 3 Nov 2003, 2:58 p.m.

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Dead HP97

*Message #1 Posted by **Michael Schuetz** on 2 Nov 2003, 5:19 p.m.*

Got a defective HP97, thought it was the battery, but it works fine. When switching on, some '0' (not always the same) light up for some milliseconds, but then the display remains dark. (When shifting the printer head by hand, it returns to its initial position and when disconnecting the printer pcb, some '0' stay lit) Checked all contacts, and wanted to figure out whether the power supply circuit works and all ICs get their correct voltage, but without any documentation...

Is this a typical failure with simple solutions or has anyone some info e.g. required voltages or signals (clock generator) on special pins or info on the used ICs? (pcb is the same as on http://www.hpmuseum.org/97intern.jpg)

Michael

Edited: 2 Nov 2003, 5:30 p.m.

Re: Dead HP97

*Message #2 Posted by **Mr. Fix It** on 3 Nov 2003, 9:43 a.m.,*
in response to message #1 by Michael Schuetz

The complete service manual is on the MoHPC DVD... :-)

Re: Dead HP97

*Message #3 Posted by **Michael Schuetz** on 3 Nov 2003, 9:51 a.m.,*
in response to message #2 by Mr. Fix It

> The complete service manual is on the MoHPC DVD... :-)

No need for the ":-)". Now that I know about it, I'd really like to order the CD or the set. But could someone please confirm, that this manual contains something more than simply "how to replace the battery", "cleaning the keys" or "removing paper from the printer feeder"... 8-) (someting like a circuit diagram and signal descriptions)

Edited: 3 Nov 2003, 9:52 a.m.

Re: Dead HP97

*Message #4 Posted by **Ernie Malaga** on 3 Nov 2003, 10:30 a.m.,*
in response to message #3 by Michael Schuetz

Quote:

---

could someone please confirm, that this manual contains something more than simply "how to replace the battery", "cleaning the keys" or "removing paper from the printer feeder"...

Of course there's more than that. It also shows you how to turn it on and off. 8^)

Seriously, though, it contains diagrams galore, information to a level of detail that I don't really understand (my expertise in electronics is very limited). I believe it will help you get the 97 repaired or, at the very least, help you diagnose the problem.

The CD set (or DVD) is an incredible resource. You should get it ASAP.

-Ernie

No need for the ":-)".

*Message #5 Posted by **Mr. Fix It** on 3 Nov 2003, 11:04 a.m.,*
in response to message #3 by Michael Schuetz

> Quote:
>
> But could someone please confirm, that this manual contains something more than simply "how to replace the battery", "cleaning the keys" or "removing paper from the printer feeder"...

That would be in the users manual...

Honestly, you get pointed to the most valuable resource you'll even find to fix a 97 and all you can respond with is a flame about me putting a happy face on end of my message?

You asked for information, I gave you the source.

You're welcome, in spite of your comments.

BTW - make sure the battery is indeed good under load. A print head that doesn't return to the home position is either a dead battery or a locked up printer. It's common for the battery voltage under no load to measure good but it can't deliver much in the way of current, and 97's love their batteries...

Edited: 3 Nov 2003, 11:08 a.m.

Re: No need for the ":-)".

*Message #6 Posted by **Michael Schuetz** on 3 Nov 2003, 11:56 a.m.,*
in response to message #5 by Mr. Fix It

> and all you can respond with is a > flame about me putting a happy face > on end of my message?

Please excuse me, that is in no way what I wanted to express. I am not a native speaker of English, and what I wanted to say is that I got the hint that there is a way to support hpmuseum.org, what I really would like to, as it is a nice place to get information, contact, and quick help like your's.

> You're welcome, in spite of your comments.

In future I will be more sensitive.

Michael

Onward

*Message #7 Posted by **Mr. Fix It** on 3 Nov 2003, 12:08 p.m.,*
in response to message #6 by Michael Schuetz

Then lets call it a complete misunderstanding and get on with your 97 repair efforts!

Edited: 3 Nov 2003, 12:09 p.m.

Re: Dead HP97

*Message #8 Posted by **Katie** on 3 Nov 2003, 5:14 p.m.,*
in response to message #3 by Michael Schuetz

The 97 service manual on the CD set contains block diagrams, disassembly instructions, parts lists, test procedures and partial schematic diagrams, but not a complete schematic. It's quite useful however and should at least help you in determining what's not the problem.

Edited: 3 Nov 2003, 5:15 p.m.

Re: Dead HP97

*Message #9 Posted by **David Smith** on 5 Nov 2003, 3:51 p.m.,*
in response to message #8 by Katie

The HP97 service manual schematic is quite complete... it is just spread out over several sections.

Re: Dead HP97

*Message #10 Posted by **Katie** on 6 Nov 2003, 1:47 a.m.,*
in response to message #9 by David Smith

David,

I stand corrected. It is all there along with parts placement diagrams as well. Thanks for pointing that out!

-Katie

Re: Dead HP97

*Message #11 Posted by **Michael Schuetz** on 7 Nov 2003, 5:38 a.m.,*
in response to message #10 by Katie

Thanks for your information. I already ordered the DVD on tuesday, and as it is shipped on thursdays, I expect it to arrive next week.

Michael

Re: Dead HP97

*Message #12 Posted by **David Smith** on 3 Nov 2003, 12:44 p.m.,*
in response to message #1 by Michael Schuetz

The HP97 requires the printer circuit board to be installed... it contains the CPU clock generator. Also you need a GOOD battery installed. Also the printer needs to be operational (or at least have the head at the HOME position).

Re: Dead HP97

*Message #13 Posted by **Michael Schuetz** on 7 Nov 2003, 5:46 a.m.,*
in response to message #12 by David Smith

The print head returns to its home position on its own, when shifted by hand, so I suppose the battery delivers enough current.

>it contains the CPU clock generator

So if the LEDs stay lit without and become dark with the printer pcb, that could mean that the CPU starts its reset-routine but gets stuck somewhere (or that the printer pcb contains the power on reset circuit, which also clears the display buffers...)

As soon as the DVD arrives and if I get my oscilloscope fixed (another case...), I'll do some measurement on the voltage drop and the clock signals.

Michael

Edited: 7 Nov 2003, 12:59 p.m.

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New photos

*Message #1 Posted by **Matthias** on 2 Nov 2003, 12:16 p.m.*

Just letting you know that I added arround a dozen new pictures on my site. Many of them are pictures of rare accessoires:

http://www.hp-collection.org/hewlettpackard_e.htm (english) http://www.hp-collection.org/hewlettpackard.htm (deutsch)

Matthias

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RPN - why 4 registers?

*Message #1 Posted by **adam** on 2 Nov 2003, 12:11 p.m.*

RPN newbie here.

Since the Z register is already available for a constant, why do I also need the T register? How do I use the 4th level in the stack?

Re: RPN - why 4 registers?

*Message #2 Posted by **bill platt** on 2 Nov 2003, 1:12 p.m.,*
in response to message #1 by adam

With only 3 levels (the earliest machines--pre-handheld) you really do not have enough levels to deal with pending operations without being very careful. 4 levels seems just about right for almost all the time--any more levels hand you cannot relly remember how many pending ops you have going!

Regarding the constant--the Z register does not make a constant---the T does---T duplicates itself any time the stack drops a level (after an arithmatic operation between x and y for instance). So, fo a constant, you "load the stacK" thus C <enter> <enther> <enter> puts the C in all 4 levels. now, any new value typed into X may be operated against the Constant. To operate a new item against the constant, simply type backspace or clx, to clear the last result, and type the new number to be operated on, and then operate on it. (Don't hit "swap" after clearing though, as that will enable the stack and you will have a "0" in y!)

Alternatively, you can use the LST x register to hold a constant--but then you have to do a "swap" (also called x><y) before operating--to preserve the constant ---or you can enter your first object to be operated on by the const, then type the constant, then operate, then type a new number, then lastx, then operate, and so on. In the latter case, your recent results will "scroll down" and fill the stack. You can then see the last results (rolling the stack does not alter the lastx contents).

So, depending on what you are doing, you have a variety of choices. They all make sense for different situations.

And of course you also have lots of registers, too!

Regards,

Bill

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Sandbox ROM

*Message #1 Posted by **Poul** on 2 Nov 2003, 4:30 a.m.*

I found a ROM image called Sandbox ROM on the internet. Two questions: 1) is it possible to convert it from .bin format to .rom? 2) who/where/why/when was this ROM made?

chears /Poul

Re: Sandbox ROM

*Message #2 Posted by **Raymond Del Tondo** on 2 Nov 2003, 7:47 a.m.,*
in response to message #1 by Poul

Hi,

the only site where you could download he Sandbox has infos about the author, Angel Martin.

Raymond

Re: Sandbox ROM

*Message #3 Posted by **Poul** on 2 Nov 2003, 2:19 p.m.,*
in response to message #2 by Raymond Del Tondo

Thanks Raymond. I checked back after your response, and now the .rom file has been added in stead of the .bin format. But I would still like to know a little more about this SANDBOX project. Is it available as a module? I've never seen one on sale.

Chears /Poul

Re: Sandbox ROM

*Message #4 Posted by **Angel Martin** on 2 Nov 2003, 2:37 p.m.,*
in response to message #1 by Poul

Hi,

The SANDBOX is indeed now available on the web as a .rom and .bin files, and thus works on V41 and Emu41.

As per what it is, it started as a personal project to learn MCODE programming, using Ken Emery's book as main tool. It then grew until becoming a collection of (hopefully) handy utilities.

It contains many functions published many moons ago in magazines like PPC Journal, Data File, PRISMA and HPX. All were contributions from members, and thus freely shared. My contribution has been putting them together in a more-or-less logical format, besides modifying them enough to correct minor bugs and make them fit in the 4k space.

Its main sections are:

- Sandbox 3d (General utilities) - Alpha/Display functions - Math Functions - MLDL Tool kit.

There's also a couple of multi-function functions (a la HEPAX), a handy way to go around the 64-max function limit in the ROM FAT. For these, index=000 produces a catalog of the subfunctions.

It is of course an "open" ROM, and as such its source code is also published together with the ROM file and a short quick reference guide in pdf format.

Any comments and feedback for improvement is always appreciated.

Happy playing in the SandBox! Angel Martin

Re: Sandbox ROM

*Message #5 Posted by **Diego Diaz** on 2 Nov 2003, 11:12 p.m.,*
in response to message #1 by Poul

For now you can play with Angel's amazing SANDBOX in the V41 emulator... but this will change soon...

The Clonix 41 (a personal proyect) is fully operative now and will be ready to reach your 41's by Xmas.

It's a standard module size ROM, with room enough to hold five 41's pages, it's fully reprogrammable (PIC programmer needed) with the .ROM images files you like, every page in its flash ROM can be addressed to any free 4k block and supports banksitching too. Runs in Half and FullNuts, not in 2x units though.

You can merge your favourite modules to save physical ports for other peripherals/modules, and/or load your own programs and make them run into a *real* world HP-41.

To be continued...

Diego.

Re: Sandbox ROM

*Message #6 Posted by **Matthias** on 3 Nov 2003, 12:31 a.m.,*
in response to message #5 by Diego Diaz

Diego, does this will be a hardware? Can you send me some pictures? Should this be a new Rambox? What are the advantages?

Matthias

Re: Sandbox ROM

*Message #7 Posted by **Diego Diaz** on 3 Nov 2003, 3:47 a.m.,*
in response to message #6 by Matthias

Hi all, Mathias,

I'll try to answer your question as well as provide some general info about the Clonix 41 module.

Now, when I've read my previous post I realizaed that it sounds like a commercial ad. Nothing to do with it.

So, I'm going to start telling some things my Clonix module cannot do: it has no RAM so it cannot emulate an HEPAX module or other such MLDL-like devices, you can programm the ROM code of this modules though, but the behavior is not as expected. The ROM contents of peripheral devices is also suitable to load but again you cannot espect it to work properly.

Yes it's a new piece of harware, namely a PIC microcontroller with Flash memory, it's the same idea that John Ioannidis proposed, my goal has been making it fit inside a standadr module housing, make it handle the three power status of the 41 (SLEEP, STAND BY and ON) thus drastically reducing the power requirements (by far the more dificult task of the proyect), modify the code to manage early machines (those that insert two negative pulses inside the SYNC), manage the four BANK-SWITCHING instructions, and built the hole thing in a way it can be reprogrammed trough the same connector.

Obviously the 41 cannot program flash eproms by its own means it must be made by a PIC programmer, but they a very common nowadays and fairly cheap ($10 - 15), also the required programming software is free at IC-Prog.com.

It uses the same .ROM image files than the well known V41 emulator, and can hold up to five pages.

Regarding the benefits, the most obvious benefit is reducing the port usage, if you want to plug for example Advantage + CCD + Ext I/O you'll end with a single port left; but with a cClonix module you can load this configuration and still have three free ports.

You'll also can keep those expensive ROM modules in a safe place while using ROM images of them without risk. Can also load your own programs: Angel's SandBox is the best example of that. And with a little bit of imagination can even built some "impossible" configurations, Advantage + HP-IL Dev.?? You only need to change one byte (the XROM) for one module to avoid the conflict in the programmer's editor and... voi-lá, (of course you'll need to re-code the previous written programs to match the new XROM number.)...

Ok, it's starting to sound commercial-like again, sorry.

I can send you pictures of this new child, anyhow there's not too much to see, it's a module with a label that identifies it as a Clonix 41.

I'm now trying to prepare an adequate manual to properly document the programming process.

And hope to have some units available about Xmas, they'll be very few due to the lack of the module shells needed for housing. And three of them are going to be sent to my contributors (they will become -by this way- into involuntaries Beta-testers... :-), the rest will of course run at eBay.

Cheers by now.

Re: Sandbox ROM

*Message #8 Posted by **Ángel Martin** on 3 Nov 2003, 7:43 a.m.,*
in response to message #7 by Diego Diaz

Diego's project is a super cool addition to the 41's world. It also removes the "tyranny of the Zeproms" (lastly seen on eBay for $250 apiece), as we will be able to fit even more stuff on Clonix's !

Watch out however for uncontrolled changes to XROM id's, sometimes it isn't all that simple: the xrom id# can indirectly be part of the code within the module. I know this because it happens in a couple of functions on the SANDBOX... call it risky programming, but it saved dozens of words,

and space is at a premium!

Best, ÁM.

does not work with 2x speed up

*Message #9 Posted by **Felix** on 3 Nov 2003, 8:04 a.m.,*
in response to message #8 by Ángel Martin

But there is a problem, it does not work with speed-tuned HP41! I do not know about Zeproms that you mentioned. Can they be used with 2xspeed up HP41's? I think all of you use speed-tuned HP41, it can be done so easily?

Re: does not work with 2x speed up

*Message #10 Posted by **Poul Kaarup** on 3 Nov 2003, 10:58 a.m.,*
in response to message #9 by Felix

Yes, the Zeproms runs on speed-up 41's. I made 3 PK-ROM images a long time ago (also inspired by Ken Emery's book). They were mostly in m-code, but a few programs were user-code. If I get the time to write some kind of manual, I might publish them. As everybody else I'm thrilled about the news of better/cheaper ways of making modules. I'd like to contribute, but I'm afraid I'm not much help there.

Poul Kaarup, Denmark

Re: Sandbox ROM

*Message #11 Posted by **Meindert Kuipers** on 3 Nov 2003, 5:43 a.m.,*
in response to message #5 by Diego Diaz

Let me add to the confusion:

I have done something similar to the Sandbox, it is called the ML ROM, but not available anywhere, I used it in an EPROM box only. May post it some day. It runs fine on V41.

I am working on the MLDL2000, which will hold SRAM as well. It will hold up to 63 ROM images in FLASH and 16 ROM images in SRAM and will talk to a PC using USB. The bad news is that it will NOT fit in a module housing, but requires the shell of a card reader. It will probably support the HEPAX module.

Meindert

Re: Sandbox ROM

*Message #12 Posted by **Felix** on 3 Nov 2003, 6:27 a.m.,*
in response to message #11 by Meindert Kuipers

Meindert, cool project - when will your MLDL be available for us freaks? Can we afford it, i.e. how much will it cost? Thanks!

Re: Sandbox ROM / Clonix

*Message #13 Posted by **Christoph Klug** on 3 Nov 2003, 8:24 a.m.,*
in response to message #12 by Felix

Dear Diego,

your Clonix plug in solution sounds absolutely interesting, a small alternative to the powerfull MLDL unit from Meindert. What we need today are replacement solutions for Zeprom, RAM-Box (W&W or Eramco)and HEPAX, because this exotic parts are hard to find and includes absolutely high prices. Therefore any new development (plug in module or card reader case) are absolutely wellcome to the HP41 world :-)

Please Diego, open a own tread for your Clonix project - do not mix this news with Sandbox.

What HP41 enthusiasts need beside hardware storage units like the systems above, are new HP41 plug in modules and ROM-image-files, programmed in USER code - or much better in MCode.

Therefore the actual work of Angel about his SANDBOX project is absolutely nice. Please Meindert present also your solution to the HP41 world. Furthermore we hope to get the modified CCD-Module solution from Reymond Del Torno in next time :-)

Angel, please contact me about "page 2 = W&W RAM-BOX operqting system" ???

Best wisesh from Germany - Christoph Klug

Re: Sandbox ROM

*Message #14 Posted by **Pavel Korensky** on 3 Nov 2003, 6:16 p.m.,*
in response to message #11 by Meindert Kuipers

It seems that there will be more than enough ROM emulators :-)

Today, I succesfully finished the simulation of my private ROMPACK emulator and I am starting to build the prototype.

My design will fit in cardreader, supports 62 4K ROMs (plus one special ROM), can coexist with original ROM modules, supports banking and draws very low current.

Maybe, there will be also an USB interface. :-)

There will be no SRAM, so the module works as a pure ROM emulator, not as MLDL.

Re: Sandbox ROM

*Message #15 Posted by **Angel Martin** on 4 Nov 2003, 1:53 a.m.,*
in response to message #14 by Pavel Korensky

Pavel, not more than enough! The more, the merrier... choice is a word long ago extinct in the 41 world, it won't be bad to get it back to our vocabulary!

Best, Angel Martin

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Oops. Ebay seller links to wrong museum pic...

*Message #1 Posted by **Gene** on 1 Nov 2003, 4:22 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3056129723&category=11026

Oops. Seller on ebay has linked to a picture on the museum and given credit, but he linked to the wrong picture!

He's selling a 41c but linked to Dave's "blanknut" picture!

If someone isn't paying REALLY close attention, they'll think they're bidding on a blanknut (and the other smaller pictures indicate it is not).

Oops. Gene

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hp 49g adapter

*Message #1 Posted by **steve** on 1 Nov 2003, 3:41 p.m.*

I bought a hp49g off ebay the adapter i got uses 4 pins but my hp 49g uses 10 could i get an adapter somewhere?

Re: hp 49g adapter

*Message #2 Posted by **James M. Prange** on 1 Nov 2003, 5:01 p.m.,*
in response to message #1 by steve

What you need is a 49G cable. The adapter is for connecting to a 48 series calculator. See http://holyjoe.net/hp/cable.htm for more information on cables and adapters. See http://www.calcpro.com/ or http://www.hpcalculators.com/ for the cable.

Re: hp 49g adapter

*Message #3 Posted by **James M. Prange** on 1 Nov 2003, 8:23 p.m.,*
in response to message #1 by steve

PS:

If you visit http://www.hpcalc.org/ and search for "cable", I expect that you'll find information on how to make your own.

Regards,
James

Re: hp 49g adapter

*Message #4 Posted by **Francesc Casanellas** on 2 Nov 2003, 3:38 a.m.,*
in response to message #1 by steve

The HP49G serial cable has plug-in adapters for compatibility with the HP48 series. It is delivered with the 4 pin HP48 adapter on.

If you pull the end of the 4 pin connector you will get the 2x5 pin adapter for the 49 series.

If you pull the RS232 connector, another 2x5 pin connector appears: this allows to conect an HP48 to an HP49.

Edited: 3 Nov 2003, 2:21 a.m. after one or more responses were posted

Re: hp 49g adapter

*Message #5 Posted by **James M. Prange** on 2 Nov 2003, 4:29 p.m.,*
in response to message #4 by Francesc Casanellas

I hadn't considered the possibility that perhaps Steve hadn't removed an adapter from the cable.

The 48 series (the "old" ones) uses a 4-pin connector for RS-232, and you can also connect an overhead projector display unit by plugging it into one of the expansion slots.

But the 49G doesn't have expansion slots; it uses a 10-pin connector for both the RS-232 I/O and the display unit.

Note that you can physically connect a cable made for HP palmtops to the 49G, but don't try it; the display goes dark immediately and it may well fry components in the 49G. Perhaps even more dangerous on 49Gs with serial numbers starting with ID93 or lower; they had mistakes in the I/O circuitry.

The earlier 49Gs came with a cable having a 10-pin connector on both ends for connecting two 49Gs to each other, plus a 10-pin to 4-pin adapter so you can connect a 49G to a 48 series calculator using the same cable. If you asked for the "ROM update kit" or purchased a "connectivity kit", you also got a 10-pin to DB-9 cable in the kit.

Later 49Gs added a 10-pin to DB-9 adapter in the package, so with that, you can use the same cable to connect two 49Gs to each other, or with one adapter connect to a 48 series, or with the other to any RS-232 device that uses a DB-9 connector.

If you happen to have two of the 10-pin to 4-pin adapters, the calc-to-calc cable also works fine for connecting two 48 series calculators to each other.

Regards,
James

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Pioneer

*Message #1 Posted by **Stefan granat** on 1 Nov 2003, 2:05 p.m.*

Opening a Pioneer. How? anyone.?

Articles Forum...

*Message #2 Posted by **Raymond Del Tondo** on 1 Nov 2003, 2:20 p.m.,*
in response to message #1 by Stefan granat

as written;-)

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What's the most reliable, best built HP Calc in the last 25 years?

*Message #1 Posted by **Brian S** on 1 Nov 2003, 7:22 a.m.*

I was wondering what the best built, most reliable HP calculator has been over the last 25 years? Looking to add a backup and wanted to get the best. Any HP calculator will suit my needs, as long as it has RPN. Expandibility and memory are not a concern. Number one priority is getting something that will last a long long time.

And the winner is...

*Message #2 Posted by **Randy Sloyer** on 1 Nov 2003, 8:35 a.m.,*
in response to message #1 by Brian S

A voyager. 10/11/12/15/16C

Although the newer 12C's must be excluded from the list.

Re: And the winner is...

*Message #3 Posted by **Larry M.** on 1 Nov 2003, 9:28 a.m.,*
in response to message #2 by Randy Sloyer

Agreed. Almost all of the old LED models were quite reliable. However, they all used rechargeable batteries, and some have suffered outgassing and subsequent corrosion damage after all these years. Additionally, these calculators contain a relatively high number of discrete components. Some of the components, such as capacitors, start going bad after a while.

The Pioneer series (HP-32SII, HP-42S, and others) do not have such problems, although their keyboard construction is not as robust as on earlier models.

Definitely the Voyagers.

Larry M.

Re: What's the most reliable, best built HP Calc in the last 25 years?

*Message #4 Posted by **Namir Shammas** on 1 Nov 2003, 12:35 p.m.,*
in response to message #1 by Brian S

Interesting to notice almost a role reversal between HP and TI. HP made expensive and reliable calculators, while TI made inexpensive calculators that don't seem to be working today.

Today TI makes calculators that are more robust and powerful .... AND owns the market. HP has taken second place.

Oh well .... life IS strange!

Namir

Re: What's the most reliable, best built HP Calc in the last 25 years?

*Message #5 Posted by **Raymond Del Tondo** on 1 Nov 2003, 2:58 p.m.,*
in response to message #4 by Namir Shammas

You forgot the Casios and other Kinpos ;-)

Raymond

Re: What's the most reliable, best built HP Calc in the last 25 years?

*Message #6 Posted by **Namir Shammas** on 1 Nov 2003, 3:45 p.m.,*
in response to message #5 by Raymond Del Tondo

Raymond,

Right you are! I have a Casio ClassPad and it kicks butts!!

Namir

Not

*Message #7 Posted by **Mike** on 1 Nov 2003, 8:03 p.m.,*
in response to message #4 by Namir Shammas

TI has never made anything that is anywhere near as nice as an HP. It is mostly junk-like. I'm not speaking of functionality.

Re: Not

*Message #8 Posted by **Joerg Woerner** on 4 Nov 2003, 5:20 a.m.,*
in response to message #7 by Mike

Hello Mike,

If nobody responds to your TI "Junk" comment - I have to...

I received yesterday from TI the 2004 model of the TI-89 for my www.datamath.org museum. Please believe - it is a real cutie ! The colour of the housing is now dark blue instead the black plastics and the display bezel changed to silvertrim. The whole calculator is a reminiscence of the wonderful SR-50. You remember the SR-50 ? It was TI's answer to the HP-35 and IMHO the best engineered TI calculator ever (but still a half class behind the HP-35).

Don't miss the new TI-89...

Regards, Joerg

Re: What's the most reliable, best built HP Calc in the last 25 years?

*Message #9 Posted by **David Smith** on 1 Nov 2003, 6:43 p.m.,*
in response to message #1 by Brian S

Mayby you should not be as concerned with basic reliability, but with long term maintainability. Although the Voyager series are very reliable, they tend not to be very repairable if they ever do break.

I would probably choose the HP67. It is a very reliable machine to start with (once you replace the card reader

drive roller). It shares many components with other woodstock series machines. Pick up an extra charger or two along the way. The connection in the plug tends to break.

Any USA-made Voyager: 10C-11C-12C-15C-16C

*Message #10 Posted by **Valentin Albillo** on 1 Nov 2003, 7:46 p.m.,*
in response to message #1 by Brian S

No question. Best regards from V.

I have to agree. NOTHING comes close to as reliable

*Message #11 Posted by **Gene** on 1 Nov 2003, 9:49 p.m.,*
in response to message #10 by Valentin Albillo

There may be 12c calculators still working 200 years from now (in spite of Valentin's points about degradation!).

You said "calc" but...

*Message #12 Posted by **Mike** on 1 Nov 2003, 8:05 p.m.,*
in response to message #1 by Brian S

I say the HP-71B is the best of the handhelds, calc or computer. It is one powerful device. And very well made.

But of the calculators, the HP-15C is my favorite for a pure calculator and nothing else. Compact, nicely designed and powerful.

Edited: 1 Nov 2003, 8:07 p.m.

Re: What's the most reliable, best built HP Calc in the last 25 years?

*Message #13 Posted by **John W** on 1 Nov 2003, 9:39 p.m.,*
in response to message #1 by Brian S

So, it sounds like a majority of the people who responded think that the 10c-16c series of calculators is the safest bet for having a reliable calculator well into the future? More reliable than the 32s, 32sii or 42s calculators? How about the 41 series? The 41's seem to have had trouble with the battery's. Too bad.

Re: What's the most reliable, best built HP Calc in the last 25 years?

*Message #14 Posted by **Valentin Albillo** on 1 Nov 2003, 11:42 p.m.,*
in response to message #13 by John W

John posted:

"So, it sounds like a majority of the people who responded think that the 10c-16c series of calculators is the safest bet for having a reliable calculator well into the future?

Definitely. But they *must* be USA-made models, for maximum reliability and better durability. Ones made in other countries (such as Brazil) aren't as sturdy or well-built, many of them having the key letterings painted over molded keys of other models, and thus prone to erasure given enough time and use, let alone China-made HP-12C's which are abysmal quality, specially the keyboard.

"More reliable than the 32s, 32sii or 42s calculators?"

Certainly. Specially the 42S's display, which being a dot-matrix type has a lot more elements (pixels) than the simpler, segmented LCD display of Voyager series, so it's more prone to eventual failures in the future.

"How about the 41 series?

Wonderful as they are from a functional point of view, they don't come even close in sturdiness and long-term reliability when compared to Voyagers.

Just to further emphasize my point, I've got some 12 or 14 Voyagers when I last counted, and you'd be well advised to get some as well, high prices notwithstanding. Else, you'll have to kiss RPN goodbye far earlier than me. You've been warned ... :-)

Best regards from V.

Re: What's the most reliable, best built HP Calc in the last 25 years?

*Message #15 Posted by **Thibaut.be** on 2 Nov 2003, 2:36 a.m.,*
in response to message #14 by Valentin Albillo

Valentin wrote, in answer to the question in italic :

> Quote:
>
> *"So, it sounds like a majority of the people who responded think that the 10c-16c series of calculators is the safest bet for having a reliable calculator well into the future?*
>
> Definitely. But they *must* be USA-made models, for maximum reliability and better durability.

I'm no engineer but I had the impression that the Singapore made calculators, especially the 41 and pioneer series, were as solid as the US made... Am I wrong ?

Singapore vrs USA

*Message #16 Posted by **Randy Sloyer** on 2 Nov 2003, 7:57 a.m.,*
in response to message #15 by Thibaut.be

> Quote:
>
> I'm no engineer but I had the impression that the Singapore made calculators, especially the 41 and pioneer series, were as solid as the US made... Am I wrong ?

No, not at all. In general, that is my opinion as well but it should be qualified. You where correct when mentioning the 41 and Pioneers as having been made in Singapore. I have never seen an 11C or 15C made in Singapore as those models were being discontinued as early Pioneer production shifted from the USA to Singapore. So, AFAIK, the 12C was the only Voyager made there. I see no difference in construction or quality with USA or Singapore 12C's. The same is true of the 41's and Pioneers. When the Pioneers moved to Malaysia - this marked the beginning of the decline in quality with the first appearance of painted keys. The Malaysian 12C's were only marginally better than today's Chinese paperweights, which is not a compliment.

I have repaired several Brazilian 11C's and see no difference in quality vrs USA models with the exception of the rubber feet being made of a thicker, different material.

Re: Singapore vrs USA

*Message #17 Posted by **Nelson M. Sicuro (Brazil)** on 2 Nov 2003, 9:06 a.m.,*
in response to message #16 by Randy Sloyer

I agree that the brazilian Voyagers are very good indeed, regardless that I'm brazilian. I had a HP-15C build in 1983 here in Brazil that is identical of the USA version. My atcual 15C is brazilian also, as my 11C. The most recent ones doesn't have the extra rubber protective layer around the circuit board, but they are very good. The Pioneers are identical also, I have a 42S and a 32S made in Brazil that are the very same as others I saw made in Singapore or USA. Their components are all USA and Japan made and the keyboard legends are molded, not painted.

Regards,

Nelson

Re: Singapore vrs USA

*Message #18 Posted by **Thibaut.be** on 2 Nov 2003, 11:13 a.m.,*
in response to message #16 by Randy Sloyer

Yes, forget about the 12C, that was built at several places.

I also never saw any voyager made outside the US.

But' I've got in my collection several "S" and "A" 41 C, CV and CX and I can't see a difference between them.

The same applies to 42S, 17BII, 32S and early 32SII, as weel as spice series : I've got in my hand 2 38C, 1 "S" and 1 "A" and I reaaly couldn't tell which one is betterly made...

BTW I have 2 "ID" 19BII and the qality seems pretty much alike my "S" 19BII.

I think that the quality difference was noticeable in the mid 90s production, where it was shifted to Malaysia and China...

Just a feeling, no certitude of course !

Re: Singapore vrs USA

*Message #19 Posted by **Iqbal** on 2 Nov 2003, 11:30 a.m.,*
in response to message #18 by Thibaut.be

I have an American made 42S and I put it on a while back, nothing came on. I checked the voltage and it was a little over 2 volts. I changed the batteries, knowing I got to type back all these programs. When it powered up, to my amazement all programs were intact. This never happened to any of my other 42S, including 3 Singapore and 2 Indonesia made ones. Additionally you never hear any clicks when the buttons are pressed. Something all to common with the ID made ones.

A vote for the HP-25 -- battery leakage not withstanding

*Message #20 Posted by **Michael Meyer** on 2 Nov 2003, 10:14 p.m.,*
in response to message #1 by Brian S

I do think the HP-25 was one amazingly solid calculator. The main damage being from battery leakage and using without good battery connection. 25C's were electronically more fragile as well.

Otherwise, this baby can be blown through a snowblower, run over by cars, buried in snow, and many other horror stories I've read about... I always liked how it could be used as a football (something I HAVE done with a well-abused spare). I think the secret is the uni-body case and modular design which leaves no room for disconnection once assembled. I'll bet it can be physically abused more than any other model series.

And my spare 71b has survived many a fall unharmed (as I've fallen asleep playing games in the ... library...)

I can't disagree, however, that the Voyagers are the most surviving calculator overall. I just wouldn't want to try the above "tests" with one <grin>.

RTN2RPN Michael

Re: A vote for the HP-25 -- battery leakage not withstanding

*Message #21 Posted by **David Smith** on 3 Nov 2003, 12:52 p.m.,*
in response to message #20 by Michael Meyer

Although the HP25 is one of my favorite machines (it got me an EE degreeee) it is probably the least reliable HP machine becuase of it's infamous power supply problems. It is electrically much more fragile than the HP21... the ACT chip and/or the RAM chip just love to die. My estimate that if you were given a box of a random selection 100 HP25 machines, over 50 would be bad. The same selection of HP21 machines would have 15-20 bad machines.

Re: What's the most reliable, best built HP Calc in the last 25 years?

*Message #22 Posted by **Regis Corbel** on 4 Nov 2003, 3:21 a.m.,*
in response to message #1 by Brian S

The Voyager Series (10C to 16C), definitely. Of course, you have to exclude the "12C" built in Malaysia, China, and this strange Platinum version.

RC

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48 or 49 constants edit

*Message #1 Posted by **Ed Look** on 1 Nov 2003, 12:59 a.m.*

I see there are some nifty programs to edit units in both the HP-48G series and 49G series calculators. Are there any analogous programs around that would allow similar manipulation (edit, add, remove) of constants? Now, I'm not sure there is a library of constants in the 49G+, but I know there is in the 48G's. Sometimes, use of them saves a few seconds; but often this is negated by far as I have to convert them into units I need, making the list of constants less useful (yeah, I know the constants I normally need, but most often only to three, maybe five significant digits. If I need more, I have to recalculate it from scratch or convert the one preloaded in the 48. I'd like to permanently store my conversion in the same library or a nearby subdirectory. I don't suppose the rather marvelous Unitman can do this too, can it?

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Emmanuel at Xeq41@aol.com

*Message #1 Posted by **Jeff** on 31 Oct 2003, 8:28 p.m.*

How can we get in touch with Emmanuel? His e-mail at xeq41@aol.com is not working. Emmanuel, if you read this, please let me know the status of my CDR and EPROM package!!!!

Re: Emmanuel at Xeq41@aol.com

*Message #2 Posted by **Fred** on 31 Oct 2003, 9:38 p.m.,*
in response to message #1 by Jeff

Good Luck!!

Don't Worry

*Message #3 Posted by **Thibaut.be** on 1 Nov 2003, 1:45 a.m.,*
in response to message #1 by Jeff

Emmanuel sometimes takes a long time to answer his mails, but he's definitely no crook.

I'm sure he'll get in touch shortly.

Re: Emmanuel at Xeq41@aol.com

*Message #4 Posted by **james (UK)** on 1 Nov 2003, 4:11 a.m.,*
in response to message #1 by Jeff

I believe Emmanuel is changing his service provider - see the forum message below for his temporary email address

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=44841

Re: Emmanuel at Xeq41@aol.com

*Message #5 Posted by **Jeff** on 1 Nov 2003, 8:36 a.m.,*
in response to message #4 by james (UK)

Thanks for the new e-mail address. Jeff

Re: Emmanuel at Xeq41@aol.com

*Message #6 Posted by **Namir Shammas** on 1 Nov 2003, 12:31 p.m.,*
in response to message #1 by Jeff

Emmanuel's new email address is:

xeq41@caramail.com

I believe that he is no longer on AOL.

Namir

Re: Emmanuel at Xeq41@aol.com

*Message #7 Posted by **Emmanuel, France** on 4 Nov 2003, 6:15 p.m.,*
in response to message #1 by Jeff

```
Dear Jeff,
Your parcel have been found. I got a call on friday from La Poste, Libourne.
5 men were arrested at Evreux and parcels stolen were send to Libourne center.
I'm waiting for it. Saturday was a day-off here.
Now I have adsl! 9 days w/o internet access...
Thanks for patience.
Yours.
Emmanuel
```

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Removing rubber feet on 15c

*Message #1 Posted by **hpnoid** on 31 Oct 2003, 7:54 p.m.*

Hello, All:

I have a 15c which has a divide key that "pops". The unit also flexes and "creaks" slightly when applying light pressure at opposite corners, indicating that perhaps the two halves of the unit are not fastened tightly enough. I searched the archives and found a posting of someone who said that he fixed a problem similar to this by merely removing the rubber feet and tightening the four screws which hold the unit together.

My question is: How do I go about removing the rubber feet without damaging them and then reapply them after tightening the screws? Is it possible that the glue will still be sticky enough to reapply them?

Note: I did find an article that outlined the steps of opening Voyagers but did not go into specifics of dealing with the rubber feet.

Thanks!

Re: Removing rubber feet on 15c

*Message #2 Posted by **Katie** on 31 Oct 2003, 9:54 p.m.,*
in response to message #1 by hpnoid

The feet are attached using double sided tape (black in color). So just pull them off and then remove the tape that's either going to be left on the rubber foot or the calculator. Before reassembling them, clean the feet and the area on the calc where they go with isopropyl alcohol. The best tape to use when replacing them is carpet tape (available at hardware stores), it's very sticky and very thin (usually white in color).

Re: Removing rubber feet on 15c

*Message #3 Posted by **David Smith** on 1 Nov 2003, 12:47 p.m.,*
in response to message #2 by Katie

3M makes an outdoor carpet tape that is black in color, slightly textured, and VERY sticky. Best thing I have found for sticking down them footsies.

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HAUNTED CORPORATION... HAPPY HALLOWEEN!!!!

*Message #1 Posted by **Norm** on 31 Oct 2003, 7:03 p.m.*

Hi there boys and girls..... HAPPY HALLOWEEEN !!!!!!!

Don't you want to go inside the house of Hewlett Packard ? But only if you get past the security gate, listen to it creak.....

Screeeeeaaaaaaaaaaaaaaaaaeeeeeeeeee!!!!!

Who is inside? Could it be the Carly Creature, on a broom?

ooooooaaaaaaa

wwwwooooooooaaaaaaaa

Uh oh! Around the corner!! Human Resources!!!!!! AAAAAAAAAAA! They kill people in there! Look at the blood on the floor !!!!!! AAAAAAAAAAAAA!!!!

Whew, found a quiet spot, a little corner just past the haunted coffee machine. AAAAAAA!!!! An eyeball, I saw it in the ceiling, watching my every move! AAAAAA!!!

Re: HAUNTED CORPORATION... HAPPY HALLOWEEN!!!!

*Message #2 Posted by **Carly on a broom** on 31 Oct 2003, 7:05 p.m.,*
in response to message #1 by Norm

HI KIDDIES!!!!!!!!

It's CARLY!!!!!!!!

WOULD YOU LIKE A TRICK? OR A TREAT?

How about an HP-32Sii?????? WOULD YOU LIKE ONE OF THESE?

See it in my hand here? See this nice HP-32Sii, wouldn't you like it here on Halloweeen??

Go ahead, reach out and take it.....

AAAAAAAAAAAAA HAAAAA HAAAA HAAAAAAAAAAAA YOUR HAND WENT RIGHT THROUGH IT LIKE A GHOST! HAAA HAAA HAAA HAAA YOU CAN'T HAVE IT AFTER ALL!!! YOU CAN SEE THE HP-32Sii BUT YOU CAN'T PICK IT UP!!!

NO TREAT FOR YOU !!! HA HA HA HAAAAAAA! HERE YOU CAN HAVE THIS OTHER ONE BUT ITS FULL OF BUGS!!!!!! HA HA HA HAAAAAA!!!

AND YOU CANNOT ESCAPE FROM THE HAUNTED CORPORATION!!!

Angered at you Norm

*Message #3 Posted by **Ghost of Bill** on 31 Oct 2003, 9:11 p.m.,*
in response to message #1 by Norm

My company would never have been what it became without my faithful army of MBAs to save our engineers from themselves.

You have been given a second chance from the great beyond.

Accounting Witches with Kettle

*Message #4 Posted by **Ghost of Enron** on 31 Oct 2003, 10:16 p.m.,*
in response to message #1 by Norm

bubble bubble toil and trouble.....

Heee heee hee heeeeeee ..... more wood on the fire!! Stir with the magic wood stick !

we will cook a magic potion on our magic kettle for the quarterly earning reports

Add the magic ingredients of greed and deception..... and cook well !

Soon the stew will be so vile with treachery that nobody will know what is in it !

They won't even know if we made money..... or if we lost money!

Heee heeeee heee heeeeeeeee haaaaaaaaa haaaaaaa haaaaaaaaaaaa

***

*bubble bubble bubble bubble ***

**

*

Re: Accounting Witches with Kettle

*Message #5 Posted by **Ghost of SCO** on 7 Nov 2003, 5:56 p.m.,*
in response to message #4 by Ghost of Enron

Hide the bodies well, methinks! Cut and piece and cover the stinks!

Move the monies so no one will see, then laugh at the bumblings of the S.E.C.

(cue scream.....)

insider trading would never be, we all have the spirit of HP!

What happened on Halloween?

*Message #6 Posted by **Norm** on 8 Nov 2003, 3:48 a.m.,*
in response to message #5 by Ghost of SCO

What happened on Halloween?

Got inspired.... came up with some pretty good
"haunted corporation" stuff.... but nobody got into it this year .

Over here in my town we went to a $10 a ticket
haunted house. Kinda fun. Big long line
Nobody there over about age 25 (except for me).

Re: What happened on Halloween?

*Message #7 Posted by **Ed Look** on 8 Nov 2003, 10:35 p.m.,*
in response to message #6 by Norm

I am near a high school and I heard the cops dropped by and gave the kids a "talking to". Some of them went home and told their moms they weren't even going to step out the door (for fear of arrest! I love it!) So only some little kids trick-or-treated... all the others were probably home plotting parabolae on their TIs... or IM-ing on their HP PCs.

Re: What happened on Halloween?

*Message #8 Posted by **Norm** on 10 Nov 2003, 3:31 a.m.,*
in response to message #7 by Ed Look

Hmmmmmmm.....

you say the cops showed up, and threatened to bust all the teenagers, then they didn't trick or treat.

This means that you got very few of a certain type of trick or treater: the 6 foot tall teenagers with half-hearted costumes, carrying black garbage bags 3/4 filled with their candy.

Instead you got meticulously dressed 3' tall kindergartners, with a little tiny plastic pumpkin that holds about 10 pieces of candy at most .

This was a good situation, you got more leftover candy that you get to eat for yourself.

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HP12C

*Message #1 Posted by **Vince** on 31 Oct 2003, 4:24 p.m.*

I've owned my HP12c for 15-20 years and no longer have a manual. I turned it on today and had the numbers appearing with a comma. If I put in more than 3 digits in, it begins to put periods in where I would expect to see a comma. Does anyone know how to get it back to a straight digitable format??

Re: HP12C

*Message #2 Posted by **Raymond Del Tondo** on 31 Oct 2003, 4:56 p.m.,*
in response to message #1 by Vince

This is easy:

To toggle between comma and period as decimal separator, just turn the 12C of, press_and_hold the period key (right to the zero key), press and release ON, then release the period key.

Raymond

Don't lose that calculator

*Message #3 Posted by **bill platt** on 2 Nov 2003, 11:38 a.m.,*
in response to message #1 by Vince

If you've had your 12c all that time--then it is a gem--probably US made. The new ones are made overseas and are very poor quality.

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Aaaah...wistful thinking . . .

*Message #1 Posted by **Faithful HP User** on 30 Oct 2003, 10:45 p.m.*

Since wishful thinking won't get us anywhere...

I bought my 15C in 1984. It served me well through college, medical school, residency, etc. The original batteries died in 2001! It still works great.

I love my 15C. The bevel-edged keys with the blue, "g-shifted" labels, the solid feel, the obvious detail in the quality of the construction.

From all the comments I've seen about the new calculators, I think we've witnessed a bygone era...

I wonder why HP did away with the "f" and "g" shifted keys and introduced these "left" and "right" pointing arrows. I think it makes the face look needlessly cluttered.

I have a 48G at work. It's very nice but doesn't have that great "HP look" anymore. These new 33s/49g+, etc. look like TI/Casio/Sharp, etc.

Re: Aaaah...wistful thinking . . .

*Message #2 Posted by **rsenzer** on 2 Nov 2003, 9:17 p.m.,*
in response to message #1 by Faithful HP User

It is interesting that the battleship grey tones in the various olive and lavender color schemes that HP adopted recently for the HP-20S, HP-32SII, and the HP-48G's are similar to the color tones used in some of the old HP computer terminals of the late 70's and early 80's.

I believe that the marketing [or non-marketing] message reflected durability. That is, HP didn't waste money on aesthetics. These were solely meant to be technical devices of the highest caliber, like their scientific and instrumentation products.

This color scheme still reflects a lack of aesthetics, but it now seems synonymous with lack of quality.

Of course, this has nothing to do with "f" and "g". I'm sure this has been discussed before, but if you have difficulty distinguishing colors, the arrows might make more sense than the "f" and "g" [and "h"].

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New Battery Technology Available

*Message #1 Posted by **Michael Meyer** on 30 Oct 2003, 9:18 p.m.*

Hi all! I am hoping this is of general interest to Forum members:

I just purchased Rayovac's new IC3 batteries-- 2000mah AA cells that charge in only 15 minutes! Each cell has its own charging control circuitry ("In Cell Charge Control... IC3).

Since they have to charge in the specific charger, I don't think it's going to change the way calculators charge, but I know we've talked batteries before, and the in-cell charging circuit has been mentioned here.

BTW, of all places, Walgreens has them on sale at $29 instead of $39, including the charger and 2 cells. Plus, you get a free 4 pack of batteries. The wall-wort is 14.5V at 4.5A!

Good for powering the cameras we use to photograph the calculators. (THERE. I knew there was a reason to mention them here....) Anyway, I think they're a real innovation, and a long way from NiMH technology of a decade ago!

RTN2RPN, Michael

Death of a Calculator

*Message #2 Posted by **Jim Chumbley** on 30 Oct 2003, 10:00 p.m.,*
in response to message #1 by Michael Meyer

I was using these I-C3 cells in my new HP-49g+ when it displayed its "low battery" warning. I was in the middle of formatting my 256MB SD card, so I continued, thinking I would change the cells as soon as I was finished. The display slowly began to dim, went dark, and the machine would never turn back on again. After trying every possible change of battery, including the keep-alive button cell, and every combination of key depression to turn it back on again, including the paper-clip reset hole/switch, and leaving it with no batteries for 36 hours, I gave up. So did Hewlett-Packard. The machine was exchanged for a new one, which lives only on the batteries recommended for it: disposable, Alkaline AA cells. These present 4.5 volts to the calculator, just as HP recommends. The I-C3 cells by Rayovac present only 3.6 volts. My recommendation: NEVER use rechargeable cells by any manufacturer, even the wonderful new I-C3 cells, in a voltage-sensitive application such as an HP-49g+. They are great for things like remote controls, children's toys, cameras (possibly--untested by me), and flash lights. Just please don't EVER put one into your new HP calculator. Thanks, Jim Chumbley

Re: Death of a Calculator

*Message #3 Posted by **Michael Meyer** on 30 Oct 2003, 11:25 p.m.,*
in response to message #2 by Jim Chumbley

Scary. Not good. I see that Rayovac also has the promise to "repair or replace any device damaged" by their batteries. What a hassle, though.

I know most older HP's used rechargeable cells that were lower voltage... in fact, many here on the Forum

have warned the opposite: don't use disposable batteries due to their HIGHER voltage. NiCd's also have 1.2v per cell. I haven't had any trouble doing this, but it makes sense that a higher voltage could put a failing chip over the edge.

You just can't win.

I suspect your failure was a fluke, but it makes sense to use disposable cells in the newer calcs. They should last a nice long time with the lower power requirements of modern circuits and LCD displays.

The rechargeables, especially NiMH, are notorious for a sudden dropoff of voltage, which doesn't allow much warning before they go dead.

The jury is far from out on these new cells. So far, in devices like toys, they've been awesome-- taking as little as a few minutes to "top off". I'm also hoping that the internal circuits allow for longer cell life without internal pressure build-up, leading to leakage. I also wonder if they cut off before becoming completely drained. Great for cell life, but bad for a device like your calculator.

Thanks for the warning, Jim. Again, I don't see much role for these in calculators, as once built into a standard HP pack, they'd charge at the slower rate anyway.

Michael

Re: Death of a Calculator--looks like others have died also

*Message #4 Posted by **Michael Meyer** on 30 Oct 2003, 11:28 p.m.,*
in response to message #3 by Michael Meyer

Reading down further, I see other posts about dead 49G's. Nothing about your advice changes, but it may not have been just from the batteries.

Just an observation.

Michael

Re: Death of a Calculator

*Message #5 Posted by **James M. Prange** on 31 Oct 2003, 6:01 a.m.,*
in response to message #2 by Jim Chumbley

I wouldn't blame the batteries, especially as the voltage was lower than would be typical of the alkaline AAA cells.

I think you had a genuinely defective 49g+. It seems that being defective wouldn't make it a "collectors' item though. :-(

Consider the 48SX, 48GX, and 49G. With fresh cells, they get about 4.8 volts, a bit over the nominal. As the batteries are used, the voltage drops, until somewhere around 3 volts (under load), you get the low battery warning, and if you're doing I/O, or writing to flash on the 49G, that will error out. Otherwise you can keep using the calculator for quite a long time. If you keep using it for too long, it will turn itself off and refuse to stay on until the batteries are replaced. Even then, as long as you replace the batteries reasonably soon, you'll find that it kept everything in memory just fine. I think that the only cases I've ever seen of these calculators being actually damaged from low batteries were because of battery leakage.

By the way, how long did it take to get the replacement? And did they send it right away, or did they wait until they received the defective item before sending it?

Regards,
James

Re: Death of a Calculator

*Message #6 Posted by **Jim Chumbley** on 31 Oct 2003, 9:05 p.m.,*
in response to message #5 by James M. Prange

I have been building semiconductors for 27 years. I didn't think the failure was caused by a high-voltage junction blow-out, just an internal logic lock where voltages were not high enough to signal a difference between logic 1 and logic 0. HP must have thought so too, since taking all the batteries out and letting it sit unmolested for at least 24 hours was the first thing they recommended to do.

Contacting HP was the funniest experience I've had in months. If you want to try using their telephone's expert system, call the area (800) number printed in the back of the -49g+'s manual. I was eventually able to speak with a real person who told me that, no, they couldn't swap machines with me and that I should go back to the retailer who sold it to me, as it was they who are responsible for swapping failures that occur in the first 30 days. I did, and the retailer sent out a new replacement the same day, which I received the next day.

Re: Death of a Calculator

*Message #7 Posted by **James M. Prange** on 31 Oct 2003, 9:20 p.m.,*
in response to message #6 by Jim Chumbley

Yes, I can see that a problem where something is "not 1" but "not 0" either due to low supply voltages could cause permanent damage. If that's what happened, it suggests to me that the low-battery shut-down doesn't work as well as in the previous calculators, and I suppose that the same problem may occur even with alkaline batteries.

Good to know about the replacement policy, thanks.

Regards,
James

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HP-34C back cover swap ;-(

*Message #1 Posted by **Michel Beaulieu** on 30 Oct 2003, 7:37 p.m.*

I opened my 34C and my 37E and when reinstalling on the 2 calculators, i realize that i don't know which cover goes on wich calculator...

One cover has "Made in USA" and the other one has a serial number 2027s35507 "made in Singapore"... ... Same color, same size, same scratches ;-(...

Thanks Michel

Edited: 30 Oct 2003, 7:38 p.m.

Re: HP-34C back cover swap ;-(

*Message #2 Posted by **Karl Schneider** on 30 Oct 2003, 11:53 p.m.,*
in response to message #1 by Michel Beaulieu

All three of my 34C's, with serial numbers corresponding to 1980, 1981, and 1982 were made in Singapore. Yours is a 1980 model.

Re: HP-34C back cover swap ;-(

*Message #3 Posted by **Ed Look** on 31 Oct 2003, 1:24 a.m.,*
in response to message #1 by Michel Beaulieu

Michel, I have a 34C the back of which says it's made in USA and that the serial number starts with 19, which puts its manufacture year at 1979. What are the first two digits of the serial number on the made in USA half case? According to this museum's pages, the earliest sighted 37E serial number starts with 1850 whereas the earliest 34C starts with 1928. Hopefully, this can help you.

If not, ask again on this forum if anyone knows when the 34C and 37E respectively had shifted production from the US to Singapore.

Re: HP-34C back cover swap ;-(

*Message #4 Posted by **james (UK)** on 31 Oct 2003, 8:33 a.m.,*
in response to message #1 by Michel Beaulieu

Hi Michel

My 34C has serial no. 2033S and is Singapore made if it's any help.

James

Re: HP-34C back cover swap ;-(

*Message #5 Posted by **Renato** on 31 Oct 2003, 11:11 a.m.,*
in response to message #1 by Michel Beaulieu

Have you tried looking for scratches, marks, stains or anything that could allow an association between top and bottom halves ?

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HP-34C charger terminal

*Message #1 Posted by **Michel Beaulieu** on 30 Oct 2003, 7:27 p.m.*

I have a great HP-34C but i lost the charger. Brand new batteries in the calculator. Can someone give me some tips for "building" a homemade connector than can goes in the original femeale connector on the calculator.

What are the specs for the adaptor?

Thanks Michel

By the way, thanks for the peron who give the dental wire tip for removing the back shell on the 34C! It works easily and effortless!

Re: HP-34C charger terminal

*Message #2 Posted by **Katie** on 30 Oct 2003, 8:27 p.m.,*
in response to message #1 by Michel Beaulieu

It's 10VAC 1.8VA, but you can use any AC output charger with 8-10 volts output. The 82059 (the one used for the 91,92,97, 10, 19C, etc.) will work fine on the Spice calculators. However, coming up with a homemade plug for this is going to be very difficult. You're best bet (and certainly the safest thing to do) is to remove the batteries and charge them outside the calc.

Edited: 31 Oct 2003, 2:21 p.m.

Re: HP-34C charger terminal

*Message #3 Posted by **Thibaut.be** on 31 Oct 2003, 4:58 a.m.,*
in response to message #1 by Michel Beaulieu

Michel,

You will find plenty of such adapters on ebay. They won't sell for more than 20 bucks. I guess it's really worth purchasing one of these than trying out to build one...

My 2c worth

HP charger part number

*Message #4 Posted by **Michel Beaulieu** on 31 Oct 2003, 8:07 a.m.,*
in response to message #3 by Thibaut.be

Can you tell me the HP part number so i can fin on th eBay site you told me. I found some but it all for the HP-75/41 calculators...

Re: HP charger part number

*Message #5 Posted by **Thibaut.be** on 31 Oct 2003, 10:31 a.m.,*
in response to message #4 by Michel Beaulieu

You know what ? The Museum of HP Calculators is a GREAT site !

The HP-34C wizard speaks

*Message #6 Posted by **Norm** on 31 Oct 2003, 10:19 p.m.,*
in response to message #1 by Michel Beaulieu

Yeah definitely just find a working charger with plug.....

You should be able to bid less than $20 and win, you'll spend more than that trying to use bathtub caulking and paper clips to make your own.

Consider where you are really headed with all that..... is it really worth charging the thing up, with the short runtime of NiCad batteries?

OK, maybe you are using NiMH that would help.

The point is I just feed mine with "AA" Alkaline batteries, and put in more when it runs down. Then you don't need a charger, even though I have got one.

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Internet programs for HP48/49/49+ calculators

*Message #1 Posted by **Yoann Désir** on 30 Oct 2003, 5:43 p.m.*

Hello, everyone !

I'm a long-used HP calculators developper, however I've just discovered this interesting forum.

I'd like to know what you think of surfing the internet using a HP48G/G+/GX or HP49G or even HP49G+ calculator. It is indeed possible thanks to hp->modem connection, or with ip-masquerading under linux, in that case the linux box acts as a relay between the HP calculator (49G+ for instance) and internet.

Then, we install a TCP/IP library, that handles the internet connection, called Usinagaz.

You can visit http://www.hp-sources.com/internetprime/english.html for more information (there are a web browser called Navigator, a mail client "Mail Prime", an IRC client, and some other tools).

Best regards,

Yoann Désir.

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HP-12C stunt-scientific?

*Message #1 Posted by **Eric Lundgren** on 30 Oct 2003, 3:45 p.m.*

Hi all,

Since I can still find new 'gold' 12c's but need a scientific...and considering that sin/cos/tan plus inverses are a must for me, would anyone consider trying to make do with a 12c with trig approximators? Would it leave any room for a short program in addition?

I assume no one would recommend the platinum despite its greater memory, right? I am looking for the good old 15 years of service potential, and the 12c seems the only candidate aside from buying someone's off of ebay. (while being aware that I'd never know what environment it had been exposed to)

Thoughts? Eric

Its been done and in the articles section

*Message #2 Posted by **Ron Ross** on 30 Oct 2003, 4:12 p.m.,*
in response to message #1 by Eric Lundgren

The 12c is no better than the newer 12c platinum, since they both come from the same plant, unless you buy older merchandise. But then, why not buy the Hp 17BII. Much more ram and faster. If you can wait, the new Hp33s will be available in another month or so.

If I were pressed to buy an RPN scientific and $$$$ were an issue, I would buy a 48G. They are cheap ($40 or so, ebay), well made, and have all the functions (maybe to many). My only gripe is that it WONT fit in a pocket, like it should. The Hp28s series sells for a bit more and size wise, a bit less. But the battery door is a soft spot and the clamshell case isn't as tough as any other Hp calculator. It really needs a desk to be used properly.

Your best solution would be an Hp11c, as these are usually available and will give you a great all around calculator that will hold up better than any of the new Hp12c's you will find retail. Cost is usually less than $150 (and occasionally sell for about $100, far better buy than a 12c).

Re: HP-12C stunt-scientific?

*Message #3 Posted by **Katie** on 30 Oct 2003, 8:33 p.m.,*
in response to message #1 by Eric Lundgren

Victor wrote this program http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=225 that gives you all the trig functions and their inverses on a 12C. Very compact, with good accuracy but it does take up most of memory. On the 12C Platinum you'd have plenty of room for other programs.

Re: HP-12C stunt-scientific?

*Message #4 Posted by **Valentin Albillo** on 31 Oct 2003, 4:29 a.m.,*
in response to message #1 by Eric Lundgren

Eric posted:

"Since I can still find new 'gold' 12c's but need a scientific...and considering that sin/cos/tan plus inverses are a must for me, would anyone consider trying to make do with a 12c with trig approximators?"

Yes, certainly. Please have a look at this article published in Datafile, HP-12C Tried & Tricky Trigonometrics, where I discuss at length exactly the topic you're considering. The article enters into fine details about how to implement quality trigonometrics on the 12C (i.e: *fast, accurate, full range, and complete*, not run-of-the-mill, mediocrely programmed Taylor expansions) and includes a program which meets and exceeds said requirements, with plenty of interesting examples and performance tables.

"Would it leave any room for a short program in addition?"

It depends. For the classic HP-12C, the program uses all 99 steps to implement all 6 trigonometric functions (sin, cos, tan and their inverses), but if you don't need some of them, you can save some steps. On the other hand, the program will run in the 12C Platinum with a lot of room to spare, at least 124 extra steps before the GOTO bug creeps in. :-)

Best regards from V.

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How do I check what version rom my 49g+ has?

*Message #1 Posted by **Samantha** on 30 Oct 2003, 2:56 p.m.*

I just received my new 49g+ and have been reading through all the manuals and no where can I find out how to check which version ROM the calculator came with. Can anyone please tell me how to check this? I am VERY FRUSTRATED and have given up after a good hour of looking this up. I'm assuming it's version 1.20 but I'd like to cehck. Thanks.

Re: How do I check what version rom my 49g+ has?

*Message #2 Posted by **r. d. bärtschiger.** on 30 Oct 2003, 3:13 p.m.,*
in response to message #1 by Samantha

In RPN mode type 'VERSION' then press 'ENTER'.

rdb.

Re: How do I check what version rom my 49g+ has?

*Message #3 Posted by **Ed Look** on 30 Oct 2003, 9:48 p.m.,*
in response to message #2 by r. d. bärtschiger.

It's a bit cumbersome, but there's a shifted function called "CAT" (I forget if it's left or right shift; it's not with me right now) and it has every command in it. If you scroll (backwards is faster) down toward the end, there's VERSION. Choose that and that'll do it. Or as rdb says, just type it in and ENTER.

Re: How do I check what version rom my 49g+ has?

*Message #4 Posted by **r. d. bärtschiger.** on 30 Oct 2003, 9:57 p.m.,*
in response to message #3 by Ed Look

An easier way to find a command in the catalog is to press alpha and then the first letter of the command you are looking for. In this case 'v'. Then down, or up, arrow.

rdb.

Re: How do I check what version rom my 49g+ has?

*Message #5 Posted by **Juergen Rodenkirchen (GER)** on 31 Oct 2003, 5:00 a.m.,*
in response to message #4 by r. d. bärtschiger.

... you may even alpha-lock and type more than just the very first letter in order to be led "nearer" to the command you're searching for! But don't forget to go out of alpha-mode before pressing the OK-key :-)

Juergen

Re: How do I check what version rom my 49g+ has?

*Message #6 Posted by **Ed Look** on 31 Oct 2003, 8:39 a.m.,*
in response to message #5 by Juergen Rodenkirchen (GER)

I ALWAYS forget! I am so used to operating the simpler programmable scientifics, in which I normally use the alphabetical letters as program labels or storage register designators (which does not require hitting an "ALPHA" key) that on the HP-48 or 49 series calculators, I usually waste a couple of seconds or keystrokes deleting the unexpected letter when I meant simply "ENTER" and forgot to turn "ALPHA" off.

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How the FETCH S&X instruction really works ?

*Message #1 Posted by **Pavel Korensky** on 30 Oct 2003, 11:54 a.m.*

Hello,

anyone knows, how the instruction FETCH S&X (hex 330) in HP-41 ?

I know that this instruction fetch the word in system memory, at address specified in C[6:3] to C[2:0].

But what is the actual timing of this instruction ? Let's say that in cycle 0, the HP-41 fetch this instruction from ROM (address is on ISA and ROM send the 0x330 instruction at the end of cycle also on ISA).

During the next cycle 1, the HP outputs C (with address in C[6:3]). I suppose that the mechanism is similar to WRITE S&X (hex 040) instruction, which write to MLDL.

But where and when is the peripheral unit supposed to put the word from system memory ? On ISA at the end of this cycle 1 ?

I tried to study all manuals and materials which I have, but I was not able to find any informations about this.

Re: How the FETCH S&X instruction really works ?

*Message #2 Posted by **Monte Dalrymple** on 30 Oct 2003, 1:00 p.m.,*
in response to message #1 by Pavel Korensky

I haven't put an oscilloscope on this but I am pretty sure that this is how it works:

It is a two word time instruction (obviously) that uses the second word time to access the ROM. The SYNC signal is suppressed during this second word time to prevent other devices on the bus from trying to decode the data (a 10-bit instruction) that is being fetched from ROM. The contents of C[6:3] are driven onto the ISA bus during the normal address time and the ROM returns the data at that location (again on the ISA bus) during the normal data time. At the end of this second cycle the fetched instruction is shifted into C[2:0]. I assume that the 10 bits are right-justified in C[2:0], but this assumption may or may not be correct. The timing should be such that the fetched instruction appears on the data line during the C[2:0] time.

HTH, Monte

Re: How the FETCH S&X instruction really works ?

*Message #3 Posted by **Pavel Korensky** on 30 Oct 2003, 1:31 p.m.,*
in response to message #2 by Monte Dalrymple

Are you sure about it ? The Write S&X instruction sends the address and data on DATA bus dirung second instruction cycle.

Re: How the FETCH S&X instruction really works ?

*Message #4 Posted by **Monte Dalrymple** on 30 Oct 2003, 1:47 p.m.,*
in response to message #3 by Pavel Korensky

Since the ROMs don't connect to the DATA line they can only transfer information over ISA... Remember that the Write S&X "instruction" is really just a NOP to the NUT CPU and it is only by convention that we say how external devices should interpret it.

Monte

Re: How the FETCH S&X instruction really works ?

*Message #5 Posted by **Meindert Kuipers** on 30 Oct 2003, 2:07 p.m.,*
in response to message #1 by Pavel Korensky

FETCH S&X is not seen from the point of view of the ROM being addressed. All it sees is the 16-bit address on ISA, and all it has to do is return the 10-bit data on ISA, if that particular ROM is being addressed. This means that the ROM does not have to use the DATA line.

Even the state of SYNC is more or less irrelevant for the ROM. The CPU will drive SYNC during reading of the 10-bit instruction if it is really an instruction to be executed. In all other cases, like FETCH S&X, but also the second word of an instruction in the GO and XQ, SYNC is not driven.

This is important when implementing the WRITE S&X, since you have to be certain that your device sees the instruction only of it is being executed, not when it is for example part of a block of data or the second word of a GO or XQ.

Meindert

Re: How the FETCH S&X instruction really works ?

*Message #6 Posted by **Pavel Korensky** on 30 Oct 2003, 2:22 p.m.,*
in response to message #5 by Meindert Kuipers

OK, I understand. It means, that if I want to read back the content of the descriptor table in my CPLD (I am talking about the design of my ROMPack), I need to issue FETCH S&X from some unused address in HP-41 address space (somewhere between 0x0000-0x7FFF), interpret the 0x330 instruction and in next cycle, I need to output descriptor content on ISA. Right ?

Re: How the FETCH S&X instruction really works ?

*Message #7 Posted by **Monte Dalrymple** on 30 Oct 2003, 2:30 p.m.,*
in response to message #6 by Pavel Korensky

Not just "some unused address"! It needs to be in a page that is not already physically present. Otherwise you will have bus contention on ISA and perhaps blow either or both devices. Page 4 is used for the Service ROM or disabled IL printer, Page 6 is the Printer ROM and Page 7 is the IL Control Functions. I would use one of these pages...

Monte

Re: How the FETCH S&X instruction really works ?

*Message #8 Posted by **Pavel Korensky** on 30 Oct 2003, 3:23 p.m.,*
in response to message #7 by Monte Dalrymple

Yes, I meant some address from this area. The take-over space between 0x4000-0x4FFF seems like

a good space. I have 8 descriptors in the table, so 0x4F00-0x4F07 looks good for decoding.

Re: How the FETCH S&X instruction really works ?

*Message #9 Posted by **Meindert Kuipers** on 31 Oct 2003, 3:00 a.m.,*
in response to message #6 by Pavel Korensky

Pavel,

You are almost right. Remember that you do not have to decode the $330 FETCH S&X instruction! The NUT processor does that for you. What your descriptor table needs to do is simply sit there and watch the address cycle on ISA, and return the data on ISA if there is a match in the address window. You suggestion to use page $4 is OK, just be careful not to use the lowest or highest addresses, otherwise the system might think that there is a service ROM connected.

Meindert

Re: How the FETCH S&X instruction really works ?

*Message #10 Posted by **Pavel Korensky** on 31 Oct 2003, 6:44 a.m.,*
in response to message #9 by Meindert Kuipers

Hello Meindert,

I need to decode the 0x330 instruction by my hardware, because the descriptor table is not a part of the normal HP address space.

Actually, it is not necessary to support descriptor read at all, but I want to have this feature for debugging purposes.

I will write you more by mail as soon as I will have my e-mail back. Currently, our mail server is packed in the box, because our company is moving.

Re: How the FETCH S&X instruction really works ?

*Message #11 Posted by **Meindert Kuipers** on 31 Oct 2003, 9:12 a.m.,*
in response to message #10 by Pavel Korensky

Looking forward to your email. There is really no need to decode FETCH S&X. I have looked at this in detail, and I am implementing this in my MLDL2000. Just remap the addressing to your descriptor table and that should work.

I was confused about this myself, but looked very closely at what exactly is happening. I use the Settings Registers to map a page in I/O space, and use that to remap to real-world I/O or access to FLASH and/or SRAM.

Meindert

Re: How the FETCH S&X instruction really works ?

*Message #12 Posted by **Pavel Korensky** on 31 Oct 2003, 6:32 p.m.,*
in response to message #11 by Meindert Kuipers

Hmmm, I tried to figure out how to do it without decoding FETCH S&X, but without success. Problem is, that I need to multiplex three different sets of descriptor addresses as an

address to descriptor table.

1. bits 12,13,14 of normal ISA address during normal ROM emulation or during cycle after ENBANKx instruction. 2. three bits from DATA latch 3. bits 0,1,2 of ISA address during second cycle of FETCH instruction. I am implementing the descriptor table read back as a fetch from addresses 0x4F00 - 0x4F07.

So, I implemented the FETCH S&X decoder and according to simulation (not yet complete), it seems that it works OK.

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Record for 'dead' 49G+

*Message #1 Posted by **Iqbal** on 30 Oct 2003, 3:08 a.m.*

I think I have the record for a dead 49G+. It took just two and one half weeks to 'kill' it. Maybe I'll get a replacement with more reliable keys, or maybe that's wishful thinking?

Edited: 30 Oct 2003, 3:29 a.m.

Re: Record for 'dead' 49G+

*Message #2 Posted by **David Smith** on 30 Oct 2003, 1:27 p.m.,*
in response to message #1 by Iqbal

You are not even close... NUMEROUS reports of them dead out of the box. My neighbor's unit died after less than two hours.

Re: Record for 'dead' 49G+

*Message #3 Posted by **Jim Chumbley** on 30 Oct 2003, 10:17 p.m.,*
in response to message #2 by David Smith

David, please tell us more. Tell us everything you know. Thanks, Jim Chumbley

Re: Record for 'dead' 49G+

*Message #4 Posted by **Jim Chumbley** on 30 Oct 2003, 10:13 p.m.,*
in response to message #1 by Iqbal

My -49g+ died after being used from 10/8/2003 to 10/26/2003. This is 18 days. In the interest of scientific accuracy, we would have to know exactly the hours to failure. Mine went into service at 9:30 a.m., 10/8, and died at 7:00 p.m., 10/26. This totals 442.5 hours of life for my first -49g+. The clock is still running on my second one. I wonder how many hours your machine, Iqbal, ran to failure? Seriously, for only two sample points, these are amazingly tightly clustered for MTTF (mean time to failure) estimates for infant mortality failures of the -49g+. There is one other -49g+ that failed. We can ask Jerry how many hours his lived. However all these numbers work out, I claim the FIRST -49g+ failure. Regards, Jim Chumbley

Re: Record for 'dead' 49G+

*Message #5 Posted by **Namir Shammas** on 31 Oct 2003, 6:50 p.m.,*
in response to message #1 by Iqbal

Iqbal,

Let's nick name the 49G+ as Bill ... this will give "Kill Bill" a new meaning!

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HP 12C vs TI BA II plus

*Message #1 Posted by **Luc (Vietnam)** on 29 Oct 2003, 8:21 p.m.*

Hi every body

Yesterday, I bought a new financial calculator TI BA II

plus for taking CFA exam. Before, I also owned an HP 12C.

After doing some TVM (time value of money) exercises, I

realized that TI BA II plus was faster than HP 12C very

very much when solve for i (interest) and IRR. so, I

wonder why most of professional financial analyst like HP

12C than TI BA II plus ?

any comments?

thanks

Re: HP 12C vs TI BA II plus

*Message #2 Posted by **Jim L** on 29 Oct 2003, 8:46 p.m.,*
in response to message #1 by Luc (Vietnam)

Later HP business calculators such as the 17BII and 19BII are also many times faster than the old 12C. (15 times faster.)

But the 12C lives on and they're gone. I guess speed isn't everything.

Re: HP 12C vs TI BA II plus

*Message #3 Posted by **Gene** on 29 Oct 2003, 9:57 p.m.,*
in response to message #2 by Jim L

I'm a lecturer for a CFA exam review course. For a while, the video presentations I did on the time value of money using the BAII Plus and 12c were available for free viewing on the web.

The 12c was all there was for quite some time and so it developed quite a following.

Today, the BAII Plus has a great deal of additional functionality and speed that the 12c does not possess, you are correct.

The 12c (perhaps not the VERY recently made ones) feels much more solid...not cheap like the BAII Plus does.

The BAII Plus sells for $29.99, the 12c for $60-80.

I just wish HP made a $30 business calculator that:

1) USED operator precedence...1+2x3 = 7, not 9!!!!! 2) Had built-in trig functions 3) Had more statistics etc.

Gene

Re: HP 12C vs TI BA II plus

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 29 Oct 2003, 10:20 p.m.,*
in response to message #3 by Gene

The HP-12C has not operator precedence... is RPN!

1 (enter) 2 (enter) 3 * + results 7.

Are you talking about the other financial HP calculators (10B, 17B, 19B) that uses algebric entry??

Regards,

Nelson

Re: HP 12C vs TI BA II plus

*Message #5 Posted by **Gene** on 30 Oct 2003, 7:28 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

Yes, quite correct. The 10B/10BII (which is HP's entry to compete with the BAII Plus) does not have it.

The 12C platinum, which is also algebraic, does not have parentheses OR precedence.

Really a mystery that one.

Re: HP 12C vs TI BA II plus

*Message #6 Posted by **Luc (vietnam)** on 29 Oct 2003, 10:22 p.m.,*
in response to message #3 by Gene

Hi Gene

What do you think about HP 10BII?

Re: HP 12C vs TI BA II plus

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 29 Oct 2003, 10:31 p.m.,*
in response to message #6 by Luc (vietnam)

I have both HP12C and HP10BII, I think that the 10BII is much faster and uses 12 digits against the 10 digits of the 12C but lacks the programability and the date functions. The 10BII hasn't operator precedente in its algebrical entry. I think that the 12C is better, but slower. And the durability is another story... My 12C is 22 years old, and works like a charm! I don't think that the 10BII will last half longer.

Re: HP 12C vs TI BA II plus

*Message #8 Posted by **Mike** on 30 Oct 2003, 12:04 a.m.,*
in response to message #3 by Gene

Gene

I know it's not made anymore but it sounds like the HP27S would fit your profile.

"1) USED operator precedence...1+2x3 = 7, not 9!!!!! 2) Had built-in trig functions 3) Had more statistics etc."

Regards Mike

Re: HP 12C vs TI BA II plus

*Message #9 Posted by **Gene** on 30 Oct 2003, 7:31 a.m.,*
in response to message #8 by Mike

What I'm saying is that to compare to the $30 BAII Plus, HP's only offering is the 10BII, which lacks a large number of functions the BAII Plus has.

I'd take my 19BII if I really wanted to do these things, but that's not in the $30 class.

If TI can make a business model for $30 with precedence, trig, etc., surely HP can do it.

The 10BII is not a competitor for the BAII Plus.

Re: HP 12C vs TI BA II plus

*Message #10 Posted by **Ron Ross** on 30 Oct 2003, 8:37 a.m.,*
in response to message #3 by Gene

Your number one issue about precidence HAS always bothered me with business calculators. But I suspect all business types to be a slow and dimwitted bunch and not even noticing this problem (Especially those DAMN MBA's!). Well, okay, you noticed it. 8o) And the Ti BA II also does this UNTIL you re-configure it also.

At least Hp always included parenthisis keys up until the Hp12c platinum (If you don't count the Hp10 printing calc).

I know you need recommendations for your books and classes so calculators like the 27s cannot be considered as someone here suggested. But it really was the 2nd best pocket calculator ever made, even without RPN (I have to exclude the 41c series with accessories to make this statement).

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HP-41 wand module code printing

*Message #1 Posted by **Michel Beaulieu** on 29 Oct 2003, 8:20 p.m.*

Is it possible to print the programs that are in my calculators in the form of bar code on the HP-82143A or with the HP-IL 2225 printer? a program already done somewhere insted of writing it?

If not possible; what is the use of that bar wand if i don't have any bar code except the one in the HP-41 manual.

Thanks Michel

Re: HP-41 wand module code printing

*Message #2 Posted by **Massimo Gnerucci (Italy)** on 29 Oct 2003, 9:37 p.m.,*
in response to message #1 by Michel Beaulieu

Have a look just round the corner: http://www.hpmuseum.org/software/41uc.htm
Use a laser printer for best results.

Massimo

Re: HP-41 wand module code printing

*Message #3 Posted by **Michel Beaulieu** on 29 Oct 2003, 10:02 p.m.,*
in response to message #2 by Massimo Gnerucci (Italy)

Yes but i need to enter my code in my PC before. How to directly print bar code from my HP-41?

Re: HP-41 wand module code printing

*Message #4 Posted by **Massimo Gnerucci (Italy)** on 29 Oct 2003, 10:17 p.m.,*
in response to message #3 by Michel Beaulieu

For this to work I think you need the Plotter module.
*To the audience:**Am I right here?***

Massimo

Re: HP-41 wand module code printing

*Message #5 Posted by **Raymond Del Tondo** on 29 Oct 2003, 11:00 p.m.,*
in response to message #4 by Massimo Gnerucci (Italy)

You don't need the plotter module for barcode printing on the 82162A or 2225B IL printers. Only the XF module is needed if you want to print program barcodes, and of course the HP-IL module.

You can even print barcodes on an 82143A, but for this you'll have to modify it's hardware for half-line feed. There were articles about this topic in the PPC and CCD publications.

However, the plotter module has some very powerful functions to ease barcode creation, and if you're using an IL plotter, like the 7470A, you'll need it.

Raymond

Re: HP-41 wand module code printing

*Message #6 Posted by **Massimo Gnerucci (Italy)** on 29 Oct 2003, 11:14 p.m.,*
in response to message #5 by Raymond Del Tondo

Thanks Raymond, so I have to apologize.

[OT]: Is anybody sleeping here in Europe? ;-)

Massimo

Re: HP-41 wand module code printing

*Message #7 Posted by **Mark Hardman** on 29 Oct 2003, 10:22 p.m.,*
in response to message #3 by Michel Beaulieu

Our friend Gene has posted a variety of HP-41 programs for printing barcode on his web site. One requires the plotter module, another requires extended functions/memory, still another requires the IL DEV and CCD modules. All require synthetic.

http://www.rskey.org/gene/calcmuseum/41bc.htm

Mark Hardman

Re: HP-41 barcode plot with EMU41

*Message #8 Posted by **Christoph Klug** on 30 Oct 2003, 3:23 a.m.,*
in response to message #7 by Mark Hardman

Hi HP41 barcode enthusiasts :

Take EMU41 with virtual SKWIDINK module running on your PC. A Laser printer gives your best barcode plott quality. Programm upload from HP41 to EMU41 is possible with HP-IL/PC interface card.

From this system solution resulting much more advanced applications : Refer to HP-Museum articles forum item 311 "HP41-PC gateway & emulator"...

Best wishes from Germany - Christoph Klug

Re: HP-41 wand module code printing

*Message #9 Posted by **Mike (Stgt)** on 30 Oct 2003, 9:53 a.m.,*
in response to message #1 by Michel Beaulieu

Why won't you write your own prgm from the scratch? With the 2225B it's plain fun! (At least it was for me several years ago.)

Ciao.....Mike

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HP 12C w/o serial #?

*Message #1 Posted by **Sandinista** on 29 Oct 2003, 3:27 p.m.*

G'day fellas,

I was given a used 12C in mint conditions, with manual but no box. The calculator is made in China and, strangely enough, doesn't have a serial number. Is this normal on the Chinese batch or do I have a counterfeit?

Cheers, August

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HP 22 - Batteries

*Message #1 Posted by **Peter S. Dworkis** on 29 Oct 2003, 2:36 p.m.*

Any help will be appreciated. I am looking for the mah rating for the HP 22. They appear to be the size of AA batteries and I would like to open the battery case and replace the batteries.

Thank you

Re: HP 22 - Batteries

*Message #2 Posted by **hugh** on 29 Oct 2003, 3:19 p.m.,*
in response to message #1 by Peter S. Dworkis

i found a better way to replace the pack batteries than cutting the side of the plastic. here:

http://www.voidware.com/calcs/woodstock_repairs.htm

this page is not finished. i'm still repairing the keyboard :-)

good luck.

Re: HP 22 - Batteries

*Message #3 Posted by **Randy** on 29 Oct 2003, 7:13 p.m.,*
in response to message #1 by Peter S. Dworkis

The original HP AA nicads were 700 mah. These are still made by Sanyo, see the pages here on batteries. You can sub 1100 mah nicads as well, just allow for 50% longer charging times.

You can of course use alkaline and lithium AA's - but under no circumstances should the charger be anywhere near the unit when you do this.

You can also use the super-extended capacity ni-mh rechargeables at 1850 mah - but you must recharge externally. This is really the best way to preserve your 21 or any woodstock as plugging in a unit with a dead or missing battery is the most common way to kill it.

Re: HP 22 - Batteries

*Message #4 Posted by **David Smith** on 30 Oct 2003, 1:30 p.m.,*
in response to message #3 by Randy

Although it is recommended that you always recharge a woodstock battery pack externally (to prevent possible overvoltage damage to the calculator electronics), NiMH cells recharge just fine in the machine... well as well as any NiCads. Since their capacity is three times as large as the originals, you need to charge them three times as long to get a full charge.

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32E - three or four chips?

*Message #1 Posted by **Michael Meyer** on 29 Oct 2003, 2:19 p.m.*

Hi all!

I just got a 32E, as of now non-functional. It has 3 chips, with a blank between the smaller chips. Is that right for this model, or is it missing one?

Thanks! RTN2RPN, Michael

Re: 32E - three or four chips?

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 29 Oct 2003, 3:54 p.m.,*
in response to message #1 by Michael Meyer

I have a HP-32E also (solderless version), and it has 2 chips and a spare space. I think that are 2 roms and the cpu.

Good luck!

Nelson

Re: 32E - three or four chips?

*Message #3 Posted by **Michael Meyer** on 29 Oct 2003, 6:47 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Thanks Nelson!

This one has some corrosion on the battery ribbon cable. Seems to be an achille's heel of this series: corrosion breaks continuity at the junction of the exposed copper and the protective plastic top layer at the distal end. Most have been restored by simply splicing the cable (running new wires from the battery contacts to the proximal ribbon cable). (I don't know if engineers talk in those terms, but they work for anatomy)...

Take care, Michael

It works great!

*Message #4 Posted by **Michael Meyer** on 30 Oct 2003, 1:21 a.m.,*
in response to message #3 by Michael Meyer

Well, As usual, bypassing the ribbon cable worked fine, and the calculator looks and works like new. Not bad for $13. Thanks for you help!

RTN2RPN Michael

Re: It works great!

*Message #5 Posted by **John L Shelton** on 31 Oct 2003, 7:00 a.m.,*
in response to message #4 by Michael Meyer

Well, 20.50 if you include shipping. I was surprised the auction didn't go any further, but was pleased to hear that you were able to get it going again.

=John=

Re: It works great!

*Message #6 Posted by **Michael Meyer** on 31 Oct 2003, 11:20 p.m.,*
in response to message #5 by John L Shelton

Thanks. If it's any consolation, it did go to a very good home <grin>!!

Michael

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34C weights

*Message #1 Posted by **james (UK)** on 29 Oct 2003, 8:39 a.m.*

Since my last queries on the 34C Calling Captain Zener I have been thinking about how to tell whether mine is a solderless one without finding a crowbar to lever the case halves apart - is weight a reliable indicator? The 34C specs in the Museum give the weight as between 6oz and 8oz with earlier models weighing about 1.5 oz more than later. Mine tops out at 6.5oz - is it safe to infer that mine is a later model and has soldered chips or do I need to have a couple of stiff drinks and go inside the machine?

Captain Zener to the Rescue...

*Message #2 Posted by **CAPTAIN ZENER** on 29 Oct 2003, 3:52 p.m.,*
in response to message #1 by james (UK)

Sorry to have missed your urgent cries for help, but even if you were on a speeding locomotive that just shot off a cliff, on October 17th, Captain Zener was preoccupied on the planet Krypton with this georgeous Hollywood gal wearing a tinfoil brazierre.

NOW THEN.....

Dear Captain Zener

1) The dreaded 2 disease - fortunately it seems to be OK with full blanking when calculating functions (eg the Gamma function) - is there any preventative maintenance that can/should be undertaken to try and keep it sound?

YES DONT TAKE IT APART!!!!!!! Here is the best plan to avoid "2 disease", based on our limited knowledge thus far ..... if it works properly, do not disassemble to the level where the chips fall out. YOu can, however, take it apart enough to lubricate the slide switches :o)

If it's a soldered unit, you really stand a good chance that it will keep on tickin' for the long haul.

If its a solderless unit, use it and enjoy it until the very first bit of obvious unreliability (display flickers, you get an "Error 9" etc etc). Then its like you have a kidney stone and you have to go to the hospital. And who knows if it will be fixed right or not.... you have to take a chance then. At that point you DO take it apart and you DO have the chips fall out onto your desktop. You have to clean all the contacts underneath all the chips, use a bit of lube-oil to help keep things bright & shiny, and then reassemble.

(that's the Luiz Viera plan, haven't heard from him in awhile).

THE PROBLEM is if you take it apart to the chip level, and try to clean each leg of each chip, your ESD (your polyester socks, the flourescent lamp whining overhead, etc) are going to induce "2 disease" into the prehistoric non-ESD protected chips (probably NMOS, etc, or heck maybe they are bipolar, except bipolar was fairly rugged, so must be NMOS w/o static protection).

At that point you would be on a metal desktop, with aluminum foil stuffed into your socks and alligator clips grounding you to the desktop surface. At that point MAYBE you would not destroy the chips (50-50 chance) I

have yet to try these methods but have great fear, just because one can, in theory enter the cave and slay the dragon, does not mean you will succeed when YOU try it.

"2 disease" is a miserable outcome, like you are still alive but you are stuck in a wheelchair, its just not the same as being 100% functional.

**** So in summary, and I hope I did answer clearly, take it apart and lube the slide switche (I preferred a Q-tip well-moistened with "TRI FLOW" which is a WD-40 with Teflon particles added) and don't take it down to the chip level. Even for taking apart just to the circuit board level, it would be prudent to ground your own body to one of the battery terminals of the calculator, or to the main circuit board frame, even while lubricating the slide switches. (aluminum foil stuffed into your smelly moist socks would be a very expedient ground path).

2) I haven't psyched myself up yet to try and open it - without opening it is there anyway to tell whether it has the solderless construction - serial no. 2033S?

Weight really and truly is a good indicator. If its "heavy" its probably solderless. If its "light" its soldered. Just use your best imagination and judgement.

3) Should I open it anyway in order to lubricate the on-off and run-prog switches?

Yes. If you plan to use it more than once a month.

4) What's the best stuff to clean the display (a few minor scratches) and the keyboard (suffering from bits of sticky black plastic from the pouch - I have just put the pouch through the washing machine [yes - I remembered to take the 34C out first] following a post I saw a while ago on the forum which did the trick on a 41CV pouch which suffered from the same problem)?

I've never had to cover up any scratches, most people wind up recommending Armor All, or other equivalent automotive products (dashboard polish, etc).

WELL THAT'S IT FROM CAPTAIN ZENER.... and about that gal on Planet Krypton, her name is Kryptonia and that tinfoil brazierre is just too hard to forget.... so I'm up and awayyyyyyyyyy..... until next time!

- CZ

aluminum capacitors

*Message #3 Posted by **CAPTAIN ZENER** on 29 Oct 2003, 3:58 p.m.,*
in response to message #2 by CAPTAIN ZENER

If you do take the electronics module apart on a SPICE calculator, there are two aluminum electrolytic capacitors on the power supply board. It would be prudent to replace them with dipped-tantalum so that they never need to be serviced again.

Their values are unpopular (22uF, 10V dipped tantalum replacements) therefore have to locate them in advance of taking the unit apart.

These are all reasons why SPICE calculators are just tough enough to service that there ought to be a little service shop somewhere to deal with it (my garage?).

Rubber keypad membranes are not always present. Its a part that we ought to be able to have tooled up and more of them stamped. I tried to specify the material and simply could not thus far. There is a "dry lubricant" on the rubber sheet. I will however try again in the future.

BTW if any of us gets the least-bit serious about the SPICE calculator series, it ought to be fairly easy to have new manuals printed up, new boxes printed up, and a textile sewing shop make us a few thousand new HP furry cases.

C'mon guys.... think big! We can slay the Carly beast !

Thanks for the info Captain.....

*Message #4 Posted by **james (UK)** on 30 Oct 2003, 5:50 p.m.,*
in response to message #2 by CAPTAIN ZENER

At least it looks as if mine is soldered from the weight so one less thing to lie awake at night worrying about. My 34C is in daily use at the moment as I'm still exploring it (code for being so over the moon with it that I can't keep my hands off it - another advantage of red leds - you can still play with it at night!!) so I guess I will need to have a go at lubing the switches.

Enjoy Kryptonia, the tinfoil bra should sort any static! And keep a wary eye out for any lumps of Carlyite lying around.

Thanks again.

Carlyite kills everything, HP-34C rules

*Message #5 Posted by **CAPTAIN ZENER** on 31 Oct 2003, 4:50 a.m.,*
in response to message #4 by james (UK)

Glad to hear you are enamored with your HP-34C . Isn't it a sweetheart? Captain Zener says confidence it could be manufactured profitably even now, because it's just that cool. There is however an MBA Mafia Marketeer's society that says 'nay nay nay' and some are even on this chat board. They are kind of like sheep. Sheep say 'baah baaah baah'.

Yes, Carlyite kills everything. It's a real bitch if you get any on you.

Back to that tinfoil brazierre..... yeah, the tinfoil must offer ESD protection.

But I can "run the system" with the ESD protection removed.

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Recent HP Sitings

*Message #1 Posted by **Ben Salinas** on 28 Oct 2003, 11:20 p.m.*

Just to fill you in on a few recent HP sitings. Today, (about 2 minutes ago) I was checking my mail (from yahoo) and there was an ad for "Bank Of America". On the ad is a large message on the left. On teh right, there is a calculator with numbers running accross in front of it. I noticed that the calculator looked like a HP (had the completely black look), and so I zoomed in on the picture, and sure enough, it said "10B" in the corner. It looks like they "whited out" the HP logo (unless the 10B has no logo), but any trained eye knows what it is.

Also, a few days ago I was watching a Bill Nye the Science Guy video in physics (No, we do not regularly watch videos, but my teacher got sick that morning, and had nothing that a substitute could teach), and they were doing one of thier "interview a scientist and show that science is cool interviews". There was a quick pan across this man's desk, and I caught a glimpse of a gold calculator. I immediately said "12C," and my friend next to me said "What?". I replied, "The calculator on his desk is an HP 12C". Sure enough, a few moments later, it zoomed in, and you had a closer view of the calculator. I was pretty sure that it was a 12C, but now I am starting to wonder, "Would an engineer really use a calculator that you have to emulate functions such as sin and cos?" Perhaps it was one of the others in the series which is similarly colored (I am not familiar with all of them)

-Ben

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Programs name : i don't understand?

*Message #1 Posted by **Frederic** on 28 Oct 2003, 9:30 p.m.*

Hi,

I'm porbably missing something but i read this forum everyday and i can read the reviews of many HP programmable calculators like the 15C, 41C, 34C, 25C, 65, 67 and other classic one. These, i thinks, are the most love one here.

I tried learning programming all of these and i found that the only one that can have more than one program in memory at the same time is the the 41 series. I especially love the 15C but i need a calculator that can take more than one program at a time, like 10 programs or more! On the 15C, after using a program, i erase it and enter another one i need. I also tried to put a new program at the end of the last i entered as i enter it as new label in my original program... But this way, the "master" program is becomming very big and less ergonomic to use and modify all the labels that acts as new programs...

Is there a way to enter 10 INDIVIDUALS programs on all these calculators like it is possible on the 41C? I'm sure it is possible because all comments about the the 15C are as positive as the 41C so...

Re: Programs name : i don't understand?

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 28 Oct 2003, 9:36 p.m.,*
in response to message #1 by Frederic

The HP-42S have the capability to store several programs by name, and have all 15C's functions and many more, and is software-compatible with the 41C. I just love it! (BTW I have all three, 15C, 41CV, 42S).

Best regards,

Nelson

Re: Programs name : i don't understand?

*Message #3 Posted by **Richard Garner** on 28 Oct 2003, 10:14 p.m.,*
in response to message #1 by Frederic

I no longer have a 15C, but if I remember the manual correctly, you can have multiple programs in it if you use the A - F keys as the program labels. You will probably need to start at the end of the previous program and continue with the line numbers, but I remember doing that. You may have to setup a display that would alert you for your number entries at a prompt or load the stack before running the program.

Hope this helps. Richard

Re: Programs name : i don't understand?

*Message #4 Posted by **Ed Look** on 28 Oct 2003, 11:18 p.m.,*
in response to message #3 by Richard Garner

Shoot! Even the 34C could in this way theoretically have multiple programs (h LBL A, h LBL B, or h LBL <some single digit; I liked 0>), but I think the complaint is, unless I misread him, is that these machines, 34C, 15C, are quite limited in RAM. The 34C had to "steal" register memory to make more program lines (7 lines for one register), so if you had some data in such a register, it was gone, though.

I must be getting old; I rolled those keystrokes right off and it's been YEARS since I actually did it; I couldn't do that with the 32SII or 48G+ (and definitely not the 49G+).

Oh, even so, I think the 15C and 34C (and 32S series) might also run out of labels for subroutines after a while and some are invalidated for other reasons, but right now I can't remember what (so I might be wrong here, I hope). But these new 48G series and 49G series tricorders don't use labeled addressing of subroutine branches. I'm still trying to teach myself these, so I won't comment much more on this except to say that I think they look so far to me like you may not really ever run out of "labels" (incorrect term for these newer machines) for programs.

Re: Programs name : i don't understand?

*Message #5 Posted by **Ernie Malaga** on 28 Oct 2003, 11:51 p.m.,*
in response to message #4 by Ed Look

Ed:

I think the problem that Frederic is alluding to is that, in every programmable calculator except the 41 and 42, the programs you write aren't truly independent. Putting it into 41 terms, the labels are all global instead of local. If the "program" at LBL A has a GTO 7 and LBL 7 (by oversight) is in the "program" at LBL B, running program A executes part of the code of program B, giving rise to all sorts of problems.

I loved the 65 and the 67, but they share this problem as well. The 41, on the other hand, has that all-important END instruction that creates hard boundaries between programs and guarantees that LBL 07 is truly local.

Did I get your question right, Fred?

-Ernie

Re: Programs name : i don't understand?

*Message #6 Posted by **Richard Garner** on 29 Oct 2003, 12:59 a.m.,*
in response to message #5 by Ernie Malaga

Ernie,

Thanks for reminding me about the local and global labels, I had forgotten about that. The program code would have to be slim-lined with little to no spaghetti and no duplication of subroutine labels between programs, or that would cause problems.

Re: Programs name : i don't understand?

*Message #7 Posted by **Ed Look** on 29 Oct 2003, 1:17 a.m.,*
in response to message #6 by Richard Garner

Ah, I see. Yes, I did have problems in those days with exactly that. Local variables would have kept you from worrying about something as trivial as labels for a subroutine, something that I know the 48G series has, so I assume the 49G series must have, also.

Would it have been too (much more) cumbersome for a design EE to have built that into the hardwiring (or at least firmware) in circuits like in a 34C or 15C?

If not, that'd be a great feature to put into a "replacement" or "reissue" type scientific programmable. This would truly be a time saver, as there'd be one less small thing (easily overlooked) to worry about. Good thinking, gentlemen!

Individual programs vs. Neumann Janos

*Message #8 Posted by **Tizedes Csaba** on 29 Oct 2003, 2:34 a.m.,*
in response to message #1 by Frederic

I never seem individual progs. When Neumann Janos invented how the computers stores the progs and datas, the individuality of progs are stopped.

We have got only one memory - we have got only one program.

Labels, subroutines, program names are just humbug... :)

Csaba

ps.: Neumann Janos == John von Neumann, but I'm a hungarian, and Neumann Janos was a hungarian, so...

Multiple programs in the 11C, 15C and 34C

*Message #9 Posted by **Karl Schneider** on 29 Oct 2003, 3:16 a.m.,*
in response to message #1 by Frederic

Ernie --

I think that Ernie Malaga identified the crux of the issue -- END statements allowing separation of program units in the 41C* and 42S, with alphanumeric "global" and numeric or single-character "local" labels.

My contrast, the other calcs you mention lack the END statement, and all labels are effectively "global". This makes it more dificult to manage libraries of separate programs.

Here's how to get around this problem on the 11C, 15C, and 34C. (NOTE: These instructions will NOT work on the 10C or 12C -- they have no labels or line-delete key; programs cannot be edited and subroutine-calls can be emulated only with GTO to line numbers.)

The 15C offers 25 labels: A-E, 0-9, and .0-.9 The 34C offers 12 labels: A, B, 0-9. (I'd have to look up the 11C on this website.)

1. Before assigning a label in a program (e.g., LBL A), exit program mode and try to go to that label in run mode(e.g., GTO A). If the display returns without error, the label is in use; try others one-by-one, until you get an error message, then use that one.

2. Put a "return" statement (RTN) at the end of every routine. That way, any routine will stop when completed, and individual routines can be executed.

3. You may delete an individual routine line-by-line on these three calcs by pressing the back arrow (11C, 15C) or the DEL instruction (34C), starting with the last instruction in the routine. However, CLEAR PROGRAM in PRGM mode will wipe out all user programming in one fell swoop.

Best prog calculator!!!

*Message #10 Posted by **Frederic** on 29 Oct 2003, 8:33 a.m.,*
in response to message #9 by Karl Schneider

Ok, understand what you mean for the 15C or the 34C. I just try it on my 15C and it works; thanks!

I think it's a way to do multiple programs on a 15C but... it's not very "cool" in my opinion... HP-15C were created after the 41C no? why don't they include this important ergonomic feature in the 15C (the end function)?

And what about the "XEQ" button : i don't see it on any other programmable one!?!? And i think it's the master key on a 41C no? And the user key - I really like the fact that the calculator don't make the difference between my program and ROM program - especially when i can "program" a key to execute my own program like any other key on the 41.

I read about the 31SII here as a great calculator; is there a ROM capability of naming program independently?

I all stop programming HP, TI, casio and sharp calculators because of this lack except the 41C; which HP should i bought to find this feature (no graphing; i don't like these for my hobby, just for the job...)

If there is no other one, is it possible that the old 41C is the best programmable calculator ever produce so i can stop buying HP calculators because i already have the best one???

Edited: 29 Oct 2003, 8:50 a.m.

XEQ

*Message #11 Posted by **bill platt** on 29 Oct 2003, 9:31 a.m.,*
in response to message #10 by Frederic

Hi Frederic,

On the 41 series, and the 32s, 32sii (and maybe the 42--I don't know that one) the "XEQ" key calls any labelled routine and runs it. On the 15c and 11c, the GSB does the same thing. (In other words, in RUN mode, pushing GSB <label> will do the same thing as XEQ <label> does on the 41.

On the 15c and 11c, the normal way to start running a program is to push f <label>. This does exactly the same thing as pushing GSB <lbl>.

But the really cool thing on the 15c and 11c is the "user mode" which switches the "f" key and the unshifted position for keys A-E, so that to run a program labelled "E", in user mode, you merely push "E" (which is the 1/x key).

Note that there are some subtle differences between labelling with letters versus labelling with numbers---only the letters can be called in one keypress using user mode. But GSB <label> will run any routine from run mode.

Of course you understand the difference between GSB and GTO in program mode-right? GSB will return to the routine that called it, whereas GTO will return to line 000-or go wherever the second routine goes!

Another thing about the 15c and 11c--the machine will allow you to accidentally put two different routines in with the same label--in which case, if that label is called, the program will go to the next one----this is why Karl suggested that you go out to RUN mode and search for the intended label

before using it--so that you don't find yourself with that mess!

In the 32sii, the machine will return an error message right in program mode, if you try to use a duplicate label.

Regards,

Bill

Re: Using limited label space

*Message #12 Posted by **Paul Brogger** on 29 Oct 2003, 10:32 a.m.,*
in response to message #11 by bill platt

The "feature" allowing multiple use of labels goes back to the 29C, if not beyond, and was designed in, not an accident. The idea is to allow "overloading" of labels because so few are available.

Thus, the main routine might be called "A", and it might repeatedly call subroutine "A" located further on in memory. This effectively provides a second label. The only hitch is that you have to make sure you start at line 000 to insure you invoke the main routine (the first "A" encountered) and not the subroutine from the keyboard.

With the 32s' 26 labels, it probably made sense to restrict each to a single use, despite that model also having relatively limited program memory.

Re: Using limited label space

*Message #13 Posted by **Ernie Malaga** on 29 Oct 2003, 12:08 p.m.,*
in response to message #12 by Paul Brogger

> Quote:
>
> The "feature" allowing multiple use of labels goes back to the 29C, if not beyond, and was designed in, not an accident. The idea is to allow "overloading" of labels because so few are available.

Actually that feature goes back all the way to the original HP-65. Amazing, isn't it?

-Ernie

Re: XEQ

*Message #14 Posted by **Ernie Malaga** on 29 Oct 2003, 12:06 p.m.,*
in response to message #11 by bill platt

I'm sure this must have been discussed time after time, but in case someone hasn't...

The names of the letters in "XEQ" is "ex-e-cue", which is pretty damn close to "execute." I've always thought it was a very clever mnemonic, and wondered who thought it up.

-Ernie

Re: XEQ

*Message #15 Posted by **Valentin Albillo** on 29 Oct 2003, 12:46 p.m.,*

in response to message #14 by Ernie Malaga

Ernie wrote:

"The names of the letters in "XEQ" is "ex-e-cue", which is pretty damn close to "execute." I've always thought it was a very clever mnemonic, and wondered who thought it up."

Command files in the (then) large HP3000 mainframe computer (circa 1972) had the .xeq extension (e.g.: cp.xeq, days.xeq, etc).

Best regards from V.

Re: Best prog calculator!!!

*Message #16 Posted by **Erik Ehrling (Sweden)** on 29 Oct 2003, 12:36 p.m.,*
in response to message #10 by Frederic

I have personally got stuck with the HP-42S as the "best calculator" for me and that I therefore can stop there. I am aware of that I might be influencing you to actually buy one at a quite high price from eBay (or similar source), but I would be surprised if you were disappointed. Especially if you are coming from the HP-41C(V/X) and the HP-15C. In a way the HP-42S combines some of the finest features of these two calculators (in fact I like to think of the HP-42S as a HP-41CV with the Advantage module, with much more memory, faster CPU, two-line LCD and a smaller form factor).

The only thing that could change my recommendation would be if HP decided to produce a successor to the HP-42S in its new calculator line. As I have pointed out in my (plentiful) previous postings in this forum, this is actually technically "within reach" for HP. They have the emulation of the Saturn CPU (the HP-49G+ uses it), the HP-42S supports 32K RAM (there are postings on this site telling how a standard HP-42S can be upgraded to 32K by just changing the 8K RAM chip to a 32K RAM chip) - and so on. Well, to put it shortly, I have personally not stopped hoping for such a calculator...

Best regards, Erik Ehrling (Sweden)

Re: Best prog calculator!!!

*Message #17 Posted by **Valentin Albillo** on 29 Oct 2003, 12:57 p.m.,*
in response to message #16 by Erik Ehrling (Sweden)

Erik posted:

"I like to think of the HP-42S as a HP-41CV with the Advantage module, with much more memory, faster CPU, two-line LCD and a smaller form factor)."

Yes, but you forgot " ... less I/O and any expandability at all". Don't get me wrong, I like the HP42S very much and think it's one of the finest HP calculators ever, but for me the lack of I/O for saving/loading programs and data is a tremendously big no-no, specially considering the much larger RAM.

That being so, I'd rather have an HP-41CX with Advantage ROM, PPC/HEPAX/ZEN ROM, a card reader and a number of card holders with plenty of programs recorded in magnetic cards, ready to load, plus a sizable number of blank cards for any programs or data I might develop anew. The enjoyment factor and actual possibilities would be far greater.

That said, an HP42S with card reader (or any other I/O allowing for easily recording/loading programs, say SD cards, or even a barcode reader of all things !) would be a real *killer* calc, if

there ever was one. I would order five at once ! :-)

Best regards from V.

Re: Best prog calculator!!!

*Message #18 Posted by **Richard Garner** on 29 Oct 2003, 4:14 p.m.,*
in response to message #17 by Valentin Albillo

> Quote:
>
> *That said, an HP42S with card reader (or any other I/O allowing for easily recording/loading programs, say SD cards, or even a barcode reader of all things !) would be a real *killer* calc, if there ever was one. I would order five at once!*

The problem with this is that you have just made the 42SII the same size as the 48GX. I think having the 32KB (or more) of RAM, read/write IR and a USB port would be enough in terms of hardware improvements. This would allow the calc to stay the same size that it is now. The only other improvement I would like to see is the 128 or so unit conversions that come with the 48G Series added to the 42SII. I work in the Planning Department for a city government and I am constantly having to convert Rods, Chains, Furlongs, Meters, Hectares, Acres, Square Feet, Miles, Kilometers, etc. from deeds, surveys, and subdivision plat. It would be nice to have the 48G unit conversions in something that would fit in my shirt pocket instead of hanging from my belt.

Re: Best prog calculator!!!

*Message #19 Posted by **Erik Ehrling (Sweden)** on 29 Oct 2003, 4:39 p.m.,*
in response to message #17 by Valentin Albillo

> Quote:
>
> Yes, but you forgot " ... less I/O and any expandability at all". Don't get me wrong, I like the HP42S very much and think it's one of the finest HP calculators ever, but for me the lack of I/O for saving/loading programs and data is a tremendously big no-no, specially considering the much larger RAM.

Yes, the lack of serial I/O is definitely a serious limitation and I would say that deliberately crippling the HP-42S by not giving it I/O can actually be called one of the worst mistakes HP has ever made! By not giving I/O to the HP-42S they killed a long line of very fine keystroke programmable four level RPN calcs: The HP-67 -> The HP-41C -> The HP-42S. (Hopefully they realise this and are willing to rectify it almost 15 years later...)

Theoretically I/O would be possible to add to the HP-42S. The CPU is able to create the signals needed and there is room for an additional 32K ROM that even allows for MCODE to be called from UserRPN! The "only" thing that is needed is a huge amount of Saturn Assembly expertise and good insights into electronics (unfortunately I have neither of the two).

> Quote:
>
> That being so, I'd rather have an HP-41CX with Advantage ROM, PPC/HEPAX/ZEN ROM, a card reader and a number of card holders with plenty of programs recorded in magnetic cards, ready to load, plus a sizable number of blank cards for any programs or data I might develop anew.

Well, I would actually prefer a double speed HP-48GX running HP-42X (if you haven't tried it you should!) to a fully equipped HP-41C(V/X). This setup gives you the I/O, roughly four times the speed of the HP-41C and 96K of RAM...

To wrap things up...

Three things to dream about:
- HP-42SII (or HP-42S Platinum?) with 32K RAM + I/O
- Hrastprogrammer developing HP-42X for the new HP-49G+
- Serial I/O for the original HP-42S

Best regards,
Erik Ehrling (Sweden)
Homepage:http://w1.322.telia.com/~u32220482/index.html

Re: Best prog calculator!!!

*Message #20 Posted by **Jim Chumbley** on 29 Oct 2003, 10:05 p.m.,*
in response to message #19 by Erik Ehrling (Sweden)

Yes, all true, perhaps, but you'd still miss the two most sensuous things about the HP-41CX: its "heft" and its keyboard. Count me among those who just love to hold it, touch it, look at it, and press its keys. I couldn't afford one when they were new, but now, with things a little better, I've managed to put together a brand new HP-41CX, brand-new printer, brand-new wand, and two rebuilt good-as-new card readers. My wife thinks I'm crazy. She might be right.

Re: Best prog calculator!!!

*Message #21 Posted by **HrastProgrammer** on 30 Oct 2003, 3:12 a.m.,*
in response to message #19 by Erik Ehrling (Sweden)

Well, I would actually prefer a double speed HP-48GX running HP-42X (if you haven't tried it you should!) to a fully equipped HP-41C(V/X). This setup gives you the I/O, roughly four times the speed of the HP-41C and 96K of RAM...

Not to mention that you can both HP-41X and HP-42X installed on the same machine so you can have HP-41X with 28K RAM and CCD/HEPAX/Printer/PPC/ZENROM/ADVANTAGE/CARDREADER/etc together with 96K RAM version of HP-42X at the same time ... if you have enough RAM ports, of course. If this isn't enough, you can install HP-71X with 160K RAM and Math/Forth/Assembler/HPIL/etc modules.

Regarding the HP-41X/42X/71X on HP-49G+: I am affraid that there won't be any FULL/EXTENDED versions of my emulators for this calculator because HP had very STUPIDLY dropped the size of Port1 from 256K to 128K (only one bank).

Best regards to Erik and all of you ...

Re: Best prog calculator!!!

*Message #22 Posted by **Holger S.** on 29 Oct 2003, 2:07 p.m.,*
in response to message #16 by Erik Ehrling (Sweden)

Hm. I always wonder how many (large) programs people develop for their calc. The 42S has what, 6kb or so. Even a somewhat complex routine needs only a few hundred bytes. What the heck do you key in there that you need 32kb??

Re: Best prog calculator!!!

*Message #23 Posted by **Marx Pio** on 29 Oct 2003, 4:56 p.m.,*
in response to message #22 by Holger S.

I think that we think about other users ;)

We need quite a few bytes to develop a simple routine for our own pourpouses, but our tendency is to keep the code more friendly, so we spend more and more bytes just to make a kindly of human and machine dialog.

My dream machine is a 49G+ in a size and keyboard layout of a 15C.

8^)

M_Pio

Re: Best prog calculator!!!

*Message #24 Posted by **Jim Chumbley** on 29 Oct 2003, 10:11 p.m.,*
in response to message #23 by Marx Pio

Yes, the same thing occurred to me as I plugged my 256MEGAbyte SD card into my -49g+.

Re: Best prog calculator!!!

*Message #25 Posted by **gigoli** on 29 Oct 2003, 5:33 p.m.,*
in response to message #10 by Frederic

Just get a 48/49 G series calculator. THey rock! I have over 50 large programs in my 49g and still have LOTS of memory left.

Conclusion?

*Message #26 Posted by **Frederic** on 29 Oct 2003, 8:15 p.m.,*
in response to message #25 by gigoli

I have a 48G but don'T learn it so much; i like keystroke programming? it it? RPL??? humm..

So the 41CX is the best for programmability and I/O capability and not so bad for direct calculation! Where can i find a "advantage module"? what it adds to my calc? I already have the stat/math module and it's great!

If the 42 cna't be plug on my 41CX printer it's not cool..

Just for fun, i have a CX with double memory module install : How can i convert "register" in KBytes? In another word a fully load 41CX have how much memory in KB?

Mine is full, no more momory so i use card reader. It should be great to add about 5000 registers of memory to the calc so i can have all my programs in the calculator.

41 & 42 (was: Conclusion?)

*Message #27 Posted by **Karl Schneider** on 29 Oct 2003, 10:49 p.m.,*
in response to message #26 by Frederic

Frederic --

If you want a well-equipped 41C*, you should get an Advantage Pac (at least the module and manual).

Try eBay or the MoHPC Classifieds; expect to pay at least US$50. A scan of the manual can be obtained on the CD-ROM or DVD-ROM set from MoHPC.

The 42S has an IR output for the 82240B or older 82240A printers. Try eBay.

The 41CX has 124 extended registers built-in; each X-Memory module provides 238 registers, for a total of 600 extended registers. At 7 bytes apiece, that's 4200 bytes of extended memory. You can store programs, data, and text in the X-memory, but you cannot run programs from it.

You'll need to keep buying...

*Message #28 Posted by **james (UK)** on 30 Oct 2003, 6:24 p.m.,*
in response to message #10 by Frederic

If you're like me you'll still need to keep buying HP calculators as you can never have too many - afterall you need a backup 41 in case your 41 gets sick, and a backup for the backup and so on - plus if you get more than a couple of modules you need storage for them and the best module holder I've found is a 41! ;-)

And then, of course, you succumb to the seductive red glow of leds but I won't go there for the moment.

James

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Anyone with a 49g+ serial >cn334...??

*Message #1 Posted by **JohnW** on 28 Oct 2003, 7:35 p.m.*

Just wondering if anyone has a new 49g+ with a Serial Number newer than CN334xxxxx? Just wondering if some of the early bugs have been fixed yet?

Also, does anyone whose followed HP Calcs through the years know if other newly introduced HP calculators had similar type early problems too??? Please only respond for calcs that were made earlier than the 48 series....

Thanks.

Re: Anyone with a 49g+ serial >cn334...??

*Message #2 Posted by **Ernie Malaga** on 28 Oct 2003, 8:06 p.m.,*
in response to message #1 by JohnW

> Quote:
>
> Also, does anyone whose followed HP Calcs through the years know if other newly introduced HP calculators had similar type early problems too??? Please only respond for calcs that were made earlier than the 48 series....

Most definitely. The best-documented example is the HP-41C. It had a dozen or so bugs, and they were given numbers. Bug #2, for example, allowed you to set or clear flags greater than 29, if done indirectly. Bug #3 (I think) allowed you to store program lines into memory registers -- again, by doing it indirectly. This gave rise to the Synthetic Programming fever, of which I took a very tiny part.

Happy programming.

-Ernie

Re: Anyone with a 49g+ serial >cn334...??

*Message #3 Posted by **Arnaud Amiel** on 29 Oct 2003, 6:01 a.m.,*
in response to message #1 by JohnW

As far as the new hardware glitches are concerned: I have a 45 that is older than me but whose original owner confirmed that the [1/x] key never worked reliably, he always used logs then. So missed keys is not something new. What is more on this model the bottom "hp45" sticker is not even straight. Some people criticise the Chinese quality control. I should say that the US one was not much better then. However, apart from the battery pack that I have been in the process of trying to begin to restore for the last three months or so, the calc is still running strong.

Arnaud

Re: Anyone with a 49g+ serial >cn334...??

*Message #4 Posted by **Jim Chumbley** on 29 Oct 2003, 10:27 p.m.,*
in response to message #1 by JohnW

Hi, John. I might qualify to help answer the concern. My first 49g+ was bought on 10/7/2003, was delivered on 10/8/2003, and failed on 10/26/2003. This machine's serial number is: CN33103995, and it was delivered with a ROM image of 1.19. Very interesting to me was the reaction of HP's Customer Support team when I called them asking them to please call 911. They swear that this serial number is earlier than ANY delivered -49g+, and from this they conclude that my machine MUST be some other model, some other calculator. The new machine, which just arrived today, 10/29/2003, is serial number CN33404556 and contains a ROM image of 1.20. My retailer told me that it was from the second production run of the -49g+s. My conclusion: The machines are identical in touch, feel, and appearance, but not--let us hope--in reliability.

Re: Anyone with a 49g+ serial >cn334...??

*Message #5 Posted by **r. d. bärtschiger.** on 29 Oct 2003, 10:40 p.m.,*
in response to message #4 by Jim Chumbley

My HP-49G+ which arrived 24-Sep-2003 has a serial no. of:

CN33101...

which is about 2000 lower than your number.

rdb.

Re: Anyone with a 49g+ serial >cn334...??

*Message #6 Posted by **Jim Chumbley** on 30 Oct 2003, 10:43 p.m.,*
in response to message #5 by r. d. bärtschiger.

Then I wonder what model calculator HP Customer Service thinks yours is???

Re: Anyone with a 49g+ serial >cn334...??

*Message #7 Posted by **James M. Prange** on 31 Oct 2003, 12:49 a.m.,*
in response to message #6 by Jim Chumbley

49g+Beta?

Re: Anyone with a 49g+ serial >cn334...??

*Message #8 Posted by **Anonymous** on 3 Nov 2003, 9:50 a.m.,*
in response to message #7 by James M. Prange

The 49g+ was released in other parts of the world, more then a month before they released the calculator in the United States. It is possible to get old serial and ROM versions. The US models should have a ROM of 1.20 or higher, but should come with the ROM version 1.22.

Re: Anyone with a 49g+ serial >cn334...??

*Message #9 Posted by **James M. Prange** on 3 Nov 2003, 2:33 p.m.,*
in response to message #8 by Anonymous

You may have something there. Maybe these low serial number 49g+es were intended to go

out to those durn foreigners as beta test units, but imported to the U.S.A. as grey market items.

Just kidding (mostly).

Mine came from Samon Cables with an external serial CN331..., internal serial CN337..., and ROM revision #1.20.

Regards,
James

My serial # is CN333040946

*Message #10 Posted by **CalcKidd** on 7 Nov 2003, 9:20 a.m.,*
in response to message #9 by James M. Prange

Came with 1.19 (which I immediately upgraded to 1.22).

Flickers and sometimes seems to forget what key I pressed.

Bought it from Samon Cables.

FYI

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49G+/SD card: Epilogue

*Message #1 Posted by **Ernie Malaga** on 28 Oct 2003, 6:42 p.m.*

I got the SD card to work. Finally! It turned out that the card had to be formatted using FAT16. I have no idea what format it used before. In any case, the upgrade to ROM 1.22 went successfully.

I want to thank you each and every correspondent in this forum who coached me and offered ideas for the solution of the problem. I am particularly indebted to Tom Scott, who emailed the de-EXE'd files the 49G+ required.

I couldn't have done it on my own. That's one reason why this forum is such a great resource. Thank you all.

-Ernie

Re: 49G+/SD card: Epilogue

*Message #2 Posted by **Tom Scott** on 28 Oct 2003, 9:08 p.m.,*
in response to message #1 by Ernie Malaga

That's what's so nice about this forum. There are a lot of really helpful people here. For example, I bought an HP-67 on eBay which was in horrible shape (despite the lies of the seller). I felt awful about paying so much for such a poor quality device but the seller was non-responsive. A forum member (Michael Meyer) volunteered to restore it, which he did at no cost to me. He spent a great deal of time and effort getting it to function properly again and yet he refused any payment. There must be something about calculators that attracts good people!

Tom Scott

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49G+ & 48GII

*Message #1 Posted by **CalcKidd** on 28 Oct 2003, 5:58 p.m.*

My 49G+ accepts a 256MB SD card just fine (FYI).

Just got 48GII today, though have not opened it. Don' t think I ever will either... just got it to have, not to use. 49G+ will be #1 calc for now, since 48GII is a step down. Yeah, I know... crazy.

However, I still like to use my 41CX - for nostalgic sake.

HP49G+ is TRASH, HP41 is best !!!

*Message #2 Posted by **Linda** on 30 Oct 2003, 9:39 a.m.,*
in response to message #1 by CalcKidd

HP-41 is best, f... the rest .... HP49G+ is TRASH, garbage !!! and HP48GII is even worse!

Why using such calculators ? Use subnotebook with Mathematica, Maple, Origin, Matlab, Excel. It is 1000 times faster on my 1.2GHz laptop than HP49G+, there is much more functionality, human interface is more comfortable and easy. 3D graphics are great at 768x1024, not that "funny" dot LCD of a HP49G+ ...

For calculator tasks and playing, hacking etc., take HP-41. It is the best calc ever built!

So, take notebook with good sofware plus HP-41 and throw away the new garbage ...

Re: HP49G+ is TRASH, HP41 is best !!!

*Message #3 Posted by **John Limpert** on 30 Oct 2003, 3:04 p.m.,*
in response to message #2 by Linda

> Quote:
>
> Use subnotebook with Mathematica, Maple, Origin, Matlab, Excel.

That sounds nice. The only problem is the cost. An expensive subnotebook computer and one or more very expensive software packages.

I'm not thrilled about the HP-41. Mine died a few months ago. They seem to have some long-term reliability problems, judging from what I've read.

Re: HP49G+ is TRASH, HP41 is best !!!

*Message #4 Posted by **Raymond Del Tondo** on 30 Oct 2003, 5:24 p.m.,*
in response to message #3 by John Limpert

If your HP-41 died only some months ago, I don't think it had a 'long-term reliability problem'. Remember that your HP-41 must be at least 14 years old, and depending on how intensively you used

it, the machine may have done a good job for you.

Raymond

Re: HP49G+ is TRASH, HP41 is best !!!

*Message #5 Posted by **John Limpert** on 30 Oct 2003, 11:20 p.m.,*
in response to message #4 by Raymond Del Tondo

It (HP-41C) must have been 20+ years old when it died. I was disappointed because it was the first time a HP calculator has failed on me, and I've been buying them since the HP-35. I sold all of my HP LED calculators many years ago, so maybe I've just been lucky.

Re: HP49G+ is TRASH, HP41 is best !!!

*Message #6 Posted by **Bill Wiese** on 31 Oct 2003, 1:42 p.m.,*
in response to message #2 by Linda

Perhaps I wouldn't put it quite so severely, but I do have a fondness for the HP41s and HP42S that goes beyond reason.

Most all of us here prob. have PCs or laptop PCs as well. If I need to do math requiring a 48, I'm better off using something like Matlab.

The 48 is not really, to me, a good "playing with numbers" calculator - esp w/o a standard 4-level XYZT+L stack and large ENTER key. 32S is useful however, and I still like the Woodstock keyboard layout & formfactor too.

Glad I have some calcs stored away for the future ;)

Bill Wiese San Jose, CA

Re: HP49G+ is TRASH, HP41 is best !!!

*Message #7 Posted by **Raymond Del Tondo** on 31 Oct 2003, 4:50 p.m.,*
in response to message #6 by Bill Wiese

BTW: The real HP-48 does indeed have a large ENTER key, and with an HP-41CV emulator, it even has LASTx ;-) The keyboard ergonomics on the HP-48 are the same as on the 42S and 32S. And even better, you can see more than only one number simultanously.

However, for just adding a few numbers I mostly take an HP-41, of course.

Raymond

mathematica on a pda - even better

*Message #8 Posted by **harryb** on 7 Nov 2003, 5:44 a.m.,*
in response to message #7 by Raymond Del Tondo

here here! the 41 was the best of the best.

mathematica on a laptop (student version costs about the same as a 49g+) is the way to go... you just need to spend a few hours learning the ropes..

BUT ... you know what I would love to see...

Mathematica for a PDA OS! Now that would kick the ass out of any calculator. You basically choose the hardware platform of your choice and just load mathematica on it.. Rock on!

imagine writing the equations on the screen with a stylus... colour 3d graphics... total symbolic math... rearranging equations on the fly without the need to type and then visualizing the effects...

Stephen (W.) are you listening!!!!!

Here's a whole new income stream/market for you man...

Give "A new kind of science" a break and get your codecutters to port a scaled down version of mathematica so that us students can have a break!

RPN on an RPL machine

*Message #9 Posted by **bill platt** on 7 Nov 2003, 9:52 a.m.,*
in response to message #7 by Raymond Del Tondo

Hi Raymond,

A while back I got a great little tiny user RPL routine here on the forum, which makes lastx available for use on the RPL stack! It works almost exactly like the RPN lastx--- (there are some subtle differences but for most computational work ii is functionally identical):

<< DEPTH -> d << LASTARG DEPTH d - ROLLD LASTARG 1 - DROPN DUP DROP >> >>

I put it onto USER KEY "alpha enter" and so it is almost the same keystrokes as a 10c series! (You just ahve to remember to turn alpha off before hitting enter, if you had been writing text, or you will both enter your TEXT, [into level 2] and LASTx [into level 1])/ Other than that one minor annoyance, I find it very useful, and it lives in my home directory.

I suppose a savvy programmer could make a 4 level stack emulation, too.

In fact, I am surprised that I have not yet run across a sysRPL or UserRPL program to simulate a voyager or pioneer system--but right in the RPL shell....that would be very useful.

BTW I also have the Hrastprogrammer 41series emulator on my 48gx's and I use it frequently---it is nice to be able to do RPN keystroke programming on the 48---or to take a program that I have written on the RPN and just plunk it in there--to have all on one calculator is nice for travel.

Best regards,

Bill

Re: RPN on an RPL machine

*Message #10 Posted by **Raymond Del Tondo** on 8 Nov 2003, 1:17 a.m.,*
in response to message #9 by bill platt

Hi Bill,

yes, I remember the thread. Actually, if I want HP-41 feeling on my 48GX, I also start an HP-41 emulator (EMU41CV) from Zengrange.

There exists an HP-16C emulator for the HP-48 . Ok, it doesn't mimic voyager hardware, but

16C number manipulation features.

Best Regards,

Raymond

Re: RPN on an RPL machine

*Message #11 Posted by **James M. Prange** on 8 Nov 2003, 8:52 a.m.,*
in response to message #9 by bill platt

> Quote:
>
> << DEPTH -> d << LASTARG DEPTH d - ROLLD LASTARG 1 - DROPN DUP DROP >> >>

But note that on the RPL calculators, the last arguments save can be disabled, and when it's enabled again, the buffer is empty. For dealing with IFERROR, I often find it easier to disable last arguments save. Sometime the last thing that my programs do is restore the original flags, and thus (presumably) re-enable last arguments save. If you run the above under that condition, it errors, and if you run it again, it returns -1. But it is better than some that I've seen; at least repeated runs return the same value due to the DUP DROP at the end. Try the following:

```
\<<
  DEPTH \-> d
  \<<
    LASTARG DEPTH d -
    IF
      DUP
    THEN
      DUP2 2 + ROLLD DROPN
    END
    DUP DROP
  \>>
\>>
```

This one returns 0 in the event that the last arguments buffer is empty. Of course, if last arguments save is disabled, then it errors out.

> Quote:
>
> I suppose a savvy programmer could make a 4 level stack emulation, too.

It never occurred to me that anyone would want such a thing. What would it do, limit the stack to 4 levels and have level 4 replicate downward when anything is removed from the stack? Using vectored ENTER, I suppose that it would be pretty easy to do that for ENTER or any keypress that does an implicit ENTER, but how to have it do after every command within a program I don't see; I think that it would require more than UserRPL.

Regards,
James

Edited: 8 Nov 2003, 9:02 a.m.

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Bad HP-48SX ON/ATTN key

*Message #1 Posted by **Al Kimball** on 28 Oct 2003, 3:01 p.m.*

Hello;

The ON, or ATTN key on my 1991 vintage HP-48SX is not working well when it comes to turning on the calculator; however once the unit comes to life, I can press ATTN at will and the button works every time.

Some days (but rarely) I push the button and the calculator springs to life right away; most days I have to press and hold the button for several minutes before it starts working. Sometimes I find that grabbing the unit with both hands and giving it a gentle twist (yikes!) will do the trick, but I really hate doing this.

When it does start to work, I see the little hour-glass very briefly and if I let go of the ON key while the hour glass is present, the calculator comes to life.

I thought it might be the batteries or battery contacts, but I've beat that horse to death... It's not batteries.

It's almost as though there was some weird capacitive based startup feature for the calculator that isn't working, because once the unit comes to life, all keys work (including the ON/ATTN key) and the unit is fine otherwise.

From another post (posted in Oct/2003, last month), I tried pressing just above the B and C keys on the raised portion below the display to see if it was the internal keyboard connector... to no avail.

Any other suggestions?

Thanks,

Al

akimball@mac.com akimball@sarcos.com

I currently have three HP calculators, an HP-41CX with many modules/BC reader (use it all the time), this HP-48SX (used less and less cause it won't start), and a newer HP-12C Platinum (horrible reading the yellow graphics on the shiny silver face plate) which I bought just because I wanted it. Sure wish I had spent the money on that HP-16C in college; it's one of only 3 things I really regret not buying in life. :(Thanks again for any help on the 48SX. :)

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How to Arrest Corrosion of 41CV battery

*Message #1 Posted by **bill platt** on 28 Oct 2003, 11:49 a.m.*

Well, I pulled my 41CV fullnut back out the other day to take a look at maybe trying again to get the broken post thing fixed. When (6 months ago) I got the unit, the battery contacts were pretty badly corroded, and there was even a little bit of turquoise bloom down at the CPU zebra connector. I cleaned it all up at the time with rubbing alcohol, and got everything nice and shiny. Then, she worked for a bout 2 weeks, and quit again. (Turned out to be a broken post).

So, now the turquoise is back :-{ And I wonder what is an appropriate neutralization--should I perhaps make a dilute baking soda solution and carefully dab that on all the corrosion? If it keeps re-blooming, then no amount of fixing is ever going to be satisfactory.

Regards,

Bill

Re: How to Arrest Corrosion of 41CV battery

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 28 Oct 2003, 12:07 p.m.,*
in response to message #1 by bill platt

I use citric acid (lemmon juice) with a bit of salt. It takes the blue oxide off very easy, but you need to wash it after - as it is an acid, it will corrode things also! I cleaned a TI 2550 *badly* corroded battery terminals, and now is very clean and the blue oxide doesn't appeared anymore.

Re: How to Arrest Corrosion of 41CV battery

*Message #3 Posted by **David Smith** on 28 Oct 2003, 3:50 p.m.,*
in response to message #1 by bill platt

I have a friend who does conservation of antiquities, etc. She has talked about "corroison centers" forming on items. They are like little cancers from which all things blue and green grow. They can be almost impossible to kill. Clean things up and the green fuzzies invariably return.

I have been treating my green fuzzies with Caig DeOxit and Pro Gold pens. Seems to help.

Re: How to Arrest Corrosion of 41CV battery

*Message #4 Posted by **Ed Look** on 28 Oct 2003, 5:15 p.m.,*
in response to message #3 by David Smith

Gentlemen, corrosion is a complex redox phenomenon. And battery discharge is also redox based, as well. That is to say that Mr. Smith is absolutely correct that it is technically impossible to arrest corrosion. Besides, we live in an atmosphere of 20% oxygen. Metals tend to corrode. One possible trick in addition to keeping your contacts scrupulously clean with frequent inspections is possibly do what you might do to a jack o'lantern to keep it fresh a few more days- put a barrier film of some oil or grease (thin! Did I say

thin?) on the metallic surfaces that are exposed to air or are in contact with batteries, like the way you might oil a hand tool to keep it from rusting. Be careful that the protectant used is not flammable (toxic is okay; who eats calculators? ;)). But if you find you have to remove oxide, a little fine sanding or scraping is okay. Using more acid to remove it may compound the problem in the long run, as the oxides are generally unreactive to acids and they come off because you are removing the metal layer below it. But after sanding or scraping, if you can somehow protect that clean surface, all the better.

Re: How to Arrest Corrosion of 41CV battery

*Message #5 Posted by **Ed Look** on 28 Oct 2003, 5:16 p.m.,*
in response to message #4 by Ed Look

Oh, also hope the protectant barrier does not react with the metal when current is passed through!

Re: How to Arrest Corrosion of 41CV battery

*Message #6 Posted by **cyrille de Brébisson** on 29 Oct 2003, 4:38 p.m.,*
in response to message #1 by bill platt

Hello,

Actually, do you know any company that does HP41C repairs?

regards, cyrille

Re: How to Arrest Corrosion of 41CV battery

*Message #7 Posted by **Marx Pio** on 29 Oct 2003, 5:08 p.m.,*
in response to message #6 by cyrille de Brébisson

I think most of us did or is doing some kind of repair on our old HP´s. Maybe we can create a company in the near future. We can call it [(*ph*)]. Parts & Handling. ;)

Cheers

Pio

Re: How to Arrest Corrosion of 41CV battery

*Message #8 Posted by **bill platt** on 29 Oct 2003, 5:09 p.m.,*
in response to message #6 by cyrille de Brébisson

Hello Cyrille,

Very nice to have the chance to say hello!

Yes, There is a link here at the museum under the repairs or something section:

http://www.fixthatcalc.com/

Also, you will see Randy Sloyer's posts---he is the "company".

Best regards,

Bill

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Batteries_SR44

*Message #1 Posted by **bill platt (les Estats Unis d'Amerique)** on 28 Oct 2003, 11:38 a.m.*

Hi all,

Has anyone bought SR44 batteries from http://www.sr44.com/feedback.html

This source was posted here a bout a month ago--I have never used it.

But, they are not taking orders--I wonder if there is another good (and trusted) discount source?

Thanks and regards,

Bill Platt

Re: Batteries_SR44

*Message #2 Posted by **Mike Brady** on 28 Oct 2003, 2:39 p.m.,*
in response to message #1 by bill platt (les Estats Unis d'Amerique)

I posted that original Battery question on October 16, 2003. So until www.sr44.com ordering is back on-line, check out my investation of the following:

Jim L. recommends www.batterymart.com for Eveready 357 Silver Oxide. Purchase 6 batteries (includes shipping) at $1.50/ea. Go to http://www.batterymart.com/battery.mv?p=BAT-357

Fry's Electronic's www.outpost.com for Eveready 357 Dilver Oxide. Purchase 6 batteries (includes shipping) at $1.79/ea. Search for product #1935338.

Fry's also has Duracell PX76A/675B Alkaline. Purchase 6 batteries (includes shipping) AT $1.49/ea. Search for product #2015037.

Radio Shack store has Silver Oxide, cost $3.00/ea, and they have Alkalines too.

Re: Batteries_SR44

*Message #3 Posted by **quemazon** on 28 Oct 2003, 4:23 p.m.,*
in response to message #1 by bill platt (les Estats Unis d'Amerique)

You might try bgmicro. I order from them whenever I can. Look for item# BAT1015. Aparently they are an alkaline variant, but at 10 for $2 you can't go wrong!

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HP48GII available on HP's website now

*Message #1 Posted by **Gene** on 28 Oct 2003, 7:30 a.m.*

http://www.hp.com/calculators/graphing/48gII/

It looks like the same situation as the 49G+...says "Locate a reseller" right now, but the 49G+ did that and after a couple of days was taking orders on the site.

Price $109.99

Not upgradeable, no Flash, no SD card support ...

*Message #2 Posted by **Raymond Del Tondo** on 28 Oct 2003, 12:12 p.m.,*
in response to message #1 by Gene

...too expensive for the missing features.

Re: Hp39G+ 2X faster and 2X RAM and Cheaper

*Message #3 Posted by **Ron Ross** on 28 Oct 2003, 1:14 p.m.,*
in response to message #2 by Raymond Del Tondo

What are Hp marketers thinking? Or perhaps not, as usual.

Re: HP48GII available on HP's website now

*Message #4 Posted by **Ronelle** on 28 Oct 2003, 8:28 p.m.,*
in response to message #1 by Gene

Hi, I had to get this calc because it was a class requiredment. I was wondering if anyone knew whether or not downloadable programs for the other hp 48g (series) are compatible with this one? There's not much online yet specifically for this calc. My whole class seems to be having a problem as far as making it connect to our pc's too. Cant get any info at the HP site. Thanks Ronelle

Re: HP48GII available on HP's website now

*Message #5 Posted by **Joesph** on 28 Oct 2003, 8:33 p.m.,*
in response to message #4 by Ronelle

What class requries you to buy a certain calc at all, esp. a new, unproven one? I think whoever made this a requirement is a bit foolish.

For the record, most HP49 programs should work. Go to http://www.hpcalc.org/ . Everything except games should be OK. There are various tutorials on the net - most are for the HP49g. I saw one a while back for the HP49G+, but they are mostly identical anyway.

Re: HP48GII available on HP's website now

*Message #6 Posted by **James M. Prange** on 28 Oct 2003, 9:42 p.m.,*
in response to message #5 by Joesph

Also see http://groups.google.com/groups?q=comp.sys.hp48

Re: HP48GII available on HP's website now

*Message #7 Posted by **Ronelle** on 29 Oct 2003, 4:29 p.m.,*
in response to message #6 by James M. Prange

It's actually our book store and HP that came to the idea that this is the calc required, since the calc originally required has been discontinued. The Civil Engineering Program at my college requires the calc, however the lady who usually runs the program is actually out in the field all year, so we have a replacement. So I really don't know why. I asked the same question when I saw how expensive it was...Thanks for the links Joseph and James. Ronelle

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128MB SD card $20 after a $10 rebate

*Message #1 Posted by **Gene** on 28 Oct 2003, 7:21 a.m.*

http://www.microcenter.com/single_product_results.phtml?product_id=21718

Rebate good through 11/09/03:

http://www.microcenter.com/rebate_show.phtml?id=6411

FYI. Gene

Re: 128MB SD card $20 after a $10 rebate-rebate URL

*Message #2 Posted by **James m. Prange** on 28 Oct 2003, 1:54 p.m.,*
in response to message #1 by Gene

Thanks Gene. but the rebate seems to be at:

http://www.microcenter.com/single_product_results.phtml?product_id=21718#rebate

and to make it easier to get to the product URL:

http://www.microcenter.com/single_product_results.phtml?product_id=21718

Kind of makes me wish that I hadn't already purchased an SD card. Maybe I really, really, **need** a second SD card?

Regards,
James

Re: 128MB SD card $20 after a $10 rebate-rebate URL

*Message #3 Posted by **Ed Look** on 28 Oct 2003, 2:14 p.m.,*
in response to message #2 by James m. Prange

Ouch, James!

Did you see the price I paid for 256 Mb? Yes, it's a bigger card, but boy, I think 128 would have been sufficient. But for the price... what was the name of that (vintage) group? Temptations?

Come to think of it, you know what might be a nice touch/possibly effective technique for HP calcs? Suppose they offered a rebate of some sort to those who can prove they're students (current registration, or some such paperwork) and who buy one of their calcs. Where would that leave us old folks, though?

(I'm getting "Product no longer available" ...)

*Message #4 Posted by **Paul Brogger** on 28 Oct 2003, 4:15 p.m.,*

in response to message #1 by Gene

Bummer!

Try again in a couple of days, I guess . . .

Re: (I'm getting "Product no longer available" ...)

*Message #5 Posted by **Ed Look** on 28 Oct 2003, 10:30 p.m.,*
in response to message #4 by Paul Brogger

Paul,

Actually, there's a MicroCenter near me. On my way home tonight, I snuck over and looked for one. Their flash memory section looked bare and almost ransacked. I had a salesman check and they ONLY sell it through their Customer Service desk, of all things! So, if the stores still have stock and their kind of keeping it sort of hidden, I'll bet they can get stock back to the online store rather soon.

It's a great price and I couldn't resist this. I might just take the 256 Mb I got in my 49G+ out and replace it with this 128 Mb card. Then maybe I can use the 256 Mb in my Jumpdrive for more or backup portable storage. I'll bet the 128 Mb might be accessed more quickly by the 49G+, anyway.

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HP-71B/RS232 Handshaking with Computer

*Message #1 Posted by **Jeff** on 27 Oct 2003, 7:10 p.m.*

Recently while trying to get the RS232 and the HP-71B to handshake with my computer, Windows XP, I found the HP82440A Development Utility Owners Manual. Following the procedure in this manual,in order to initialize the "IBM Personal Computer", enter the following command: C:/MODE COM1:600,N,8,1,RS,CS0,DS0,CD0 The A> replaced with the C:/ This command only gives an invalid command error. When I type the following command: C:/MODE COM1:600,N,8,1 The following result occurs: Status for Device COM1: Baud: 600 Parity: None Data Bits: 8 Stop Bits: 1 Timeout: OFF XON/XOFF: OFF CTS Handshaking: OFF DSR Handshaking: OFF DSR Sensitivity: OFF DTR circuit: ON RTS circuit: ON Obviously, there are other parameters that are needed to complete this handshake. Can anyone help me with this? Thanks

Re: HP-71B/RS232 Handshaking with Computer

*Message #2 Posted by **andy** on 28 Oct 2003, 10:39 a.m.,*
in response to message #1 by Jeff

Tony Duell gives the pinouts for connecting the hp82164a to a serial port. He mentioned it requires a special pinout due to the interesting way the 82164 handles handshaking.

If you're interested in a good program to connect your 71b to a modern PC using the hp82164a, let me know. I have a program that allows you to tranfer files back and forth, turns the PC into an 80 column display, and lets you use the PC keyboard to type on your 71. It works great on my XP machine.

Andy

Re: HP-71B/RS232 Handshaking with Computer

*Message #3 Posted by **Kim** on 28 Oct 2003, 3:38 p.m.,*
in response to message #2 by andy

Andy, this sounds great. What are the chances to eavesdrop on this software. Can it upload and down load as well.

Kim

Re: HP-71B Handshaking with Computer

*Message #4 Posted by **Christoph Klug** on 29 Oct 2003, 3:34 a.m.,*
in response to message #3 by Kim

For interfacing HP71 to PC ask Jean-Francois Garnier for his new EMU71 version. Like the full version of EMU41 you get real HP-IL support, the HP-IL/PC interface card is needed...

Best wishes from Germany - Christoph Klug

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HP-71B And FORTH/ASM ROM

*Message #1 Posted by **Jeff** on 27 Oct 2003, 6:52 p.m.*

Is it possible via the RS232 interface to transfer the FORTH/ASM ROM from the PC to the HP-71B and effectively use this file? Possibly save it onto a 32K Memory Module?

Re: HP-71B And FORTH/ASM ROM

*Message #2 Posted by **Victor Koechli** on 27 Oct 2003, 7:14 p.m.,*
in response to message #1 by Jeff

IIRC, the FORTH/ASSEMBLER ROM is hardwired to some address range, so you will not be able to use it from a (soft configured) memory module. Furthermore, I think the ROM is 64KBytes (not Nibbles) so 32K won't be enough anyway. What you see in the catalog is just the LEX files necessary for FORTH activation and for integration into the BASIC environment, the ROM itself is invisible. Sorry!

Regards, Victor

Re: HP-71B And FORTH/ASM ROM

*Message #3 Posted by **Raymond Del Tondo** on 27 Oct 2003, 8:30 p.m.,*
in response to message #2 by Victor Koechli

The ROM is divided into two parts: The floating LEX files you mentioned, and the hardwired ROM. As far as I recall, the overall size is 48 KBytes.

There exists a floating version of the FORTH environment for third party developers, which needs to stay in one continguous 64KB block (at least), so two merged/claimed ports with 32K each won't do.

Word clarification: 'Floating' (or mobile) is an HP term (or part of) for libraries (ROMPARTS) or LEX files which don't have to reside at a specific address. Most libraries/LEX files are of this type, except the BASIC ROM (of course;-), and some others, like part of FORTH.

Regards,

Raymond

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SD card on 49G+

*Message #1 Posted by **Ernie Malaga** on 27 Oct 2003, 4:38 p.m.*

Here's another chapter in the ongoing saga of The Confused User.

I tried running a test on my recently purchased SD card (32 MB) to see how things worked:

I typed [RightShift] "" AAAAA [ENTER] and [LeftShift] :: 3 [Right arrow] XXX.TXT, making the stack look like this:

```
"AAAAA"
3:XXX.TXT
```

Then I pressed STO. According to the manual, the string "AAAAA" should have been stored in file XXX.TXT on the SD card. It didn't. After a long interval (30 seconds long approx.), I got an error dialog box:

```
STO Error:
DOS unknown error.
```

Once again, and until you guys get fed up with my dumb questions, what went wrong?

-Ernie

Re: SD card on 49G+

*Message #2 Posted by **James M. Prange** on 27 Oct 2003, 6:30 p.m.,*
in response to message #1 by Ernie Malaga

I don't know; your example worked fine for me. Maybe your SD card needs formatting. Which ROM revision is calculator using?

Re: SD card on 49G+

*Message #3 Posted by **Ernie Malaga** on 27 Oct 2003, 6:46 p.m.,*
in response to message #2 by James M. Prange

I'm using 1.2. I'm trying to upgrade to 1.2.2, but everything I've tried so far has failed.

The funny thing is that the card _is_ formatted. It came already formatted for DOS (8.3 file names), and I have checked that on my Mac (OS 9.2.1). Furthermore, when I drag a simple text file to the SD card (which appears as a drive on the Mac desktop), it is accepted. Then I plug the card on the 49G+ and it shows empty. Then I mount it again on the Mac, and my text file is still there.

NOTHING has given me as much frustration (and exasperation) as this jump-through-hoops act. It's all Carly's fault. Maybe I'll trade my 49G+ for an HP-45 and forget I ever saw it. 8^(

-Ernie

Re: SD card on 49G+

*Message #4 Posted by **William** on 27 Oct 2003, 7:38 p.m.,*
in response to message #3 by Ernie Malaga

Make sure it is formatted for FAT 16. You can also try having the calculator format it: hold on & hit F4, then select Format.

Re: SD card on 49G+

*Message #5 Posted by **James M. Prange** on 27 Oct 2003, 8:49 p.m.,*
in response to message #4 by William

Well, but with ROM 1.20, he'll have to use the reader to format it. Formatting on the calculator was added at 1.22.

Re: SD card on 49G+

*Message #6 Posted by **Ernie Malaga** on 27 Oct 2003, 8:57 p.m.,*
in response to message #5 by James M. Prange

> Quote:
>
> Well, but with ROM 1.20, he'll have to use the reader to format it. Formatting on the calculator was added at 1.22.

My reader has no buttons, switches, or anything like that. It's just a little holder for the card with an USB plug to connect to the computer. And there are no instructions.

-Ernie

Re: SD card on 49G+

*Message #7 Posted by **James M. Prange** on 28 Oct 2003, 12:39 a.m.,*
in response to message #6 by Ernie Malaga

Not even an installation disc? I have no experience with Apple computers, but with Windows 98SE, the card reader looks just like any other removable media drive. Try whatever you use for floppies, CDs, and so on.

Regards,
James

Edited: 28 Oct 2003, 2:33 a.m.

Re: SD card on 49G+

*Message #8 Posted by **Nelson M. Sicuro (Brazil)** on 28 Oct 2003, 8:12 a.m.,*
in response to message #7 by James M. Prange

I think that the Macs doesn't format FAT16 at all, regardless this is the industrial standard for SD cards. It *supports* FAT16 on SD cards very well (my brother has a Mac and SD card reader) but it puts a lot of "hidden" files on it. I think if you really need to re-format the SD card, do it on other computer (or digital camera, mp3 player...), write the ROM image in it with the SD reader on the Mac and try on your calculator.

Good luck!

Nelson

Re: SD card on 49G+

*Message #9 Posted by **Ernie Malaga** on 27 Oct 2003, 8:55 p.m.,*
in response to message #4 by William

> Quote:
>
> hold on & hit F4, then select Format.

When I do that I get a menu with 10 options, none of which is FORMAT. Looks like a self-test menu to me.

-Ernie

Re: SD card on 49G+

*Message #10 Posted by **James M. Prange** on 28 Oct 2003, 12:42 a.m.,*
in response to message #9 by Ernie Malaga

Right. You won't get the FORMAT option until you've updated the ROM to 1.22.

Regards,
James

Edited: 28 Oct 2003, 2:34 a.m.

Re: SD card on 49G+

*Message #11 Posted by **Ernie Malaga** on 27 Oct 2003, 9:02 p.m.,*
in response to message #4 by William

> Quote:
>
> Make sure it is formatted for FAT 16.

Why is that? How did you learn that was a requirement? And what is FAT 16?

-Ernie

(Getting more and more frustrated by the second.)

Re: SD card on 49G+

*Message #12 Posted by **James M. Prange** on 28 Oct 2003, 12:46 a.m.,*
in response to message #11 by Ernie Malaga

FAT16 is a file system, the one that the 49g+ requires for the SD card. I don't know about your computer, but when I format it from Windows 98SE, I have a choice between "FAT" and "FAT32". "FAT" formats the card with a FAT16 file system, and is the one I want.

Regards,

James

Edited: 28 Oct 2003, 2:35 a.m.

Re: SD card on 49G+

*Message #13 Posted by **James M. Prange** on 28 Oct 2003, 3:40 a.m.,*
in response to message #12 by James M. Prange

Whoops, on second thought, Windows 98SE doesn't give me the option of formatting a 128MB card as FAT32, and if I try to "convert" it to FAT32, it tells me that the drive is too small.

Not that I'd relly want to use FAT32 on something this small anyway, but I wanted to experiment with whether the 49g+ would support a FAT32 card, and I thought that it was possible to use FAT32 on a 128MB drive. Well, maybe I have some other tool that I can get to format it as FAT32.

Regards,
James

Edited: 28 Oct 2003, 3:41 a.m.

Re: SD card on 49G+

*Message #14 Posted by **Raymond Del Tondo** on 27 Oct 2003, 8:17 p.m.,*
in response to message #3 by Ernie Malaga

I meant to read somewhere here in the forum, or in comp.sys.hp48 , that SD card access doesn't work correctly with ROM 1.20 . So you should take another try to upgrade;-)

Raymond

Re: SD card on 49G+

*Message #15 Posted by **Ernie Malaga** on 27 Oct 2003, 9:07 p.m.,*
in response to message #14 by Raymond Del Tondo

> Quote:
>
> I meant to read somewhere here in the forum, or in comp.sys.hp48 , that SD card access doesn't work correctly with ROM 1.20 . So you should take another try to upgrade;-)

Great. So now, after I've spent $160 for a calculator and another $50 for the SD card + reader, it turns out I can do nothing the scant manuals would have me do. Thanks for the information, though.

I may have to return the 49G+ to HP, and sue them if they won't let me. They misrepresented their product; that's plain and clear. There is no sane reason for blocking Mac users except that they're too damn lazy to provide support, or that Redmond is putting pressure so that only Windows clients can be successful.

Sorry for venting my anger like this, but you have no idea how it is. I've come across this kind of attitude literally dozens of times, and am getting fed up with it.

Thank you for trying to lend a hand.

-Ernie

Re: SD card on 49G+

*Message #16 Posted by **Ed Look** on 27 Oct 2003, 8:42 p.m.,*
in response to message #3 by Ernie Malaga

It IS possible to upgrade your ROM via cable. I did it. When you open the Conn4x window, there's a drop box for "Connect Using", which may be set to either "Auto" or "HPx9G", and a drop box for "Speed" which should be set to 115200. Then you should be able to select "ROM" from on top of the Conn4x window. Now it gets a little complicated, but follow to the letter the instructions in the little gray pop up box that pops up, not the instructions in the ReadMe (they led me astray!). If I recally correctly, you then have to hold down the + and - keys simultaneously and while doing that, hit the reset contact (with a bent open paper clip or some such thin, rigid thing) on the back of the HP-49G+. Then let go of both + and - keys (and now I forget the order) you either have to first choose 1 and then 1 again as the menu choices, now on the 49G+'s screen, or first unplug and replug the USB connector and then do the menu. Then it should start to very quickly update your ROM. It was fast!

EDIT Uh, did you say you have a Mac? Then the above may not apply at all!

Edited: 27 Oct 2003, 8:56 p.m.

Re: SD card on 49G+

*Message #17 Posted by **Ernie Malaga** on 27 Oct 2003, 9:00 p.m.,*
in response to message #16 by Ed Look

> Quote:
>
> Uh, did you say you have a Mac? Then the above may not apply at all!

No, it doesn't apply at all. Is there any reason why HP doesn't support Macintosh, besides wanting to kiss Bill Gate's butt?

-Ernie

Re: SD card on 49G+

*Message #18 Posted by **Joesph** on 27 Oct 2003, 9:19 p.m.,*
in response to message #17 by Ernie Malaga

Can we please stop the childish comments (like "besides wanting to kiss Bill Gate's butt?") ?

The main reason is probably marketshare. How many windows PC's are there vs Apples?

Re: SD card on 49G+

*Message #19 Posted by **Ernie Malaga** on 27 Oct 2003, 10:08 p.m.,*
in response to message #18 by Joesph

> Quote:
>
> Can we please stop the childish comments (like "besides wanting to kiss Bill

> Gate's butt?") ?
>
> The main reason is probably marketshare. How many windows PC's are there vs Apples?
>
> ---

Although my wording may have been flowery, it does describe the attitude of Microsoft, doesn't it? What do you think the Department of Justice's anti-trust suit is all about?

As for market share, it's true that Mac users are a minority. But not as little as you probably believe. And even HP doesn't mind taking money from Mac users. Last time I checked, they still make laser printers that support _both_ Windows and Macs.

-Ernie

Re: SD card on 49G+

*Message #20 Posted by **James M. Prange** on 28 Oct 2003, 5:42 a.m.,*
in response to message #19 by Ernie Malaga

Well, Ernie, I agree that HP calculators should work with non-Microsoft operating systems. And they should make it clear just what operating systems are needed to support the device.

But I expect that it's a matter of getting the product on the market in a rush, rather than pressure from Microsoft or any desire to kiss up to Bill Gates.

Re: SD card on 49G+

*Message #21 Posted by **Tom Scott** on 27 Oct 2003, 9:23 p.m.,*
in response to message #1 by Ernie Malaga

I had a similar problem attempting to update my 49G+ ROM using an SD card which came formatted. After no success, I took my card (and card reader) to a neighbor's house and he reformatted the card using his PC A(running Windows 2000 Pro). After that I was able to do the ROM upgrade successfully. I still get some garbage on the SD when viewing it with the 49G+ filer. I assume this is put there by the Mac even though it doesn't show on the Mac Finder.

At any rate, if you can, I would suggest that you get your card reformatted. It worked for me.

Tom Scott

Re: SD card on 49G+

*Message #22 Posted by **Ted** on 28 Oct 2003, 2:05 a.m.,*
in response to message #21 by Tom Scott

Well, the other way around: at least MAC does support Windows- there is a program called 'Virtual PC'. Gives the MAC user a full fledged Windows desktop and environment that works just like the real thing. I use it for all the PC stuff that I still want to download, etc

Maybe this would be a solution for Ernie's problem?

Re: SD card on 49G+

*Message #23 Posted by **Ernie Malaga** on 28 Oct 2003, 7:42 a.m.,*
in response to message #22 by Ted

> Quote:
>
> Maybe this would be a solution for Ernie's problem?

Only if I could find somewhere I copy of Virtual PC that is _not_ for OS X. I use 9.2, and apparently that's that. And I'm reluctant to sink another $200 on this project.

It was a nice thought, though. I checked my old CDs and found a very old copy of SoftPC. I tried installing it on the Mac, but it doesn't work anymore. Maybe SoftPC was created for a much older version of the Mac OS -- like OS 8 or even 7.

Thanks.

-Ernie

Re: SD card on 49G+

*Message #24 Posted by **Tom Scott** on 28 Oct 2003, 2:58 p.m.,*
in response to message #23 by Ernie Malaga

I still think that the SD card formatting is the key to your dilemma. No matter what format it has now, I would recommend getting it reformatted with a PC runnning Windows (more recent that Windows 98). This has solved the problem for me and (apparently) several others who have posted on comp.sys.hp48 forum.

Tom Scott

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woodstock keyboard repair

*Message #1 Posted by **hugh** on 27 Oct 2003, 12:41 p.m.*

how weird and wonderful it is inside the woodstock. with those little connector fingers. unfortunately it doesnt appear possible to dismantle the keyboard. however there are small holes through which to see the back of the keycap making contact. presumably this is where dirt gets in.

i am trying to restore the keyboard to full function. most of the keys work, but those near the bottom, in particular the number 3 are not behaving. if i press really hard the key works, so i figure its a bad contact with the key itself.

does anyone have any suggestions. i thought about giving the keyboard a bath, since all the (other) electronics can be easily disconnected.

thanks for any help.

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49G+/Mac: Next Question

*Message #1 Posted by **Ernie Malaga** on 27 Oct 2003, 11:20 a.m.*

I really wish HP wouldn't make things so complicated. I just checked their site (www.hp.com), looking for a place where I could download the update for my new 49G+.

Guess what? HP must be in bed with Bill Gates. Apparently you are expected too. I couldn't find a link for Macintosh users.

Thanks to the forum members, I now have an SD card and a reader -- but HP has placed a new roadblock on Mac users. Could some kind and understanding soul **please** point me in the right direction? My 49G+ is at version 1.2, the display flickers, and the batteries probably won't last much longer.

Help!

-Ernie

Re: 49G+/Mac: Next Question

*Message #2 Posted by **Tom Scott** on 27 Oct 2003, 3:05 p.m.,*
in response to message #1 by Ernie Malaga

You have to download the *.exe and extract the necessary files from that. I used a PC I had on hand and then sent the appropriate files to my Mac. If you would like, I could e-mail the files (approx. 1.2 MB) to you.

Tom Scott

Re: 49G+/Mac: Next Question

*Message #3 Posted by **Ernie Malaga** on 27 Oct 2003, 3:24 p.m.,*
in response to message #2 by Tom Scott

> Quote:
>
> If you would like, I could e-mail the files (approx. 1.2 MB) to you.

That would be great. Two things, though:

1. If you can distribute the files in a non-.EXE format, why can't HP do the same?

2. I hope the files make it through the e-mail. Some ISPs limit the size of e-mailed files, and I'm not sure that's the case for my ISP (Earthlink).

My email address is kajzero AT earthlink DOT net. Thank you!

-Ernie

Re: 49G+/Mac: Next Question

*Message #4 Posted by **Ted** on 28 Oct 2003, 2:08 a.m.,*
in response to message #3 by Ernie Malaga

Ernie, check out my comment above. The problem of PC stuff for MAC guys like us will always be there. Go buy Virtual PC.

Re: 49G+/Mac: Next Question

*Message #5 Posted by **Ernie Malaga** on 28 Oct 2003, 7:48 a.m.,*
in response to message #4 by Ted

> Quote:
>
> check out my comment above. The problem of PC stuff for MAC guys like us will always be there. Go buy Virtual PC.

I'm aware that the problem won't go away. But at more than $200, Virtual PC is too much for me right now. Besides, Micro$oft only makes it for OS X, apparently... and I'm using 9.2. I just downgraded my Mac from 10.2.6 to 9.2 after having too many problems with crashes, freezes, and general slowness of OS X.

Maybe I'll find somewhere an old copy of SoftWindows or Virtual PC.

Thanks for your reply.

-Ernie

Re: 49G+/Mac: Next Question

*Message #6 Posted by **JT** on 28 Oct 2003, 2:19 a.m.,*
in response to message #3 by Ernie Malaga

Ernie,

The tool "cabextract" will allow you to extract the contents of the ROM update file on a non-Windows machine. I've not tried it on a Mac (only Linux), but I've found some webpages that imply that it compiles and works OK on OSX.

The source is available here: http://www.kyz.uklinux.net/cabextract.php

This is not an elegant solution, but it should be able to get the job done.

If this tool doesn't work out, or the ROM doesn't survive the email, post a reply and I'll put the file on the web and email you a link.

Good luck

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49G+ -- FACTORS Has Bug?

*Message #1 Posted by **Paul Brogger** on 27 Oct 2003, 10:24 a.m.*

If I pass a prime number to FACTORS on my 49G+ while the Angle Measure mode is set to degrees, it asks permission to set radians mode, and halts if I don't allow it. (Example: With trig mode set to degrees, enter "997 FACTORS" <enter> .)

This seems weird, unless there's some mathematical algorithm for determining prime-ness that involves trig. (And even *then*, should it require a particular mode setting???)

Has this been a problem on the 49G?

Just curious . . .

Re: 49G+ -- FACTORS Has Bug?

*Message #2 Posted by **Arnold Steekelenburg** on 27 Oct 2003, 11:18 a.m.,*
in response to message #1 by Paul Brogger

The 49G acts the same.

Re: 49G+ -- FACTORS Has Bug?

*Message #3 Posted by **Arnaud Amiel** on 27 Oct 2003, 11:19 a.m.,*
in response to message #1 by Paul Brogger

This is a known problem, as well as going into complex mode when it is not really needed. People have been complaining a lot about this but hp didn't do anything. I am wondering if anyone is actually doing much work on the CAS since the first bugs of the 49 have been fixed about three year ago.

Arnaud

PS: All questions regarding the 49g+ are better addressed to the newsgroup comp.sys.hp48. This forum would rather deal with problem with older calcs, it is a useum after all.

Re: comp.sys.HP48 -- How do I subscribe?

*Message #4 Posted by **Paul Brogger** on 27 Oct 2003, 11:29 a.m.,*
in response to message #3 by Arnaud Amiel

Please forgive my newbie-ness -- I haven't spent much time with or about newsgroups. I've taken a look, but don't see anything about how to subscribe or join. I must be missing something . . . (and, not doubt, it should be obvious!)

Re: comp.sys.HP48 -- How do I subscribe?

*Message #5 Posted by **Arnaud Amiel** on 27 Oct 2003, 1:48 p.m.,*

in response to message #4 by Paul Brogger

Welcome to the hpcalc world

Either your ISP has some news server and he will explain you how to use USENET, which is the newsgroups.

Or you can use Google's, just go to http://groups.google.com and in the search type comp.sys.hp48

That is the discussion group dealing with all matters related to new and recent hp calculators. You will certainly learn a lot by following comp.sys.hp48

Arnaud

PS: in case you don't know, you might also like http://www.hpcalc.org

Re: Thanks for the "Welcome"!

*Message #6 Posted by **Paul Brogger** on 27 Oct 2003, 2:02 p.m.,*
in response to message #5 by Arnaud Amiel

Thank you. I've always known that comp.sys.HP48 exists -- I've just never got 'round to digging into it.

And I encountered hpcalc.org 'way back -- a great resource.

Thanks again!

Re: Thanks for the "Welcome"!

*Message #7 Posted by **James M. Prange** on 27 Oct 2003, 7:19 p.m.,*
in response to message #6 by Paul Brogger

Google is great for its archives. By doing a search of the newsgroup on Google, you can avoid asking the same question yet again, and also find answers from experts who no longer participate. Note that a good deal of the design of the current RPL calculators goes way back at least to the 28C. You'll probably look a lot smarter if you search for an answer before you ask a question.

But the last time that I checked, there's a several hour delay between updates of Google's server, so for active participation it's not so great.

Your ISP should, of course, allow you to read and post to the newsgroup, but I find that my ISP's server is sometimes rather slow in getting updates, and on rare occasions isn't updated for a few days. Lately, I've been having a lot of trouble trying to post anything through my ISP's server. My ISP agrees that there's a problem, but I guess that it's not a high priority item; weeks later, it still hasn't been fixed.

The best "web-based" *free* newsreader that I've found is at http://mailgate.org/. To use it, you do have to register and agree to its "Terms of Service". Trolls and spammers may find the terms of service to be onerous, but I expect that most would find them reasonable. Read the legalese for yourself. And you do have to login every time; hopefully, your browser will make that easy enough. Note that Mailgate does do at least some filtering; I don't see the obvious spam on Mailgate.

But reading the news on a web-based newsreader has some disadvantages. For example, you

won't be able to use your own filters, and you'll probably see things with a proportional font.

After you've registered with Mailgate, you can use your own newsreader with the server "newsreader.mailgate.org", rather a better experience in my opinion.

Regards,
James

Re: Thanks for the "Welcome"!

*Message #8 Posted by **Jordi Hidalgo** on 28 Oct 2003, 1:11 p.m.,*
in response to message #7 by James M. Prange

Hi James,

> Quote:
>
> The best "web-based" *free* newsreader that I've found is at http://mailgate.org/

Except for existing members, I'm afraid it no longer seems to be free ...
https://secure.mailgate.org/subscribe

Regards,

Jordi

Re: comp.sys.HP48 -- How do I subscribe?

*Message #9 Posted by **Paul Fox** on 27 Oct 2003, 4:56 p.m.,*
in response to message #4 by Paul Brogger

I wouldnt worry too much. Despite having used usenet since the mid 80's I actually mostly use groups.google.com to browse/post. My news provider is bad at providing anything approaching reliability and is actually a good test of news clients to handle the often baroque errors one gets. (Program fault - core dumped being a common reply when asking for a news item).

This site is privately run and I guess the curator might be upset to see the 'Museum' nature of the site being used for high volume current rants. But all material posted here is invaluable for the future. When we all look back in 5 or 10 years, these insights into a new calculator arrival will be very educational.

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Looking for Christof Harper

*Message #1 Posted by **R Lion (España)** on 27 Oct 2003, 8:47 a.m.*

I sent you an important email about our trade. Please answer me when you can.

Thanks and best reagrds

Raul Lion

(Dave, please: let me know if you wish I don't use the forum in this way)

Edited: 27 Oct 2003, 11:54 a.m.

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HP48/49 graphics

*Message #1 Posted by **Francesc Casanellas** on 27 Oct 2003, 8:19 a.m.*

Does anybody know how to load graphics (i.e. a 131 x 64 bitmap) from a PC to an HP48 or 49?

... and how to add labels (text) to a graphic on these calculators when you are in PICTURE mode?

Edited: 27 Oct 2003, 12:12 p.m.

RTFM ;-)

*Message #2 Posted by **Raymond Del Tondo** on 27 Oct 2003, 1:22 p.m.,*
in response to message #1 by Francesc Casanellas

sorry, couldn't resist.

Seriously, all this is explained in the manual. If that isn't sufficient, take a look at www.hpcalc.org , THE software and documentation site for the HP-48 and others.

Raymond

Re: RTFM ;-)

*Message #3 Posted by **Francesc Casanellas** on 28 Oct 2003, 2:03 a.m.,*
in response to message #2 by Raymond Del Tondo

Perhaps it is explained in the HP49G+ manuals but could you tell me in which page of the HP49G or HP48G manuals have you found:

- convert bitmaps (as the ones made with Windows Paint) to an HP48/49 GROB (pass them later to the calculator, of course, it is explained). - add text to a GROB (I mean any text, not coordinate labels).

which were my two questions?

I have downloaded the two HP49+ manuals and at first glance have no seen answer to my 1st question. A "bitmap" search gives no answer.

Edited: 28 Oct 2003, 2:31 a.m.

Re: RTFM ;-)

*Message #4 Posted by **Joesph** on 28 Oct 2003, 2:39 a.m.,*
in response to message #3 by Francesc Casanellas

XnView should do the trick - google for it.

Re: RTFM ;-)

*Message #5 Posted by **James M. Prange** on 28 Oct 2003, 2:43 a.m.,*
in response to message #3 by Francesc Casanellas

Well, coverting from a file made on a PC to a grob may be just a tad more complicated than simply transferring a grob. Try a search at http://www.hpcalc.org/.

Regards,
James

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Sorting on a 12C

*Message #1 Posted by **Katie** on 26 Oct 2003, 11:11 p.m.*

In playing around with the good old 12C I realized that it has indirect register access. You can use the CFj and RCL CFj functions to store and recall indirectly through the n register. Furthermore it does a pre-increment (for CFj) and post-decrement (for RCL CFj) before the store and recall, respectively.

So just to see if this was at all useful I wrote a simple (bubble) sort program in only 21 bytes! It's easy to use, just fill up registers 0 - n with your data and call the program with n in the x register.

Here it is:

```
01      STO i                   i = maximum register
02      1
03      STO n           A:      n = 1
04      RCL CFj         B:      y = A(n)
05      RCL CFj                 x = A(n-1)
06      x<=y                    if (x <= y)
07      x<->y                     swap x,y
08      CFj                     A(n-1) = x
09      Rv
10      CFj                     A(n) = y
11      RCL i
12      RCL n
13      1
14      +                       n = n+1
15      x<=y                    if (n <= i)
16      GTO 03                    goto B
17      2
18      -                       i = i-1
19      x=0                     if (i = 0)
20      GTO 00                    return
21      GTO 01                  else
                                  goto A
```

Edited: 27 Oct 2003, 10:47 a.m. after one or more responses were posted

Re: Sorting on a 12C

*Message #2 Posted by **tony** on 26 Oct 2003, 11:22 p.m.,*
in response to message #1 by Katie

BRILLIANT!!!!!!!!!!!!!!!!!! I never knew about this indirect addressing!! Thanks for posting this masterpiece Katie.

Re: Sorting on a 12C

*Message #3 Posted by **Namir Shammas** on 27 Oct 2003, 7:01 a.m.,*
in response to message #1 by Katie

Katie,

You are sharp!!!!!! That sorting routine is smart!!!!

Namir

Re: Sorting on a 12C

*Message #4 Posted by **Patrick** on 28 Oct 2003, 3:35 a.m.,*
in response to message #1 by Katie

Very nice, Katie. It only took... what? ... 21 years for someone to realize this? He, he, he...

Re: Sorting on a 12C

*Message #5 Posted by **Valentin Albillo** on 29 Oct 2003, 10:53 a.m.,*
in response to message #4 by Patrick

Patrick wrote:

"Very nice, Katie. It only took... what? ... 21 years for someone to realize this?"

Not to belittle Katie's amazing sort in 21 steps, but seems to me you're implying that the possibility of using CFj in the HP-12C to achive indirect addressing of registers is a new discovery, unrealized for 21 years.

If that's what you mean, that's not the case. My "Serendipitous Solver" article, published in Datafile V21N2, (March/April 2002), 18 months ago, did include a program to evaluate and find roots of arbitrary polynomials in the HP-12C which already uses precisely this technique to indirectly access the storage registers where the coefficientes will be stored (see lines 05 and 12, as well as the description of the uses of CFj and CF0 in the article). I've seen no previous examples of this technique being used elsewhere, but it's quite possible that I wasn't the first to use it for practical purposes. In any case, it doesn't qualify as a new discovery.

All the same, kudos to Katie for its magnificent sort program. It would have made a superbly good challenge for all of us HP-12C lovers ("Given a set of n values stored in registers R0 to Rn, try and write a sorting routine in 21 bytes or less") :-) !!

Best regards from V.

Re: Sorting on a 12C

*Message #6 Posted by **Katie** on 29 Oct 2003, 6:22 p.m.,*
in response to message #5 by Valentin Albillo

Valentin,

I hadn't seen your polynomial solver before, it's a wonderful use of indirect storage on the 12C! I did some looking around on the web when I first realized the usefulness of the CFj functions but couldn't find any reference to using them for indirect access. I was pretty surprised since there are so many clever people out there playing around with these things. I'll bet that someone, somewhere has been using this "feature" for 20 years and has even written exactly the same sort program that I did. I've come to realize that nothing in computer science is really unique. (My philosophy after doing this stuff for far too long.)

-Katie

Re: Sorting on a 12C

*Message #7 Posted by **David Smith** on 28 Oct 2003, 3:53 p.m.,*
in response to message #1 by Katie

Hi Katie,

Now go and implement my favorite sort... heapsort.

Re: Sorting on a 12C

*Message #8 Posted by **Katie** on 29 Oct 2003, 12:21 a.m.,*
in response to message #7 by David Smith

David,

You might be able to write a heap sort on the 12C (or more likely the 12C platinum) if it had just a bit more register memory. Amazingly, you can structure register memory as a linked list on the 12C using the byte of memory where the cash flow counts are stored (Nj) and, of course, you can access this indirectly. There's a complication with this, however. When you use CFj it automatically sets Nj to 1 overwriting what you ave stored there, bummer.

-Katie

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HP-41CV vs. HP-41CX: 12KB vs. 24KB

*Message #1 Posted by **Chris Catotti (Florida)** on 26 Oct 2003, 10:20 p.m.*

I was looking through my HP stuff and came across an advertising booklet (HP 5954-1474 12/87) ***Selling Hewlett-Packard Calculators*** .

While describing **The HP-41/CV/CX Advanced Programmable Calculators** it states:

> Quote:
>
> - 24K-byte operating system (HP-41CV has 12K)

I guess they must be counting the TIME MODULE and EXTENDED FUNCTIONS modules as 8K more. Is the TEXT EDITOR the additional 4K, or did I miss something? What is the mainframe address structure (please review in case I missed something) following the 4K page concept and numbering 4K blocks as Hex 0 through F.

Thanks!

Re: HP-41CV vs. HP-41CX: 12KB vs. 24KB

*Message #2 Posted by **Monte Dalrymple** on 27 Oct 2003, 12:14 a.m.,*
in response to message #1 by Chris Catotti (Florida)

Pages 0, 1 and 2 are the "mainframe ROMs" Page 3 is the CX X functions Page 5 (bank 1) is the timer module Page 5 (bank 2) is the new CX timer and X functions

executing the enbank 2 instruction in either page 3 or page 5 enables bank 2 in page 5. powoff puts everything back to bank 1.

HTH, Monte

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HP 32S vs H 32SII

*Message #1 Posted by **John Beckwith** on 26 Oct 2003, 1:00 a.m.*

I have not followed the progression of HP calculators much over the last 25 years since I got out of college but have tried to make up for lost time since I found this HP museum's website. My HP 45 that I bought in 1974 is still serving me well and is used every day at work.

I have been saddened recently to find out that HP really seems to no longer make what I would consider to be a good scientific calculator that STILL USES RPN!

As a result I have decided to buy an HP 32S and maybe an HP 21 or 42S as well (E-bay perhaps). I have a 9 year old son and want to get something that he might be able to use later. I know the HP 21 somewhat as I have used the one my sister has that she bought when she was in college but really know nothing about the 32S (or 42S for that matter). I sure hope that HP will bring out something before he gets to high school and college.

Anyway, to the real reason for my post. I have a basic question about the 32S. It seems that there are 2 versions; a 32S and a 32S series II. What are the differences? I have looked over this website but can not seem to find anything on the difference in the 2 versions.

Besides that, does anyone have any comments regarding my quest involving these calculators or have any suggestions on these or any other models?

Sincerely,

John Beckwith

RPN Calculators

*Message #2 Posted by **John Limpert** on 26 Oct 2003, 1:40 a.m.,*
in response to message #1 by John Beckwith

How much money do you want to spend? If price were no object, I would get an HP-15C or HP-32SII. Those are both compact scientific RPN calculators with plenty of bells and whistles. The problem is that the prices on those models reflect their desirability and scarcity. If you don't mind a larger calculator, you can find some good deals on the HP-28C/S, HP-48S/SX and HP-48G. I think the HP-48S/SX is an excellent value if you don't mind its incompatibility with some of the programs that are written for the HP-48G/GX. The problem with the LED models is the rechargeable battery packs. They eventually fail and they have to be rebuilt, since new battery packs are no longer made by HP.

Re: HP 32S vs H 32SII

*Message #3 Posted by **James Stephens** on 26 Oct 2003, 9:56 a.m.,*
in response to message #1 by John Beckwith

Hi John,

I have one of each: 32S and 32S II, and I'll provide you a brief--but by no means expert--answer. The 32S II

has two shift keys, vs. the one shift key on the 32S, so a lot of the keys on the 32S II have double shift functions. The 32S has a lot of menu driven features, which eliminated the need for double shifted keys, and made for a really clean keyboard to boot. The 32S was not in production for a long time, and when it was replaced by the 32S II HP "unburied" a lot of functions that had required digging into a menu for access. For example, on the 32S II the factorial is left shift > 1/x, whereas on the 32S you access it through a menu that is brought up as shift > prob. The stat functions are improved on the 32S II with the introduction of sample standard deviation in addition to the population SD available on the 32S, the 32S II has fraction capabilty and a few conversions (cm/in, kg/lb, Celsius/Fahrenheit). A really obvious difference is the perenthisis on the 32S II, which are used in programming equations with an + sign.

Both are great calculators. Do have a look at the HP 33S (see Samson Cables), for example. This is the replacement for the 32 series, and you'll find many postings in this forum, mainly concerning it's rather odd appearance. Chevron-shaped keyboard or not, I'm looking forward to getting one in my hands.

Best regards, Jim

Re: HP 32S vs H 32SII

*Message #4 Posted by **Tom Sherman** on 26 Oct 2003, 9:57 a.m.,*
in response to message #1 by John Beckwith

John,

A striking difference between the 32S and the 32SII is the fact that the 32S uses an RPN-entry solver, whereas the 32SII uses algebraic entry for its solver. In my opinion, the algebraic solver is much easier to use, even for RPN enthusiasts. For example, if you want to put Newton's second law into the algebraic solver, you just write in f=m*a. To do the same in the RPN solver, you have to write f[enter]m[enter]a*-. The RPN solver does not allow equations to be written (it has no = sign), so equations have to be converted to expressions by subtracting one side of the equation from the other. An excellent explanation of the RPN solver on the 32S is given on the HP Museum site under the description of the 32S.

The best algebraic solvers, in my opinion, are found on the 27S and 19BII calculators, but these models are not otherwise programmable. If you have not used an algebraic solver before, it is almost indecently easy and convenient. It takes the place of having to write, for example, a BASIC program to do the same thing. The solver will numerically determine an implicit variable, even when there is no means algebraically for making the variable explicit. For example, in the equation R^x = S^x + T^x, given values for R, S, and T, it will find x, even though there is no algebraic means for solving for x, that is, for putting x explicitly on the left-hand side of the equation.

Another difference between the 32S and the 32SII is that the the 32S has only one shift key, and makes greater use of menus on the screen. The 32SII has two shift keys, uses fewer screen menus, but has a more cluttered keyboard. I find the 32SII keyboard a little hard to read, but I think the algebraic solver makes up for it.

Tom

Re: HP 32S vs H 32SII

*Message #5 Posted by **Erik Ehrling (Sweden)** on 26 Oct 2003, 2:15 p.m.,*
in response to message #1 by John Beckwith

A radical suggestion: How about considering buying a HP-42S instead of a HP-32SII? It might be slightly more expensive on eBay, but it has much more memory (7.2K vs 384 bytes) and a two line graphical LCD. Also, as it is program compatible with the HP-41CV there is a much larger program base for it. Of course, it is ultimately a question of taste, but personally, if I had to choose between the HP-32SII and the HP-42S I would definitely prefer the latter...

Regards, Erik Ehrling (Sweden)

Re: HP 32S vs H 32SII (worse with every new model)

*Message #6 Posted by **Norm** on 26 Oct 2003, 3:17 p.m.,*
in response to message #1 by John Beckwith

Although many will disagree, I recommend the basic HP-32S, even though it was not produced in large numbers and may cost more to locate a used one.

* * * The reasoning:

A calculator is not supposed to do an infinite amount of tasks. It is used for simpler things. If you want to do something really complicated, you'd use a PC instead.

THEREFORE, the HP-32S is a nice little package of 'just the right stuff'. The keyboard is not too complicated. The single shift key (orange button) lends itself to clarity and understanding. Whereas the HP-32Sii is annoyingly complicated just by looking at the two shift keys and the humongous amount of stuff on the keyboard. I have a "fleet" of HP-32S units that I keep kicking around the house. About 3 or 4 of them last time I counted. I just grab the closest one to do some calculations, and save the HP-34C for special occasions, like bringing out finest red wine.

Another negative about HP-32Sii is that they kept moving production around to cheaper & cheaper facilities, and plenty of the later versions have got painted key legends that aren't as bold and can rub off with usage.

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As a rule of thumb (setting aside the 41C for a moment as in a world of its own) HP calculators got worse with every single model release. HP-34C was the best of all, a stunning marvel of cosmetic cool-ness and a concise vision of what it was supposed to do, all in the prehistoric "relays & diodes" era of about 1979.

In other words, a graph of the "desirability" of the scientific calculators from HP looks like a ski slope.

So then came HP-32S, which gave us the long battery life and slim profile, via LCD and CMOS, but with a feeling of cheapness and a tendency of the display to fill up with dust & dirt because HP was too indifferent to seal it up properly. And an entirely "disposable" design philosophy, which means you aren't going to have much luck cleaning up a dirty one.

NEXT came HP-32Sii, which over-cluttered the keyboard with a bunch of 'stuff' (metric conversions, or whatever) and which pioneered rub-off key legends in the later models. Therefore, HP-32Sii is worse than its predecessor.

THEN THEY DISCONTINUED ALL THE SCIENTIFIC CALCULATORS (that's about when yours truly showed up at HP Museum) of course, what's worse than not having an HP-32Sii ?? Why, having no calculator at all. So that is what HP did in order to maintain the downward slope on our calculator graph.

NOT TO BE OUTDONE, HP has continued the trend. What could be worse than having no calculator at all? Why, an HP-33S of course. :o| Featuring a keyboard bent into the shape of a Chevron gas station emblem, you would be better off owning no calculator at all, than owning an HP-33S.

If HP continues the trend, what types of features will be offered AFTER HP-33S ?????? keys with no legends? no keys? Vulcan mind-meld interface ?

Re: HP 32S vs H 32SII (worse with every new model)

*Message #7 Posted by **Frank B. (Germany)** on 26 Oct 2003, 6:22 p.m.,*
in response to message #6 by Norm

I think it's just a matter of personal taste. I believe HP's calculator design peaked with the 15c and the 42s. I own a few HP calculators, and most of them are under display in my living room. But all my Spices are well hidden in a drawer because I think they are among the ugliest calculators HP ever produced.

Regarding the 33s: Has anybody tried this calculator yet? No? So nobody knows about keyboard quality or how one can work with this new keyboard design. Maybe it is much more ergonomic than the older HP designs. Maybe not. To tell one has to try one.

Frank.

Re: HP calculators got worse ...

*Message #8 Posted by **Valentin Albillo** on 26 Oct 2003, 6:59 p.m.,*
in response to message #6 by Norm

Norm posted:

"HP calculators got worse with every single model release. HP-34C was the best of all, a stunning marvel of cosmetic cool-ness and a concise vision of what it was supposed to do ..."

Surely you're not being fair to the HP-15C, are you ? I'm a big fan of the HP-34C, wrote a whole "Solutions Book" for it (published by HP, "Advanced Mathematics") and know the machine inside out, including its "synthetics", so to speak.

But certainly, the HP-15C is a much better machine in all counts: better physical construction and reliability, no weak parts or "Achilles' heel" points at all, far smaller, lighter and thus 'pocketable', its batteries last decades instead of hours (no charger), much larger memory, much more advanced functionality (matrices, complex numbers), better display, etc, etc, etc.

I concede that everyone's entitled to his own opinion and tastes, but your statement "HP calculators got worse with every single model released" seems to me absolutely wrong and unfair when applied to the former HP-34C and the later HP-15C. The HP-15C certainly was a better model than the 34C, and denying it or ignoring it is just futile and unreasonable.

Best regards from V.

Hello V. Albillo

*Message #9 Posted by **Norm** on 27 Oct 2003, 5:13 a.m.,*
in response to message #8 by Valentin Albillo

Hello V. Albillo, yes you are right that 15C is good. I have no problem with it.

Of course if not for oversimplification, I would not have a situation to turn into a posting. To presume they always get worse, one must conveniently forget about 15C and also 41C.

Wasn't 15C a bridge between 34C and 32S ??? But they kept making 15C for awhile.

Re: Hello V. Albillo

*Message #10 Posted by **Valentin Albillo** on 27 Oct 2003, 6:53 a.m.,*
in response to message #9 by Norm

Hi, Norm:

Norm posted: *"Hello V. Albillo"*

You can call me "Valentin", if you want to ... :-)

"Wasn't 15C a bridge between 34C and 32S ??? But they kept making 15C for awhile."

Yes, the 32S and the 15C overlapped for a few months before the 15C was finally discontinued, but no, the 15C was never intended as a bridge between the 34C and the 32S.

The whole Voyager series (11C, 15C, ...) was a 'stopgap' series while the "Titan" project continued. This "Titan" was intended to be the 41C successor but in the end it became the HP-71B instead. The 15C was then meant to be the most advanced, small pocketable pure calculator ever, so the very best algorithms known to man (or even invented rigth then, for the purpose) were implemented on its hardware, to ensure the utmost feasible precision for every operation and function, from hyperbolics to complex-valued operations to matrices. They fully succeeded an the rest is history. You can read a lot about it in this very interesting paper, of you haven't seen it already:

Mathematics written in sand

As for the 32S, it's not quite the 15C's sucessor (that would be the 42S), and though it's much faster and has some other desirable improvements, it regrettably lacks many important 15C's features such as comprehensive, integrated complex-number functionality, matrix operations, and larger RAM, among others.

Matter of fact, you can fit much larger, more complex programs in the 15C than you can in the 32S, and using the SOLVE and INTEGRATE features won't leave you absolutely starved for memory for the expression you're trying to solve or integrate, let alone if you want to include those advanced features in a program !

The conclusion is: far from being a bridge, the 15C is actually a far more powerful programmable calculator than the 32S is, and so you can attack much more complex applications with it, albeit more slowly. The 42S is the real sucessor to both the 15C and the 41C, even though it still lacks some important features that the 15C has (try to enter 4 complex numbers on the RPN stack at a time)

Best regards from V.

Re: HP 32S vs H 32SII

Message #11 Posted by ***Paul Johnson*** *on 27 Oct 2003, 12:30 a.m.,*
in response to message #1 by John Beckwith

I would NOT recomend you buy a 'vintage' HP RPN calculator for your 9 year old. The current prices reflect the fact that they are collectors items, not to be carelessly tossed into a kid's backpack. I've got 3 kids in college, and one in high school. When my kids 'needed' a calculator for class, it generally involved a graphics model, specific to the class. The same calculator used by the rest of the class (and the teacher) was highly recomended. Before that time comes, a $9.95 algebraic will probably take care of most of your son's immediate needs.

You really hit the point: "..HP really seems to no longer make what I would consider to be a good scientific calculator that STILL USES RPN!" Everyone visiting this site has been singing this song for several years! Don't hold your breath for the 33s. If it is just another dying ember of the RPN funeral pyre, you won't miss anything. If it takes off and finally turns HP calculators around, it will be available for a while, at least until it's

replaced by a better model. Before you place too much hope in that happening, repeat that point you already made, and repeat it again until you understand it. Don't expect a miracle. HP's calculator future has been all too clear for the past few years.

By the time your son gets into college, don't plan on him looking to 15 or 20 year old calculator technology to meet his needs. The calculators available then will no doubt be more advanced then those we have today. I expect that he'll have more of a pocket computer than a pocket calculator.

If you want a "good scientific calculator that STILL USES RPN", by all means look for a vintage bargain. Use it, but also take care of it. It may have to last a long time. As for your son, unless he expresses an interest in collectable calculator, I'd look towards a newer model.

Wait.... go ahead and give one to your kid (long)

*Message #12 Posted by **Norm** on 27 Oct 2003, 5:30 a.m.,*
in response to message #11 by Paul Johnson

Suggest that one could indeed teach a kid to appreciate math with use of an HP-32S, HP-32Sii etc. And if the kid knows RPN and can crunch numbers effectively with such a calculator, he will be ahead for life.

Though not my favorite, the abundant quantity of HP-32Sii would make it an ideal choice, with an ongoing used supply. (HP-32S my favorite, though smaller pool of surviving units). Face it..... functional working HP-32Sii will be available for the next 50-60 years, that's long enough for your kid if he wants to own a couple of them in his life.

Usage of the "RPN" calculator has value all its own..... it is a tool that can be used. It is like a good milling machine or a good skilsaw. It does not go obsolete. Its value does not diminish with time. It cannot be made obsolete anymore than the laws of physics (F=mA, KE=1/2mv^2 etc) can be made obsolete. Supposed plan to come up with something "better" will not work when the original was already all you need... how do you come up with "better than" F=ma for example. Same with an HP-32S .

Casual number crunching with a calculator is an absolute requirement that will not change. It must be done effectively and efficiently. RPN is a must. Keyboard that does not look like a cowcatcher is a must. Since space aliens from the planet Zargon took over HP, and they don't make the right item anymore, give your kid something real..... give him the 32Sii for example, and tell him "this is it" it can meet his needs for a lifetime.

SURE your kid will have plenty of teachers who demand he use the latest flim-flam piece of junk that is free at the bottom of the Cheerios box.... yeah, a TI-83 or whatever, and yes, he will have to use it for that class. For long-lasting personal use, a 32Sii could last for life however. I already got a chuckle how the only kid I am in contact with who has a TI graphing calculator???? here was what he said..... played video games on it.... until it busted, and no it didn't heal itself... its still busted. Hmmmmmmmmm thats not how it went when I dug deep and bought my HP-34C brand new from a discount NY camera shop back in 1980. I learned and learned, and no it didn't bust.

Prices for HP-32Sii remain sky-high on eBay, probably because it is the most abundant and available choice if somebody wants to keep working with the 32Sii long-term with no factories producing it.

****

HEY about various posters here who defend marketeers as these brilliant people? How come the marketeers dont recognize the sky-high eBay prices as proof of a huge marketplace for things like HP-32Sii ??? Wait I already know the skeptics answer. "Ahh all those 32Sii moving thru eBay?? Thats just a few crackpot collectors, a few loose lug nuts from eBay, just a handful of units going to wacked out OLD-HP enthusiasts". But I tell you waht..... you got a dozen or more units a week going thru eBay at

astronomical prices..... not to mention all the other models also... and that's proof of a deep, deep, long lasting interest in the product, and 100% proof of a market for a REAL scientific calculator same as they made before, the "old HP" style, the need is not diminished.

So get your kid that HP-32S, or HP-32Sii .

Would be a sad mistake [LONG]

*Message #13 Posted by **Valentin Albillo** on 27 Oct 2003, 7:58 a.m.,*
in response to message #12 by Norm

Norm posted:

"Suggest that one could indeed teach a kid to appreciate math with use of an HP-32S, HP-32Sii etc. And if the kid knows RPN and can crunch numbers effectively with such a calculator, he will be ahead for life."

He won't. He will be handicapped for life instead, not knowing well how to use nor being comfortable with anything except those ultra-rare, nobody-knows-them RPN things. Kids are already way reluctant of maths to tell them that instead of keying in:

```
COST = PRICE * QUANTITY
```

they must do it thusly:

```
PRICE, [ENTER], QUANTITY, *, COST, STO
```

Comparing RPN to 1980's primitive algebraic calculators is blinding oneself. Modern algebraic calculators are way more adequate to really understand and enjoy doing math.

"Face it..... functional working HP-32Sii will be available for the next 50-60 years"

Wrong. That's wishful thinking. All HP32SII (and all HP-15C for that matter) will be absolutely dead before 35-40 years have elapsed since they were built, due to unavoidable and irreversible aging of their electronics components, even if left unused and properly stored. That's still plenty of time, but saving a number of machines to ensure using one in a few decades from now on, is pathetically futile: all of them will be nonfunctional by then.

Usage of the "RPN" calculator has value all its own..... it is a tool that can be used. It is like a good milling machine or a good skilsaw. It does not go obsolete.

Wrong again. They ARE obsolete right now. Of course they can still be used profitably, and for some very special purpose applications they may be the only choice, but that's *despite* they being RPN, not *because* they are RPN. With today larger RAMs, displays and speeds, RPN has lost all its former superiority, and can even become part of the problem instead of the solution.

"Supposed plan to come up with something "better" will not work when the original was already all you need... how do you come up with "better than" F=ma for example."

See ? You wrote "F=ma" instead of "m, ENTER, a, *, F, STO" ;-) You see, you're right, then. Bettering "F=ma" is not possible, and "m, ENTER, a, *, F, STO" is not going to do it for most people :-)

"It must be done effectively and efficiently. RPN is a must.

Was a must. It isn't anymore. Can be used, of course, for all of us old timers is the preferred way, of course, but it isn't a "must" anymore for most anyone. If anything, most people consider it a "must

avoid" ...

"give your kid something real..... give him the 32Sii for example, and tell him "this is it" it can meet his needs for a lifetime.

For all the above reasons, neither "this is it" nor "a lifetime" are statements that can be reasonably justified.

"So get your kid that HP-32S, or HP-32Sii."

Anyone can do with their own kids whatever he feels best in educational matters, but for me, it would be a terrible mistake to try and make your children RPN fanatics. You'll be doing them a real disservice, and will only succeed in handicapping them for life in calculating matters.

For my own children, this is the approach I've taken:

- First, make sure they know how to use and program efficiently a modern, large screen BASIC-programmable calculator (like most any vintage SHARP), to the point that they actually like and enjoy solving their home assignments with it and even trying things on their own. The inherent easiness in doing calculations and writing simple programs, taking out all drudgery, will make wonders in reinforcing their feeling of success.

- Then, once the children actually like math and find themselves comfortable with the machine, I tell them there is an alternate system, called RPN, which works such and such, and they learn to use it as if it were kind of a game, a mere curiosity.

- Finally, they use the algebraic BASIC machine for most everything, though they can occasionally grab and use an RPN machine if need be. From time to time, I can show them how some simple program would be written in RPN, to propose them simple RPN programming tasks, as *intelectual challenges*, just for *fun*.

Want an example ? My 11-year old daughter was taught divisibility at school yesterday. One of her home duties was to find the divisors of a given, small number. She took her SHARP PC-1350 and produced this program within a minute:

```
10 INPUT "NUMBER ? "; N
20 FOR D = 1 TO N
30 IF N/D = INT(N/D) PRINT "DIVISOR = ";D
40 NEXT D
50 PRINT "NO MORE DIVISORS"
```

She pressed RUN, keyed in a number, and lo and behold, all divisors were duly displayed. Her simple, intuitive program was readily written and was extremely simple to understand, she even would go on to show and explain it to her classmates.

Do you think the RPN version would be so easily written, in such a short time, so intuitively, and so simply understood ? Do you think it would make the math look simpler ? Or would it instead be a problem in itself, obfuscating the simple underlying procedure with its cryptic, machine-like RPN code ?

RPN is Ok either as an intellectual amusement or real use for us old timers and fanatics of classic HP RPN and RPL machines, but to burden your 21st century kids with obsolete, long ago surpassed, machine-like notations ??? Trust me, forget it.

Best regards from V.

Edited: 27 Oct 2003, 10:06 a.m.

Hi again, Valentin (long)

*Message #14 Posted by **Norm** on 27 Oct 2003, 10:12 p.m.,*
in response to message #13 by Valentin Albillo

Hi again, Valentin.

I noted your comments about 15C being superior to 32S or 32Sii, and what you say seems believable enough.

Even if it has better complex number support, etc etc tell you a couple things I never liked about 15C..... the display width seemed a bit narrow, and, I never liked the thing being wider-than-taller. Sure I know some people like that.

For me it has to do with that my desktop space is limited, esp., say, if I was at a college wooden student desk, in some class. The 32S is taller than wider, and this is better suited to putting on the desk in front of me. To hell with the complex numbers..... I have seldom needed to crunch them using a calculator.

***** Now about kids and use of RPN, all I can say is for you to reply sentence-by-sentence, so eager to prove me wrong, well, I must surely be right just by how frantically you are typing. Guess I hit a nerve there?

I really don't agree with what you are saying. I advocate what I typed before. You say all 32Sii will be dead in 35 years not 60. That's just not true. As an electrical engineer, I know what are the components and which ones are going to age (and which ones are not). No I do not have a bill-of-materials for these units, but they should be doing just fine then. Frankly I am confident my HP-34C will be doing fine 60 years from now, and it is already 20 years old. (IT IS JUST THIS TYPE OF SITUATION THAT INFURIATES A CARLY FIORINA TYPE..... imagine a product still running 80 years after it was built..... I mean, you don't get to screw your customers and make them by the same thing over and over!!!!!!)

So from there, you are telling me that RPN is obsolete, NO i do not agree. And then you are making that classic error, equating a personal computer running BASIC, to a pocket calculator.

A computer is a computer. A calculator is a calculator. No they are not the same. They are meant to be different, Valentin. You can use them at different times for different tasks.

A handheld "jigsaw" from Home Depot is a "saw". A 3 foot diameter circular saw at a sawmill is also a "saw". Either of them is used to cut wood. Neither of them is inherently "good" and neither is inherently "bad". Neither of them is obsolete!!! Either of them is a "saw" even though they are used for completely different types of jobs.

RPN is NOT obsolete, an RPN calculator is NOT obsolete, and it is the finest available tool for specific types of jobs. BASIC on a computer is a fine tool for other types of jobs (quick little bits of software like you gave to your daughter).

I entirely and adamently disagree with your conclusions, and I absolutely would continue to advocate that teaching a kid an HP-32Sii would be a very very fine gift (not an 11 year old, no. We're talking about the last few years of high school).

Valentin, haven't you heard the stories lately from kids who ARE using 32Sii in their high school & college math classes? They get everything done FAST and walk out of their tests early. I think you should read a specific POST OF MINE that is on the "HP Museum memories forum"..... let's see..... its #178

Nothing's changed, dude, and nothing ever will. If you have a quick need to evaluate a formula, the RPN is the best way to do it. That's why the engineers invented it, and that's why the MBA/marketeers and others lacking technical expertise discontinued it. They discontinue things that work.

I absolutely do not see what you are talking about with your F=ma discussion. I use RPN and I compute things like that all the time quickly and efficiently. No I do not say " m enter a * STO" or whatever you were trying to come up with. Why would I use "STO" that is for storing into a register.

What you were saying really does not make sense. Thanks anyway though for replying and expressing your view . Check out #178 if you want to see where I am coming from. That type of story is unchanged to this day, it's still happening, its just that HP quit making RPN units at the factory, so we get to fight over used ones on eBay.

Re: Hi again, Valentin (long)

*Message #15 Posted by **John Beckwith** on 27 Oct 2003, 10:47 p.m.,*
in response to message #14 by Norm

Hi Norm,

Thanks for your thoughts. As a fellow EE, it seems, at least at first blush, that you and I agree a bit about the uses of RPN and the difference between a CALCULATOR and a COMPUTER within a calculator.

I wrote and posted my ideas (interupted several times in the creation) about the different uses. No sooner do I post then I see your post.

It will be interesting to see what the next comments are.

Sincerely,

John Beckwith

Hi again, Norm [LONG]

*Message #16 Posted by **Valentin Albillo** on 28 Oct 2003, 6:13 a.m.,*
in response to message #14 by Norm

Hi again, Norm:

First of all, thanks for your mesurate and kind reply, I know that my position on RPN is not exactly popular in this forum, so I'm all the more grateful for you not flaming me outright. Now some comments:

Norm posted: *" I never liked about 15C [...] the thing being wider-than-taller. Sure I know some people like that."*

Sure. I do, and all the millions of financial users that did buy the HP-12C did also like it, a lot. It's 'classy' and neatly differentiated their expensive, horizontal financial HP calculator from the cheap-looking vertical concoctions used by the competence. That's one of the reasons why it sold in the millions, it marked differences.

"To hell with the complex numbers..... I have seldom needed to crunch them using a

calculator."

Perhaps it's just that as your beloved and much preferred HP-34C can't handle them, you simply resorted to other means when dealing with them. Because I can't believe that an Electrical Engineer like yourself wouldn't need to use complex numbers almost constantly for circuits computations. I know many, many EE, colleagues of mine, and all of them did own and used an HP-15C in their time, constantly. Till the HP-71B+Math ROM came (and then the 42S), it was the easiest and most efficient way by far to deal with complex numbers.

"All I can say is for you to reply sentence-by-sentence, so eager to prove me wrong, well, I must surely be right just by how frantically you are typing. Guess I hit a nerve there?"

Not at all ! :-) Replying sentence-by-sentence is just my style, I do it in all my e-mails, either in this forum or private, as you can easily see in the Archives. Also, I'm not in the least eager to prove you wrong, because these matters are nearly 'religious-kind', and trying to convince anyone or proving anyone wrong is just futile, doomed to failure, and serves no purpose. And finally, I don't type frantically at all, I've been typing all my life at tremendous speeds, and can write a message this long or longer almost as fast as I speak. If that makes you think you're right, well, what can I say ? :-)

"I really don't agree with what you are saying. I advocate what I typed before."

That's perfect with me. You're fully entitled to your own opinions, and I was just trying to offer you a set of arguments why I thought otherwise. You don't agree ? That suits me fine. Mine was a well-meant advice, if you don't want to take it, that's alright with me. Maybe you'll see things differently eventually, maybe not. It won't affect me in the least.

"Frankly I am confident my HP-34C will be doing fine 60 years from now, and it is already 20 years old."

What can I say ? I applaud your unfounded faith in such a possibility, but the chances are nil. Consider yourself fortunate if it will last another 20 years, at most. On the other hand, there will always be emulators/simulators available, so don't worry.

"Then you are making that classic error, equating a personal computer running BASIC, to a pocket calculator."

It's not an error on my part. Seems to me you've had little to no experience using handhelds other than HP, probably due to your extreme prejudice against anything not RPN. Should you have owned and get to know some of those machines, you'd see that they are handheld *calculators*, only using an underlying algebraic system instead of RPN, and BASIC as program language, instead of RPN-style programming. Saying they are not calculators doesn't quite cut it, even in the back of the machines themselves you can read "Electronic Calculator Model such-and-such". They do have an immediate mode, and specific functions on specific keys (LN, SIN, etc), so there's nothing to differentiate them from any other RPN *calculator* whatsoever. Saying they are not calculators but computers is a lame attempt to define them out of existence.

"I entirely and adamently disagree with your conclusions, and I absolutely would continue to advocate that teaching a kid an HP-32Sii would be a very very fine gift"

Fine with me. I fully respect your stand. Go ahead.

"haven't you heard the stories lately from kids who ARE using 32Sii in their high school & college math classes? They get everything done FAST and walk out of their tests early.

And how can you be so sure that their fast performance is due *just* to their using the 32SII ? Seems to me that a father giving his son a 32SII is *not* a typical father, much more likely to be a knowledgeable, technically-oriented father, that probably understands his math quite well, and can and will eagerly teach it to his son in clear terms, helping him understand the concepts. Evidently, such a child will perform better and faster at any test, but it's not so much due to their using an RPN calculator, but for the fact that his father has positively influenced his math learning and abilities, don't you think ? That being so, would you doubt that if same child with like kind of father be given a comparable non-RPN machine, wouldn't he perform equally well ?

"If you have a quick need to evaluate a formula, the RPN is the best way to do it."

Put it to test. Take some suitable formula (like Mach's number) and pit two boys, one armed with an RPN calculator and the other with some modern algebraic model he knows inside out, and test the times. For added panache, ask for immediate recomputation of same formula changing some parameter.

"That's why the engineers invented it, and that's why the MBA/marketeers and others lacking technical expertise discontinued it. They discontinue things that work."

That's an oversimplification and somewhat 'paranoid' :-) Products that don't sell are discontinued, if they sell they aren't. Take the HP-12C as an example. It's never been discontinued because it sold in the millions, while other wonderful similar machines such as the HP-15C and HP-16C just didn't so out they went. And the fact, whether you and me like it or not, is that RPN doesn't sell in quantities which justify sizable investments in research and marketing, and HP is a profit-driven company, not a charity. If it doesn't sell, fewer and fewer resources (i.e.: money) will be allocated to the product, and eventually it will be cancelled, period.

As for engineers inventing it that why, don't oversimplify: HP engineers of the time were confronted with the fact that RAM was incredibly expensive then (a mere 49 extra bytes meant US $100 or more), and ROM wasn't cheap either. So, instead of implementing a multi-level internal stack to hold the operands and operators in some algebraic expression to be evaluated, and having to microprogram in ROM the necessary parsing of the expression and hierarchy of operators, they simplified in a most elegant and practical way by using RPN instead: the user would do the parsing (thus saving space in ROM and microprogramming) and no hierarchy of operations would be needed.

All very neat, tidy, elegant, and above all, economically feasible, money-saving, space-saving. BUT (and a big BUT that HP has failed to sell to the masses) the user would be forced to DO the parsing from algebraic to stack notation *himself*, and would need to adopt a new paradigm.

As you well know, users were more than happy to do that at the time, given thay they would get better performance at a high but still affordable price. But nowadays RAM and ROM aren't a problem anymore, and users do not need nor want to do the 'parsing' themselves, you see. They just want results, and want them fast and effortlessly. Time for the machine to use its huge RAM and ROM and do the work instead.

That's why masses are shying away from RPN and that's why RPN is obsolete. I'm as sorry as you are, I've been programming in RPN for the last 27 years and still write RPN programs (have you seen any of my 34C programs ?). But I'm neither fanatic nor blind, and can perfectly see that there are much better ways of calculating and computing in a handheld, even a vintage one, let alone more modern units.

"I absolutely do not see what you are talking about with your F=ma discussion."

It was a well-meant joke.

"That you were saying really does not make sense. Thanks anyway though for replying and expressing your view."

Same here. Thanks again for your kind, articulate reply. I've always enjoyed your very funny postings, even if they are often somewhat 'on the far side', and, at any rate, how can I not like a person who's a fervent and passionate admirer and promoter of my beloved HP-34C ? :-)

Take care. Best regards from V.

Me & John vs. Valentin (LONG)

*Message #17 Posted by **Norm** on 28 Oct 2003, 3:45 p.m.,*
in response to message #16 by Valentin Albillo

Hi Valentin, it's good to trade a bunch of views on the chat board. Both of us are touch typists I tell you that for nothing. Maybe from here this will fizzle out a little don't have that much more to tell you. Your view that "RPN is obsolete" however is
(a) incorrect
(b) unpopular with the types on this chat board

although there are an increasing number of posters here who are thinking like you..... who aren't loyal to RPN but like the latest "cereal box" trinkets from "KINPO" (HP calculator made in China) . To that end, note a nearby post from "GE" he says "THIS IS A MUSEUM" and he doesn't want people talking about those newest cereal box toys. (GE's censorship will not work of course. A wild idea might be that Dave Hicks could have two chat boards..... RPN and non-RPN, though not enough posters to fill them both..... maybe many) chat boards divided by model number ??

I like what John says about "CALCULATOR" vs. "COMPUTER" and did he also infer "computer within a calculator" ?? (That last one a 49G with the little LCD screen etc etc) I stand by the view.... any is a saw.... cuts wood.... but you need different saws for different jobs.

HP (and some like Valentin) are enamored with the view that a calculator is now a "COMPUTER IN A CALCULATOR" (the graphing calculator craze). I don't agree. A calculator has a niche of evaluating little formulas. I have y=f(x) and maybe its some funny trigonometry formula and I want to evaluate it so that I can continue my design work with the numbers. That's what a calculator is for. Giving me a cheezy, terribly low-res graph on some 100 x 150 pixel (?) screen on a calculator is
(a) useless
(b) interferes with me getting my work done
because now the calculator is complicated, difficult to use, has a bunch of worthless chrome hood ornaments on it that are just getting in the way.

I start good debates on this chat board sometimes.... I bought a 48G+ (?) about 4 months ago..... used it for a couple of days... found it so atrocious I declared it rotten goods and got rid of it to the first taker (some guy in England, of all things). Its difficult and annoying to use, lacks bedrock foundational principles such as RPN and a clean, well-defined keypad.

Valentin you mentioned "thank you for not flaming" on this chat board. I've visited here

awhile.... this chat board has some of the most thoughtful and intelligent people I've bumped into..... would say that flaming is usually for more derogatory (and low-IQ) environments such as the stock market chat boards. So no need to say 'thanks' its been the way of it around here. So atrocious is the newest model (HP-33S) that I nearly started a flame-war a couple weeks ago... regretted it of course.

Valentin you object to my comment: "To hell with the complex numbers"..... I have seldom needed to crunch them using a calculator."

Let me elaborate..... my chosen engineering skill is analog electronic design (LaPlace transform analysis of LRC circuits, etc). LaPlace transforms specifically allow us to do much less evaluation overall of the complex numbers. We learn the underlying theory of what circuits do (a pole, a zero, a rolloff, a 3db point, a 20db/decade slope, a 40 db/decade slope) and the LaPlace transforms, although miserably complicated math, reduce it all to THE SIMPLEST OF ALGEBRA. Frankly I can do my 'complex numbers' on the 4-banger algebraic calculator on my wrist (CASIO CA-602) even though it has not even a "pi" button (the biggest detractor is lack of a square-root button) and the reason I can use it for complex numbers???

BECAUSE I KNOW THE THEORY IN MY HEAD, I was taught by very good professors, in the aerospace era, and I learned it the way they wanted me to. As a result, evaluation of formulas or learning is typically a modest and simple thing that is easily evaluated. In the simplest of cases, I could have one resistor and one capacitor and I want to know their 3dB breakpoint. Although this is entirely a result of two complex vector impedances varying with frequency, I know that the breakpoint is 1/2*pi*RC and I can do that on a 4-banger. THIS is my comment about I dont care about complex numbers on the 15C... its nice that it has them of course.... but if anything, means somebody didn't appreciate the great empowerment of the LaPlace transform theory AND PRACTICE as taught in the EE department.

Valentin wrote: >> I can't believe that an Electrical Engineer like yourself wouldn't need to use complex numbers almost constantly for circuits computations. I know many, many EE, colleagues of mine, and all of them did own and used an HP-15C in their time, constantly.

I stand firm by the "HP-34C" mindset and its extension into its obvious successors, 32S and 32Sii . If I did have two complex numbers and want to multiply them, etc., I can easily type the simplest of little programs into a 34C, use the registers and do that in seconds. I seldom need to.

Valentin wrote: >> I'm not in the least eager to prove you wrong, and can write a message this long or longer almost as fast as I speak. If that makes you think you're right, well, what can I say ? :-)

You are right of course, that was just an attempt to grab your necktie and use it to my advantage in this small scuffle :o)

To wrap up, I also stand by that there is no reason that a 32Sii wont function 60 years from now. Sure the keyboard could be "typed to death" like if the domes break apart. I dont use mine that much. The 34C can fail at its electrolytic capacitors (replace them with tantalum, those do not fail). The biggest problem with 34C is the silicon chips are too fragile in regards to static damage, and those are suffering atrition as we speak because people take them apart and blow the chips with their fingers. Equally bad, the "solderless" design (incredibly stupid manufacturing decision) gets corrosion at the solderless joints, the circuit opens, and the chips can be damaged or degraded just by running it in that condition. HOWEVER the 32S and 32Sii are very reliable, and probably don't even have electrolytic

caps in them. They will run 60 years from now. I am the EE, I win you lose. :o| And the 34C will run, but ONLY IN THE CARE of skilled people who understand its frail 1970's interior very well (I'm getting to be in that category now).

You mention that RPN was created ONLY DUE TO RAM BEING EXPENSIVE, etc etc. WELL, even if that was the original root cause of RPN, it's NOT THE REASON FOR IT. EASE OF USE IS THE REASON !!!!!!! It allows a person to quickly bang out results by holding the intermediate results in a "STACK". You advocate an "algebraic calculator" but this is so wrong it aint funny!! Why? Because you have to start an entire new step..... type in the formula as an abstract!!!!!!! You don't do that with an RPN calculator. If you have a formula, that's either in your head, on a chalkboard, or on a piece of paper in front of you. The formula stays there..... only the numbers go into the calculator, by typing keystrokes. IF I WANT THE FORMULA IN THE CALCULATOR then I switch it to "PRGM" mode and I type the formula in a "language" of typing the keys themselves (which are stored as the program). This is so georgeously simple (in comparison to the tedium that you are burdened with , typing formulas into that 100 x 150 pixel display) that the RPN wins hands down. I dont care if it cost $20 to buy a byte of RAM in 1965 and that's the reason, or whatever. RPN evolved to being the most convenient and simplest of calculating methods, because it was friendly to intermediate results and you DONT HAVE TO do all that baloney that 48G+ users do.

HEY one thing I can tell U.... EVEN IN THE DAYS like 1980 and at MOMENTS like in my "memories post" (#178??) THERE WERE UNBELIEVERS. This is like church, my friend. It's about whether you are going to "BELIEVE" in RPN or not. Some will just say "no way I dont believe, I worship some other God at some other church". Others keep the faith and show up every Sunday. Even at crowning defining moments that prove me right (memories post #178) NINE OUT OF TEN refused to believe in RPN. Well that's fine. The HP behavior to get rid of a wonderful thing, in a fit of corporate maliciousness, greed, selfishness, and non-attention to academic matters, leaves Mr. Hewlett and Mr. Packard rolling in their graves (hey are both of them dead, I dont keep track of all that) and is very unfair to those who DO BELIEVE.

You have also missed an important point that I often post here, Valentin. HP-15C, a calculator you like, was discontinued but HP-12C was not. This is a powerful statement AGAINST present HP management and the present rampage against RPN.

You said how fine that is (keeping 12c) because "HP-12C sells enough units, etc" . OK, then all that matters is profits and maximum greed and biggest pile of cash, right? Well for all who advocate THAT, you beter hope you don't get some weird brain tumor at some location in your head that only afflicts 150 patients a year and the only company that makes the unique probe or tool for it chose to provide the item NOT BECAUSE OF GREED but because they wished to solve an academically interesting problem and help some people on their way.

See, JOhnson & Johnson could be just like HP. They could say "well the largest cancer problem we've got is lung cancer, so lets sell tools only to fix LUNG CANCER and to hell with those funny little tools to fix all those other weird cancers, they were low-volume products and we can't stand those designers who work on that stuff anyway, so lets discontinue all that stuff and only sell the profitable LUNG CANCER tools because we sell millions a year of those"...

That would be foolish wouldn't it. For a corporation to do as HP has, which is to sell a product ONLY IF it sells millions of units and makes a giant pile of cash, is disgustingly irresponsible, juvenile, idiotic, and could originate only in the business school where they

draw funny little graphs of how to make the biggest pile of money (which is all they care about) and I regularly try to make that point on this chat board and typically nobody gets it.

OVER AT AGILENT they have all kinds of absolutely world-class EE instruments... say a microwave impedance analyzer. And it has some funny little machined jig that holds, say, a weird surface mount part. So that you can make the measurement. And maybe they sell.....what..... about TEN A YEAR of that little machined jig. So they make it available because its academically necessary. (Dont stop me I'm on a roll) Carly Fiorina's behavior is disgustingly selfish and juvenile by comparison because they wont sell it unless they are going to make this huge pile of cash on millions of units. Under Carly (were she dictator of consumer-land) there would be no Universities, and be no academia, be no albert einstein and be no e=mc^2 because its not profitable enough for her.

MY POINT IS NOT YET MADE.... HP-15C can obviously co-exist on the same production line as HP-12C. THEY CONTINUE TO MAKE HP-12C and the only difference is the programming in the chip, and the front keyboard. So that's about multiple products off the same production line, and its about incremental sales. ITS ALSO ABOUT enjoying the continuing return on investment, on a thing that was already designed. The decision therefore to CANCEL 15C while KEEPING 12C is an example of simple corporate maliciousness, selfishness, and petty vandalism against the EE, scientific, and academic communities. HOWEVER THIS SITUATION (discontinue 15C, discontinue 32Sii, etc) is NOT explained by your saying "RPN is obsolete". They were already designed, and people were buying them. Help me along here..... but surely hp-12C is RPN ??? Why not discontinue it then, since you clearly take the stance that RPN must be banished from the corporate factory production as well as by new learning of gifted young people??

OK, well, there's no flames here, no war here, just talk, and fast typists. And smiley faces :o) . Its been fun (though burndensome on our schedules) and there have ALWAYS been the unbelievers in regards to RPN, even in 1980, and they were always numerous. Its interesting how they took their warfare to the boardroom however and choked off the source (except for business people who can have their 12C).

ONE INCREDIBLE POINTER that you are wrong..... the continuing traffic on EBAY of HP "RPN" product is an absolute TORRENT of activity at high prices, and a very CLEAR indicator to any marketeer who has an IQ above 60 that HP is doing the WRONG thing by assaulting RPN and its followers..... the dollar volume and market demand for those discontinued items is NOT representative of 'a few crackpot collectors' etc etc. and with that final thought to logically win out over your stance, I wish you well and hope the time to trade this stuff was not too burdensome.

Best, - Norm

Re: Me & John vs. Valentin [very LONG!]

*Message #18 Posted by **Joesph** on 28 Oct 2003, 4:59 p.m.,*
in response to message #17 by Norm

This has started an interesting arguement. Here are my views:

The old system of RPN, with a 4 level stack, is terribly outdated. Yes, there is a small amount of people who love it, and they push ebay prices right up. But will these people be enough for HP to bother with?

Back when algebraic calculators were primitive, this system of RPN won hands down. The algebraic calcs did not understand precedence, and had a small limited amount of

nested brackets.

However the new algebraics are much nicer. A typical scientific sharp has a 2 line display - one where you type the formula (and can modify it as wll), another where you get the result. You can clearly see the formula - not just have faith in an invisible and tiny stack (yes, I know 4 levels is adequate in theory, but i find it incredibly cramped).

Also, as someone else mentioned, challenge people to a contest - one using a HP classic HP RPN, anither using said sharp. Both have equal skill with their calcs. Race them - make them both enter a complicated formula, and evaluate it 3 times with different numbers. What do you think the result would be?

Now, include 2 more people in this race - one with a TI graphics calculator, the other with the new 49g Plus. The TI offers a few advantes of the sharp, but not many. It is worse in that the keyboard is poor (Sin, Cos, Square Root are all shifted) but better in that the formulate can be modified easier.

Now, the person using the 49G Plus has the advantages of 'real' postfix notation, not HP's limited version. They have an unlimites stack (not that it is applicable, but nicer then 4 levels), with the first 6 or so levels visible. Whats more RPL is *symbolic*. They can enter the equation just as fast as the classic RPN user, if not faster because they can see what they are doing,

BUT they have a great advantage when it comes to evaluating the formula multiple times. Once the formula is on the stack, they press 'Enter' 3 times to DUP, Type a quick list o variables to modify eg {x 1 y 2 z 3} and press WHERE then ENTER. Write down the answer, then repeat 2 more times. By this time the TI user is still entering the formula, and the classic RPN user has been slowed down re-evaluating the formula. The Sharp user is somewhere in the middle, the 49g Plus user is almost certainly first.

Note that the TI can also do the 'WHERE' trick.

Now, just to make things interesting (grin), if you disagree with me, I'll let you pick a formula and we'll time each other. We are each permitted one practice run, if you want.

Joesph

RPN handed down to Moses directly from God (incredibly LONG)

*Message #19 Posted by **Norm** on 29 Oct 2003, 4:50 a.m.,*
in response to message #18 by Joesph

ha ha just kidding. havent you all had enough book-length posts from me for awhile now ??

Hey..... the 34C can easily win that CONTEST between 48G+, 32Sii, etc etc and you make a guy type in a formula. You guys want the algebraic graphing calc to win because the contestants have to type in the formula..... right???

OK but here's the deal. The contestants have never used any of these models before. They all are good students but they only used 1989 Casio scientifics before the great contest.

FOUR HOURS before the contest, each person gets a crash tutorial on THEIR model of calculator, by an avowed wizard and proponent of that calculator model. So, say

you revere 48G+, you get FOUR HOURS to teach the guy how to use it.

UNDER THESE CONDITIONS, the 34C would clobber any of these other models, and clobber them real bad.

That's because the 34C guy will be done in mere minutes even though he only had 4 hours to get acquainted with it. And by the time that poor bastard with the 48G+ figures out how to turn it "on"and type in a formula with that miserable syntax/display/keyboard language, everybody will have gone home and the janitor will be sweeping up !

MORAL: HP management can't expect me to waste half my life learning the idiosyncracies and irrationalities of their latest model..... I just wont buy it. I'll keep using the thing that had a bedrock foundational vision underneath it and CAN be substantially familiarized in about 4 hours ..... solo, with a thing called a 'getting acquainted booklet' (gasp, can't have something like that!).

Re: RPN handed down to Moses directly from God (incredibly LONG)

*Message #20 Posted by **Joesph** on 29 Oct 2003, 5:42 a.m.,*
in response to message #19 by Norm

sorry, but I learnt how to do simple stuff like that in under an hour :-) It is nowhere near as hard to get started as you claim.

The 49G+ can do way, way more then the other HP calc - of course it will take longer to learn. I personally believe RPN is easier to explain when you can see the stack, and not just remember it.

By the way, my argument still stands. I still think I'd beat you in a race :-)

Joesph

All good things ...

*Message #21 Posted by **Valentin Albillo** on 29 Oct 2003, 10:21 a.m.,*
in response to message #17 by Norm

... must come to and end.

This must be so as well for this very interesting and polite thread (a real example of people having nearly opposite points of view, but nevertheless managing to discuss them without going for each other's throats, a real rarity in forums but not so in this one).

Hi Norm & everyone following this thread.

I've read your long and interesting reply with all due attention and though the thread must finish now, I want to comment a few points I feel you may have misunderstood, probably because of me not explaining myself with total clarity (a typical problem we non-native English speakers frequently must deal with). Let's see:

"Your view that "RPN is obsolete" however is [...] unpopular with the types on this chat board"

I know, I know, but just the same ...

"there are an increasing number of posters here who are thinking like you..... who aren't loyal to RPN but like the latest "cereal box" trinkets from "KINPO"

Not me. My HP collection does not include anything but classic, worthwhile models. No China-made junk (save for an HP-12C that I promptly got rid of), and no RPL machines at all (save an HP-28S, for historical reasons). HP48s and 49s have no place at all next to my 15C's, 41CX's, 71B's, 32S's and 42S's, among others, not forgetting my beloved 24+ year old HP-34C. I wouldn't touch a KINPO model with a ten feet pole.

"HP (and some like Valentin) are enamored with the view that a calculator is now a "COMPUTER IN A CALCULATOR" (the graphing calculator craze). I don't agree."

Neither do I. I have not a single graphing calculator, from any brand name. The fact that many of my SHARPS do have large screens which are pixel-addressable (and thus can show graphics on them) doesn't mean they are 'graphing calculators', at all. If you want some function graphed on the display, you'd better write a program to do it, pixel by pixel. The large screen is nonetheless very useful to enter and edit programs, and for hand calculations and sometimes graphics come handy, such as for my Othello program, with the board always displayed on screen.

"Giving me a cheezy, terribly low-res graph on some 100 x 150 pixel (?) screen on a calculator is (a) useless (b) interferes with me getting my work done"

For the typical, student-oriented graphing calculator, you're probably right. But for the scientific calculator which happens to have a large screen, as mentioned above, it's just the opposite. It greatly facilitates your work, as you can see previous calculations and results still in the display (till they scroll out), and you get to see more program lines at a time, and longer program lines, without scrolling. One of the worst flaws of the otherwise excellent HP-71B was that its very small, 1x22 character display made a chore of entering and editing any programs. A 4x24 display, on the other hand, is extremely convenient. Even the small, 2-line display of the HP42S is a great help over one line displays.

"Let me elaborate..... my chosen engineering skill is analog electronic design [...] I also stand by that there is no reason that a 32Sii wont function 60 years from now [...] I am the EE, I win you lose."

Nope. Though I work as a Senior Systems Engineer right now, I'm also an EE ... and anyway, time will pass by, and we will eventually see who was right. My best advice would be: use your 34C and enjoy it as much as you can, even if that means it will wear out. Keeping it in a safe, avoiding using it to make it last is futile, and in the end it will die by itself and you'll be left with a nonworking machine that you never fully used like it deserved to.

"WELL, even if that was the original root cause of RPN, it's NOT THE REASON FOR IT. EASE OF USE IS THE REASON"

That's the problem, Norm. Just stating your point in capital letters (as if shouting) won't make it right. As I see it, the problem is you seem to never have given any other machines a chance, at all. You just decided at some past date that RPN was it, and there you are. Never questioning it. Never really comparing it against more modern approaches. Never really taking some good non-RPN machine and invest the time to get to know it and see its good points.

That being so, seems to me you're just rooting in what you know, never trying out new things and gaining experience. Me, I am not a TI-junkie or otherwise, sadly ignorant of The-RPN-Revelation. On the contrary, I've been into RPN all my life, bought every classic RPN machine as they were being released, and have written thousands and thousands and more thousands of lines of highly-optimized RPN code, and still do. I have many articles (+programs) published in PPC, Technical Notes, Datafile, a couple books by HP (one for the 34C), etc. etc, so I know RPN pros and cons inside out. But I'll never let myself get blinded or limited by a single point of view, however right it may seem, and I got to know and experience other machines, and of course, tested them against RPN ones.

You know the results. I still like very much RPN, still write RPN programs and articles, and will do so in the near future, but I know (because I've tested it) that RPN can't beat the best algebraic systems neither in ease of use, nor in speed, nor in convenience. It may do for you, but not for me. I can evaluate and reevaluate any cumbersome expression (not "formula", as you seem to understand this term as a symbolic formula) in my SHARP PC-1350, say, long before you've had a chance to even decide on where to begin with.

But don't trust me, do the test yoursef, pitting two persons, one versed in RPN, the other versed in some powerful algebraic model, and give them some complex expression they've never seen before. Provided they're both proficient with their respective models, the non-RPN guy will win hands down. A reevaluation changing some value would be a killer for the RPN guy, as the other fellow would just bring the whole expression to the display with a single keystroke, then place the cursor over the value to change and press ENTER, and there you are, while the RPN fellow would have to reenter all numbers (even the ones not changed) and operators from scratch, as if he were evaluating it for the first time. Even using registers to store parameters wouldn't save the day for him, unless he would resort to try and write a program on the spot, which the non-RPN guy wouldn't need to. Try it !

"You advocate an "algebraic calculator" but this is so wrong it aint funny!! Why? Because you have to start an entire new step..... type in the formula as an abstract!!!!!!!"

You misunderstood something here. Seems to me you're thinking I'm advocating graphing calculators, where you must enter symbolic expressions with some kind of equation editor and such. That's not correct. I completely dislike graphing calculators and symbolic equations editors, never use them and never would. The calculators I advocate are the ones where you can enter:

X=3.0013431 , (X/EXP 1)^X*SQRT(2*PI*X)*(1+1/(12*X)+1/(288*X^2)-139/(51840*X^3))

and press [ENTER] and you'll get the result instantly evaluated on screen (while the expression itself still remains on-screen, above, ready for re-evaluation). No tedium and no burden, absolutely straightforward.

"It's about whether you are going to "BELIEVE" in RPN or not."

For a lot of people, yourself probably included, this is indeed kind of an 'emotional' issue, but not for me. There are issues that do require some faith into the proceedings, but this isn't one of them. This is a matter that can be tested, and rational reasons can be given and discussed. The problem is lots of people *won't discuss it* (lest they might risk losing their 'faith' in RPN, which they dare not), *won't give other machines any

chance whatsoever* (after all, not being RPN they can't be any good), and above all, *they won't perform any fair tests, at all* (why testing, when RPN's superiority is so obvious ?). This might be an acceptable attitude for most people, in this issue and in other more important real-life issues, but it's not an acceptable position for me.

"OK, well, there's no flames here, no war here, just talk, and fast typists. And smiley faces :o) [...] and with that final thought to logically win out over your stance, I wish you well and hope the time to trade this stuff was not too burdensome."

I wish the same for you, Norm. I've found this exchange of opinions most interesting, still think I must thank you for your consideration and patience with my 'heretic' :-) points of view. If you post any reply, I'll read it with interest, but I won't add further to this thread. In any case, rest assured that I like RPN a lot, and you'll be hard pressed to find any other person who has devoted so much time (and money) to it and its HP hardware implementations. That's a whole lot more of a chance than most RPN people would give to any non-RPN systems.

Best regards from V.

Valentin, one more thing.....

*Message #22 Posted by **Norm** on 29 Oct 2003, 3:25 p.m.,*
in response to message #21 by Valentin Albillo

You mentioned you prefer HP-42S because of a 2-line display.....

(Valentin wrote: the small, 2-line display of the HP42S is a great help over one line displays.)

I dont even want 2 lines in my display. I've run those, and they are distracting and reduce my productivity. Part of the incredible magic and beauty of making an HP-34C your friend (or, you know 32S, 32Sii) is that only the RESULT is on display and you keep the other stuff in your head. I SEE STUFF in "X" and I know there is stuff in "Y" and "Z" and "T" even though I dont see it, I know its there and that's enough. What if you could have a really big screen to show the entire operating system contents of your HP-49G etc would that make it better? Would it help solve a practical problem? I hold 3 patents and I have work to do and problems to solve. They wont get solved any better, nor faster, if the entire contents of the Communist Manifesto are displayed on a really big screen on my calculator.

BTW I've got plenty of company on this. A fine personality, Mr. Bob Carver (Phase Linear Corp., Carver Corp., Sunfire Corp.) is down the road and he ALWAYS totes an RPN HP calculator with him (not sure model, probably 41C) and that guy is a very busy problem solver. ....

Valentin, you have carefully described that my calculator WILL NOT function in 60 years from now, and also, that a 32Sii will not function 60 years from now. You have inferred that there is a little timer inside each resistor, and each capacitor, and at 35 years (the number you mentioned) kawhoom a little detonator goes off and each little molecule is vaporized in that resistor, or capacitor, and I'll be $hit out of luck !!

Well, I guess inside each ASIC on the circuit board, what, the glass oxide disappears and the polysilicon gates suddenly touch the drain-source?? At 35 years.

It's a marvelous testimony that plenty of HP calculators from 1980-1990 WILL BE FUNCTIONING 60 or 80 years from now, and NO, I don't have to keep it in a refrigerator in an antique art museum. Just a little respect and technical knowledge is all it needs. THE VERY THOUGHT must make Carly Fiorina absolutely freak out. She wants you to buy a new one every 2-3 years and a potential 60-80 year lifetime of a product just don't meet her personal profit agenda.

(((Do you buy your garden hose at HOME DEPOT or LOWE's ?? I used to. Till I figured out I was being gypped and the dang things rot away to dust within 5 years..... if not blowing a leak outright in the first 2 years. So One day I talk to the hydraulic wizards and ask what kind of hose gets used on production floors, etc., and they say "200 psi Parker push-on, accept no inferior". So I get these 200 psi garden hoses made up from a hydraulics shop and screw them on the side of my house. That was 10 years ago and its obvious they will last 40-60 years FULLY PRESSURIZED (except I drain them in the wintertime). This is the best way to be, dodge corporate America's (Carly Fiorina's) attempts to mine your wallet while plugging the landfill. Only buy good stuff that lasts a long time, IMHO.)))

If you are an EE, then you know that ALUMINUM ELECTROLYTICS are the lousy so & so's that ruin electronic equipment by self destructing. Their little self-destruct timer is set to about 25 years, not the 35 you mentioned.

But you replace those !!

I also stand by that there is no reason that a 32Sii wont function 60 years from now [...] I am the EE, I win you lose."

Valentin wrote: ("in the end it will die by itself and you'll be left with a nonworking machine that you never fully used like it deserved to.") No, no, but you know, I dont use the calculator every single day. That just varies but I'm not just using it in order to have entertainment it gets used when it needs to get used. Sure I admit I will use the 32S for the most casual jobs and "save" the HP-34C for more "special occasions" (like bringing out that vintage finest red wine). I would estimate that if its used for an hour, or two, every week, it is not going to get a wornout keypad, or whatever you feel it is going to succumb to. (Sure if you use it 4 hours a day you will wear out the dome switches)

"WELL, even if that was the original root cause of RPN, it's NOT THE REASON FOR IT. EASE OF USE IS THE REASON"

(Valentin wrote: "That's the problem, Norm. Just stating your point in capital letters (as if shouting) won't make it right.) WELL, once inawhile CAPITAL LETTERS are useful for punctuating the more important parts of email, and..... so are long strings of dots to make pauses

not to mention the occasional line break to knock apart a thought into a few more pieces.

Valentin wrote: As I see it, the problem is you seem to never have given any other machines a chance, at all.

NOT TRUE. I purchased a 48G+ and was horrified with the lack of clear thought on its design, and the lack of a fair introduction to new users. I could point to 20 things in teh supposed "getting started" manual that were highly offensive. So I finally decided that somebody was trying to waste my time, and I thwarted their efforts to

mine my wallet by passing it along to another buyer.

(Valentin wrote: You decided at some past date that RPN was it, and there you are. Never questioning it.) Nope, see the above paragraph.

The calculators I advocate are the ones where you can enter:

X=3.0013431 , (X/EXP 1)^X*SQRT(2*PI*X)*(1+1/(12*X)+1/(288*X^2)-139/(51840*X^3))

HEY VALENTIN ONE MORE THING (see I used the all-caps because I'm not sure if you are still reading by now) on your way to the exit door, can you shout one last thing at me.....
tell me the make and model number of the calculator that does what you just said above. Tell me one make and model that most embodies what you are advocating.

I will go so far as to look it up, if its not something I am familiar with, maybe I will buy one. I am receptive to knowing what's the superior unit, if there is such. It has to be superior all-around, like with a good 'getting started' manual, because maybe I'm not some fanatic who hangs out in a computer room so that his buddies teach him how to use it w/o a manual (that's Bill Gates corporate policy) .

I do like what you mention, just typing in with the keyboard, ALTHOUGH, as always, its really the domain of the computer not the calculator. For example, the HP-34C has no meaningful letters like A-Z on it... why? Because its a NUMBER CRUNCHER (not a letter cruncher).

Anyway if somebody did a reasonable job of putting that kind of stuff you like (enter formulas using letters, quickly and easily) into a calculator and it works good, give me the model number and I'll at least look around a little.

After all, if all my HP calculator fails precisely at 35 years of age, and don't make it to 60, I will need some sort of alternative, no matter how miserable it is to use.

Best,

- Norm

Battery technology highly advanced

*Message #23 Posted by **james (UK)** on 30 Oct 2003, 6:08 p.m.,*
in response to message #22 by Norm

Hi Norm - re your comment: "You have inferred that there is a little timer inside each resistor, and each capacitor, and at 35 years (the number you mentioned) kawhoom a little detonator goes off and each little molecule is vaporized in that resistor, or capacitor, and I'll be $hit out of luck !!" - this seems to be the case with auto battery technology which seems to have advanced to the stage where the life can be designed extremely accurately - at least every car battery I get invariably dies one month out of guarantee ;-)

HEY VALENTIN

*Message #24 Posted by **Norm** on 31 Oct 2003, 4:59 a.m.,*
in response to message #22 by Norm

there was a question for you near the end of the prior post.

And the answer is ?

Re: HEY VALENTIN

*Message #25 Posted by **Valentin Albillo** on 31 Oct 2003, 7:46 a.m.,*
in response to message #24 by Norm

Hi, Norm:

Don't think for a moment I forgot your question, quite on the contrary. I've read your interesting reply a few hours ago (very different time zones, you know), and thought it was very nice on your part offering to try some non-RPN machine, so I'm thinking most carefully which machine would most likely suit your tastes best. To that effect, I'm preparing a full response, images and all, giving you some choice and several useful comments to help you decide.

I can either post it here or else send it directly to your e-mail address (analogee ...) assuming it's valid. In any case, expect a reply from me within 24 hours (now at the office, too busy, all of my materials and pics are at home).

Best regards from V.

Re: HEY VALENTIN

*Message #26 Posted by **james(UK)** on 31 Oct 2003, 8:49 a.m.,*
in response to message #25 by Valentin Albillo

Hi Valentin If Norm has no objections can you post your thoughts here please, as I for one would be interested in reading them.

James

Re: HEY VALENTIN

*Message #27 Posted by **Ron Ross** on 31 Oct 2003, 9:10 a.m.,*
in response to message #26 by james(UK)

Remember, you should also make sure your recommendation is easily available.

An Hp27s is very nice, non-RPN, but also, not available either.

Same for your older Sharps.

I'm also curious as to your suggestion (as I might just have to buy and determine for myself as well).

To James and Ron (and Norm)

*Message #28 Posted by **Valentin Albillo** on 31 Oct 2003, 9:24 a.m.,*
in response to message #26 by james(UK)

Hi, James & Ron (and Norm):

James posted:

"Hi Valentin If Norm has no objections can you post your thoughts here please, as I for one would be interested in reading them."

Certainly. Glad to see you're interested in my comments, let's hope they're up to your expectations ! :-)

Ron posted:

"Remember, you should also make sure your recommendation is easily available [...] I'm also curious as to your suggestion (as I might just have to buy and determine for myself as well)."

Some models are more easily available than others, of course, but rest assured that the ones I have in mind are both quite easily available *and* quite affordable, nothing like the outrageous prices most desirable HP models are selling for these days

As I said to James above, I'm very glad to see that there are some good HP users and collectors that aren't afraid to try and judge for themselves whether other machines are any good or not.

Frankly, I don't think they ought to be *mutually exclusive*, i.e.: either you love HP machines *or* you love other brands. I think you can love both at the same time, no problem, provided them all are extremely worthwhile achievements in the vintage handheld computing world.

Best regards from V.

Valentin..... No need for an HP,

*Message #29 Posted by **Norm** on 31 Oct 2003, 6:59 p.m.,*
in response to message #28 by Valentin Albillo

Valentin, no need for an HP.

The request is, recommend the make/model that most eloquently does things BETTER than an RPN HP Classic. That may well NOT be an HP .....

And then maybe I will try it (maybe... gotta shop around).

Say that Carly Fiorina declares war on HP-34C and HP-32S and HP-32Sii . Say that Carly is like the king when they had to kill all the babies because one was said to be the chosen one. (One of 'em got floated away on the river however and got away...)

So Carly bids all the 34C's off of eBay, and smashes each one. No more RPN!! No more 41C !! Not even used ones!! If so, what would I buy? What is being churned out of the factory RIGHT NOW so that I would go buy something?

That is why the question.... to see what is the runner-up to what I prefer. If its better, like you say, that would be Ok too.

- Norm

Re: "Ans" function goes a long way toward (one of) RPN's core conveniences

*Message #30 Posted by **Paul Brogger** on 31 Oct 2003, 9:16 a.m.,*
in response to message #25 by Valentin Albillo

Interesting subject. I noticed when I got the TI-83+ that it's "Ans" key/function seems to bring it closer to RPN.

With "Ans" available, I seem less anxious about (and less "shackled" to) the result of the previous calculation. The previous result isn't necessarily waiting to pounce on the next part of a formula that I enter. I can pretty much start up a new sub-calculation and stick the "Ans" in wherever I want, without explicitly saving it to and recalling it from memory.

In this respect (and in reference to an earlier post about using RPN in working through complex formulae), while RPN may *impose* some rigor in methodically decomposing and working through a complex expression, an Algebraic with an "Ans" key (kind of like a two-level stack or implicit memory register) seems to better support that kind of approach than does an Algebraic without such a function.

(Does anyone happen to have noticed when "Ans" first appeared?)

Re: "Ans" function goes a long way toward (one of) RPN's core conveniences

*Message #31 Posted by **Valentin Albillo** on 31 Oct 2003, 9:37 a.m.,*
in response to message #30 by Paul Brogger

Hi Paul,

Re "Ans", I'm not familiar with that particular calculator you mention having the "Ans" key, so I'm not sure if I get rigth what "Ans" actually does.

Assuming "Ans" just recalls the last result computed in any desired place of a new expression you're calculating, this is not a new feature at all. HP already did it in the HP-71B, where RES recalls the last computed value anywhere, i.e:

```
X = 2*3
Y = 5*RES + RES^2
```

would assign 6 to X and 5*6+6^2 = 66 to Y. There's a similar approach when in CALC mode. This way you don't need to explicitly assign the last result to any variable at all, plus RES is faster than using a named variable, as it is a fixed location in memory and there's no need to search for it. There's also the fact that if you've got the Math ROM, RES can store the last complex result, both real and

imaginary parts.

SHARP machines do likewise. To re-use the last computed value in a subsequent new expression, you simply press [CURSOR DOWN] at any place you want the value inserted, like this:

```
2 / 3  [ENTER]  ->  0.666666666667

5 *   [press cursor down, see 5 * 0.66666666667
       in the display]

+ 4 / [press cursor down, see 5 * 0.66666666667 +
       4/0.66666666667 in the display]

[ENTER]
```

If this is more or less what "Ans" does, both HP and SHARP (and probably other brands) already did it 15 years ago.

Best regards from V.

Re: "Ans" function

*Message #32 Posted by **Paul Brogger** on 31 Oct 2003, 9:50 a.m., in response to message #31 by Valentin Albillo*

Right -- that's exactly what it does.

I wasn't claiming it was "new" or unique to my (only) new TI calculator. It merely came as something of a minor revelation to me just how useful could be that feature in an Algebraic interface.

There's also an "Ans" function on the HP-49G+ -- I believe in Algebraic mode, it simply returns the most recent entry on the stack. (And the stack is, in Algebraic mode, simply hidden from view -- if I've got it right.)

"RES" on HP-71B (thanks, Valentin!)

*Message #33 Posted by **Karl Schneider** on 1 Nov 2003, 1:20 a.m., in response to message #31 by Valentin Albillo*

Valentin --

Good tip! (I was, in fact, wondering about that; it seems that "RES" is like "ans" on Matlab.) I just got myself an HP-71B on eBay for about $100. Complete with manuals, fully functional and in near-perfect condition, but unfortunately no extras (e.g., Math ROM, RAM).

I've only scanned through the manual, but have some of your posts about the 71B.

Re: "RES" on HP-71B (thanks, Valentin!)

*Message #34 Posted by **Valentin Albillo** on 2 Nov 2003, 12:08*

a.m.,
in response to message #33 by Karl Schneider

Karl posted:

"Good tip! (I was, in fact, wondering about that; it seems that "RES" is like "ans" on Matlab.)"

A curious fact about RES: if you've got the Math ROM and perform some computation which results in a complex number, RES will store the value of this complex result, both real and imaginary parts. What would happen if you would then turn off the machine, unplug the Math ROM, then turn it on again and execute RES ? I know the answer ... :-)

"I just got myself an HP-71B on eBay for about $100. Complete with manuals, fully functional and in near-perfect condition, but unfortunately no extras (e.g., Math ROM, RAM)."

Congratulations on your new acquisition, but if you haven't got the Math ROM, then you *don't* have a full HP-71B, only *half* an HP-71B. And I'm not kidding. You can't claim you've got an HP-71B till you get the Math ROM, as it was an integral part of the machine which was intended to have *three* internal ROMs: ROM 0,1, and 2. Because of budget constraints and marketing pressures, ROM 2 was taken out forcibly, leaving the machine seriously handicapped in its projected math abilities. Needless to say, the Math ROM *is* the wayward ROM 2. They wouldn't remove all code, so some is still left in the bare bones HP-71B. For instance, try to enter this line as part of a program:

```
10 X = (2,3) * (4,5) @ Y = SIN((1,1))
```

and notice that you actually *can*, i.e.: it won't complain at all, no syntax error, because the bare bones machine's operating system still recognizes complex numbers. But sadly, if you then try to execute that program line, you'll get an "XFN NOT FOUND" error, as the code in ROM 2 which was in charge of all complex functions and arithmetic was unmercifully removed. So, you know what you've got to do, this will give new meaning to your life from now on: go an get a Math ROM, no excuses. I've got three HP-71Bs, and all of them have their very own Math ROM plugged in, as it should.

"I've only scanned through the manual, but have some of your posts about the 71B."

More seriously, I'm glad if some past posts of mine are any use to you, and if I can help further, don't hesitate to ask.

Best regards from V.

Re: "RES" on HP-71B (thanks, Valentin!)

*Message #35 Posted by **Karl Schneider** on 3 Nov 2003, 10:21 p.m.,*
in response to message #34 by Valentin Albillo

Valentin --

Aha! Thanks for the history of the Math ROM. I was aware that the Math ROM added considerable functionality, but was unaware that it was intended as "standard equipment". It's a shame that something that cost $525 in 1984 (I'd believed that the price was $750) was deliberately crippled by such "de-contenting".

I'l see what I can do about procuring a Math ROM, but eBay might not be the best source. I remember a few months ago that one seller offered two non-functional 71B's, but can't remember if either had a Math ROM. Getting one bundled with a broken 71B might be an "economical" option, if no one is selling them "a la carte".

Re: "RES" on HP-71B (thanks, Valentin!)

*Message #36 Posted by **Valentin Albillo** on 4 Nov 2003, 6:24 a.m.,*
in response to message #35 by Karl Schneider

Karl postedd:

"I was aware that the Math ROM added considerable functionality, but was unaware that it was intended as "standard equipment".

Apart from the "10 A=(2,3)+(4,5)" example I gave you in my former post, there's even better confirmation by simply reading through the "HP-71B Internal Design Specifications (IDS) Volume II", which contains the full listing of the assembler source code for the whole 64 Kbytes Operating System (i.e: internal ROMs 0 and 1). There you'll find a large number of calls and polls to Math ROM routines, for it to handle all kinds of functionality, from complex numbers to arrays to IMAGE statements formatting, etc, etc. Of course, if the ROM is not present, they simply fail gracefully and ROM 0 or 1 takes over and continues, either absorbing the 'error' without the user ever noticing it, or else reporting an XFN NOT FOUND error, as required. At the time where the Math ROM was still an internal ROM (ROM 2), those calls and polls would have always succeeded, of course.

" It's a shame that something that cost $525 in 1984 (I'd believed that the price was $750) was deliberately crippled by such "de-contenting".

If only it were the Math ROM 'crippling' ... Have a look at this very interesting post to read, in the very words of one of the most prominent members of the HP-71B Project Team, what other 'deliberate misfortunes' fell upon the poor 71B:

HP & AES in the past

"I'l see what I can do about procuring a Math ROM, but eBay might not be the best source."

Short of finding one at a flea market, your best chances are eBay and the Classified Ads section of this very MoHP. If you decide to try eBay, your best chance is finding some HP-71B, functioning or not, cosmetically challenged or not, which does *include* a Math ROM plugged-in as part of the auction. This usually results in a lower higher bid.

Whatever the case, do get one, the sooner the better.

Good luck and best regards from V.

Complex Numbers on HP-71B (Valentin, please help!)

*Message #37 Posted by **Jeff** on 5 Nov 2003, 12:18 p.m.,*
in response to message #34 by Valentin Albillo

Valentin,
Although it was not directed to me, I would like to take you up on your offer of help in using the 71B. Please excuse what is probably a ridiculously simple question, akin to the recurring cries for help in switching the dots and commas on the voyagers. I have a 71B with the Math ROM. I have access to the 71B manual on my set of the museum CDs, but could not find any help there. Unfortunately, I have not upgraded my 5 CD set to the 7 CD version yet, so I can't look at the Math ROM manual which is on CD 6. This probably has all the answers and I will upgrade my museum CDs soon. However, any tips or pointers you could offer before I do this would be appreciated. So, on to my inquiry.
Upon reading your little challenge regarding what would happen to a complex RES value if you removed the math module, I figured I would try it and see for myself. However, I have so far been unable to get it to provide a complex answer. It seemed to me that SQRT(-5), or perhaps ASIN(1.5) or similar should do it. Whenever I try these or similar, the 71B beeps at me and the display reads "ERR:SQR(neg)" or "ERR:Invalig Arg", depending on what I tried to do. Is there a trick to getting it to give complex answers when needed, like setting a flag or choosing complex mode as on the 15C or 42S? I also tried

entering the program line you presented. The 71B does indeed accept the program line. Without the Math ROM installed, when I press RUN, I get “ERR L10:XFN Not Found”. With the Math ROM, I get “ERR L10: Data Type”.

Re: Complex Numbers on HP-71B (Valentin, please help!)

*Message #38 Posted by **Valentin Albillo** on 6 Nov 2003, 5:06 a.m.,*
in response to message #37 by Jeff

Jeff wrote:

"Although it was not directed to me, I would like to take you up on your offer of help in using the 71B."

Of course, you're welcome .

"However, I have so far been unable to get it to provide a complex answer. It seemed to me that SQRT(-5), or perhaps ASIN(1.5) or similar should do it [...] Is there a trick to getting it to give complex answers when needed, like setting a flag or choosing complex mode as on the 15C or 42S?"

No, there's no 'complex' mode or flag setting to select either complex answers or an error. If you do nothing special, you'll get an error when trying SQRT(-5), etc. If you'd rather have complex answers, then you'll need to use complex variables to store/manipulate them, and when applied to a complex variable, SQRT [etc,] does return complex answers. For instance:

```
  10 REM *** this will give an error ***
  20 REAL X,Y
  30 X=-5
  40 Y=SQRT(X)


vs.


  10 REM *** this will give a complex answer
***
  20 COMPLEX X,Y
  30 X=-5
  40 Y=SQRT(X)
```

This will also work right from the keyboard (or in CALC mode) if you have executed COMPLEX X,Y or COMPLEX SHORT X,Y before attempting the SQRT. Besides, if you want to get the square root of -5 as a complex answer without using any variables at all, you can do it from the command line or CALC mode like this:

```
  SQRT((-5,0))
```

This will specify -5 as the "complex" value (-5,0) and thus SQRT will happily deliver a complex result. Just to test how easy it all is, try and get the result of evaluating i^i :-)

" I also tried entering the program line you presented. The 71B does indeed accept the program line. Without the Math ROM installed, when I press RUN, I get "ERR L10:XFN Not Found". With the Math ROM, I get "ERR L10: Data Type".

The message "ERR L10:XFN Not Found" is as it should, as the mainframe will poll the Math ROM to handle the complex calculation and it's not there. The "ERR L10: Data Type" results from X not having been 'declared', which the 71B interprets as X being REAL, by default. Of course, a REAL variable can't store a complex result, and that's why the error shows up.

To get it to correctly run (or execute from the command line or CALC mode) you need to include a line such as "5 COMPLEX X" or "5 COMPLEX SHORT X", or else execute "COMPLEX X" right from the keyboard. Having declared X to be a complex variable, the assignment should work.

Any further doubts or questions, just ask ! :-)

Best regards from V.

Edited: 6 Nov 2003, 9:36 a.m.

Thanks a lot, Valentin! (NT)

*Message #39 Posted by **Jeff** on 6 Nov 2003, 12:15 p.m.,*
in response to message #38 by Valentin Albillo

Re: "Ans" function goes a long way toward (one of) RPN's core conveniences

*Message #40 Posted by **Mark Ordal** on 31 Oct 2003, 10:23 a.m.,*
in response to message #30 by Paul Brogger

As to when "Ans" was introduced on Texas Instruments calculators: I don't recall that feature being present on my SR-50, circa January 1975. However, it is present on my TI-85 and I believe they were introduced in 1993.

--Mark

Repeated evaluation of an algebraic expression

*Message #41 Posted by **Tom Sherman** on 31 Oct 2003, 8:33 p.m.,*
in response to message #22 by Norm

Functions, whether single or multi-variable, can be entered algebraically and evaluated repeatedly in any of the calculators that have an algebraic solver. This includes the 27S, 19B or 19BII, 28C or 28S, 32SII, and most of the graphing calculators from HP and TI. The algebraic solver is particularly nice on the 27S and 19B or 19BII. That on the 32SII is not quite so attractively presented. The algebraic solver is also part of the HPCalc software packaged with the older Windows Omnibooks (300 to 800 series) and in DOS version with the HP-200LX pocket computer.

The graphing calculators are well set up for the repeated evaluation of functions of a single variable, for that is what they do in making graphs. In addition to presenting the results in graphical form, they will present them as tables, rather like spreadsheets, incremented in whatever way the user chooses. Amazing to see!

The HP 38G and 39G calculators are available on eBay for absurdly low prices, $15-25. They are much better calculators in many ways than the 32SII, which goes for prices nearly ten times as high. But they are algebraic, and they are graphical, and folks are entitled not to like those characteristics if they wish.

I became an HP enthusiast (and HP snob!) in 1975, when I bought an HP-25, my first personal computer. For twenty years I pitied my poor students who carried TI calculators around. But after I retired from college teaching, I woke up to the fact that the TI-83, TI-86, and TI-89 are supremely good calculators. The fact that American high schools are filled with students playing games on the TI-83 does not detract from its power or ease of use for those who really want to do something with it. The TI-83 also has a very fine manual(unfortunately now on CD, instead of in book form)which is fun to learn from, and which was probably part of the reason that it won out over the HP 38G and 39G, which have manuals almost as terrible as that for the 49G. The main limitation of the TI-83, so far as I am concerned, is that its BASIC language does not accept indexed variables or variables containing more than a single letter. The TI-89 is not so limited, but its manual is very inadequate in explaining the syntax of its BASIC, which is somewhat different from that of the 83.

My two cents, too many times over.

Tom

Re: Repeated evaluation of an algebraic expression

*Message #42 Posted by **Namir Shammas** on 8 Nov 2003, 10:40 a.m.,*
in response to message #41 by Tom Sherman

Tom,

I agree with you. The TI-89, TI-92 PLus, and TI-200 offer new power. Let me explain with an example. One area of math fun for me is to solve the root of equations (which I also use to test new machines and programming languages). With the new TI (and I guess the new HPs too) you CAN ask the calculator to obtain the derivative(s) of the function based on the equation you are solving and then use algorithms like Newton in a more literal way

since now you CAN do this:

x_new = x - f(x) / f'(x)

With NOOOOOOOO approximations needed to calculate f'(x)!!

Now that's what I call new power ... sorry HP-65, 67, and 41CX ... you are not cut out to this kind of math magic!

Re: Repeated evaluation of an algebraic expression

*Message #43 Posted by **Tom Sherman** on 8 Nov 2003, 6:44 p.m.,*
in response to message #42 by Namir Shammas

Namir,

Good to hear from you. I have enjoyed reading your posts, and meeting in this way the person who wrote all those beautiful programs listed in the Users' Library catalog for the HP-41. I only ever wrote one program for the 41 Users' Library -- one to calculate automatically the local altitude and azimuth of the navigational stars, sun, moon, and planets, using the Navigation Pac and Time Module. I still use it to find out whether that bright object in the night sky is Jupiter, Saturn, or Mars. It was interesting to learn that you wrote some of your programs in hotel rooms while you were traveling!

Best regards,

Tom

Re: Hi again, Norm [LONG]

*Message #44 Posted by **Les Bell [Sydney]** on 28 Oct 2003, 5:18 p.m.,*
in response to message #16 by Valentin Albillo

Valentin Albillo wrote:

> Quote:
>
> All very neat, tidy, elegant, and above all, economically feasible, money-saving, space-saving. BUT (and a big BUT that HP has failed to sell to the masses) the user would be forced to DO the parsing from algebraic to stack notation *himself*, and would need to adopt a new paradigm.

This is the only point I take issue with, Valentin, and it hinges on the distinction between the algebraic notation for writing expressions and the use of RPN in evaluating them. The parsing from algebraic is *exactly* what anyone has to do when performing a calculation. Otherwise, why do kids have to be taught the rules of algebraic precendence?

It strikes me that algebraic notation is great for writing and storing equations/assignments, including for use in programming languages like BASIC et al. But it's not a good mechanism for performing 'back-of-an-envelope' calculations, which is where RPN excels. This is why algebraic notation is a good fit for mathematical teaching tools like the HP-48, etc. but not so good for working engineers who need to grab a convenient device to see whether some numbers 'make sense'.

Best,

--- Les [http://www.lesbell.com.au]

RPN, Slide Rules & Good Medicine

*Message #45 Posted by **Paul Brogger** on 28 Oct 2003, 5:34 p.m.,*
in response to message #16 by Valentin Albillo

When last the subject of RPN's obsolescense came up (and that was not so long ago), it was in the context of the Mach number formula.

I've gotta say, I tried it both with my TI-83+ and with my HP-32s. It was difficult with either. On the TI, I got some of the same "syntax errors" that others did. That doesn't make me stupid or incapable of pushing the right paren key enough times (as was alleged in the heat of the battle) -- it just indicates how complex the formula is. I also had trouble getting it right with RPN -- and it was especially difficult with either method when the formula wasn't available in "textbook format".

Now, before I make my point, I'd like to recall the days when I put aside my wonderful Post "Versalog" slide rule in favor of an HP-21. Scientific calculators were just gaining wide acceptance, and not all were pleased with the prospect. The very next year, the professors of the natural sciences program that I'd just completed issued an edit that no calculators were allowed -- that slide rules were mandatory.

Then, impetuous youth that I was, I dismissed those Luddite instructors as backward know-nothings. Now, I can appreciate what they were trying to do: to force students to actually understand what they were doing; to appreciate orders of magnitude and logarithms; and to build the habit of estimating a plausible result in advance of actually doing any computation.

Recently, it seemed to me as I tried both ways of working through the Mach number formula, that the AOS (or whatever) approach was rather more in line with a new-fangled "just punch in the values and trust the result" way of doing things, and the RPN approach seemed to force a certain rigor in deconstructing the formula, taking it a step at a time, and monitoring the reasonableness of the interim results obtained.

I'm not an educator, but I would support an argument that RPN is preferable to Algebraic/formulaic operation in early higher-maths learning situations (i.e., high school) -- analogous to (though not exactly the same as) the earlier contention that slide rules were preferable to scientific calculators.

And no, I don't think anyone is going to be "crippled" by learning either way, just as I'd not have been disabled if I'd been forced to put down my HP-21 for a year or so . . .

Re: RPN, Slide Rules & Good Medicine

*Message #46 Posted by **Ed Look** on 28 Oct 2003, 11:08 p.m.,*
in response to message #45 by Paul Brogger

Paul, I'd like to add that RPN is good more than just for high school teaching/learning; whenever you need, as someone just said in this thread, to do a quick calculation of something involving more than just arithmetic, a RPN calculator will do the job the best, in my opinion.

With what I do, whenever I use my 48G+ strictly as an RPN, albeit infinite level stack, machine, I also take advantage of its large memory and program capabilities whenever I do a lazy thing by quickly calling up Arnold Moy's Chem/Periodic Table program, very quickly get some atomic weights and then do some second grade addition and I've saved myself many minutes (or more) by not having to run all over (though at home, it's just by my lazy elbow) to dig constants out of some text I haven't looked at for twenty years so I'm not sure where it is.

If I have to actually do a calculation according to some equation or formula, I reach for the 32SII all time, and this is because it is marvelously simple RPN... and fast (enough for me)! I'd use the 34C, except that it's display is now buggy and Norm warned me not to use it too much, if at all in this condition (I'd like my grandchildren to see what red LEDs looked like!).

don't run that 34C.

*Message #47 Posted by **Norm** on 29 Oct 2003, 4:41 a.m.,*
in response to message #46 by Ed Look

Yes, yes it is true. If the display has been behaving buggy, pull the batteries, set it aside, rubber band a note to the front of it, and dont run it until somebody can go in and clean up all the "solderless" connections in a 100% ESD-free environment (tinfoil and grounding straps all around). intermittent connections blow the chips, I am sure of it.... they cause a deterioration we call "2 disease" and you would much rather your unit didn't go that route.

I would like to open up a little HP-34C service shop (i'd take in a few 33C and 31E etc etc) ... so I would very carefully service these antique spice calculators, with methods that don't let the chips get damaged.

Yeah, that would be a nice little service to society..... but I can't afford to do it on engineer's pay... maybe later.

Re: HP 32S vs HP 32SII (LONG)

*Message #48 Posted by **John Beckwith** on 27 Oct 2003, 10:31 p.m.,*
in response to message #1 by John Beckwith

WOW! Did I set ablaze a firestorm!

First of all, I would like to thank EVERYONE who has responded to my rather simple (or so I thought) post about the lack of currently available calculators from HP that support RPN and searching for something for my son. Little did I know... As I said in my original post I have not had the opportunity to even see much less use ANY of the more recent offerings from HP.

I am not looking for an "Cheat Machine" for my son. I was a little suprised about the comment "...thrown in a back pack..." or something. I want him to learn and FULLY understand math before he will be allowed to really use a calculator. My brother in law gave my son a 4 banger calculator on his 3rd or 4th birthday. It disapeared into my desk drawer and remained there until he was 7 but it came out only as a teaching tool along with my HP-45.

I came up through grade school and high school using nothing but pencil and paper, then learning log interpolation, slide rules and pouring over sine and cosine tables as anyone of my vintage did. When I got to college I programmed PLI and Fortran on BIG IRON IBM using key punch machines to enter lines of code on Hollerith cards. Do I know that things have changed? YES, DRASTICALLY!

I remember first reading about the HP-35 in a Popular Electronics magazine as a senior in high school. It was in a monthly section, I forget the name, something like the Gus Wilson's Model garage was to Popular Science. I fell in love with it thinking of how much something like this would ease calculations....

Prior to that I ocasionally had the chance to use, or rather play with, one of my fathers "adding machines", a huge contraption with 10 rows and 10 columns of keys that weighed a TON. No real multiplication, no real division but yes it could add and subtract. In retrospect, by my evaluation, it was like using RPN in a way.

I lived, and stil do, near St. Louis, MO and finally convinced my parents to allow me to visit an HP office, in Westport I believe. It was spring of 1974. As a freshman in JR. college I am sure that they thought that I was nuts,an 18 year old walking in there with my Mom asking to SEE AN HP-35!. Not only did he show me one and allow me to actually us it he also brought out what would have been at that time the Holy Grail, the HP-45. I was hooked. I arranged with my father to LOAN! me the $395 needed to purchase the 45 and soon there after went to UMSL and bought one.

But enough! I think that the real thing that must be looked at here in the discussion of RPN/RPL and arithmetic is what is going on and how you intend to use it. I still am a holdout to the belief that RPN is closer to how you actually, finally, solve many problems the LONGHAND way where as keying in a neat equation and entering values for variables into a calculator (or computer) is quite another thing. It all boils down to how you look at it and how you are going to use it. I think that a properly designed calculator with BOTH RPN/RPL and arithmetic has its place assuming that one can quickly and easily move back and forth between the two. RPN/RPL for using your MIND and and the "longhand" way to solve problems and arithmetic for plug and play entering of equations and data. One method is better used for a CALCULATOR and perhaps the other is better used for the COMPUTER use in a calculator. Some of this could simply be symantics.

I could go on from here but I know that I have used up my dime, (or am I showing my age, is it more like 50 cents now?) and have surely re-kindled the embers of discussion.

Sincerely,

John Beckwith

Edited: 27 Oct 2003, 11:14 p.m.

Re: HP 32S vs HP 32SII (LONG)

*Message #49 Posted by **Ed Look** on 27 Oct 2003, 11:45 p.m.,*
in response to message #48 by John Beckwith

John, I agree with you, though I am not an EE. People have brought over to my house those freebie four bangers for shopping or checkbooks or whatever intended for my kids. They disappear, too. I suppose I am just a tad bit after your time, as I essentially learned math the same way, though by the time I got to high school, relatively affordable TIs and Bowmars were uh, "the cat's meow". I never got to use a slide rule (for real work or study).

Anyhow, one of my boys has gotten to the point at which his math teacher is either going to ask him to get a calculator at the end of this year or beginning of next. Since Samson Cables had it at such a great price, I got him a HP-39G, which is totally algebraic and does not have CAS for equation entry. Right now, there is no math he's being taught that truly requires a HP or any kind of calculator. But it is programmable. I've gotten him barely started in what it means to write any kind of simple program (c'mon, kid, make that blue plastic thing draw a circle!), hoping that the mental and physical discipline and creativity of coming up with a program to accomplish even the simplest objective will educate him additionally in a way that I know public schools do not (anymore).

RPN? The advice I've gotten (some from this forum) is that while RPN is pretty natural, that is so only AFTER you've had a chance to wrestle with math in class (or at 3AM in your basement). Prior to that, an algebraic entry type approach is more natural to someone being introduced to mathematics higher than arithmetic. Come to think of it, even in "those days" none of my teachers ever taught an equation or even algorithm in RPN style. I first learned it from a HP-34C outside of classes, at home, trying to get some calculations done by the morning.

I think Norm is right in that RPN should only be introduced to kids in the latter part of high school or beginning college. My son is nosy about my RPN HP calcs; but I won't go there, not yet, not till, he's had some solid algebra and trig under his belt... or even some programming in school. I fear I may be his initial programming instructor (not good) and if I follow my gut, I'll whip out my 32SII (I'll whack him if he even gets a smudge on my 34C) and show him how to initally do some keystroke RPN programming, then some time later, maybe a little RPL the 48G+, for I'm no kind of computer programmer in real life... and hope that in this area, he can take off from there.

But to get back to the point after all this shaggy dogginess, I recommend you get your son a graphing algebraic entry calculator. Since my background made me partial to HPs, that's what I looked for, but I hear the new TIs, Casios, and Sharps these days are also quite impressive. From my heart, I'd recommend even more stringently that only a one or two line scientific calculator be used, as this is more ideal for teaching the math of it, rather than figuring out how to get kewl grafyx, but most teachers in America may not have even seen those machines before.

RPN not for little kids....

*Message #50 Posted by **Norm** on 28 Oct 2003, 4:51 p.m.,*
in response to message #49 by Ed Look

Ed naturally inferred that one should get a kid an RPN calculator at the later years of high school. Yeah, that's what I was meaning to say.

Incase there has been a non-clarity, I would not mean to say that RPN calculators should be introduced to a kid who is too young, as a primary calculator tool.

When around young kids (9 yrs, 10 yrs) I note that they naturally prefer that "eeekwulz" button (two plus 6 eeekwulz 8) etc. and naturally their "first calculators" are algebraic entry 4 bangers and so on. How else could it be. It correlates with the fact that they just learned how to add.

A scientific calculator could be a next step for kids. Still algebraic entry, mind you. A TI-30 equivalent makes sense. (I know of no true equivalent on the market now, to the nostalgic item, they all have over-complicated the plumbing way beyond necessary). This is about incrementalism. The kid starts with a simple thing, then a little more complicated.. and more.. and more.. until one day the kid is an adult, doing difficult things with advanced tools.

TI-30 is a nice layout for an algebraic scientific. (has RED LED's too. pant pant... drool drool... ooweee babeee) The closest thing in HP is an HP-31E. That could be a nice thing for a kid to see but its rare and expensive now.

So get the kid a 4-banger algebraic. Then get him a scientific algebraic (a $4 china special from WalMart if you must).

Lastly get him a 32Sii from eBay, for about $300. Do that when he is in about grade 11.

Sincerely,

- Norm

Re: RPN not for little kids....

*Message #51 Posted by **Ed Look** on 28 Oct 2003, 5:19 p.m.,*
in response to message #50 by Norm

Well, by then, it may cost you a k buck.

:(

(deleted post)

*Message #52 Posted by **deleted** on 29 Oct 2003, 5:03 a.m.,*
in response to message #51 by Ed Look

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

HP49G Bashing

*Message #53 Posted by **Joesph** on 29 Oct 2003, 5:53 a.m.,*
in response to message #52 by deleted

"AND LASTLY if you really care about your child, get him or her a 49G graphing calculator by HP. He won't learn any math on it, but hey, I care about children, and even if you think I don't, the public schools will MAKE YOU buy it from me, because I took care of that because I CARE ABOUT CHILDREN."

You seem to be suggesting that a vintage HP will be more educational then a modern calculator? Can you please explain your reasoning?

I love the classics, but they don't have a fraction of the functionality of a modern device.

This is my last say on the subject, I can't be bothered getting involved in this holy war :-)

Re: HP49G Bashing

*Message #54 Posted by **Ed Look** on 29 Oct 2003, 11:00 p.m.,*
in response to message #53 by Joesph

Joseph, it's by belief that for a child beginning to learn math beyond arithmetic, the material is better understood by having to things by hand first, until proficiency is gained to the point that you won't forget by next week. If a kid just goes to (any calc's) log button (let's forget about ln) all the time, I don't think he will have the same insight into how it works as the kid (like us ol'folks) who had to wrestle with squinting between the interpolation charts; they might even think mantissa is the new girl in class.

Same holds for the trig functions. I much prefer that a child first looks at a chalk-drawn triangle, then the unit circle (, and someday, exponentials... oops there's another button I don't want them to press yet!)

And what about an appreciation for simple decimal math? Manual work with powers of ten make for better mental agility and an increased ability when it does come time to use the calculator or spreadsheet or mainframe.

Now, as for old vs. modern calculators, it seems to me that all the attention-getting

calculators (as far as teachers are concerned) are the warp-driven, magic-photon torpedo protected graphing models.

Norm had an excellent idea, suggesting that the equivalent of an old HP-31E would be optimal for such a student, shortening the (drudgery??) time needed to do the arithmetic, but still forcing the kid to actually play with the equations and functions. Of course, a simple $1.00 four-banger should do that except that it may not have the memory space to do some of the harder homework problems.

And, it should also have some simple programming capability as the child goes on in math classes, assuming the calculator survives the kid.

Re: HP49G Bashing

*Message #55 Posted by **Joesph** on 30 Oct 2003, 1:10 a.m.,*
in response to message #54 by Ed Look

There is no question that children should do things by hand first. While I agree that using a slide rule does help with logs, and using tables helps with logs, it just isn't gonig to happen. My view is that once a skill has been mastered, use a device to take the grunt work out of it.

Kids these days haven't even seen log tables, let alone a slide rule :-)

kids these days

*Message #56 Posted by **Norm** on 30 Oct 2003, 1:42 a.m.,*
in response to message #55 by Joesph

kids these days are all listening to rap music and inhaling from their hash pipes, so who cares what calculator, they wont be learning math anyway.

Re: kids these days

*Message #57 Posted by **Joesph** on 30 Oct 2003, 2:53 a.m.,*
in response to message #56 by Norm

Oh c'mon, now you are just trolling.

Re: kids these days OT delete when read

*Message #58 Posted by **bill platt** on 30 Oct 2003, 11:01 a.m.,*
in response to message #56 by Norm

No, it's worse. They are sniffing glue again! What Morons! I thought that ran itself out in th 70's. And they use the NOx in whipped cream (maybe that is the least of our worries) and getting oxycontin and grinding it up---then they die a few weeks later...Wasn't Heroin invented 100 years ago as a less addicting form of morphine? Didn't work. So, now they try the same old same old, just with the codeine side of the poppy goop---oops--didn't work--again! If you think Carly is bad, what about Big Drug?!

Please DO NOT TIE TO THIS EMAIL--KILL IT!

1234 to delete.

Thanks.

NOx in whipped cream??

*Message #59 Posted by **Norm** on 31 Oct 2003, 4:58 a.m.,*
in response to message #58 by bill platt

Tell me how you do that. Do you have to eat the whipped cream or do you just inhale it?

Re: NOx in whipped cream??

*Message #60 Posted by **Michael Meyer** on 31 Oct 2003, 11:31 p.m.,*
in response to message #59 by Norm

I usually try to inhale the whipped cream, but the apple pie keeps getting up my nose.

Seriously, it is a huge problem. Solvents are being abused..."huffed"... again.

But, you forgot the worst of all. Methamphetamine is epidemic in this country, especially in smaller towns. It affects children, adults, housewives, and business men and women. Rich and poor alike.

It's such a huge problem that is being completely ignored on a social level (though it keeps law enforcement busy, they can't begin to curb the spread). There's nothing being invested in treatment, and next to nothing on education.

Now, I do note that I've never treated anyone for meth abuse who also uses RPN calculators. Draw your own conclusions....

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HP-28S Battery Door

*Message #1 Posted by **John Limpert** on 25 Oct 2003, 6:16 p.m.*

I recently purchased an HP-28S for my collection. I had a terrible time installing the batteries. It was much more difficult than on my HP-28C. Is there a trick to replacing the battery door? I'm afraid that I will break it next time.

Re: HP-28S Battery Door

*Message #2 Posted by **CalcKidd** on 25 Oct 2003, 10:01 p.m.,*
in response to message #1 by John Limpert

I often wondered why the 28S's door (and 19BII) was so hard to close. It appears the spring inside is either larger ot stiffer than in the 28c or 18C.

Though not advisable, I was going to maybe remove some of the spring (just not sure how yet).

:-(

Re: HP-28S Battery Door

*Message #3 Posted by **Marx Pio** on 26 Oct 2003, 3:51 p.m.,*
in response to message #2 by CalcKidd

This thing was made for headaches. Be carefully. I insert and release the batteries until the spring became more "soft" and then I insert the plastic slide cap.

Cheers.

Marx Pio

Re: HP-28S Battery Door

*Message #4 Posted by **Veli-Pekka Nousiainen** on 26 Oct 2003, 4:21 p.m.,*
in response to message #3 by Marx Pio

"This thing was made for headaches. Be carefully. I insert and release the batteries until the spring became more "soft" and then I insert the plastic slide cap.

Cheers.

Marx Pio"

No, that's not how it works...it's not the spring that is getting weaker, it's you developing the muscles in your arm!

(-; VPN

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Hp 48gII Has arrived at HP SMB

*Message #1 Posted by **Hp Calc Lover** on 25 Oct 2003, 6:02 p.m.*

Just found the new 48gII series at Hp's SMB web store site for $109.99. Boy this soon after the 49g+ we're in heaven. Thanks HP! Here's the url which takes you there

http://www.smb.compaq.com/sp_main.asp?hp_url=searchresults.asp?store_id=8&search_id=164&dept_id=1001&dsc=calculators&c=HPSMBCtr_calculators&n=D_I_DR_X_T_x_GenericNVP&t=ad&r=HP_SMBCtr_O&jumpid=re_R295_store/busproducts/computing/calculators

Amazon has HP48GII at a low price

*Message #2 Posted by **Namir Shammas** on 26 Oct 2003, 8:48 a.m.,*
in response to message #1 by Hp Calc Lover

Amazon has the HP48GII for $104. You can order it with the free shipping option (it'll get to you a bit slowet). So $104 is your final price!

Where?

*Message #3 Posted by **Bian** on 26 Oct 2003, 12:15 p.m.,*
in response to message #2 by Namir Shammas

It's probly right under my nose, but can someone post the Amazon URL of the HP 49g+

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Does the 49G+ belong in this **MUSEUM**

*Message #1 Posted by **GE (France)** on 25 Oct 2003, 5:40 p.m.*

Not to be rude, but this stuff is boring.

Please bring back old stuff, collector tricks, rebuilding tips. And please please no bragging (example : "Wow, my new 4Go SD card !!"). Endless flags settings discussions not welcome either.

Re: Does the 49G+ belong in this **MUSEUM**

*Message #2 Posted by **CalcKidd** on 25 Oct 2003, 9:51 p.m.,*
in response to message #1 by GE (France)

We're just talking about HP calcs... OLD and NEW.

Don't limit yourself (or us).

Re: Does the 49G+ belong in this **MUSEUM**

*Message #3 Posted by **Namir Shammas** on 25 Oct 2003, 10:56 p.m.,*
in response to message #1 by GE (France)

GE,

This is a free country! I assume France si too .. or have the Germans invaded again???

Re: Does the 49G+ belong in this **MUSEUM**

*Message #4 Posted by **Wayne Brown** on 26 Oct 2003, 1:56 a.m.,*
in response to message #1 by GE (France)

I agree that discussing new calculators here is inappropriate (although I've been guilty of it myself lately). However, the Museum belongs to Dave Hicks, and if Dave doesn't mind allowing these discussions (distasteful though they might be to you and me), then I don't think we should complain about them.

Re: Does the 49G+ belong in this **MUSEUM**

*Message #5 Posted by **Massimo Gnerucci (Italy)** on 26 Oct 2003, 4:23 a.m.,*
in response to message #1 by GE (France)

And, please, quit using "octects" ***Wow, my new 4Go SD card !!***: the rest of the world uses bytes.

;-)

Massimo

You can't win that one GE

*Message #6 Posted by **Norm** on 27 Oct 2003, 5:48 a.m.,*
in response to message #5 by Massimo Gnerucci (Italy)

Hi GE, interesting viewpoint. Concisely and briefly spoken, very sharp and well-aimed point on your pen.

You want to censor newest units, but that wont work.. There are posts here right up to the latest most recent models that have NOTHING to do with red LED's. Can you believe it?

(oooo aaaaaaahhhhh oooweeee babeee RED LED's..... hubba hubbaaa!! Hey no joke I was at an exotic dancer bar the other night. Watching all those gals wearing nothing but..... I think the HP-34C is better..... I will bring it with me next time.... type on that HP-34C instead, keep my head down and bring a math book. Then they wont keep bugging me to buy a table dance).

:o| :o)

HEY GE did you see the link for HP-33S ????? It's the "newest best" calculator from HP !!! http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=363

GE people on our beloved chat board are eagerly waiting to buy it..... use it..... and post about it ! Its gonna be tough for you... and me! You are right though... it IS a "museum" but where do you draw the line..... so you don't!

Re: You can't win that one GE

*Message #7 Posted by **Dave Shaffer** on 27 Oct 2003, 11:22 a.m.,*
in response to message #6 by Norm

Norm,

re: "Hey no joke I was at an exotic dancer bar the other night. Watching all those gals wearing nothing but..... I think the HP-34C is better..... I will bring it with me next time.... type on that HP-34C instead, keep my head down and bring a math book. Then they wont keep bugging me to buy a table dance)."

You'll be in good company: the late Richard Feynman (Caltech professor, Nobel laureate, and the guy who figured out what went wrong with the Challenger) used to hang out at the nudie bars in Pasadena, claiming he could do his best thinking there. He used to be called as a character witness when they got busted!

A favorite book

*Message #8 Posted by **bill platt** on 27 Oct 2003, 11:43 a.m.,*
in response to message #7 by Dave Shaffer

Title: Surely You're Joking, Mr. Feynman

Feynman could:

out-do an abacus in his head

make french fries,

get lucky with numbers,

crack safes,

get laid by barflies, (eventually)

watch nuclear detonations without going blind

play drums in the Carnival (yes, in Brazil)

motivate ordinary persons to achieve amazing intellectual feats

get lucky with numbers

speak his mind

Paint nudes

do it (oops, said that already)

upset the textbook publishing business

speak his mind

Explain strange physics better than anyone (see "QED: the Strange Theory of Light and Matter, and also the Feynman Lectures)

get lucky with numbers

Amazing person.

Re: A favorite book

*Message #9 Posted by **GE (France)** on 28 Oct 2003, 8:35 p.m.,*
in response to message #8 by bill platt

Well done boys. I knew you would understand the basic, primal feel for RED-LEDs. Thank you for no name caling, and the joy of meeting people deeply conscious of the greatness of lower, shameful low-end, disgusting low-power things like the onboard Apollo 11 computer, HP35, HP9825, and many others, who are such a pile of crap for not having a 3 Ghz CPU and just being able to send people to the moon as compared to making big bucks at your local Wal-Mart. Sorry for giving a shit to REAL engineers and not just $$$-lionaires ! I Should respect $$$$ instead of proper design. Won't make this mistake twice. Also, I'll set flag 456 in order to speed up some remote calculation case as discussed for 3 weeks in this very forum *devoted* to *OLD* (read : 2-week old) calculators.

Apart from that, thanks to all serious (old calculators) on this forum.

GE you forgot to mention

*Message #10 Posted by **Norm** on 29 Oct 2003, 4:23 a.m.,*
in response to message #9 by GE (France)

Hi GE, you forgot to mention that your favorite 1960's Apollo launch computer.... or HP calculator, etc., has a CPU that RUNS RELIABLY however that 3GHz baby from Bill Gates hangs about every 3rd day (probably when the 64 bit bus changes from all 1's to all 0's enough times to make the backplane resonate) and nobody knows why, and who cares, if it only crashes every 3rd day, its reliable.... right ?????

(you can always reboot it..... wanna know a scary fact about the 777 first test flight ever??? ? So the computer has some bug in it and the software guys never fixed it. The airplane is sitting on the numbers and they want to fly it, the engines are idling..... and it just sits there.

After a couple minute delay, the pilots take off in the 777 first ever prototype maiden test flight. The reason for the delay????? The software bug makes the avionics computer malfunction, so the pilots had to go running down into the avionics bay underneath the cockpit..... and pull the main breaker to "off"..... and then "ON" again !!!!!!

Wish I were joking, but I'm not.... who can understand the minds of the software-heads.....the manager-heads..... the anti-RPN crowd..... or inside the brain of Carly Fiorina. They better hope that nobody needs to reboot their 777 computer while they are on-final on a dark foggy night, but of course, if it works 2 days out of 3, that's OK in the Starbucks/Bill Gates society, right ?

Scary 777

*Message #11 Posted by **bill platt (les Estats Unis d'Amerique)** on 29 Oct 2003, 9:38 a.m.,*
in response to message #10 by Norm

Hi Norm,

Can you find us some substantiation for this?!!! It is scary.

Re: Scary 777

*Message #12 Posted by **Norm** on 29 Oct 2003, 2:52 p.m.,*
in response to message #11 by bill platt (les Estats Unis d'Amerique)

Read it in some book, of course, about the 777 project.

No, didn't make it up out of thin air.

I think it was "21st Century Jet". If you want me to verify any further let me know, I got a copy around here somewhere.

Of course by now they have fixed the software bug.

What's interesting is they flew on that day by turning the computer off and on..... right out on the runway. That's a Bill Gates mentality, of accomodating unreliable equipment.

ABOUT THE FOLLOWING POST (airbus not immune, etc.) That article talks about whether pilots are allowed to make extreme maneuvers. With the Airbusted, they are not allowed, with the Boeing, they are allowed.

Perhaps the philosophy should be called into question now that Mohammed Atta types could be your co-pilot. It might help a little if the plane restricted its own movements, say when Co-pilot Batooti crashed the Egyptian Air 767 into the ocean (what a guy).

Airbus is not immune . . .

*Message #13 Posted by **Paul Brogger** on 29 Oct 2003, 10:10 a.m.,*

in response to message #10 by Norm

See the last part of this article about fly-by-wire . . .

Re: Airbus is not immune . . .

*Message #14 Posted by **jimc** on 29 Oct 2003, 4:52 p.m.,*
in response to message #13 by Paul Brogger

My Chev truck wouldn't start one afternoon out in the field. Just wouldn't. Nothing. No radio, no windows, nuthin'. As I, trying to be the good engineer sat there futilely trying to trace "OK, gas, spark, air", (Ever look under the hood of one of these things?) one of the operators in the field comes by and pulls the positive terminal off the battery, waits 30 seconds and bolts it down again. Truck starts! "What the heck was that?" I ask, and the operator responds "Dunno. It's like you gotta reboot the computer".

not sure about the exact cause, all I know is it worked.

12345

more over-computerization

*Message #15 Posted by **db(martinez,california)** on 29 Oct 2003, 9:12 p.m.,*
in response to message #14 by jimc

If the latest model of the Caterpillar 627 scraper (i think it's the 627H) stops or quits running the first thing to check is the fuse for the cigarette lighter. I don't know why but a dead lighter tells the computer that the motor should not run. Maybe the designer is a smoker.

Re: Chevy truck

*Message #16 Posted by **Norm** on 30 Oct 2003, 1:36 a.m.,*
in response to message #14 by jimc

Holy cow, that's one to keep in mind. Gotta reboot the car's engine computer to make it start.

My Chevy truck has got too much computer flim-flam on it (Bill Gates mentality). Like, I dont have control over my dome light. It turns it out automatically about 60 seconds after I leave the car. I dont like that. It's my business, not theirs. I don't have control over the headlights. They come on when I put it in "Drive". I dont like that none of their business.

So I'm out in Wyoming going like a bat out of hell, and when I hit right about 99 - 101 miles an hour, the engine ceases firing, until the speed comes down to about 95. Apparently the engine computer has a hard-limit at 100 miles an hour, and if you hit the limit, it shuts off the fuel injectors.

I say that's none of their damn business how fast I am going, and they ought not to limit my max speed. Ever seen the videotape of some guys trying to outrun a tornado on the freeway? It's like, right behind 'em!! If you were in the Chevy you'd be dead.

I'm with Boeing not Airbus. "If its not Boeing I'm not going"

(well OK, I went, but only with a guilt complex).

Re: Chevy truck

*Message #17 Posted by **Wayne Brown** on 30 Oct 2003, 1:38 p.m.,*
in response to message #16 by Norm

> Quote:
>
> Holy cow, that's one to keep in mind. Gotta reboot the car's engine computer to make it start.

I had to have the engine computer in my car replaced about a couple of weeks ago. This is what happened: I drove it to work one morning -- everything was fine. I went to lunch that day -- still fine. I tried to drive home that night -- it wouldn't start. Well, actually, it *did* start, but immediately stopped again aftr runing two or three seconds. This happened every time I tried to start it. I played around with it off and on for a few days, and verified that it was getting plenty of gas, the wiring and fuses seemed fine, the built-in engine diagnostic codes said there was nothing wrong, etc. I also had a shade-tree mechanic friend take a look at it. Finally my wife got tired of driving me to work so I just had it towed to a garage. They discovered that the engine computer had decided that the anti-theft system was reporting the car was being stolen, so it shut down the engine every time it was started. The cute thing was that my car doesn't *have* an anti-theft system! The computer apparently was programmed to handle one *if* it was installed, and it went bonkers and decided the non-existent system had been activated. There was no way to reset it, so a new computer had to be installed. Parts, labor and towing came to a little over $500. Grrrrrrr...

Saab 900 long

*Message #18 Posted by **bill platt** on 30 Oct 2003, 3:47 p.m.,*
in response to message #16 by Norm

I had an '87 saab, great car, ran nicely, reliable, etc. Mechanical fuel injection. Replaced it with an '85 saab 4 door--another nice car. Year later, that gets totalled by an undocumented driver. When I asked to see his papers, he drove away!

So, Got a 1990 saab, thinking, these are cool cars, they are very safe, pretty good on gas, very comfortable, low cost (for a eurocar anyway).

Well, the 90 was a whole nother ballgame. ECU or ECM or something. That godddaaammm thing was nothing but trouble. Finally got tired of repacing it--3 times--and now that car sits in the yard, serving as a Property Value Reduction Prop. Next week, I plan on taking the wheels off, sitting the car on blocks----since the house across the street just sold for 375k ;^}

Apparently, they went "electronic" in 89 or 90 or something.

Also, Detroit diesel is involved in a massive lawsuit from a major shipowner,

regarding their electronically controlled high speed 4 cycle diesels. Apparently, they are not making the 15k hours between rebuild--more like 500 to 1000!

And, I know of some smaller ferry operators who shy away from the electronic ones--had troubles etc.

You know, electricity is great and all, but why does it seem like it is less reliable now than in the past? (I can answer that but I wont--too much of a rant).

So, why is this relevant? Because In 20 years of using an 11c and 32sii, I have NEVER had to "reboot". But how about the 49g+----see c.s.hp48 and yo uhear reports.....

Here's another curio: Big Shipyard, Big Mainframe, Unix. 150 CAD workstations--running different programs. Programs linked to eachother. Not a single crash in 7 weeks.

Another shipyard. a "Microsoft" approach. Microsoft NT server, 50 Cad workstations, local machines windows NT4 SP3. Crash server almost daily. Crash local machines more than once a day. Blue Screen of Death, and others, too.

Why do we accept this?! Why are we throwing away stable UNIX systems for this CRAP! So we can have eXcel or Word?! For C...sakes..those programs arent't THAT good....(I liked Word Perfect 5.2 more--and Quattro Pro had more functionality...)

So, along that line, I am NOT going to buy a 49G+ for a while---I don't want to encourage them! Send the useless junk marketeers the only message they understand---nothing!

Re: Saab 900 long

*Message #19 Posted by **Dave Shaffer** on 30 Oct 2003, 5:50 p.m.,*
in response to message #18 by bill platt

"I liked Word Perfect 5.2 more"

Hear! Hear!

Best word processor program ever made. Especially if you want a macro that replaces/changes system formatting codes. You can't do stuff now (WPWin 8, 10, 11) that you could half a dozen versions ago (but you can still do WAY more of that than you can with Word).

@&%£$! MSWord

*Message #20 Posted by **james (UK)** on 30 Oct 2003, 6:35 p.m.,*
in response to message #19 by Dave Shaffer

Don't get me started on £%&^&*&"@ Word! Everytime you try and type something the damn program thinks it knows better than you how to format what you're trying to do - oops showing me age again -

for 'type' read 'word-process' - aaargh - going off to bathe in the soothing red glow of some leds to calm down!!!

Saab 900 dont put it on cinder blocks

*Message #21 Posted by **Norm** on 31 Oct 2003, 4:54 a.m.,*
in response to message #18 by bill platt

Bill Platt wrote:

>> That godddaaammm thing was nothing but trouble. Finally got tired of repacing it--3 times--and now that car sits in the yard, serving as a Property Value Reduction Prop. Next week, I plan on taking the wheels off, sitting the car on blocks----since the house across the street just sold for 375k ;^}

*** HEY BILL after you take the wheels off don't leave it on cinder blocks, cinder blocks cost money.

Just turn it upside down.

Chevy truck

*Message #22 Posted by **james (UK)** on 30 Oct 2003, 6:37 p.m.,*
in response to message #16 by Norm

This truck has performed an illegal operation and will now shut down. (Cue hourglass symbol)

Simpler times (O/T)

*Message #23 Posted by **james(UK)** on 31 Oct 2003, 8:57 a.m.,*
in response to message #16 by Norm

Re too much thought control in today's autos, an extract from an article by Paul Cockburn on the E-Type Jaguar (XKE) in the Australian car mag 'Wheels'

"I read somewhere recently where the current Cadillac has 103 separate electric motors aboard to make your life that little bit easier.

That's nice.

The Series 1 E-Type has three that usually do something. Starter motor, fuel pump and radiator fan.

It has another two that work, but do nothing worth a damn (the heater fan and windscreen wipers) and one that does something very peculiar (the screen washer switch, when activated, soaks the passenger's right foot).

The only other one that I know of drives (for a few moments after delivery and any subsequent attempts at repair) the rightly famed Sir William Lyons Memorial Clock, which sits in the rev-counter of every early E-Type and almost immediately seizes at 25 to 12 .... presumably predicting the moment of his departure from the mortal coil.

It has pwoer-operated nothing.

You want the windows up? Sort them out yourself.

Think of erecting the roof as a mental and physical accomplishment.

Steer it like a man, damn you!

God will determine the condition of the air. And so on."

Re: Airbus is not immune . . .

*Message #24 Posted by **Vassilis Prevelakis** on 31 Oct 2003, 7:29 p.m.,*
in response to message #13 by Paul Brogger

a) Unreliable software is not a "new" thing. There were bugs even in early HP calculators, despite the fact that the code was much smaller and the product develpoment cycles were longer.

b) The first flight of Columbia had to be postponed for 2 days because of a software bug. The four PASS computers (primary avionics) could not sync with the backup flight computer. Somebody suggested rebooting everything. NASA did not want to try this especially with Columbia fully fueled and ready to go. So they cancelled the launch and tried again the following Monday. The second time everything went OK. Over the weekend they found and bypassed the bug, which had 1 chance in 64 of occuring (so if they had rebooted, chances were that the computers would sync).

c) Having computers ensure that the plane stays within a safe envelope will not make the plane safe. The recent crash of the AA Airbus 320 over NY (where the pilot commanded a series of end-to-end deflections of the rudder, causing the vertical stabilizer to break off) proves that the "user" can always cause unpredicted behavior.

d) In the case of the 747 that went out of control, it may be worth investigating whether envelope protection would have prevented the incident from occuring in the first place. Also in another incident (in the Philipines) the pilots could not regain control of the plane (another 747) and it crashed.

e) The traditional way of controling flight surfaces is dead, because it costs too much (weight, manufacturing, maintenance, etc.). Even in traditional flight control systems a degree of automation exists. E.g. in large planes such as the 747, MD11, etc, you need hydraulic pressure to control the flight surfaces anyway. So the pilot's controls are not linked directly to the flight surfaces. In these cases feedback to the pilot (e.g. the stick shacking when the plane approaches stall) are "simulated" (e.g. by having a motor shake the stick when the plane approaches stall). In the O Hare DC 10 crash (where one of the engines detached from the wing taking with it all three hydraulic lines) the pilots stick shaker did not work because it was powered from an electrical power bus that was powered from the missing engine. (so what about the co-pilots stick shaker? it was an optional extra and was not installed). The plane stalled and crashed.

f) (to finish on a possitive note) Having a fully manual backup can save your ass. Remember the Air Canada 767 that run out of fuel. The pilots managed to land it on an unused strip by gliding. Most of the avionics were dead (they had a little bit of power from a windmill generator), even the APU was dead since it uses fuel from the main tanks. Of course the hydraulics had pressure, but without power the pilots

could only achieve reduced deflections of the fligh surfaces (like braking your car with the engine switched off). (In fact the nose landing gear did not deploy properly because it drops against the wind stream, and the plane suffered some damage).

**vp

Re: Airbus is not immune . . .

*Message #25 Posted by **Norm** on 1 Nov 2003, 5:22 a.m.,*
in response to message #24 by Vassilis Prevelakis

VP wrote:

>> AA Airbus 320 over NY (where the pilot commanded a series of end-to-end deflections of the rudder, causing the vertical stabilizer to break off)

Hi VP, although I personally don't believe in vertical stabilizers they break off (an Airbus innovation) do you know anything further about why the pilot pressed end-to-end? Are you sure the command was so extreme?

VP wrote:

>> In the case of the 747 that went out of control, it may be worth investigating whether envelope protection would have prevented the incident

Hi VP, it would have, in this situation. The reason the 747 begins with that they were flying very high (maybe 37,000 feet or whatever is higher than usual) . Then the initiating problem was that one of the 4 engines quit. It was a flameout, or some such minor thing. However, when in the very rarified atmosphere, you must maintain airspeed. If an engine quits, you must lower the nose (descend) and probably lower the nose quite strongly. The pilot did not significantly lower the nose. As a result, the airplane on 3 engines quickly went into a stall, probably on one wing first. This made it tumble crazily and caused a lot of upside-down gravity etc. from which they were lucky to recover. Therefore to answer your question the AIRBUSTED philosophy of intervening over the pilot WOULD HAVE prevented the incident (the airplane would've shoved the nose down harder than the pilot did).

I dont know if the Airbus philosophy is better however. The computer guys write buggy code and they may cause more accidents than they prevent.

VP wrote:

>>> In the O Hare DC 10 crash (where one of the engines detached from the wing taking with it all three hydraulic lines) the pilots stick shaker did not work because it was powered from an electrical power bus that was powered from the missing engine. (so what about the co-pilots stick shaker? it was an optional extra and was not installed). The plane stalled and crashed.

Keep in mind that there were other disasters at work. The DC-10 like most big jets has got leading-edge flap surfaces and trailing edge flap surfaces. They have to extend together; if one extends and the other doesn't you have a junk airfoil that won't fly. The leading edge flaps were held in position by hydraulic fluid only, even though it was tradition to use mechanical locks also, the managers decided on a payraise t(o executives only) instead and used hydraulic fluid only

for locking the leading edge flaps. When the engine came loose (due to uncertified maintenance procedures damaging the engine mount) it ripped loose all the hydraulic lines like a bunch of spaghetti. The hydraulic pressure failed on one side only and the leading edge flaps retracted on the one side while the big trailing edge flaps were still extended. The pilot now had a junk airfoil. Sadly it was still flying as he was climbing out, however the book called for him to REDUCE his airspeed as part of a failed engine. He didn't know that he had even lost an engine; when the airspeed was reduced the improperly configured wing stalled unexpectedly (left side) and the plane rolled to the left, flipped over and hit the ground.

Therefore a variety of problems there; bad hydraulic designs, management cheapout, and regulations on the pilot that didn't prove advantageous (if I was flying and I lose an engine I'd want to go like hell, keep my airspeed up).

- Norm

Re: Airbus is not immune . . .

*Message #26 Posted by **james (UK)** on 1 Nov 2003, 6:21 a.m.,*
in response to message #25 by Norm

From what I remember, the Airbus was turning and following a plane in front (also turning) and twice ran into that planes wake turbulence, the first time the pilot managed to regain control through reversing the rudder a couple of times, unfortunately the second time structural failure intervened.

According to Airbus, it was a mixture of pilot error (shouldn't have reversed the rudder as this imposes way too much stress) and the airline (their manuals didn't tell the pilot what he should do). Apparently simulations have shown very high stresses in these situations but funny how pilots have been reversing the rudder on Boeings and other planes since the days of Orville & Wilbur without any problem.

Kind of like don't push the throttle lever too far forward

*Message #27 Posted by **Norm** on 2 Nov 2003, 3:47 a.m.,*
in response to message #26 by james (UK)

Kind of like if it said "don't push the throttle lever too far forward....."

"if you do, the knob falls off in your hands."

The owner's manual says thats what will happen, so its OK that it is what happens.

"dont push rudder pedal too hard, rudder might fall off".

Interesting how all the blue-suits and the lawyers and the managers are willing to keep a straight face while they say such lunacies. I suppose they can't just admit the truth (rudder was too flimsy, shouldn't fall off) because then the lawsuits will win bigger.

Re: Airbus is not immune . . .

*Message #28 Posted by **Vassilis Prevelakis** on 2 Nov 2003, 12:11 a.m.,*
in response to message #25 by Norm

```
Norm wrote:
> Hi VP, although I personally don't believe in vertical
> stabilizers they break off (an Airbus innovation) [...]


rather harsh statement, read below:


From Aviation Week and Space Technology, Nov 25, 2002
> The Airbus A300-600R's rudder moved from stop to stop five
> times, causing the vertical stabilizer to be torn from the
> transport. The total force exerted was 1.93 times limit
> load, the maximum load expected in service.


From Aviation Week and Space Technology, Feb 8, 2002:
> NTSB officials stressed that problems from successive
> rudder inputs is a threat on all transport aircraft, not
> just Airbus A300-600s.
```

In fact the KC-135 (military version of the the Boing 707) manual specifically cautions against rudder reversals.

My point was not to say my plane is better than your plane (unlike John Travolta, I don't actually own an airliner :-). My point was that this was one case where envelope protection may have prevented the accident.

```
> I dont know if the Airbus philosophy is better however.
Neither do I. This is why I gave examples both for and
against. The court is still out.


> The computer guys write buggy code and they may cause
> more accidents than they prevent.
```

This statement is so general as to be useless. Computers **are** used in both Boing and Airbus airliners and soon they will be used in practically all aircraft.

In reality, technology and economics force the replacement of manually driven actuators with computer driven ones.

You have to realize that old technology is not inherently better because its does not involve computers. Its just different. It has its own problems, like things falling off without the pilot having a clue (O Hare crash), like elevators being incorrectly adjusted (TWO recent USAir Express crashes), etc.

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(regarding the DC-10 O Hare crash)
> Keep in mind that there were other disasters at work.
```

Of course. Most accidents are due to an unfortunate conbination of events. The DC-10 crash was one of these cases. However, my point was not that the stick shaker was the root cause of that crash, but that even in older aircraft that do not use "fly-by-wire" technology, there is still a lot of automation that can ruin your day.

Hmmmmmmmm Work for Airbus ?

*Message #29 Posted by **Norm** on 2 Nov 2003, 3:51 a.m.,*
in response to message #28 by Vassilis Prevelakis

Hmmmmmmmmm. Sounds like you work for Airbus.... in the legal department.

Well, if I understand your position correctly, Vassilis, you are saying that its mechanically OK to put a rudder on the airplane that will fall off with stop-to-stop actuation. (I guess they do that by using plastic bolts and chewing gum, etc.)

So you are telling me its OK to make a rudder like that, so long as the software is coded to prevent the pilot from stomping on the rudder pedals. Ok..... whatever you say.

You done much flying ? Take any lessons ?

Re: Airbus is not immune . . .

*Message #30 Posted by **Vassilis Prevelakis** on 2 Nov 2003, 5:23 a.m.,*
in response to message #29 by Norm

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> Well, if I understand your position correctly,
Vassilis,
> you are saying that its mechanically OK to put a rudder
on
> the airplane that will fall off with stop-to-stop
> actuation.
```

Which part of "The Airbus A300-600R's rudder moved from stop to stop **five** times" you don't understand? In an earlier flight (AA 903) the rudder was moved end-to-end eight times and did not fall off, because it is contructed of composite materials and has been overengineered on purpose.

Regarding my previous posting:

a) I quoted the NTSB statement from AW&ST. If you think you know more than these guys then apply for a job at NTSB and save thousands of lives.

b) Planes, unlike Abrams M1 tanks are by design fragile. They are not made of steel or titanium, but aluminum and composites. This is because the higher the dry mass of an airplane the less payload (i.e. paying pax or cargo) you can carry for a given MTOW (max take-off weight). So, guess what, if you apply the thrust reversers in flight, the plane falls to bits. If you do this in an M1 you make a big hole in the ground and you simply have to back out. The flight instruction manual tells you what you can and what you cannot do. Pilots have to obey these rules. The more professional the pilot the closer he or she follows the book. Sometimes the book is wrong (like in the case of the O Hare crash) and people get killed. In most cases the book is right and everybody gets to tell scary stories to their grandchildren.

c) Screwing around with a two story rudder will get you in trouble. The big question during the inquiry was whether this needed to be stressed in the aircraft manual and the AAMP (Advanced Aircraft Maneuvering Program), or that this should be self evident. The KC-135 manual includes this warning. NTSB board member J.A. Hammerschmidt and some American Airlines pilots were receiving the impression that the AAMP indicated that rudder, rather than ailerons was the primary method for roll control in some upset circumstances including wake encounters (AW&ST Nov 4, p.47). One of the recommendation of the board was that this had to clarified.

d) Ultimate load for the vertical stabilizer is 1.5 limit load (maximum load expected in service). In the case of flight 587, the tail broke off when the actual load reached 1.93 of limit load. The A300-600 tail is actually 30% stronger than required, which allowed other flights (e.g. AA 903 where during 8 rudder reversals the **ultimate** load was exceeded 3 times) to survive.

e) There are lots of things you shouldn't do when flying an airplane (e.g. applying the thrust reversers, lowering the landing gear at cruising speed, etc.). For some of these things there are safeguards that prevent the pilot from performing the action, for others, the pilot can perform the action and pray that he/she can get away with it. In the two cases mentioned above (thrust reversers, and landing gear) there are mechanical interlocks that prevent accidental deployment. As computers are gradually installed between the pilot and the plane, some/most/all of these interlocks will be implemented in software. While I am not sure whether its a wise decision, I predict that most new planes that will be built in the next ten years (Boeing 7E7, Airbus 380-800, etc) will have software that will be flying the plane and the pilot will be less in control.

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> Sounds like you work for Airbus....
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The question should be whether I work for the aircraft industry. :-) Airbus, Boeing, Bombardier, everyone has to make products that are sellable, i.e. economical to purchase, operate, maintain, and so on. They all have to make design decisions on how to reduce weight, automate tasks (e.g. this is how they got rid of the flight engineer), simplify maintenance and (of course) operate within the parameters specified by national and international law. So everybody is trying to get as close to the sweet spot by coming up with new solutions. In some cases they are rewarded because these solutions allow them to improve their price/performance, in other cases they have to backtrack and pay millions of dollars to remove the "optimization".

Feel free to question what I say, but before you respond, check the NTSB report, and the AW&ST website (www.aviationnow.com).

Now can we get back to HP calculators?

**vp

Re: Airbus is not immune . . .

*Message #31 Posted by **Norm** on 2 Nov 2003, 2:37 p.m.,*
in response to message #30 by Vassilis Prevelakis

VP wrote: Now can we get back to HP calculators? **vp

No, we can't. Your viewpoint is terrifying, I wish to make sure I really understand it.

As an analog electronics engineer, I have watched the software types slowly come to power and tighten their stranglehold on society with their viewpoint that 'things ought not to work properly'.

I am familiar with the design of linear amplifiers. It can be difficult to make the linear amplifier stable under some conditions, so it oscillates. Thus comes the heart & soul of analog electronics, to make things work properly. BUT NOW comes the software guys.... and my impression of them (as far back as 20 yrs ago) was that they would just assume have an UNSTABLE badly performing amplifier (like for their stereo speakers) just so long as they get to add a microprocessor and some lines of code, imagining in their childlike fantasies that they get to sort of 'clean up' what they dont understand by tap-tap-tapping at their little keyboards and running their tidbits of assembler instructions.

Well, I dont buy it. I think you software guys would just assume put in a substandard foundation underneath a 50 story building..... like not use very much cement so maybe it wants to tip over. After all, we can just add a microprocessor and just write a few lines of code!!!!!

You seem to have some expertise about the crash of the Airbus jet. So, did anybody change ANYTHING in the design? Or did they just count the number of stop-to-stops of the pilots feet and say '5 is too many'.

In advance, it sounds like they did not do ANYTHING!!! This conveys a total disrespect for people's lives, comparable to Ford/Firestone.

I think software people are unwilling to look at the big picture. You say 'the rudder is 2 stories, of course it falls off'. You keep pointing out that it was at 1.93 of the supposed 'load limit'. Did it ever occur to you that maybe the load limit number is WRONG? Maybe it failed at 0.5 of the fair load limit, if you only pick a reasonable design limit in thei first place.

WELL how about designing the rudder extra strong at the bottom, with a deliberate breakpoint up higher so that if the worst-case nightmare occurs, the pilot can still fly home on half a rudder? Why? Because of the middle managers! This would require them to actually think, and maybe have a bunch of fresh work to do, and maybe they don't want to do that. So they shall just do

nothing!!! Did you know that the Concorde crash was preceded by NUMEROUS examples of the exact same problem, but the managers did nothing? Did you know in the 70's that TWO DC-10's were damaged or lost due to cargo-door failure, before the middle managers finally got kicked off their butts and onto their feets to actually do something about it?

Back to software, you keep assuming that the jet flies in a straight line, so that the rudder doesn't have to do very much. Well, how about if the plane tumbles in flight. How about if there is a screwup and it flies into a cumulus cloud. How about if your co-pilot is an arab like Bhatouti. You could wind up damn near crossways to the wind stream under any of these conditions. The China airlines (?) 747 certainly did when it tumbled from 37,000 feet after a turbine trip.

I have to presume you are just toying with my mind and that is why you write this stuff, so if you dont want to reply fine.

As to me, I absolutely do not believe in rudders that snap off due to a pilot stomping on rudder pedals, and perhaps you should reiterate your viewpoints to the victim's families.

- Norm

Re: Airbus is not immune . . .

*Message #32 Posted by **Vassilis Prevelakis** on 2 Nov 2003, 4:10 p.m.,*
in response to message #31 by Norm

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Norm wrote:
> You seem to have some expertise about the crash
of the
> Airbus jet. So, did anybody change ANYTHING in
the design?
> Or did they just count the number of stop-to-
stops of the
> pilots feet and say '5 is too many'.
>
> In advance, it sounds like they did not do
ANYTHING!!!
```

Go read the NTSB report (and recommendations) on the accident, its on the web.

**vp

Re: Airbus is not immune . . .

*Message #33 Posted by **Norm** on 3 Nov 2003, 12:50 a.m.,*
in response to message #32 by Vassilis Prevelakis

Well, Vassilis, cooperative teamwork is about if you know something, you are welcome to fill me in. I dont have time to go and read this report, and if you have already done so, you are welcome to provide me with details.

Meanwhile I promise next time I am in a Cessna 172 I will

caefully count my applications of rudder pedal and be very careful not to exceed 5 counts lest I break off the rudder and crash. I believe that makes good sense to me.

As you do not wish to provide useful facts or details (did Airbus do anything after the crash???) and you continue to cling to the notion that "5 is too many" (or whatever the airbus lawyer said) I think I too am ready to bid farewell to this exchange.

As before, I reiterate my suggestion..... go share your viewpoints with victim's families.... starting with the wife of the captain of the Airbus. BTW the captain is obviously being blamed after his death as a scapegoat, a common tactic by businessmen and MBA's who care less about technical realities. Too bad you are on their side.

- Norm

Re: Airbus is not immune . . .

*Message #34 Posted by **Dirty Harry** on 3 Nov 2003, 4:23 a.m.,*
in response to message #33 by Norm

" I know what you are thinking...
did i push the rudder pedals six times or was it only four?

To tell you the truth I've forgot it myself
in all this excitement.

Now this is an Airbus A330, the most
powerful airplane in the world, but it
can blow its tailfin clear off.
Now you must ask yourself one question, pilot:
" Do you feel lucky ?"

..... Well do you... Pilot?

---Dirty Harry

Re: Airbus is not immune . . .

*Message #35 Posted by **Vassilis Prevelakis** on 3 Nov 2003, 6:39 p.m.,*
in response to message #33 by Norm

```
Norm wrote:
> I dont have time to go and read [the NTSB]
report
> and if you have already done so, you are
welcome to
> provide me with details.
```

I see, you have the time to draw conclusions based on total speculation. E.g.

```
> In advance, it sounds like they did not do
ANYTHING!!!
> This conveys a total disrespect for
people's lives [...]
```

... but you do not have the time to go and read a couple of pages so that you can get a first hand idea of what the experts believe *really* happened.

So, OK Norm, you are absolutely right. Airbus is total trash and we must urge all people never to set foot on one of their flying coffins. Now that this has been settled, take a few deep breaths and go back to your important work that leaves you no free time.

And now that you have shown me the light, can we go back to calculators?

**vp

Vassilis,

*Message #36 Posted by **Norm** on 3 Nov 2003, 7:16 p.m.,*
in response to message #35 by Vassilis Prevelakis

Vassilis,

I really have no further need to absorb your "wisdom" that killed hundreds on that Airbus flight. I also find your helpful and cooperative spirit most intriguing, in which you refuse to describe whether any subsequent mods (presumably strengthening the flimsy rudder) were, or were not, implemented.

Actually I can clearly see why you would refuse to answer the question... you lose either way

(a) if they strengthened the tail, then the captain you are damning (for having pushed the rudder pedal 5 times) would be vindicated, since they made structural changes (b) if they did not strengthen the tail, then its just as flimsy as ever and another will crash very soon

Therefore, Vassilis, you try to "win" by becoming obsessed with the fact that I have not sat down to read some lengthy report (its true, why should I, tail-fin fell off because pilot used rudder, what more do I need to know!)

Please note that I posted with my genuine name, a genuine e-mail address. Now, shouldn't you quit pestering all the people on this chat board (including me) with your desire to make pilots count the number of times they count rudder

actuations (1, 2, 3, 4, oops!) BECAUSE if you have any specific need to contact me further, you may do it direct to my e-mail,and I will continue to try to assist you to learn prudent and logical engineering practice.

BTW along with logical engineering thought processes being on my side, the victims and their families would also be on my side of this debate, something you repeatedly refuse to acknowledge (instead you are dwelling on whether I have read precisely the same scraps of paper as you, which obviously is unlikely for two chat board participants to have read the same materials in advance, yet you seem to find great satisfaction in dwelling on that detail).

Again, please send it direct, or not at all. I post here only because along with your continuing conviction that its OK for airframes to fall apart, you also do not divulge your e-mail address.

- Norm

Re: GE you forgot to mention

*Message #37 Posted by **Les Bell [Sydney]** on 29 Oct 2003, 5:55 p.m.,*
in response to message #10 by Norm

The F-22 has been suffering similar problems in its avionics suite software, to the extent of requiring a reboot several times in a typical early test flight. That's rebooting *in flight*, folks.

Things have improved somewhat, though - apparently they only lose a few minutes while rebooting as opposed to half an hour or so during early flights.

The original "Atlanta Journal & Constitution" article is gone now, but a Slashdot story still refers to it, at http://slashdot.org/articles/02/07/22/0615221.shtml?tid=126.

I always thought that for test pilots, the object of the game was not to cheat death, but not to let him play the game in the first place. Perhaps times have changed. . .

Best,

--- Les [http://www.lesbell.com.au]

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New site

*Message #1 Posted by **Matthias Wehrli** on 25 Oct 2003, 5:16 p.m.*

Just added two demonstrations on my website....

http://www.hp-collection.org/demonstrations.htm

Re: New site

*Message #2 Posted by **Raymond Del Tondo** on 25 Oct 2003, 7:31 p.m.,*
in response to message #1 by Matthias Wehrli

Hi Matthias,

very nice!

You forgot to number the CT 4x power adapter from me (upper left corner), and the IL converter (upper right;-)

Raymond

Re: New site

*Message #3 Posted by **Matthias** on 26 Oct 2003, 1:53 a.m.,*
in response to message #2 by Raymond Del Tondo

problem fixed. Thanks Raymond.

Re: New site

*Message #4 Posted by **Veli-Pekka Nousiainen** on 26 Oct 2003, 6:19 a.m.,*
in response to message #1 by Matthias Wehrli

"Just added two demonstrations on my website....

http://www.hp-collection.org/demonstrations.htm "

Item 11 is not explained...

Re: New site

*Message #5 Posted by **J-F Garnier** on 27 Oct 2003, 6:55 a.m.,*
in response to message #1 by Matthias Wehrli

Hi Matthias,

What is "13) Hepax Rombox" (2nd demo)?

I don't know this item, does someone know?

J-F

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HP49g+ for $129.99?

*Message #1 Posted by **Brian** on 25 Oct 2003, 2:42 p.m.*

Just saw a website that is selling the new 49g+ for only $129. The site is http://www.graphingcalculators.net/gcteststore1/hepabgrca.html

This sounds way too good to be true. Does anyone have experience with this store?

Re: HP49g+ for $129.99?

*Message #2 Posted by **U of I EE** on 25 Oct 2003, 7:21 p.m.,*
in response to message #1 by Brian

I just bought my new HP 49g+ at the University of Illinois' Illini Union Bookstore in Urbana, Illinois for $132.99.

Re: HP49g+ for $129.99?

*Message #3 Posted by **Ben Moss** on 27 Oct 2003, 11:56 p.m.,*
in response to message #1 by Brian

Go to www.froogle.com and type in HP49G+. A friend of mine just got his for just over $130 including shipping (it was ~ $120 before shipping).

I'm thinking of ordering one from there too. -Ben

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Conn4x with HP49G+

*Message #1 Posted by **David Motto** on 25 Oct 2003, 2:12 p.m.*

I got my new revision 1.20 calculator the other day, installed the software and USB driver on my Windows XP Compaq (USB 2.0), and connected the calculator. When I fired up the software, the ROM menu option is greyed out. Any ideas on how I can upgrade the ROM (without an SD card)?

Thanks.

Re: Conn4x with HP49G+

*Message #2 Posted by **James M. Prange** on 25 Oct 2003, 3:35 p.m.,*
in response to message #1 by David Motto

Look around at http://groups.google.com/groups?q=comp.sys.hp48. The answer's probably there, and fairly recent.

Re: Conn4x with HP49G+

*Message #3 Posted by **Alain (Canada)** on 25 Oct 2003, 4:16 p.m.,*
in response to message #1 by David Motto

Hello,

the ROM option will become available if you select the dedicated USB com port (something like "HP-4xG+"). Then, you can upgrade your calc. Make sure to select 115kbps (kind of slow otherwise).

Alain

Re: Conn4x with HP49G+

*Message #4 Posted by **David Motto** on 26 Oct 2003, 10:17 a.m.,*
in response to message #3 by Alain (Canada)

Thank you both. Yes, I am Alan Smitthee, famed movie director of most of the flicks on USA Netwrk in the 70s and 80s.

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New bug?

*Message #1 Posted by **Paul Fox** on 25 Oct 2003, 9:39 a.m.*

Decided to take 5 mins off and read the manual and follow some of the examples to refresh my brain.

Tried typing "1234567890123456" to see what it did, i.e. whether it was an integer or a float.

I got to about '6' and the calc powered off as if it had lost battery power or I had OFFed it. (Batteries are fresh as of last night).

Turned on again and repeated test numerous times...but didnt reproduce the 'glitch'. Havent seen anyone else report this, but just in case.

I havent had any issue with the keys being too hard or different...strange. I put it down to Solar Flares for now.

Re: New bug? #2

*Message #2 Posted by **Paul Fox** on 25 Oct 2003, 10:49 a.m.,*
in response to message #1 by Paul Fox

Was playing around with APPS and looking at the ALG menu and went to CANCL the popup and the calc hung hard. ON-C didnt do anything. Had to hard reset it.

Either this calc suffers from static (got a static spark when touching the hifi a minute or two after this activity) or them bugs are really opening up on this baby.

Not specific enough

*Message #3 Posted by **Gene** on 25 Oct 2003, 10:56 a.m.,*
in response to message #2 by Paul Fox

To help others see how to find this bug, you didn't provide enough info to replicate it.

"playing around with APPS"

Were you in the APPS choose box? If so, how did you access the ALG menu? Press the RS ALG key? Go through the APPS choosebox to the calculus menu then the algebra menu?

?

I'm using ROM 1.22 and just did:

APPS

11

ENTER (Enters the CAS menu)

2

ENTER (Enters the ALG menu)

and I can press CANCEL very easily without a crash.

If you did something else, help us replicate the "bug" report.

Re: Not specific enough

*Message #4 Posted by **Paul Fox** on 25 Oct 2003, 11:03 a.m.,*
in response to message #3 by Gene

Sorry - I am not being specific enough. It very much surprised me and it was difficult to know exactly what I did. I was defintely playing with CHOOSE boxes which I have done plenty of times before.

I am not necessarily looking for help here..I am trying to be deliberately thick (not hard for me!) and just bash about and learn whats on all the menus.

I raise these here in case others see similar issues and dont want to feel alone.

It upsets me that the HP48SX was brilliant, the HP49 I found unusable because the screen was so difficult to see, and the HP49G+ is looking 'buggy' (hardware and/or software). But I am still happy with it. Its a learning tool and I am not sure I trust it.

Re: Not specific enough

*Message #5 Posted by **Gene** on 25 Oct 2003, 11:07 a.m.,*
in response to message #4 by Paul Fox

And I'm just trying to duplicate the bug.

If it can't be duplicated then no one can be sure if there IS a problem.

Gene

Re: New bug? #3

*Message #6 Posted by **Paul Fox** on 25 Oct 2003, 10:59 a.m.,*
in response to message #2 by Paul Fox

Them bugs coming thick and fast...this one is definitely sw.

Set the stack display to small.

Did a RCLF -- this is me typing them in from the calc:

{#800028205410ff0h #0h #12000000098h #0}

Now keep DUPing them on the stack. Eventually you see levels 1..5 showing the same flags.

But frame 5 redraws wrong. It needs two lines for display and each of levels 1..4 are correct. But level 5 shows just the top 2 pixels of the second line. Maybe this is correct behaviour but it looks flipping ugly. It should use the "..." notation if it cannot fit.

Re: New bug? #3

*Message #7 Posted by **Gene** on 25 Oct 2003, 11:05 a.m.,*
in response to message #6 by Paul Fox

Set my 49G+ to small stack display.

I did a RCLF but my list is: {#CF1h #1100h #80h #0h}

When I DUP this, I can fill all 9 levels of the stack with it and it displays fine.

Why did you indicate "5" levels of the stack? If the stack display is set to small, it should show 9 levels not 5.

My flags are set to show "many lines" (flag 52 is clear), but when I have it set to "show one line", I still dont' get this behavior.

?

Gene

Re: New bug? #3

*Message #8 Posted by **Paul Fox** on 25 Oct 2003, 11:46 a.m.,*
in response to message #7 by Gene

I assume that if you use my flags ie what RCLF returns you get all my settings, namely font size. I have 5 levels showing because those flags spill over to two lines for the font setting.

If you use your flags (which are shorter than mine) you likely wont see it.

Its debatably a bug -- if you have a big array on the stack, it likely wont be able to display all of it. In which case it depends on the code for showing either the top bit or the bottom bit. But it would be nice if partial lines didnt show. At a small font, the pixels run into each other making it look very bizarre.

Not a biggie. I'm still happy that the HP49G+ is cleverer than me... :-(

Re: New bug? #3

*Message #9 Posted by **Pete M. Wilson** on 28 Oct 2003, 5:34 p.m.,*
in response to message #6 by Paul Fox

Duplicated on 49g+.

Note on 49G, only 4 levels display, level 4 shows .. at end rather than trying to display between level 4 and 5.

Re: New bug? #4

*Message #10 Posted by **Paul Fox** on 25 Oct 2003, 1:35 p.m.,*
in response to message #1 by Paul Fox

Power off doesnt seem to work. I havent come across where its possible to enable/disable this or change the timeout (not sure its possible without programming the STARTUP/STARTOFF functions. I may have the OFF function wrong).

Walked away from my calc and it was on about half hour later. It could be that it is powering itself on - I'm pretty sure I power it off when I finish with it.

Will keep an eye on it....

Re: New bug? #5

*Message #11 Posted by **Paul Fox** on 25 Oct 2003, 1:47 p.m.,*
in response to message #1 by Paul Fox

Oh there coming thick and fast....

I tried one of the silly examples:

<integral> 0 to X exp(X) dX

(sorry not sure of the ascii convention to get this right). Anyway, note I am evaluating exp(X) and not exp(-X).

I would expect this to be infinite?

Anyway after 30 secs, maybe 1 minute it was still calculating away. Maybe it is fine to do this in one or other of the numeric modes .. not sure.

So I aborted the operation with ON/CANCEL.

It popped up a note saying the operation was interrupted.

The bug is it left this on the stack:

2: External 1: 0.728780437708

I think any command leaving an External on the stack can be considered a bug? Not sure what the 0.728780437708 corresponds to (the right answer?)

more later when the next baby appears.

Re: New bug? #5

*Message #12 Posted by **Eric Lundgren** on 25 Oct 2003, 3:22 p.m.,*
in response to message #11 by Paul Fox

Hi Paul,

I have no book to reference here, but if I remember, Dx(exp(x)) = exp(x), in which case, Int(exp(x))dx, would be exp(x) + constant.

then if you eval at 0, and x, (I'd think to use t or something for clarity) you'd get [exp(t) - 1] ...but that's if you are doing symbolic mode I guess...you might be way beyond my background. Then if you meant for x->infinity, then I'd be sure to agree that the integral will diverge. Maybe that object it leaves is an intermediate calculation while its trying to do the impossible. ?

best regards, Eric

Re: New bug? #5

*Message #13 Posted by **Arnold Steekelenburg** on 25 Oct 2003, 5:38 p.m.,*
in response to message #11 by Paul Fox

On my HP49+ this integral returns exp(x)-1, within a fraction of a second.

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HP49g+ questions

*Message #1 Posted by **Brian** on 25 Oct 2003, 2:00 a.m.*

I grabbed my HP49g+ from the University of Washington bookstore last Friday, and I've been quite happy with it. I've always preferred RPN, though I've never before had an HP calculator. (I have, however, used an RPN program on my PalmPilot for quite some time, and my chem teacher has an extra 11c that he lets me use in class.) I'm gradually learning about my new calculator and what I can do with it... I think I've got the basics down, the next step is figuring out RPL.

There have, however, been a couple of issues with this calculator that I was unsure about. I've noticed that the bottom few lines of the screen (where the soft menus are) flickers every few seconds. Also, occasionally, the rightmost portion of the screen will display a bit of garbage for a few seconds, and then go back to normal. This only seems to happen when the calculator is running its normal OS... on all of the self-diagnostic screens, LCD test, ROM update screen, etc, the display seems fine. This leads me to believe that there are some bugs in the ROM.

Is anyone else having these issues? If it's a common problem, then I won't worry about it. I just want to know if I have a fried graphics controller/CPU or if this is just a common bug that will eventually be corrected through a ROM update.

I've also done a little bit of experimentation with downloading 49g programs and trying them out. I've basically found that some work, some don't. I've had the most problems with programs in library format - mostly they either don't work well at all or they work, but the calculator turns off semi-randomly. Other programs I've had more success with, although some games run *really* fast.

One more thing that I've noticed is that this calc seems to have a lot of trouble with grayscale, or at least the way grayscale was done on the 49g. Trying to run a grayscale program on the 49g+ results in a really flickery image, and the contrast way too light.

Really, I'm surprised that assembly programs for the 49g work on this thing at all, considering that they have completely different processors.

I'm assuming that the incompatibilities with most 49g software is normal and to be expected, right? It's just being new to HP I'm not familiar with how the older calculators worked or what the differences really are between the 49g and the 49g+ and it's hard for me to tell if I've got a defective unit or just am experiencing a few bugs.

All in all I've found it to be an excellent calc. The issues I've experienced, while just a little bit annoying, really aren't bad at all. If these are common, they won't bother me, I just want to make sure I got a good unit :)

Also, any advice about good resources on HP calculators would be appreciated. I've already found hpcalc.org, and obviously here as well. I've also read most of the hp48 FAQ...

Edited: 25 Oct 2003, 2:01 a.m.

Re: HP49g+ questions

*Message #2 Posted by **SV** on 25 Oct 2003, 5:47 a.m.,*
in response to message #1 by Brian

HP's website http://www.hp.com/calculators has many, many trainingn modules under the Solutions Groups.... there are tonnes of examples you can use. I have found it really helpful...just click on the product icon and it leads you straight into the modules under "solutions groups" by occupations.... education, technical, profesionals, etc. Hope this helps

Re: HP49g+ questions

*Message #3 Posted by **James M. Prange** on 25 Oct 2003, 5:55 a.m.,*
in response to message #1 by Brian

Yeah, lots of us have noticed "minor" problems with the 49g+. See http://groups.google.com/groups?q=comp.sys.hp48.

Regards,
James

Re: HP49g+ questions

*Message #4 Posted by **Karl-Ludwig Butte** on 30 Oct 2003, 4:07 a.m.,*
in response to message #3 by James M. Prange

I, too, observed the flickering of the bottom line of the display with my unit, which arrived yesterday. Does anybody know, if this problem is corrected with ROM Version 1.22 ? My unit came with ROM Version 1.20 installed and because I read that the problem has something to do with the garbage collection I still have hope, that it can be corrected.

Re: HP49g+ questions

*Message #5 Posted by **James M. Prange** on 30 Oct 2003, 4:42 a.m.,*
in response to message #4 by Karl-Ludwig Butte

I found it obvious with ROM 1.20, but with ROM 1.22, I haven't been able to detect it, even with the clock displayed. But I think that I've seen some posts that claim that it's still there, although not as noticeable.

Regards,
James

Re: HP49g+ questions

*Message #6 Posted by **Karl-Ludwig Butte** on 30 Oct 2003, 6:39 a.m.,*
in response to message #5 by James M. Prange

so there's still hope. I'll tell you my experience as soon as I tried it out with 1.22.

Re: HP49g+ questions

*Message #7 Posted by **Karl-Ludwig Butte** on 3 Nov 2003, 9:30 a.m.,*
in response to message #6 by Karl-Ludwig Butte

as promised here's my experience wit ROM version 1.22: There's not so much change in the flickering behaviour but turning off the clock display helps a bit.

Re: ROM v. 1.22: Flicker is there, but reduced

*Message #8 Posted by **Paul Brogger** on 30 Oct 2003, 11:08 a.m.,*
in response to message #4 by Karl-Ludwig Butte

FYI -- It's occasionally noticeable on mine after 1.22 upgrade, but is much less obvious. (That's without the clock displayed.)

Re: ROM v. 1.22: Flicker is there, but reduced

*Message #9 Posted by **Ed Look** on 30 Oct 2003, 2:05 p.m.,*
in response to message #8 by Paul Brogger

Gentlemen, after 1.22, mine still flickers only if the clock is used, so I unchecked it. Also, after using some menus (I forget which) there a flicker, but only once after the menu is closed. THAT I can live with; but with such an advanced calculator, it'd be nice to see the clock with it annoying me, like on the 48G's. Maybet they'll kill that and add seconds back to the digital clock display with next ROM update?

Re: HP49g+ questions

*Message #10 Posted by **shinsuke** on 6 Nov 2003, 1:49 a.m.,*
in response to message #4 by Karl-Ludwig Butte

A solution to the flickering is [Press ON plus up-arrow].

Re: HP49g+ questions

*Message #11 Posted by **Frank B. (Germany)** on 25 Oct 2003, 9:43 a.m.,*
in response to message #1 by Brian

Both display problems (are they really problems?) seem to be common. Look for example at

http://groups.google.com/groups?q=comp.sys.hp48

and search for "49g+ earthquake photo"

Frank.

Re: HP49g+ questions

*Message #12 Posted by **Wayne Brown** on 25 Oct 2003, 9:43 a.m.,*
in response to message #1 by Brian

The flickering and garbage on the screen have been reported by other people also. Over in comp.sys.hp48 they're calling the screen garbage the "display earthquake." You can find details (and a link to pictures of the effect) here:

49g+ earthquake photo

Re: HP49g+ questions

*Message #13 Posted by **Brandon Del Bel** on 25 Oct 2003, 11:10 p.m.,*
in response to message #1 by Brian

Yeah, I get the slight flickering as well, but I don't think I could live with that earthquake/grabage stuff. Is it actually a problem with the rom or the hardware itself?

Re: HP49g+ questions

*Message #14 Posted by **Veli-Pekka Nousiainen** on 26 Oct 2003, 7:11 a.m.,*
in response to message #13 by Brandon Del Bel

I think that the "Earthquake" is probably a GC issue in the new HW/SW combo, but to my opinion it is the least problem. The most important are: keyboard & battery issues! THEN I'd like to see a complex numer in polar format with units attached and solved in the Equation Writer using a new CSOLVE. AND the user setting should *NOT* change to radians (etc.) but stay at (5.2_V,45.0_o) as the _user_ wants it to be!!!

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URL for HP CALCULATOR WEBSITE; DIRECT LINK/BUYING

*Message #1 Posted by **SV** on 25 Oct 2003, 1:42 a.m.*

It took time but I figured this out. The hp website URL is as follows:

http://www.hp.com/calculators

If you go into the main website and key in "calculators" under search, it doesn't bring you to this site.

Try it.... it has all new products and modules

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a change that will come because of the 49G+?

*Message #1 Posted by **Gene** on 25 Oct 2003, 12:29 a.m.*

Now that the 49G+ has an SD expansion slot capable of holding many, many MB of programs and applications, I think a change will be coming.

To my knowledge (and that's imperfect), I don't think Library objects can be stored and/or accessed/run from Port 3 (the SD port).

Programs, however I think I read, can be run while stored on the SD card.

Many/most of the really good programs on the HPcalc.org site are in the form of libraries.

I think these will either get converted to normal programs (again) or new programs won't be constructed as libraries.

Imagine...most of the games you've ever thought of downloading from hpcalc.org in the 49G+ on an SD card.

most of the math programs you've ever thought of downloading from hpcalc.org in the 49G+ on an SD card.

most of the other applications you've ever thought of downloading from hpcalc.org in the 49G+ on an SD card.

All able to be with you and can be run at the touch of a couple of buttons.

Big change coming, IMO.

Re: a change that will come because of the 49G+?

*Message #2 Posted by **Joesph** on 25 Oct 2003, 2:12 a.m.,*
in response to message #1 by Gene

I was wondering how long it would take for someone to point this out. It seems a shame to have so many programs that will not run straight off SD.

Re: a change that will come because of the 49G+?

*Message #3 Posted by **Wayne Brown** on 25 Oct 2003, 8:07 a.m.,*
in response to message #2 by Joesph

If this happens, I just hope they continue to be available as HP48 libraries also, for those of us who will never be using a 49G+.

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Carly Fiorina meets Bill Hewlett

*Message #1 Posted by **DanO** on 24 Oct 2003, 10:48 p.m.*

Fiorina did her best. "It's a great honor to meet you," she told Hewlett. She walked around the table, close to his wheelchair, and crouched down so he could hear her better. "I've been seeing all these pictures of you," she said. "And I want you to know, you were a hell of good-looking guy!" Hewlett just stared. Fiorina thought she saw a flicker of amusement in his eyes, but that was all. She promised to keep HP strong as a technical leader in its fields and to maintain the highest regard for what she called the company's "shining soul." She mentioned that she had been to the garage where the company started. She hoped that at least a little of her message was getting through. And then Hewlett muttered something. The visitors strained to comprehend. They picked up only one word: "Here." Hewlett spoke again. This time his male nurse translated. "Bill said, 'Get me out of here!' " the nurse explained.

[Passage is from page 72 of the book 'Perfect Enough: Carly Fiorina and the Reinvention of Hewlett-Packard' by George Anders.]

Re: Carly Fiorina meets Bill Hewlett

*Message #2 Posted by **Namir Shammas** on 24 Oct 2003, 11:08 p.m.,*
in response to message #1 by DanO

I think Carly should be sentenced to being responsible to rebuild Iraq ... where she must reside for teh rest of her life!!!! Maybe she and Baghdad looters deserve each other!

Bagdahd doesn´t deserve her. (no text)

*Message #3 Posted by **Marx Pio** on 26 Oct 2003, 4:54 p.m.,*
in response to message #2 by Namir Shammas

no text

Re: Carly Fiorina meets Bill Hewlett

*Message #4 Posted by **Ed Martin** on 25 Oct 2003, 12:28 p.m.,*
in response to message #1 by DanO

I hopped over to a major online seller's website and looked at the reviews of this book. These excerpts from comments by an HP employee (who came from Compaq in the merger) reveal the "bad" side of the "New HP" culture ...

"Well, Bill and Dave brought an absolutely staggering amount of over-design into the company, and while that may have worked in the 40s, 50s, 60s, 70s, it gets in the way in today's marketplace more often than not."

"They did many wonderful things - but Bill and Dave's time has passed."

I guess this guy would call the 35, 67, 41, or 15 examples of staggering over-design.

Sigh .....

Re: Carly Fiorina meets Bill Hewlett

*Message #5 Posted by **Ed Look** on 25 Oct 2003, 12:42 p.m.,*
in response to message #4 by Ed Martin

Yeah, I'll agree... sigh.

To me, it's a(nother) case of attitudinal poisoning... from passive absorption of some professors' or mentors' or managers' or writers' skewed philosophies on how a "modern" era is supposed to function.

There are old moral and ethical basics which are being ignored by our current culture on all levels and this is disguised as progress, or worse, profits. The change in HP calculators (as compared to the classic ones) is simply a small though irritating symptom of the entire world oriented in the direction of some famous place while sitting in a handbasket.

Re: Carly Fiorina meets Bill Hewlett

*Message #6 Posted by **db** on 25 Oct 2003, 7:04 p.m.,*
in response to message #4 by Ed Martin

That comment from the new HP employee is indicative of the modern techie culture, where hardware is expected to crash and everyone knows that software is sold buggy and will need to be updated to even function. The old (HP) way, that "gets in the way in today's marketplace more often than not" was based on the now outmoded idea that somebody might just expect the dam thing to work.

The reason we saw our favorite pieces of consumer electronics used to navigate for blue water sailors, commercial airliners, military transports, and spacecraft is that they function, often in spite of how we treat them. That they still work twenty and more years after they were built is a testament to the culture that fostered them. HP was not the only company that made good quality RPN scientifics but until the mid eighties they made nothing but that. Several times they even redefined the idea of "the best possible".

I have used one particular example of "staggering over-design" every day of college and in my miserable excuse for a career since 1983. That's in the heat, in the cold, in rain and dust, in the Nevada desert and the upper Amazon. Lets see if Mr. Compaq/HP makes anything that even comes half way close to that. But lets not hold our breath while we wait.

Re: Carly Fiorina meets Bill Hewlett

*Message #7 Posted by **Juan J** on 25 Oct 2003, 9:12 p.m.,*
in response to message #6 by db

"HP products fill real needs. And provide lasting service." So ended a little paragraph on the back of the cover of HP manuals, after proudly stating that HP products were ussed by "the most discrning customers in the world [...] including astronauts, alpinist, Nobel laurates and scientists..."

One day the paragraph disappeared from manuals and HP became the company we know today. What ever happened to that´philosophy is anybody´s guess.

Re: Carly Fiorina meets Bill Hewlett

*Message #8 Posted by **Ed Look** on 25 Oct 2003, 9:47 p.m.,*
in response to message #6 by db

Ah, db, as you alluded to, the problem is not whether they can or will produce items of the same quality; it's that they don't want to, because that's the way the "new math" teaches them to operate.

Re: Carly Fiorina meets Bill Hewlett

*Message #9 Posted by **Pavel Korensky** on 26 Oct 2003, 1:03 a.m.,*
in response to message #8 by Ed Look

Partly, it our own fault. We, as a customers, want to buy everything as cheap as possible. And maybe, we forgot, that some things can be made either cheap or reliable.

If I remember correctly, HP-41C was introduced almost 25 years ago and its cost was approx. 300 USD. I do not know exactly, how much USD in 2003 equivalent of 300 USD in 1979, but I suppose that it can be something like 600 USD. Can you imagine, that some normal customer will spend today 600 USD for a calculator ?

And also, there is also a second problem. In the 80's, almost everyone who had a programmable calculator or small computer (Spectrum, Commodore, TRS-80 etc.) was supposed to how to program it. So, it was possible to have simpler, well designed hardware and small, bug free firmware, because the users/customers was able to make their own programs. Today, waste majority of computer/calculator users does not have the knowledge how to formulate a problem which should be solved and how to write a program for solving it.

And not only regular users lacks this ability. The young guys, who call themselves "programmers" lacks those basic abilities too. When they need to multiply the integer number by 2, they write something like "foo=2 x foo" and the compiler (also written by a bunch of young guys, who called themselves "programmers") will compile it as a call to int->fp conversion, fp multiplication, fp->int conversion. And those young guys, writing the "programs" probably never heard about shift left operation. But they must finish the program till Sunday, because Monday morning, there is a meeting of the top management and the project manager must have a nice presentation on color slides and the marketing manager convinced the top management, that the product must be on the market till the end of the month.

Re: Carly Fiorina meets Bill Hewlett

*Message #10 Posted by **Ed Look** on 26 Oct 2003, 1:32 a.m.,*
in response to message #9 by Pavel Korensky

Yes, it is partly our fault. Admittedly the old classic HP calcs were darned expensive. Don't think as a proud owner of an original HP-34C I didn't rather have a 41CV or CX (especially the latter). It was all I could do to scrape up the $124 (what a deal! List price was tens of dollars higher) for the 34C.

But even the old HP marked up their products a bit (more than other companies). As an old lab rat, I can tell you that sometimes, we went with a competitor's model just because it could fit into our budget (but the people who got the HP equipment were usually very happy with it). Instead of $300 for the 41C, maybe $250 (this IS a big difference, especially if you're only a student). I know that to produce even a Spice-quality calculator would be expensive. But electronic components don't cost so much these days, either.

As for the quality of the end user, or the attitudes of contemporary management, no argument. Maybe the situation we have now is because they deserve each other... or THEY ARE each other. Where, though does this leave the rest of us?

I can see your point here, when they don't even bother to put together a truly good manual (and I don't mean content so much as correct grammar and usage or correct examples, etc.), and when they do, it is an "accessory" for "advanced users". You know, I knew how to program my

34C. I can program my 32SII. I am learning my 48G+ and 49G+ (and my son's 39G... he's still little; I have to teach him the basics of basic programming), but I have never and do not now consider myself a "programmer". When being one of the old "less expert" users makes one now "highly proficient" without actual change in ability is frightening.

Re: Carly Fiorina meets Bill Hewlett

*Message #11 Posted by **Joesph** on 26 Oct 2003, 1:52 a.m.,*
in response to message #9 by Pavel Korensky

As a 'young programmer', I assure you that 95% of programmers know binary math. And compilers are much smarter then you give them credit for. I have looked at the output from Intel's compiler - it is simply amazing.

Re: Carly Fiorina meets Bill Hewlett

*Message #12 Posted by **John Limpert** on 26 Oct 2003, 2:31 a.m.,*
in response to message #9 by Pavel Korensky

I bought a new HP-35 for $295 in 1973. According to my handy CPI calculator, that is about $1220 in 2002 dollars. Ouch. That was after HP cut the price by $100. I think we have become spoiled by the glut of cheap electronic gadgets. I saw a display rack full of solar powered four-bangers in a local store, only $1 each.

The Big Rant Price Vs. Quality (long)

*Message #13 Posted by **How much is 300 dollars worth** on 27 Oct 2003, 10:18 a.m.,*
in response to message #9 by Pavel Korensky

Well, it is interesting to note that some people seem to be spending approximately $500 for little windows CE or Palm devices--like the Tungsten W. So maybe there is room for a $300 high quality device.

So yes, you might ask, "who would spend 300 bucks on a calculator" and the answer is "quite a few people" if you expand the category to "multipurpose digital electronic (computing) device".

On the other hand:

One of the other reasons that quality is now suffering, is the massive deflationary environment of the digital device. Obsolecence of devices is almost immediate--and this has been a problem for some years (decades!). The products are victims of their own success--inasmuch as manufacturing has continually evolved to produce a given product at a lower price, parallel with the ability to improve speed or other for a given price.

Or in other words, inventory is far more expensive--if it is digital devices--than it is for commodities such as cotton, wool, iron ore, ASTM A-53 GR B pipe, etc. So make it now, make it FAST, and keep moving.

But there is a market, and always will be, for devices where reliability comes first---but these are not produced by "big names" in mass-production. Yes, sometimes the proverbial $3,000 toilet seat is worth the money.

Perhaps there could be / is already a company producing devices--or even RPN calculators---at a price--which would be built for durability and reliability--at a price. And they would be made in USA---NOT China---- (or they would be made in Europe--not China). But not cheap. Most

of us are not willing to make that jump. Yet. But one more broken $10 chinese POS_____(fill in the blank: lamp, table, toaster, etc) that lasts 2 weeks and must be replaced, and I might just be happy with paying 10 times more for a high quality domestic product. Oh, but I forgot, we don't have any domestic manufacturing anymore (DEAD and GONE!)....now what!

Interesting to note that I could roll the clock back 40 years and say "Hong Kong KRAP" or 30 years ago and say "Japanese JUNK". So the trend continues, even as we now acknowledge that Japanese products are SUPERIOR (I drive a Toyota and dont Ever want another euro car (they cost too much and always break down) or GM (they cost too little and nickel/dime you to death).

-Bill Platt

Edited: 27 Oct 2003, 10:22 a.m.

IS THAT FOR REAL ?????

*Message #14 Posted by **Norm** on 26 Oct 2003, 3:25 p.m.,*
in response to message #1 by DanO

Holy Cow,

is that book quotation for real?

You aren't just making this stuff up for our entertainment?

Got any further details? What year did it happen?

What was Bill Hewlett's underlying viewpoint ?

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Have a new 49G+ in my hand...

*Message #1 Posted by **CalcKidd** on 24 Oct 2003, 9:45 p.m.*

I have a 49G too (and 48GX, 48SX, 41C, 41CV, 41CX, 32Sii, 42S, 16C, 15C, 12C, 11C, 10C, etc... alot of them).

You can only compare the 49G+ to the 48 and 49 series because it would be apples to oranges otherwise.

The 41's display, keys, and processor are totally different than the 48 and 49 series. So what if each can add 1 and 1... I can do that on a TI and Casio too.

Anywho, the 49G+ is DEFINITELY better than the 49G in all ways. The 48 series has a better keyboard (layout and tactile feel), though. The keyboard layout is exactly the same as the 49G, just without the rubbery, squishy keys (thank God). The cursor keys are round with a metallic look (covered plastic to be sure) and seem to work quite well. The keys have a lightly audible click (the 49G has a muffled clunk).

The 49G+ screen is way better than anything before it, though it could've been better considering the technology used in PDAs (it doesn' need to be color, just sharper). The screen is pleasantly larger than the 49G and easier to read, though not by too much.

The 49G+ definitely runs faster than the 49G, which is also nice. I found myself waiting on the 49G, where the 49G+ zoomed through. :-D

The G+ is lighter in weight than the G, though the G+ is just a tad bit wider (not enough to worry about).

The G+ takes 3 AAA batteries, and a CR2032 backup battery - G does not have this. Inside the back it says: "Memory Backup Battery!! Please don't remove the main batteries while you replace it." That kinda blows - having to keep track (and buy) a backup battery.

Since I just got it today, I haven't tried everything yet. I will more than likely retire the two 49G's I have and use the 49G+ instead - unless it crashes and burns.

So, there it is... (BTW - these are my opinions and maybe not yours. Respond all you want, but the 49G+ is not life and death - it's a calculator. Period. The 41 series is NOT coming back either. Unless we can force HP to do our bidding or come up with enough money to create our own calculator company, we will just have to play the hand we're dealt.)

Re: Have a new 49G+ in my hand...

*Message #2 Posted by **William** on 24 Oct 2003, 10:05 p.m.,*
in response to message #1 by CalcKidd

The 49G+ is definatley an improvement over the G.

Though the keyboard is better than the G in feel, the keys don't always register though which is irritating. The arrow buttons could stand to be bigger too.

The format option in the system tests menu now actually formats something, the SD card(if present) without

asking for comformation....so dont hit it. Also, format the SD card to FAT16 with a computer, the calc chopped about 25% of the available space off when it formatted it.

The CR2032 will probably last for years, so there isnt much to worry over with that.

How about we all put in five dollars and start our own RPN calculator company?

Re: Have a new 49G+ in my hand...

*Message #3 Posted by **CalcKidd** on 24 Oct 2003, 10:57 p.m.,*
in response to message #2 by William

:-D

I forgot about the really great leather case that came with it! MUCH better than the plastic cover of the G.

I just updated my ROM with the 1.22 version with is supposed to help prolong battery life and some other things.(?) I like to keep current if I can.

It would be great to have the ear of HP when they create a new calculator. However, it appears that HP has become IBM... IBM created the PC, but sat on their asses while other companies at the time pushed forward gaining market share leaving IBM scrambling to catch up. Once you lose that edge, it might never be attainable again.

At least HP is creating new calcs. Even if we don't agree on the specifics, it's something. I thought that after the 48, HP was done altogether (be TI came on so strong).

Hmmm...

Re: Have a new 49G+ in my hand...

*Message #4 Posted by **Sean** on 25 Oct 2003, 1:47 a.m.,*
in response to message #3 by CalcKidd

Druthers: If we started a calculator company (or could get Hp to design our spec'd calc), it would be based on the 48. It would have the 48's keyboard and OS, but LOTS more mem, bigger screen, better I/O, and an old-school leather case (like the 45 had). It would rock. Flash mem for updating the OS would be cool, plus it would have "advanced" features built in. Like a Sys-Rpl compiler, and even ML tools. Yeah... that's the ticket.

Re: Have a new 49G+ in my hand...

*Message #5 Posted by **Joesph** on 25 Oct 2003, 2:13 a.m.,*
in response to message #4 by Sean

everything (except for the keyboard) exists in the 49G+ :-)

Re: Have a new 49G+ in my hand...

*Message #6 Posted by **Wayne Brown** on 25 Oct 2003, 8:20 a.m.,*
in response to message #1 by CalcKidd

> Quote:
>
> Unless we can force HP to do our bidding or come up with enough money to create our own calculator company, we will just have to play the hand we're dealt.

Or else just stay out of the game. That's what I've chosen to do, at least with regard to new calculators. I'll continue using the older models until they wear out, and then either switch to another company or else (more likely) stop using calculators altogether. Unless HP drastically changes the way they're doing things (and I don't expect that to happen), I'll never again buy *anything* new from them.

Re: Have a new 49G+ in my hand...

*Message #7 Posted by **Gene** on 25 Oct 2003, 11:00 a.m.,*
in response to message #6 by Wayne Brown

"drastically" apparently means "quit making a calculator without a large ENTER key in the old normal position"

Ignoring a 99% improvement because of a litmus test will definitely keep you on the sidelines.

Gene

Re: Have a new 49G+ in my hand...

*Message #8 Posted by **Wayne Brown** on 26 Oct 2003, 1:05 a.m.,*
in response to message #7 by Gene

> Quote:
>
> Ignoring a 99% improvement because of a litmus test will definitely keep you on the sidelines.

Better to sit on the sidelines than play for a team I don't want to win...

The **[ENTER]** key makes a good "litmus test" because it show's HP's real attitude. They clearly aren't fully committed to promoting RPN above all else, and it's that attitude that makes me wish for them to fail.

Re: Have a new 49G+ in my hand...

*Message #9 Posted by **CalcKidd** on 25 Oct 2003, 11:32 a.m.,*
in response to message #6 by Wayne Brown

Oh my God!

I'm as "old school" as anyone, but when you ignore new technology (good or bad) you continue to live in the past.

Obviously, not everything new is good (to your point), but it ain't all bad.

I like to know what's going on, who's doing it, and how it works. I think HP can kick start their calc division if they would listen to us (the ones who use and know their products). However, until the right person (someone with the vision and the "nads") steps up to the plate at HP, we will probably get 49G+'s... which is at least better than TI-clones like the 9G, 9S and 30S. Yuck!

Something is better than nothing, even if it's not exactly what we want.

:-D

My view is...

*Message #10 Posted by **Gene** on 25 Oct 2003, 11:42 a.m.,*
in response to message #9 by CalcKidd

is the most recent calculator a move TOWARD what I want or AWAY from it?

When the 49G came out, I was one who vocally publicized a nickname for the color of the case as "FHB" on c.sys.hp48 (search googlenews if you want to find it). I disliked the 49G from the start. I thought it was a hoax.

Now we have the 49G+.

Is it a step in the right direction? yes, no question.

Can I hope that the next machine is another step in the right direction? Sure, no reason not to do so.

Don't criticize HP for making baby steps toward what we all want.

Gene

Re: My view is...

*Message #11 Posted by **Wayne Brown** on 26 Oct 2003, 1:25 a.m.,*
in response to message #10 by Gene

> Quote:
>
> Don't criticize HP for making baby steps toward what we all want.

Well, Gene, I'm sure you feel that way because you view HP as a bunch of good guys trying to do the right thing, and you're giving them the benefit of the doubt. I, however, see them as traitors who have betrayed HP's traditions, its customers, its founders, and the founders' descendants. You think they're trying to head in the right direction and want to be patient with them; I think they should be on their knees confessing their treason and begging forgiveness, and I've seen no indication of that.

Re: My view is...

*Message #12 Posted by **Ed Look** on 26 Oct 2003, 1:37 a.m.,*
in response to message #11 by Wayne Brown

Wayne, this is not done in our culture today. No one has humility or even sees the need for any. Do not expect a major corporation to publicly atone for their alleged transgressions. Do hope, however, for a quiet turnaround in goals and philosophy. If they begin again to produce superior products, that is way good enough for me.

I for one see the 49G+ as definitely a step in the right direction, for one who sees (power-hogging) red LEDs in a romantic light.

Re: My view is...

*Message #13 Posted by **Wayne Brown** on 26 Oct 2003, 8:02 a.m.,*
in response to message #12 by Ed Look

> Quote:

> Do not expect a major corporation to publicly atone for their alleged transgressions. Do hope, however, for a quiet turnaround in goals and philosophy.

That's why the **[ENTER]** key issue is so important to me. What clearer indication is there of a "turnaround in goals and philosophy" than that? Here's how I see it:

Old HP: "RPN is superior to any other entry system; let's use it proudly."
"We pioneered the use of RPN in handheld calculators; we built our reputation with them; and we'll ***always*** give precedence to our own inventions over those of our competitors. Being developed by HP means it's *automatically* better than everyone else's inventions and we'll never back down from that!"
"We built our business selling audio oscillators, gas chromatographs, etc. Our products should be designed to appeal to people who are comfortable with that level of technology, not the dimwits who are afraid of programming a VCR!"

New HP: "Who cares if anyone uses RPN or not? RPN, algebraic, what's the difference -- all that matters is whatever will make us the most money!"
"All the other calculator companies make algebraic calculators. We don't want to be different; and that big **[ENTER]** key makes it *obvious* that we're different! Let's shrink that thing and de-emphasize RPN as much as possible so we can attract more business. Loyalty to our company traditions is insignificant compared to making money!"
"A lot of people are used to calculators with a little bitty [enter] key down in the bottom right-hand corner. Let's make ours look like that, too, because we don't want to lose customers who might be intimidated by something unfamiliar. Remember, we're targeting morons who wouldn't know a skateboard from a spectrum analyzer."

I haven't seen the "new" HP give any evidence of a turnaround, quiet or otherwise, back toward the "old" HP attitude about RPN. It's still not the default mode on new calculators, the keyboard layout still favors algebraic entry and there's still no clear, deliberate effort to steer customers away from algebraic entry and toward RPN.

Re: My view is...

*Message #14 Posted by **Samantha** on 26 Oct 2003, 1:00 p.m.,*
in response to message #13 by Wayne Brown

I think you're being a bit too rough on HP. I think that the small enter key on a calculator that uses both rpn and algebraic entry will increase the number of people who will use RPN in the long run. Many people (myself included at one time) are scared away from rpn and don't want to take a risk by spending the money on a RPN only calculator. The new calculators give us the option without buying two separate calcs. More people will try out rpn now, many of whom will probably decide it's far better than algebraic and stick with it. I think it's a great idea.

I too will really miss the large Enter key, but it's a small price to pay to keep new rpn calculators coming.

Re: My view is...

*Message #15 Posted by **Tom Scott** on 26 Oct 2003, 2:56 p.m.,*
in response to message #14 by Samantha

Yes, you're right Samantha. HP, like any other company, has to appeal to as many

customers as possible since expensive calculators are no longer competitive due to the existence of cheap computers.

Re: My view is...

*Message #16 Posted by **Marx Pio** on 26 Oct 2003, 4:38 p.m.,*
in response to message #15 by Tom Scott

After a retinopexy for my retinal detachment and a vitrectomy you should imagine how "my view is..."

Marx Pio Sometimes laught and pain are the same thing...Tears.

Re: My view is...

*Message #17 Posted by **James M. Prange** on 26 Oct 2003, 5:54 p.m.,*
in response to message #13 by Wayne Brown

I see and agree with at least some of your points. But I think that RPN is defined by "arguments first, operator last", not by the size and location of the ENTER key.

Regards,
James

Re: Have a new 49G+ in my hand...

*Message #18 Posted by **Wayne Brown** on 26 Oct 2003, 1:13 a.m.,*
in response to message #9 by CalcKidd

> Quote:
>
> I'm as "old school" as anyone, but when you ignore new technology (good or bad) you continue to live in the past.

People use the phrase "live in the past" as if there's something wrong with that. There are some parts of the past (including some from before I was born) that are much better than the presnt equivalents. If I could find a place that combines the manners, morals and customs of Victorian England with 1980's American technology, I'd happily spend the next 30 or 40 years there.

Re: I think the real question: What does HP's calculator unit do NEXT?

*Message #19 Posted by **Paul Brogger** on 27 Oct 2003, 11:24 a.m.,*
in response to message #9 by CalcKidd

There seems to have been two product lines of late -- some new stopgap models (6s, 9g, 30s) and the latest releases. I'm talking only about the latter.

Not having owned an HP-49, I may be oversimplifying when I say that the 48GII and 49G+ are really 49G's with some new features: SD card memories, faster processors, larger screen (49G+) & USB connection (49G+). Maybe the most important aspect of their implementations is behind the scenes: the shift to an off-the-shelf processor [ARM] and away from Saturn.

The other new models all seem to be incremental upgrades of previous products: The 12C Platinum, the 10BII, 17bII+, and the 33s (a gussied-up 32sII). Again, the 33s has moved away from Saturn (as, I presume, have the others.)

That's great, as far as it goes. The new (that is, "latest") calculator unit has hit the ground with incremental upgrades to previous models while essentially outsourcing their processor design and manufacture. The new product line's feature set and user interfaces have been largely built by translating existing software investments (made primarily by precursors in the "old" H-P) to new platforms.

Where to next? I don't expect anything soon, but I wonder what they'll come up with (if, indeed, anything) as the next really new product or line from the calculator division.

Re: I think the real question: What does HP's calculator unit do NEXT?

*Message #20 Posted by **Raymond Del Tondo** on 27 Oct 2003, 1:19 p.m.,*
in response to message #19 by Paul Brogger

BTW, the 12Cp doesn't have a nut core anymore. Even the 'normal' 12C has been redesigned a few years ago. The 48GII & 49G+xyz seem to use kinda Saturn emulation layer between the ARM core and the 49G OS.

And I'm not sure about this point, but IMHO the 48GII doesn't have an SD card slot.

Raymond

What do you want to see in the "next" wave?

*Message #21 Posted by **Gene** on 27 Oct 2003, 7:13 p.m.,*
in response to message #19 by Paul Brogger

No, I'm not talking about red LED displays. :-)

What would a "wow" machine have after the 49G+?

Make a list!

Gene

Re: What do you want to see in the "next" wave?

*Message #22 Posted by **James M. Prange** on 27 Oct 2003, 8:45 p.m.,*
in response to message #21 by Gene

Fix the problems new to the 49g+. Bad keyboard, lack of full support for subdirectories on the SD card, communications support for other OSes, Kermit ASCII transfer and/or source code transfers with Xmodem. IR to the printer with the range of the 48 series, communication via Serial IR. Bring back RS-232 and add a host USB port as well as the device USB port.

Fix problems inherited from the 49G. Unwanted mode changes and any remaining bugs/problems.

Market a high-speed hand-held sized printer customized to go with the calculator, as well as with previous calculators. Maybe have Martel customize the MCP8830 so that we can be sure that it works well with all HP calculators capable of sending to a printer.

Market a good shirt-pocket-sized scientific calculator.

Market a very basic RPN calculator suitable for use as a "first calculator". Just +, -, *, /, and +/-

. Maybe square root and a memory register with M+, M-, MR, and MC. Get them "hooked on RPN" before they're indoctrinated into using those arcane algebraic interface calculators.

Regards,
James

Edited: 28 Oct 2003, 2:29 a.m. after one or more responses were posted

Re: What do you want to see in the "next" wave?

*Message #23 Posted by **Gene** on 27 Oct 2003, 9:43 p.m.,*
in response to message #22 by James M. Prange

Fix the problems new to the 49g+. Bad keyboard,

Gene: According to people with units purchased today, this has already been fixed.

lack of full support for subdirectories on the SD card,

Gene: Fixable with a ROM upgrade. I consider this trivial. :-)

communications support for other OSes,

Gene: Perhaps, but even though I am a mac person, this may not happen. After all, why hasn't Microsoft made Access for the Mac? Sometimes, those of us with Macs just deal with life.

Kermit ASCII transfer and/or source code transfers with Xmodem. IR to the printer with the range of the 48 series, communication via Serial IR. Bring back RS-232

Gene: This is rumored to be on the 48GII. Macs killed serial and third parties created USB to serial converters. Don't see why that can't happen here.

and add a host USB port as well as the device USB port. Fix problems inherited from the 49G. Unwanted mode changes and any remaining bugs/problems.

Gene: Fewer bugs remain than you might believe. The mode changes are a pain, I agree.

Market a high-speed hand-held sized printer customized to go with the calculator, as well as with previous calculators. Maybe have Martel customize the MCP8830 so that we can be sure that it works well with all HP calculators capable of sending to a printer.

Gene: Might be on the shelf. good idea!

Market a good shirt-pocket-sized scientific calculator.

Gene: The 33s is coming and, despite how it looks, those who have held the unit believe it to be very nice. Guess we'll have to wait and see.

Market a very basic RPN calculator suitable for use as a "first calculator". Just +, -, *, /, and +/-. Maybe square root and a memory register with M+, M-, MR, and MC. Get them "hooked on RPN" before they're indoctrinated into using those arcane algebraic interface calculators.

Gene: good idea too. Just a tradeoff problem I think...how many of these would sell? Unless they do it, they'll never know...but how many of these do you have to sell at $12.99 before

you make enough $$ to make it worthwhile? Yes, you'd probably get some incremental sales later, I agree...but hard to tell in advance!

Good ideas! Keep them coming!

Re: What do you want to see in the "next" wave?

*Message #24 Posted by **James M. Prange** on 28 Oct 2003, 2:18 a.m.,*
in response to message #23 by Gene

> Quote:
>
> Fix the problems new to the 49g+. Bad keyboard,
>
> Gene: According to people with units purchased today, this has already been fixed.

I've seen the posts, but I've also seen a lot of posts that say that there's no problem, just press harder. To me, this is much like saying that a car starts just fine, you just have to spray starting fluid into the carburetor every time. It occurs to me that the posts that say that the problem has been fixed might be from folks who always press hard, and so don't even recognize the problem, so I'll wait a bit before I send mine in for a replacement.

> Quote:
>
> lack of full support for subdirectories on the SD card,
>
> Gene: Fixable with a ROM upgrade. I consider this trivial. :-)

Same here, I look forward to it. But I wonder why HP didn't include it in the first place.

> Quote:
>
> communications support for other OSes,
>
> Gene: Perhaps, but even though I am a mac person, this may not happen. After all, why hasn't Microsoft made Access for the Mac? Sometimes, those of us with Macs just deal with life.

But this isn't an Apple or Microsoft product, it's an HP product. Wouldn't it be useful to a wider market it it included support for more OSes? And not just Apple products, there are a lot of linux users out there. And what about those handheld devices, Palm or whatever?

Ok, maybe it isn't feasible for HP to write communications software for every possible OS, but perhaps they could make information available and support "open source" projects.

> Quote:
>
> Kermit ASCII transfer and/or source code transfers with Xmodem. IR to the printer with the range of the 48 series, communication via Serial IR. Bring

> back RS-232
>
> Gene: This is rumored to be on the 48GII. Macs killed serial and third parties created USB to serial converters. Don't see why that can't happen here.

But, as near as I can see, except for higher-speed RS-232 and the "improvements" made in the 49G, the 48gII will actually be inferior to the 48SX and 48GX that I already own.

Despite anything Macs may have done, I believe that RS-232 is very much "alive and well". RS-232 has significant advantages over USB. For example, it's more "peer-to-peer", while USB is more "client-server". RS-232 is simple and easy to design for, but USB seems to require a driver specific to each and every device and host.

All too true that many new PCs seem to lack any RS-232 port, so USB is indeed welcome. But I'd be a lot happier if they managed to keep an RS-232 port and make the USB device port an addition.

A USB to serial converter may have been useful if the 49g+ had a host USB port and a driver for the 49g+ were available, but I don't see how a converter could help with the 49g+ as it actually is.

> Quote:
>
> and add a host USB port as well as the device USB port. Fix problems inherited from the 49G. Unwanted mode changes and any remaining bugs/problems.
>
> Gene: Fewer bugs remain than you might believe. The mode changes are a pain, I agree.

Of course, since ROM 1.20 for the 49G has never been released, we haven't had much time to find out what has and hasn't been fixed.

> Quote:
>
> Market a high-speed hand-held sized printer customized to go with the calculator, as well as with previous calculators. Maybe have Martel customize the MCP8830 so that we can be sure that it works well with all HP calculators capable of sending to a printer.
>
> Gene: Might be on the shelf. good idea!

The MCP8830 looks pretty darn close to me, but there are a few things that I'm not sure of, and it's not exactly cheap from what I've read.

> Quote:
>
> Market a good shirt-pocket-sized scientific calculator.
>
> Gene: The 33s is coming and, despite how it looks, those who have held the unit believe it to be very nice. Guess we'll have to wait and see.

But at a rumored size of 6.2 x 3.2 x 0.6 inches and weight of 4 ounces, it seems uncomfortably large and maybe a bit heavy for my shirt pockets.

> Quote:
>
> Market a very basic RPN calculator suitable for use as a "first calculator". Just +, -, *, /, and +/-. Maybe square root and a memory register with M+, M-, MR, and MC. Get them "hooked on RPN" before they're indoctrinated into using those arcane algebraic interface calculators.
>
> Gene: good idea too. Just a tradeoff problem I think...how many of these would sell? Unless they do it, they'll never know...but how many of these do you have to sell at $12.99 before you make enough $$ to make it worthwhile? Yes, you'd probably get some incremental sales later, I agree...but hard to tell in advance!

Well, besides use as a "first calculator", I'm sure that there are a lot of people out there that never use the "scientific" operations on a calculator. If they could be weaned away from the "algebraic input" model, such a calculator might suit them just fine. Maybe it could be made cheaply enough for HP to give it away as a "promotional item", and encourage people to at least try RPN.

> Quote:
>
> Good ideas! Keep them coming!

Keep asking. I expect that there are some not so good ideas, but I also expect that there are other good ideas out there.

Regards,
James

Edited: 28 Oct 2003, 2:31 a.m.

Re: What do you want to see in the "next" wave?

*Message #25 Posted by **James M. Prange** on 28 Oct 2003, 3:29 a.m.,*
in response to message #24 by James M. Prange

PS:

This one may well be a bit of a stretch, but just in case there's anyone out there with a really large-capacity SD card who actually wants to store more files on the card than FAT16 allows (somewhere in the neighborhood of 65,000), if the 49g+ doesn't already have it, add support for FAT32.

Regards,
James

Edited: 28 Oct 2003, 7:30 a.m.

How is the 48GII "inferior" to the 48SX? (48GX perhaps?)

*Message #26 Posted by **Gene** on 28 Oct 2003, 7:32 a.m.,*
in response to message #24 by James M. Prange

I know the 48GX can have plug in cards and ram expansion, and the 48GII does not. Both have serial.

In what other ways would the 48GII not be up to snuff with the 48GX?

Its faster, has a good CAS built-in, etc.

Compared to the 48SX, I would think it is vastly superior.

?

Gene

Re: How is the 48GII "inferior" to the 48SX? (48GX perhaps?)

*Message #27 Posted by **James M. Prange** on 28 Oct 2003, 8:21 a.m.,*
in response to message #26 by Gene

> Quote:
>
> I know the 48GX can have plug in cards and ram expansion, and the 48GII does not. Both have serial.
>
> In what other ways would the 48GII not be up to snuff with the 48GX?

Isn't that enough?

"With its 128KB memory (80.7KB available to the user)..."

My 48GX has 128KB memory (over 124KB available to the user), *before* adding any card.

With only one 128KB card merged, my 48SX has 160KB memory (over 157KB available to the user), and I can still add and merge another card.

But I grant that the much higher speed of the 48gII's RS-232 may be a big advantage in many cases.

> Quote:
>
> Its faster,

But for "real work", either my 48SX or 48GX is fast enough for me.

> Quote:
>
> has a good CAS built-in, etc.

Maybe great for students, but I haven't noticed that the CAS helps me at all. If anything, it adds complications to things that work well on the 48 series. And I don't have any need for grey-scale grobs, fancy fonts and styles, GameBoy type applications, etc.

> Quote:
>
> Compared to the 48SX, I would think it is vastly superior.

I'll grant that the faster RS-232 could be an advantage, but other than that, I suppose that it depends on the target market. It may be fun to play with, but I already have the 49G and 49g+ to play with. And when I want to get something done with a minimum of hassle, I have the 48SX and 48GX.

No, I'm not inclined to purchase this one.

Regards,
James

Re: How is the 48GII "inferior" to the 48SX? (48GX perhaps?)

*Message #28 Posted by **Gene** on 28 Oct 2003, 8:42 a.m.,*
in response to message #27 by James M. Prange

Well, it depends on what that RAM is used for! If things that take up ram on the 48GX are built-into the 48GII, then the ram isn't as much of an issue.

But it depends on what each individual uses the machines for...you appear to need/want lots of ram.

Others may not.

That doesn't make the 48GII inferior to the 48GX for everyone.

Make sense? :-)

And...I like my old 48GX too. But I'll be using the 49G+ most of the time...when I'm not picking up my 12c.

Gene

Re: How is the 48GII "inferior" to the 48SX? (48GX perhaps?)

*Message #29 Posted by **James M. Prange** on 28 Oct 2003, 10:31 a.m.,*
in response to message #28 by Gene

Ok, not inferior for everyone, but by no means vastly superior for everyone either.

I forgot to mention that it looks to me as if the 48gII's ROM really is ROM, not "flash ROM". What if, by some remote chance, it just happens to have a bug? It seems to me that the only way to fix it, if it could be

fixed at all, would be to add a library, using up a bit more of the RAM available to the user. Surely having the user download and install a new "ROM" must be a lot cheaper than replacing the calculator. Is flash ROM that much more expensive than ROM? Oh well, I know that every ROM in the 48 series has bugs, and I haven't found them to be any real problem for what I use them for. Let's hope that they did as well with the 48gII as they did with the earlier 48 series calculators.

Although I've had the 49G for over 3 years, I'd still rather use the 48 series when I really want to get some results with a minimum of hassle. The 49G gives me too many missed keystrokes, unexpected mode changes, unexpectedly complicated results full of exponents and logarithms, and so forth. And of course it won't print to the 82240B. But for all of that, it is an interesting gadget and fun to play with, and if I didn't already have the 48SX and 48GX, I'd be thrilled to own such a useful tool.

It looks as if the 49g+ will fix some of the shortcomings I find in the 49G. In particular, it is expandable and can print to the 82240B. But why is the range for printing only about 3 inches? Did I get a unit with a defective IR transmitter?

Regards,
James

Re: How is the 48GII "inferior" to the 48SX? (48GX perhaps?)

*Message #30 Posted by **Gene** on 29 Oct 2003, 7:17 p.m.,*
in response to message #29 by James M. Prange

Well, the "ROM" vs. Flash is the same as with the 48GX or 48SX.

I agree that flash rom is good, however...but that's not a drawback compared to the older 48 models.

Think I'll take my 41c to work with me tomorrow. ;-)

Gene

Re: How is the 48GII "inferior" to the 48SX? (48GX perhaps?)

*Message #31 Posted by **James M. Prange** on 29 Oct 2003, 8:22 p.m.,*
in response to message #30 by Gene

> Quote:
>
> Well, the "ROM" vs. Flash is the same as with the 48GX or 48SX.
>
> I agree that flash rom is good, however...but that's not a drawback compared to the older 48 models.

Agreed, as long as the 48gII is as free of serious bugs as the previous models.

> Quote:
>
> Think I'll take my 41c to work with me tomorrow. ;-)

For "real work", it's always best to use whichever tool works best for you.

Regards,
James

Re: What do you want to see in the "next" wave?

*Message #32 Posted by **Les Bell [Sydney]** on 28 Oct 2003, 5:33 p.m.,*
in response to message #22 by James M. Prange

James M. Prange wrote:

> Quote:
>
> Market a very basic RPN calculator suitable for use as a "first calculator". Just +, -, *, /, and +/-. Maybe square root and a memory register with M+, M-, MR, and MC. Get them "hooked on RPN" before they're indoctrinated into using those arcane algebraic interface calculators.

No. No! NO!

Those damned M+, M- things are exactly the kind of inconsistent and arcane 'special case' functionality that make algebraic calcs so problematic! Instead, have ten memory registers, STO and RCL keys, and implement register arithmetic with the consistent [STO] [+] [n] notation.

If there is to be an entry-level RPN calculator, at least let it demonstrate the elegance, simplicity and consistency of RPN.

Best,

--- Les [http://www.lesbell.com.au]

STO+, STO-, etc: Hear, Hear!

*Message #33 Posted by **Paul Brogger** on 28 Oct 2003, 5:47 p.m.,*
in response to message #32 by Les Bell [Sydney]

While I'm not sure storage register arithmetic is a strictly "RPN" feature, I agree overall.

Since my HP-21 days (alluded to elsewhere) I can't help feeling a vague sense of distaste every time I see the typical "M+", "M-", "STO M", "RCL M" gang eating up space on a calculator keyboard, all devoted to one pathetic little register.

(Yes, the HP-21 only has one, but it's a heck of a lot more useful when it's supported the

way that it is!)

Re: STO+, STO-, etc: Hear, Hear!

*Message #34 Posted by **James M. Prange** on 28 Oct 2003, 7:49 p.m.,*
in response to message #33 by Paul Brogger

Good points, Les and Paul. STO and RCL would be better. I'm not sure how many registers would be appropriate. My only excuse is that I think that it's nice to have at least one place to stash a value away from current operations, and as I was thinking **cheap** only one register seemed enough, and I was looking at my little credit card sized calculator and just copied the keys from that algebraic input little pain in the neck. Considering how much trouble I have trying to use that thing, I should've known better.

The 48 series has the STO+, STO-, etc. commands, but I rarely use them; they've never seemed quite "natural" to me.

Regards,
James

STO+, STO-, etc. go way back

*Message #35 Posted by **Paul Brogger** on 29 Oct 2003, 9:30 a.m.,*
in response to message #34 by James M. Prange

They're of less significance on a machine with RPL, ~infinite stack depth, and ~megabytes of program memory. But I just visited my trusty old HP-21 on its MoHPC page (sadly, I didn't keep my original), to rediscover that storage register arithmetic was implemented with separate shifted M+, M-, M* & M/ functions. Which kinda undercuts my original point . . . (But that made sense with only one "unnamed" memory.)

Actually, it's the HP-29C's implementation that I remember: merged keystrokes for "STO + n", "STO - n", etc. (Sadly, I didn't keep that one, either . . .) In a machine with only 98 program steps, this was a great space-economizer.

By the time of the 32s (& perhaps before?) one could also do "recall register arithmetic" -- "RCL * A", etc. Another nice twist. So, on an HP with storage register arithmetic, "STO" & "RCL" only hint at the beginning of what's possible.

Did TI ever copy that feature? I just tried "STO * n" on my TI-55 (old red LED, minimally programmable) and my TI-83+SE and it didn't work on either.

(On the RPL machines, STO & RCL have joined all the other stack-based postfix operators, so separate STO+ & STO- operators had to be defined in lieu of overloading STO & somehow pushing "+", "-" & etc. onto the stack.)

RCL+, RCL-, etc.

*Message #36 Posted by **Ernie Malaga** on 29 Oct 2003, 12:14 p.m.,*
in response to message #35 by Paul Brogger

Quote:

> By the time of the 32s (& perhaps before?) one could also do "recall register arithmetic" -- "RCL * A", etc. Another nice twist.

Recall arithmetic goes back to the HP-45, almost 15 years before the 32S. Too bad HP didn't keep it in later models.

-Ernie

Re: RCL+, RCL-, etc.

*Message #37 Posted by **Valentin Albillo** on 29 Oct 2003, 12:35 p.m.,*
in response to message #36 by Ernie Malaga

Ernie posted:

"Recall arithmetic goes back to the HP-45, almost 15 years before the 32S. Too bad HP didn't keep it in later models.

The HP-15C doest boast recall arithmetic, too, being the only Voyager to have this feature. Just for completeness, both the HP-10C and HP-11C do have store arithmetic (but not recall arithmetic), the HP-12C does have store arithmetic only for registers 0 to 4 (but not for the rest) and the HP-16C lacks store and recall arithmetic altogether.

In the case of the HP-15C, recall arithmetic saves losing the T stack register and LastX contents and allows for shorter programs in terms on program steps, but not in terms of bytes as all recall arithmetic instructions take two bytes of memory instead of one.

Best regards from V.

Re: STO+, STO-, etc. go way back

*Message #38 Posted by **James M. Prange** on 29 Oct 2003, 7:50 p.m.,*
in response to message #35 by Paul Brogger

> Quote:
>
> They're of less significance on a machine with RPL, ~infinite stack depth, and ~megabytes of program memory.

Not quite megabytes, but kilobytes. I think that the 48SX with two 128KB cards merged would be the record holder; MEM returns 292423 immediately after a memory clear. And of course, since the HOME directory, last stack (UNDO), last arguments, and last command lines all share that pool of memory, the user will have somewhat less to play with.

But I certainly agree that minimizing memory use is much less of a concern with the RPL models, except maybe the 28C. For everyday use, I often write ad hoc "throwaway" program that are far from optimal in terms of size, speed, or memory usage, but have the advantage of being written quickly and (usually) working without any debugging.

The RPL calculators' full set of "storage arithmetic" commands seems to be

STO+, STO-, STO*, STO/, INCR, DECR, SINV, SNEG, and SCON (INCR and DECR not on the 28 series; added with the 48SX). Of course, where appropriate, they work on other object types, not just "real" numbers, and they work on both global and local variables.

No doubt if I were to utilize them more, I could save myself some program code and memory usage.

Regards,
James

Re: What do you want to see..REAL DOCUMENTATION!

*Message #39 Posted by **jimc** on 30 Oct 2003, 1:56 p.m.,*
in response to message #22 by James M. Prange

Real books! Spiral bound so that they lay flat. With examples to take you (me) from bloomin' newbie to uber-geek super-user with root priv in three weeks.

A relevant website. Updated at least weekly with support, etc.

Support, support, support - not just from users on the 'net, but by the people who made the thing. How would Mssrs. H&P use the web? That is what I want to see in the next gen.

12345

Re: What do you want to see..REAL DOCUMENTATION!

*Message #40 Posted by **James M. Prange** on 31 Oct 2003, 10:15 p.m.,*
in response to message #39 by jimc

Well, nice printed lay-flat manuals would be nice.

But I'm a lot more concerned with the content of the manuals. I want a reference manual that includes full information on all operations, system flags, reserved variables, object types, menu maps, keyboard "shortcuts", character set table, and I/O translation table. And information on how the I/O works. And information on fonts and "styles". And anything else of interest that I forgot to list right now. And of course a manual that shows how best to use the calculator and how to write and optimize UserRPL programs. And written clearly with proper grammar, spelling, and punctuation in whichever language it's intended for.

Even if it's a PDF that I have to print out myself, I'd be a lot happier with good documentation. I understand that printing and shipping manuals adds expense, and the "typical" purchaser may be frightened of buying something that comes with thick volumes of documentation, but I think that HP should make printed manuals available for those who want them; maybe they could make arrangements with an "on demand" publisher.

I like printed documentation, but "electronic" documentation does have some advantages. It's easily searchable (as long as it's not the typical assortment of "help" files that we find on PCs), links could be added, and it would be easier to update and make corrections.

Regards,

James

Re: What do you want to see..REAL DOCUMENTATION!

*Message #41 Posted by **Raymond Del Tondo** on 1 Nov 2003, 12:49 a.m.,*
in response to message #40 by James M. Prange

You're talking about the real HP-48SX documentation. AFAIK this was the last of the high quality manuals which was available spiral-bound. The GX manual wasn't bad either, but different, and only light print paperback. One could see that they were going into the current direction somehow ('quick start'). And then came the 49G 'manual'...not much to say;-)

Raymond

Re: What do you want to see in the "next" wave?

*Message #42 Posted by **Paul Brogger** on 27 Oct 2003, 9:24 p.m.,*
in response to message #21 by Gene

I think some sort of merger of the PDA and calculator would be nice. (They threw out the baby with the bathwater when they totally eliminated keys on the PDA.)

How about:

A roughly pioneer-style keyboard layout, with the absolute minimum to get alpha input as well as numeric, but not too much busy-ness on the keyboard. Make 'em the tactile and visual equivalents of what I'm looking at on my HP-41CV -- absolutely clear, bold, decisive, "over-engineered", no-nonsense human-interface, data-entry, reliable, dependable KEYS. (C'mon guys, it's been done before in a mass-produced product -- it can be done again!)

The calculator display is the top ~1" of a typical PDA-style touch-screen, which slides vertically up for "full-screen" browsing, etc, and slides almost all the way back down behind the keys for two-line "calculator mode".

And, just in case I should want or need 'em, I'd like the option of installing all the PDA bells and whistles in addition to the wonderful mathematical environment that a good calculator provides. A clock with tons of time functions, alarms, etc. A GPS with the math needed to calculate from here to there, etc. Wireless communications -- heck, maybe even a laser pointer and a camera & a cell phone. (Just let me pick & choose what exactly I want installed.)

How about wireless laser mouse capability, with mouse software that lets me slide the calculator around on my desk, thus moving the computer cursor in a spreadsheet, and squirt or suck data to & from whatever I'm pointing at? (And could the laser mouse tracker also let me run the calculator over a map or blueprints or two-by-fours, to measure distances and/or lengths and use the information in my work out in the physical world?)

And I challenge the designers of today: don't give it to me in a fancy, too-large plastic case that's mostly full of air! I want it (with screen semi-retracted) in a package about the size of a Pioneer model -- shirt-pocket sized.

(But we've been on this subject before . . .)

Re: What do you want to see in the "next" wave?

*Message #43 Posted by **Gene** on 27 Oct 2003, 9:44 p.m.,*
in response to message #42 by Paul Brogger

Good ideas, but that might involve "turf" wars between the PDA and calculator groups! :-)

That kinda thing happens alot in a big company. But, imagine the possibilities.

Re: What do you want to see in the "next" wave?

*Message #44 Posted by **James M. Prange** on 28 Oct 2003, 5:20 a.m.,*
in response to message #43 by Gene

The "turf wars" are indeed an unfortunate possibility, all too common. Too bad that different divisions within a corporation can't remember that they are all part of the same corporation, and cooperate and share their expertise for the common good.

But regarding PDA/calculators, I want a "calculator" with a real tactile-feedback keyboard. But I know some people who wouldn't be without their PDA and cell phone, except perhaps in the shower, and would no doubt object to having to carry yet another device for doing on the spot calculations. Perhaps the calculator division could develop and market "software calculators", much like the emulators already available, for use on PCs, laptops, PDAs, and so on.

But given that the emulators are available, and that HP has already released ROMs for the 48 series and 49G, and although the 49g+ ROM installation program requires that the user agrees to the license, there's no way to enforce payment there, I'm not at all sure that this would be profitable.

Regards,
James

Edited: 28 Oct 2003, 7:33 a.m.

Re: What do you want to see in the "next" wave?

*Message #45 Posted by **Ed Look** on 27 Oct 2003, 9:56 p.m.,*
in response to message #42 by Paul Brogger

Man, Paul! Even Captain Kirk and Mr. Spock didn't have anything so powerful and so small! (They had to wait 'til Picard's time to have those great mini things they walked around the hallways with.

Seriously, the 33S really sounds like it's on the right track, cosmetics notwithstanding. If they give it lots of room for storing data and program lines along with SOME SORT of basic I/O and a case capable of protecting it from routine roughness, then I think they have a winner. Even though I've got this great 49G+, in a little while, I may probably get a 33S if it is at all in some way like the 34C/15C/32S type calculator because those are the "we mean business" machines, no-nonsense with (depending on your field and tastes) adequate crunch and storage power... and were fairly affordable. I knew grad students who bought 15C's, and beggars know how much they make.

Re: What do you want to see in the "next" wave?

*Message #46 Posted by **Mark Ordal** on 28 Oct 2003, 9:43 a.m.,*
in response to message #42 by Paul Brogger

For the "next wave," how about making the algebraic mode of the successor to the 49G+ truly useful? What I envision is, choose "RPN" (really RPL) mode for a working & programming environment similar to the HP48 series (just as is true now for the 49G and 49G+). Choose "algebraic" and get algebraic entry with Basic programming in the manner of an HP75C/71B.

The competition (mainly Texas Instruments) is programmable in a dialect of Basic, so if you want to compete with them in the academic market, you can't offer an "algebraic mode" that lacks programmability, as HP now does with the 49G and 49G+.

I for one really enjoyed the Basic programming capabilities of the HP75C, but then I have really enjoyed RPN programming (mainly the HP41CV/CX) and RPL programming (HP28C/S, HP48SX/G and HP49G) too.

Re: I think the real question: What does HP's calculator unit do NEXT?

*Message #47 Posted by **James M. Prange** on 27 Oct 2003, 8:19 p.m.,*
in response to message #19 by Paul Brogger

I have the 28C, 28S, 48SX, 48GX, 49G, and now the 49g+.

What does the 49g+ add? To me it seems much like the 49G, but with:

Newer electronics. It seems that most of the calculator's operations are run on an emulator of the Saturn processor instead of the native processor. Some speedup, but don't expect it to be proportional to the increase in processor speed.

A rather unsuccessful (at least on the first units) attempt to improve on the 49G's keyboard. Maybe they'll fix this; otherwise I'd consider it to be junk, even worse than the 49G's keyboard. When I feel the tactile feedback, the keypress should register, no "ifs, ands, or buts" about it.

The return of expandability with the SD card. Much cheaper and greater capacity than the cards for the 48 series.

But note that storage on the SD card isn't the same as on the 48 series card; it's more like storage on a DOS disk. Support for a subdirectory structure isn't there according to the manual, but *may* be added in a future ROM release. Actually, if you make subdirectories on the card in the reader, you can store and recall files to/from the subdirectories.

Replacing RS-232 with device-only USB, a bad trade in my opinion, but for those who connect only to a PC, and noting that many new PCs lack an RS-232 port, it would be an advantage.

The return of IR capability. The addition of IrDA? I don't have anything to test IrDA with, so I can't say for sure that it works. It can print to the 82240A/B printers, so the old "Red Eye" format is there, but the range seems to be about 3" instead of 18" now. Maybe this is supposed to still have a range of 18", and my unit is defective? I haven't been able to get it to communicate with the 48 series in "Serial IR" mode; I don't know whether it's designed that way, or perhaps my IR transmitter is defective.

Notably lacking in support for communicating with non-Microsoft OSes. If you don't have Windows 95 or newer, you may have a problem.

And the communications software provided by HP is Xmodem only; Kermit ASCII transfers via USB aren't available, so if you want to transfer source files, you'll have to jump through some hoops.

I happen to have an apparently fairly unusual combination of Windows 98SE with a particular USB chipset on the motherboard, so I can use Conn4x only to update the ROM.

I hope that they first fix the already noted problems new to the 49g+ and those "inherited" from the 49G.

Then continue with new models. But honestly, I'm not sure what new math operations would be worthwhile adding.

Regards,
James

Nothing. This is the end of the line.

*Message #48 Posted by **CME750** on 28 Oct 2003, 12:55 a.m.,*
in response to message #19 by Paul Brogger

Don't be too shocked if there are no more HP calculators after the current product line.

There was a time when it made sense for HP to market high-end calculators to professional scientists and engineers. Those people needed great calculators -- because they didn't have computers. They were willing to spend hundreds of dollars on a powerful calculator, plus software, plus extra memory, maybe even a printer.

But today, scientists and engineers have PCs on their desks at work, plus another one at home. Any serious number crunching is done on the computer. A calculator may come in handy for quick and simple calculations, when it seems like too much trouble to prepare a spreadsheet. But that's about it.

The reality is that there is no longer a significant market for high-powered calculators among professional scientists and engineers. Yes, traditional HPs command a high price on Ebay. But so do K&E slide rules.

So HP is taking a shot at the education market, since there's still a strong demand for calculators there. That's why the new calcs have shiny colors, funky keyboards, and algebraic entry; HP is trying to appeal to teenagers. It's actually a logical strategy. But it probably won't work, because TI and Casio are too well entrenched.

HP will try to penetrate the education market for a year or two. If they fail, they will probably scrap the calculator division altogether (except, of course, for the 12C).

Like it or not, the PC has replaced the calculator, just as the calculator replaced the slide rule. Eventually, even TIs and Casios will disappear, after all high school and college students are issued laptops. Maybe HP laptops.

This is NOT the end of the line.

*Message #49 Posted by **Jim Chumbley** on 28 Oct 2003, 2:10 a.m.,*
in response to message #48 by CME750

If you only knew. What if the seven new machines are only the interim, stopgap units and the real, serious, big-time return of HP to the calculator world will be seen in the NEXT series of releases.

Re: This is NOT the end of the line.

*Message #50 Posted by **James M. Prange** on 28 Oct 2003, 2:28 a.m.,*
in response to message #49 by Jim Chumbley

> Quote:
>
> What if the seven new machines are only the interim, stopgap units and the real, serious, big-time return of HP to the calculator world will be seen in the NEXT series of releases.

That's my guess too. But HP advanced calculator development has been apparently abandoned before, and may well be abandoned again. The competition is well-entrenched now, and HP will have a difficult time of it. Hope for the best.

Regards,
James

Re: Then why not re-release the 15c, 42s combination?

*Message #51 Posted by **Ron Ross** on 28 Oct 2003, 8:56 a.m.,*
in response to message #50 by James M. Prange

Why not make a $50 Hp15c and a 42sx with I/O. Give the 15c a dot matrix display, crude serial I/O and 8 or 32K RAM. Make sure it HAS nor real text capability so it can work for exams.

Make the 42sx with 128K ram and serial I/O (drop the IR). Basically toss in everything the 48G had, but without graphics. Keep everything in menues and release an SDK so development of serious programs can take place on a PC to avoid keyboard clutter. Bury everything in menu's so the calc looks and functions basically as it does now, but everything is available to the user without a PC. It might be awkward to use (it is already), but once a program is written, it works great, and would be customizable and fit in a SHIRT POCKET! Reduce the size to the 15c diminsions as the 42s has always seemed about a 1/2 in (1 cm) TO DAMN TALL (and the GREAT AND WONDERFUL NEW ANSWER to our prayers, the 33s is just a BIT bigger yet! MORON'S!)

Oh, well, need to take my medication.

Sorry about the rant. I just get somewhat peaved when R&D budgets and costs of start ups are talked about, but Hp has the 42s and 15c already designed (and with the 17BII+ and 12c platinum redesigned) Hp's start up costs would be minimal.

Re: Then why not re-release the 15c, 42s combination?

*Message #52 Posted by **James M. Prange** on 28 Oct 2003, 9:43 a.m.,*
in response to message #51 by Ron Ross

Why not indeed? It seems to me that there's room for more calculators in the HP lineup, particularly truly shirt-pocket-sized models. What do they have now? Well, *maybe* the financial models, but the scientific models all seem too big to be comfortable in my shirt pockets. I suppose that a shirt-pocket graphing model is probably too much to hope for, short of drastically reducing the keyboard. Why not bring back some of the best models from the past, redesigned to run on the currently available electronics and, where feasible, correcting any obvious shortcomings. What

the heck, if it will help the marketing, even add a little glitz to appeal to the high school students.

Re: Then why not re-release the 15c, 42s combination?

*Message #53 Posted by **Erik Ehrling (Sweden)** on 28 Oct 2003, 3:07 p.m.,*
in response to message #51 by Ron Ross

Theoretically HP could produce a true HP-42S compatible calc using the ARM-based Saturn emulation from the HP-49G. And as the HP-42S already supports 32K RAM, at least that amount is possible to achieve with true emulation. (HP-42X achieves 96K RAM with some "tweaking").

As some might be very well aware of by now, I am still "dreaming" of the HP-33S coming out as a calc
- Being 100% HP-42S compatible
- Having the same keyboard layout as the HP-42S
- 32K RAM
- Serial I/O (or SD card support)

Regards,
Erik Ehrling (Sweden)

Sorry, but you'll have to KEEP DREAMING!

*Message #54 Posted by **Ron Ross** on 29 Oct 2003, 1:45 p.m.,*
in response to message #53 by Erik Ehrling (Sweden)

Sadly, Hp won't make such a machine because it would rob sales of the much higher hyped 49G+ or 49G- (I know Hp48GII).

Hp had such an animal on the boards back in 89 and canned it so as not to rob sales from the 48s line. The ability to address 32K of RAM made it into the calc, and partial I/O code also made it into the ROM, but not completed, due to not needed for the plain 42s.

The specs and info on the 33s lead me to believe it is only a 32s with lots of extra RAM, but probably not even as good as a 27s for real use (aside from its being RPN). If I have 32K of RAM, I want LONG VARIABLE NAMES! Not single variable names. Also matrix functions, where the HELL are they???! Sorry, I need to reach for my medication again.

I see someone was sticking up for Carly again. May I make a request? Don't!

Carly deserves the bashing she has and is getting! Plain and simple. While I do not know her personally, I have followed her humble rise to the top from the very beginning at Hp. She is indeed very capable of writing the sacastic letters that have been written her (We all really know who wrote these). She is a very bright and intellegent woman, but she is also a corporate CEO B$%^&*ch whose values and ideals are for her own interests first, her board second, stock holders, 3rd, and Hp is the mule to carry the aforementioned overhead. To her, Hp is a tool to increase wealth to herself, the board, the stockholders. Period.

An a measure of my arguement: If asked, "If you could liquidate Hp and double the value of every single Hp share via buyout, but the company would be

absorbed and disappear, would you do this?" (keep in mind, Carly would probably get a 1-2% commision of total brokage fees perhaps $50 million) What do you think she would do? (We might all do the same, so not exactly a fair question, but H & P certainly would not!) They would feel for their shareholder and dig down for some revolutionary new idea to accomplish THIS, not some cheap shuffle board scheme.

Bill Hewlett's idea of a pocket scientific went against all marketing polls (internal ones anyway). But he made his baby and is now revered for his great decision. That Hp should abandon this market is tragic and a mistake. That Hp is again back in the market is good to see. Whether, Hp does it right?? I don't know.

My med's have started working, I rest.

don't ?

*Message #55 Posted by **Carly Fiorina** on 29 Oct 2003, 3:38 p.m.,*
in response to message #54 by Ron Ross

Ron wrote: "I see someone was sticking up for Carly again. May I make a request? Don't!"

Now Ron, if you can't be a good little corporate player, and be in good harmony with the team, then I'm going to send you home early without any stock options !!

- Carly

Re: Sorry, but you'll have to KEEP DREAMING!

*Message #56 Posted by **James M. Prange** on 29 Oct 2003, 6:49 p.m.,*
in response to message #54 by Ron Ross

I've never held a 35, but from the description, I'd say that it required a good-sized shirt pocket. Certainly easily handheld sized and a remarkable achievement though.

Although HP is back in the market, they still seem to lack anything that fits truly comfortably in the shirt pocket. That may be hard to do with a graphing mode, but should be easy enough with a scientific, and certainly could be done with something that I just carry when shopping to calculate cost per unit prices.

Regards,
James

Re: Sorry, but you'll have to KEEP DREAMING!

*Message #57 Posted by **Ed Look** on 29 Oct 2003, 10:48 p.m.,*
in response to message #56 by James M. Prange

James, would you REALLY carry a HP RPN shopping???

* * * :O * * *

To me, it's too valuable to put in a casual pocket (in some places, that's invitation to theft) or bag, for fear of it getting banged up too much. I can't see a really cheap HP RPN, however, unless they revive some kind of 31E type calculator with a Pioneer form factor. Even the 20S algebraic is too valuable for that! Way lots of power in a "low end" algebraic! (I haven't yet held a 6S or 9S nor 30S, so I wonder if those are the shopping type calcs.)

I've been bringing my 48G (the G+ I leave home) with me lately and I tell you, I've got the willies. Boy whatever happened to that college bravery, when I would carry the 34C everywhere?

Re: Sorry, but you'll have to KEEP DREAMING!

*Message #58 Posted by **James M. Prange** on 29 Oct 2003, 11:42 p.m.,*
in response to message #57 by Ed Look

> Quote:
>
> James, would you REALLY carry a HP RPN shopping??
> ?

Of course! I'd love to! It would be much easy to work with than the "algebraic input" 4-banger that I normally carry now.

But my current HP calculators are too big to fit comfortably in my shirt pocket, and of course out of production models are a bit too valuable for that.

I don't see why it would be particularly expensive to make a very basic non-scientific RPN model. If anything, I'd expect that an RPN input model would be simpler than an algebraic input model.

Regards,
James

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HP49G+ Improvements?

*Message #1 Posted by **Brian S** on 24 Oct 2003, 7:55 p.m.*

I've been reading about all the problems with the keys, garbage on the screen, necessary ROM upgrade, etc. Hopefully HP is paying attention to all these problems and will improve the way that the 49g+ is manufactured to fix these things.

I was just wondering, for all those of you out there who are familar with the manufacturing process...How long, assuming HP is looking into improving the keys (which I consider the number one priority) and other problems, before the upgraded models find their way back into stores/distributors?? THe 49g+ looks and sounds like a great calculator that I will definitely buy, but I'd like to wait for things to improve before buying one. Hopefully it won't be a long wait.... Any thoughts?

Re: HP49G+ Improvements?

*Message #2 Posted by **Ben Salinas** on 24 Oct 2003, 9:59 p.m.,*
in response to message #1 by Brian S

Lately there have been lots of complaints about the 49g+, especially from people who have never used one or seen one. Realize that it is MUCH easier to complain about what is wrong than what compliment HP for what is right. Even if all of the given problems were fixed, we would find more things to complain about. For example, if the keyboard was perfect for everyone's tastes, then we would start complaining about the LCD screen. If that was fixed, the power consumption would be next. Then the size. And so on and so forth.

Realize that for every bad point you hear about (rom updating, LCD screen, keyboard, power consumption etc) there are literally 20 good points. The most obvious being the speed. A close second is the weight (especially when compared to the 39g. The 49g+ weighs less with batteries as the TI-89 does without) Furthermore, the software is great, along with the documentation (compared especially to other current calculator manuals) There are wonderful asthetics, and the memory size is amazing. The USB is fast, and it has IR. The SD slot is a great addition for future uses. The leather cases is to die for. It is RPN!!!! It has almost every function under the sun.

In my personal opinion, it will become the HP-41 of my generation. Everyone talks about how the HP-41 and the 16c are great, but let's face it they are not available to the general public. This, on the other hand, is available. I plan on keeping it for many years, and hope one day to be writing on this same forum about when I got my 49g+, and how I have used it for 15 or 20 years and can use it faster than the current calculators, even though it is so slow.

my 2 cents -Ben

Re: HP49G+ Improvements? [long response]

*Message #3 Posted by **Ed Look** on 25 Oct 2003, 12:28 a.m.,*
in response to message #2 by Ben Salinas

Great post, Ben.

I think I mentioned in another post here yesterday that it takes time also to build a fan following. One interpretation of this is that people need time to actually get to press the keys and write a few quickie, but useful, programs for their most routine uses and then get to see how good it really is.

I just got my 49G+ today, despite my putzing around (which delayed it) I also finally got to figure out how to update the ROM to v. 1.22 via Conn4x (I don't know how to get the update .bin file from my PC's HD to the SD I installed on the 49G+; I only know how to d/l a file from the PC to the calc's HOME directory) and saw how stinkin' fast that was! Who here remembers or had to stupidity to try transfering files via a serial or parallel cable between two PC running DOS 3.x? You went to lunch, came back, did some work, went and got a couple of beers, came back, went to the rest room, did some more work, went to grab a cup of Joe, chatted with the fellas, came back, did some work... and it STILL wasn't done!

Okay, so that wasn't fair. The update .bin file was what, about 1.2 Mb? It took about as long as a 48G series would to download a multi kb file. Over the next years, lets see what kind of math this 49G+ dude can do. I'm not going to worry about (even though I'm thinking about it) some version of 48Trek or chess or pretty pictures on it. The reason all the calcs in this museum became worthy of their places is because of all the real work we could on them... enjoyably! So far, from a couple of intermittent hours of exposure to this beautiful, golden, shining tricor... uh, calculator, it looks like it can do math, unlike many college students today (no offense to any one here... only those not here ;)).

Oh, my hours were intermittent because I had to drag the kids out to search for a reasonably priced SD card for the 49G+ that came to my door just today and this is what I saw in case anyone is interested:

Best Buy in NYC area- Fuji 128 Mb SD card for $40 USD.

Costco, again in NYC area- San Disk 256 SD card for $65 USD.

Great prices, but don't forget the 8.5% to 9% tax in our area. I hope these chains have the same cool prices in other areas as well. I also hope you folks overseas from here can get decent prices on these as well. I think I saw someone from Germany(?) say that his 49G+ came free with a 8 Mb card! That's great!

Re: HP49G+ Improvements?

*Message #4 Posted by **Wayne Brown** on 25 Oct 2003, 9:24 a.m.,*
in response to message #2 by Ben Salinas

> Quote:
>
> Realize that for every bad point you hear about (rom updating, LCD screen, keyboard, power consumption etc) there are literally 20 good points. The most obvious being the speed. A close second is the weight (especially when compared to the 39g. The 49g+ weighs less with batteries as the TI-89 does without) Furthermore, the software is great, along with the documentation (compared especially to other current calculator manuals) There are wonderful asthetics, and the memory size is amazing. The USB is fast, and it has IR. The SD slot is a great addition for future uses. The leather cases is to die for. It is RPN!!!! It has almost every function under the sun.

I understand what you're saying, Ben. However, keep in mind that for *some* of us, most of the things that are positive for you are neutral or negative for us:

Speed? I don't care much about speed; the 48 (and the 41 in many cases) is fast enough for me.

Weight? I like a heavy, solid-feeling calculator. One of the things I like about using memory cards in the 48 is that they make it heavier; a 48 without cards feels almost too light to me.

Software? The software is nice, though MetaKernel + Erable + Alg48 gives me most of that on a 48.

Documentation? From what I've heard about the documentation, at least some of the people who have it feel it's inadequate and recommend supplementing it with the 48 manuals. (It *is* supposed to be better than the original 49's documentation, though.)

Aesthetics? Though it's an improvement over the 49G, I still don't like the looks of the 49G+. I still think it looks too much like a consumer appliance and not enough like a complex piece of industrial/technical apparatus. In other words, it looks like it belongs in a living room, not in a laboratory. Of course, as I've said before, the puny **[ENTER]** key is a showstopper for me. No matter *what* other features a calculator has, I won't buy it unless it has a prominent double-sized **[ENTER]** key. That's an absolutely non-negotiable point with me.

Memory size? After a year of using a 2mb card in my 48GX, I still have 634kb free. I could free another 896kb by deleting 7 ports filled with backup objects (some dating back to July). They're already backed up on my laptop; I only keep them in the calculator because at present I don't need that memory for anything else. If I needed more I could get a 4mb card, but I don't anticipate ever needing more than 2mb. (It would be nice to have a larger port 0, but I've learned to manage just fine with what I have.)

USB? I like RS232C better than USB. Since the 49G+ is a USB client device, you can't hook it directly to another USB client (like a printer or another 49G+). A plain old RS232C serial port is more flexible.

IR? Already have that in my 48.

SD slot? Useless for me. (See comments above about memory size.)

Leather case? Sounds nice, but I've heard that the large magnetic clasp makes it difficult to fit in a pocket. If that's true, it would be a problem for me because I frequently carry my 48 (case and all) in my pocket.

RPN? That's great, but my 48 has that already. (Well, RPL, which is *almost* as good as having genuine RPN.)

Functions? My 48 (with MetKernel + Erable + Alg48) has many functions I've never (yet) explored, and probably always will. I don't need any more.

So while the 49G+ may be perfect for *you*, it falls far short of being right for *me*.

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"Rookie" question

*Message #1 Posted by **Jerry Pfile** on 24 Oct 2003, 6:08 p.m.*

Is 82045A the correct thermal paper for the HP-97?

Also, does thermal paper degrade over the years in storage? I'd hate to buy some that I was only able to "look at", rather than use.

Thanks in advance,

Jerry

Re: "Rookie" question

*Message #2 Posted by **Raymond Del Tondo** on 24 Oct 2003, 6:57 p.m.,*
in response to message #1 by Jerry Pfile

I don't know the 82045A, I use black 81275A for the HP-IL printer. The printing on the 81275A box says it doesn't fit for the 97, but the characteristics should be the same as for the 82045A (even the format is identical). If stored in a dry, cool and dark place it can last for years, before and after use. But generally speaking, thermal printing paper is nice for quick & dirty protocol works, but never for long-time documentation purposes. Back then when I heavily used the printer for ML printouts from the HP-41, I immediately put the stripes onto a sheet of paper, and xeroxed it onto normal copy paper. This way the printouts were easier to handle than the thin rolls, and the copies I kept are still in excellent condition after (more than) 20 years now.

Raymond

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HP-85A to HP-85B Conversion (82972A)

*Message #1 Posted by **Mike** on 24 Oct 2003, 3:30 p.m.*

HP-82972A Conversion (HP-85A to HP-85B Conversion)

I have an HP-85B that is marked HP-85 and has a sticker inside the printer compartment that says "82972A Installed."

I have always just assumed that was some sort of upgrade. I haven't been able to find anything on this part number. Maybe I haven't looked hard enough. However, while going through some misc HP-85 documents today, I came across the "Conversion Instruction Sheet."

If I read this correctly, the conversion is very extensive. Install HP-85B PCA, Printer/Power Supply PCA, Logic PCA, as well as Mass Storage, Electronic Disc, and I/O ROMs.

http://www.msdsite.com/hpcalcs/hp85/82972a.jpg

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Need recommendation on a RPN calc

*Message #1 Posted by **Gene J (Chicago)** on 24 Oct 2003, 1:28 p.m.*

Hi,

I already have a 48GX and the new 49g+ but I'm wondering if someone could recommend the best HP model that has...

* RPN (don't want to go algebraic);

* scientific functions (mostly trig, log, and inverse functions, units and matrices would be nice too); and is

* non-programmable.

A multi-line display (at least two lines) would be nice too.

I need such a calculator as a requirement for certain exams and as a backup at times when a proctor might be sceptical. I'm planning ahead for January '04, so whether it is an old model that I might be able to find on eBay or something new on the horizon, any recommendation would be great.

Another general question is whether all HP scientific calculators have RPN? I thought RPN was pretty much standard for HP but when I've viewed calculator descriptions recently on the HP web I see algebraic mentioned but not RPN.

Sorry if these sound like dumb questions but having a 48GX workhorse, I haven't been in the market for a new calculator for over 10 years.

Thanks in advance!

HP-21 or HP-31E

*Message #2 Posted by **Paul Brogger** on 24 Oct 2003, 1:40 p.m.,*
in response to message #1 by Gene J (Chicago)

You haven't missed many non-programmable RPN models in the last 10 years!

I think the last two non-programmable RPN pocket calculators were HP-31E, and the HP-21 before that. The HP-91 desktop printing calculator was also non-programmable RPN.

All have one-line LED displays, and are considered collectible as well as actually useful for their designed purpose.

H-P hasn't made a non-programmable RPN model for some time, and the 12C is the only pure RPN model left in production (it doesn't have trig functions and is programmable).

A lot of us would like to have a quality, low-cost, RPN-capable, not-necessarily-programmable scientific available -- some of those attributes may be found in H-P's latest offerings, but I'm afraid not all.

Re: Need recommendation on a RPN calc

*Message #3 Posted by **Patrick** on 24 Oct 2003, 1:54 p.m.,*
in response to message #1 by Gene J (Chicago)

Wow. What you ask for is tough.

If you look over the list of legacy HP calcs elsewhere on this site, you'll see that not many of them are non-programmable. All of the scientific LCD models are programmable, so that leaves you with LED models. I see the following candidates:

```
HP-35
HP-45
HP-21
HP-27
HP-31E
HP-32E
```

Many of these are viable choices in the sense that you can still pick up perfectly functioning examples. Batteries will be another story, not to mention having to lug the wall wart around with you. I doubt exam rooms still run power lines along the desks anymore so that students can plug in their (now solar powered) calculators!

You could pick up any one of these for under $100 on eBay, with the exception of the HP-27, which commands a premium.

If you relax the non-programmable criteria, then that opens up a whole slew of other models for your consideration. I would suggest the HP-42S as it has the multi-line display and support for matrices that you asked for. For me personally, other great alternatives would be the HP-15C and HP-11C.

As far as your other question regarding the presence of algebraic models on the HP web site... therein lies a long and twisted tale, much discussed on this site. The short answer is nobody knows why. Happily, this hasn't prevented the folks here from giving their opinions! If you take a look back through the forum archives, you're bound to see what I'm talking about.

Good luck Gene.

Re: Need recommendation on a RPN calc

*Message #4 Posted by **Mark Hardman** on 24 Oct 2003, 2:27 p.m.,*
in response to message #1 by Gene J (Chicago)

Strange as it may seem, the HP-19BII Business Consultant II might be a good fit for what you are looking for:

* Selectable RPN mode

* scientific functions (trig, log, and inverse functions, unit conversions -- but no matrix functions.

* non-programmable in the classic sense -- though we could argue the merits of HP Solve.

* A multi-line display -- three line stack and one line soft menu.

Mark Hardman

17BII will do a perfect job...

*Message #5 Posted by **Thibaut.be** on 25 Oct 2003, 1:05 a.m.,*

in response to message #4 by Mark Hardman

.... has all you need...

....AND includes a solver that is quite difficult to detect... might help you in your exam !

Re: Need recommendation on a RPN calc

*Message #6 Posted by **SV** on 25 Oct 2003, 1:40 a.m.,*
in response to message #1 by Gene J (Chicago)

You need to go directly into the hp calculators website:

http://www.hp.com/calculators

This site shows the full range of HP calculators which are being sold.

HP33s will be allowed by NCEES

*Message #7 Posted by **Brian S** on 25 Oct 2003, 8:24 a.m.,*
in response to message #1 by Gene J (Chicago)

NCEES (they administer the professional engineering exams) has banned the TI-83, HP 48 series and 49 and other calculators from upcoming exams. However, they do allow the 32s and the yet to be releases HP 33s. If you're looking for a 2 line display with rpn, the 33s is your best bet. Should be released by the end of the year.

For additional info on the NCEES calculator ban, go to: http://www.ncees.org/exams/calculators/

Hope this helps.

Re: HP33s will be allowed by NCEES

*Message #8 Posted by **Gene J (Chicago)** on 25 Oct 2003, 2:12 p.m.,*
in response to message #7 by Brian S

Thanks a bunch to everyone for all the useful info and the link to the NCEES calculator ban.

I'm planning to take the ABHP exam next summer and while they state the calculator requirements, they're much more general than what NCEES says. Given the communication-capability ban, not even my old 28c would have cut it.

At approximately $60 when it becomes available, it looks like the 33s is the safe and cost-effective way to go in my exam case and as a general backup, although some of those old LED models would be pretty cool to have.

Thanks again!

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HP components

*Message #1 Posted by **LUIS** on 24 Oct 2003, 1:08 p.m.*

Hello All,

Someone out there knows where is a cross reference list of HP electronic components (PDF file) supplied by Katie Wass sometime ago in the Forum?

Thanks in advance!

Luis

Re: HP components

*Message #2 Posted by **Katie** on 24 Oct 2003, 9:53 p.m.,*
in response to message #1 by LUIS

It's here: http://www.sphere.bc.ca/test/hpparts.html#cross

Re: HP components

*Message #3 Posted by **Albert** on 25 Oct 2003, 8:19 a.m.,*
in response to message #2 by Katie

Hello Katie,

You are the best! Thanks a lot.

Albert

Re: HP components

*Message #4 Posted by **Luis** on 29 Oct 2003, 2:03 p.m.,*
in response to message #2 by Katie

Thanks Katie, I knew you would respond...

Cheers,

Luis

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Calcpro are a bunch of toe-nails

*Message #1 Posted by **Paul Fox** on 24 Oct 2003, 8:33 a.m.*

I mentioned the other day placing an order on their web site and never having got an acknowledgement that my order was received....I emailed them subsequently to see if the order had been placed and to ensure they email me at work & home.

Not a sausage from them....

So I waited til I could order from someone in the UK and placed the order a few days back.....

You know the rest of this story. Wife called today to say theres a parcel for me at home...HP49G+. From Calcpro.

So looks like I might be the proud possessor of two buggy-beauties and may need to sell one at a good price.

A pot of used and smelly toe-nail cuttings to calcpro for being such wallies.

Re: Calcpro are a bunch of toe-nails

*Message #2 Posted by **Paul Fox** on 24 Oct 2003, 3:40 p.m.,*
in response to message #1 by Paul Fox

Well its arrived and Ive updated the ROM to 1.22.

Nice and fast! The keyboard appears to be fine - no dodgy keys as far as my limited testing has shown.

The key feel reminds me of the difference between Lego and Megablocks .. for those which have children. Lego is heavy duty plastic, perfectly formed and fits together properly. Megablocks looks like Lego but is cheap and nasty and doesnt stick together properly. The HP keys are like megablocks - look the part, til you press them and then you feel that they are adequate for a $5 calculator.

After minutes of use, I am happy and at home with the keyboard - acceptable but not a feeling of quality. So dont let the keys put you off.

The calc does feel very light but thats no bad thing.

Having followed c.s.hp48 for the last few weeks, the ROM upgrade went smoothly (small issues related to not reading the docs first of all).

Supplied manual is a let down but not a big deal - I have the HP48+49 manuals plus the downloadable online stuff. (I have Wicke's original books as well, which I cherish).

Now...wheres the games ? :-)

As mentioned in prior post looks like I will have 2 calcs soon so if anyone wants to make a reasonable offer, I'll let it go at a good price (when it arrives).

If theres any poor students or poor out of work IT workers, let me know and maybe we can cut a deal (especially if you are in the UK - especially London area).

Or I could take one to work and leave it there...

Re: Calcpro are a bunch of toe-nails

*Message #3 Posted by **Arnaud Amiel** on 24 Oct 2003, 3:56 p.m.,*
in response to message #2 by Paul Fox

I think there is a poor imperial college student lurking in comp.sys.hp48. Look for the thread looking for 49g+ in London

Arnaud

Re: Calcpro are a bunch of toe-nails

*Message #4 Posted by **Paul Fox** on 24 Oct 2003, 4:49 p.m.,*
in response to message #3 by Arnaud Amiel

yup - i saw him wandering around feeling lonely. Not sure if he reads this board .. see if I get any responses by the time it arrives. I think the UK arrivals are imminent (its nearly November now... crumbs its nearly Xmas).

Maybe the wife would appreciate a HP49G+ ... not!

Re: Calcpro are a bunch of toe-nails

*Message #5 Posted by **Joshua Belsky** on 24 Oct 2003, 6:03 p.m.,*
in response to message #2 by Paul Fox

I seem to remember seeing a c.s.hp48 post by apoor engineer in a country where engineers make very little money. Maybe him?

Re: Calcpro are a bunch of toe-nails

*Message #6 Posted by **Wayne Brown** on 24 Oct 2003, 4:10 p.m.,*
in response to message #1 by Paul Fox

It *can* be difficult communicating with CalcPro; I've found that calling them on the phone and actually talking to a real person is the most reliable method. However, on the plus side, they're good at finding hard-to-obtain items and getting them to customers, even though it sometimes means waiting long periods with no updates from them on what's happening. For instance, a year or two ago I ordered some out-of-production stuff -- HP-41 magnetic cards, magnetic tapes, card holders, module wallets, etc. from them. It took quite a while for the shipment to arrive, which didn't surprise me because I knew it would be difficult to locate some of these items. By the time it arrived I'd almost forgotten what I ordered. Several weeks later another package arrived, containing, if I remember correctly, a couple of mag tapes. At first I though it was a mistake, but after checking my original order I found that I had indeed ordered them. At some point CalcPro had decided to ship what they had managed to find so far, and when they later located the tapes they shipped those also. The point is that there was no communication from them to say that the shipments would be delayed, or that there would be partial shipments made as items became available. I think the assumption they make is that if you order something you want it, no matter how long it takes, and that since you'll get it as soon as they can find it, there's no need to talk to you about it any further after the order has been placed. That can be frustrating when you're wondering if they even received your order or not, but after dealing with them several times I have to admit they *always* have (eventually!) filled my orders correctly. So I guess that means I'm a satisfied, if

occasionally irritated, customer.

(I also have to admit some sympathy with their way of doing things. Sometimes, after attending the umpteenth status meeting at work, I answer questions about when some project will be finished like this: "Not as quickly as it would be done if I weren't wasting time in meetings talking about work instead of actually working!")

Re: Calcpro are a bunch of toe-nails

*Message #7 Posted by **Les Bell [Sydney]** on 24 Oct 2003, 5:55 p.m.,*
in response to message #1 by Paul Fox

Heh. I remembered your earlier email about Calcpro, as I had placed an order with them around the same time, for an HP-48 manual set (to replace a lost Quick Start Guide).

The order turned up last week. . . I probably should have mentioned it. . . <g>

Best,

--- Les [http://www.lesbell.com.au]

Re: Calcpro are a bunch of toe-nails

*Message #8 Posted by **Ed Look** on 24 Oct 2003, 7:36 p.m.,*
in response to message #7 by Les Bell [Sydney]

I ordered the HP 48 AUR some days ago, about a week, maybe. I just e-mailed them just for some information on the order. I find that the manuals that came with the 48G's are not extensive enough when it comes to programming the thing to "automate" some calculational tasks. I think it's all the more imperative now that I just received my 49G+ this afternoon!

Did I mention I just received my 49G+ this afternoon? :D

Let me see if I can hook it up to my dinosaur PC and see if I screw up the ROM upgrade!

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From 'Perfect Enough' by George Anders:

*Message #1 Posted by **DanO** on 23 Oct 2003, 11:37 p.m.*

"Hewlett's best ideas were masterful. In the early 1970s, when cheap little calculators were catching on, he ordered HP engineers to build mightier machines that still could fit in a shirt pocket. These calculators wouldn't just add and divide; they would churn out everything from factorials to hyperbolic cosines. It took months to figure out how to cram all the essential circuitry into what seemed like an impossibly tiny shell. Outside consultants couldn't see any meaningful market for such an elaborate device that might cost more than $300. But beginning with the HP 35 calculator, scientists and engineers bought the company's calculators by the millions. For a few years, handheld calculators were HP's most successful and profitable product."

[Quote is from page 8 of the book 'Perfect Enough: Carly Fiorina and the Reinvention of Hewlett-Packard' by George Anders.]

Re: From 'Perfect Enough' by George Anders:

*Message #2 Posted by **Namir Shammas** on 24 Oct 2003, 4:33 a.m.,*
in response to message #1 by DanO

Book her DonO!!!!!!!!!!!!

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Connecting 49G+ to Mac

*Message #1 Posted by **Ernie Malaga** on 23 Oct 2003, 9:38 p.m.*

Help!

I use a Macintosh and have been unable to read the manuals contained in the CD that came with the calculator. Everything I have tried so far has failed.

This is what I'd like to do:

1. Download the manuals from somewhere, in PDF format, without having to "install" them by running a PC-only application.

2. Be able to make use of the USB cable that came with the calculator. Sooner or later I'll have to upgrade the OS to a new version!

Help!

-Ernie

Re: Connecting 49G+ to Mac

*Message #2 Posted by **Gene** on 23 Oct 2003, 11:01 p.m.,*
in response to message #1 by Ernie Malaga

http://www.textodigital.jazztel.es/hp49gplus/BPIA5324_CSB.zip

This is a zipped version of the PDF manual.

You need on the mac:

Stuffit Expander

and

Acrobat Reader.

That's it.

Both are installed as default applications on OSX. OS 9.1 or later should have them too.

Hope that helps.

Re: Connecting 49G+ to Mac

*Message #3 Posted by **Ernie Malaga** on 24 Oct 2003, 2:30 p.m.,*
in response to message #2 by Gene

Thanks for the quick answer, Gene.

What about issue #1? Any thoughts on how to transfer data between the 49G+ and a Mac?

-Ernie

Re: Connecting 49G+ to Mac

*Message #4 Posted by **Tom Scott** on 24 Oct 2003, 3:29 p.m.,*
in response to message #3 by Ernie Malaga

I use an SD (64 MB SanDisk) with reader that I just purchased from Circuit City. I just finished using it to upgrade my ROM to 1.22. Initially I had some problems using the card in the 49G+ but after having a neighbor reformat the card using Windows 2000 Pro, everything works fine for transferring files between my Mac and the 49G+.

Yep, like Tom says...use an SD reader

*Message #5 Posted by **Gene** on 24 Oct 2003, 6:59 p.m.,*
in response to message #4 by Tom Scott

Tom has it right!

Re: Yep, like Tom says...use an SD reader

*Message #6 Posted by **Tom Scott** on 24 Oct 2003, 7:17 p.m.,*
in response to message #5 by Gene

I should metion that when I use the "Files" feature on the HP-49G+ I see some garbage files (apparently put there by the Mac). I ignore these and just use the files that I'm interested in.

Re: Yep, like Tom says...use an SD reader

*Message #7 Posted by **Gene** on 24 Oct 2003, 10:26 p.m.,*
in response to message #6 by Tom Scott

I usually see a .DStore or such and a .Trashes file.

Just keep on moving. Nothing to see here. :-)

Re: Connecting 49G+ to Mac

*Message #8 Posted by **Ernie Malaga** on 24 Oct 2003, 8:40 p.m.,*
in response to message #4 by Tom Scott

> Quote:
>
> I use an SD (64 MB SanDisk) with reader that I just purchased from Circuit City.

Thanks for the reply. I've got a question, though -- what is a SD? And how much did you spend on it?

-Ernie

Re: Connecting 49G+ to Mac

*Message #9 Posted by **Gene** on 24 Oct 2003, 10:27 p.m.,*
in response to message #8 by Ernie Malaga

SD stands for Secure digital. The card slot in the 49G+ can take SD memory cards or MMC

(MultiMedia Cards)...they are the same thing.

64MB cards are about $30. 128MB cards are about $50.

Re: Connecting 49G+ to Mac

*Message #10 Posted by **Ed Look** on 25 Oct 2003, 12:31 a.m.,*
in response to message #9 by Gene

Gene,

around me, (NYC area), 128 Mb generally goes for upwards of $70! The 64 Mb's go for about $50, and the 256 Mb cards for around $90. (Methinks me is getting me pockets picked...)

Start spreading the news...

*Message #11 Posted by **Ernie Malaga** on 25 Oct 2003, 1:43 a.m.,*
in response to message #10 by Ed Look

> Quote:
>
> around me, (NYC area), 128 Mb generally goes for upwards of $70! The 64 Mb's go for about $50, and the 256 Mb cards for around $90. (Methinks me is getting me pockets picked...)

That's just NYC for you. A friend of mine was paying $1800 a month for a tiny one-bedroom apartment on floor 29 of a building close to the Lincoln Center. I'm talking about 1998 or 1999; I have no idea how much it is now.

Are you guys still paying 25% sales tax? 8^)

-Ernie

$36 for 128MB MMC card (free shipping too)

*Message #12 Posted by **Gene** on 25 Oct 2003, 11:09 a.m.,*
in response to message #10 by Ed Look

http://dealram.com/prices/26/128MB.html

You can select other sizes too.

Re: Connecting 49G+ to Mac

*Message #13 Posted by **Ed Look** on 25 Oct 2003, 12:37 p.m.,*
in response to message #10 by Ed Look

Thanks, Gene. Bookmarked for the coming days when I have to get RAM for a computer I want to put together to replace the clunker I'm typing on now.

Incidentally, I got 256 Mb at $65, but after tax, it's like shipping w/o tax, so the second law of thermodynamics has its revenge... again. (Or, first law, depending on how sanguine a person you are!)

Re: Connecting 49G+ to Mac

*Message #14 Posted by **sv** on 25 Oct 2003, 11:47 p.m.,*

in response to message #1 by Ernie Malaga

Try this URL on the HP website:

http://h20015.www2.hp.com/en/manualCategory.jhtml?reg=&cc=us&pagetype=manual&prodId=hp49ggraph351775&lc=en&sw_lang=en&docparent=manual&cat=manual

It goes straight into the section where you can download the manual on PDF.

BTW, try the website: http://www.hp.com/calculators

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HP 29C keyboard repair?

*Message #1 Posted by **Victor Koechli** on 23 Oct 2003, 5:22 p.m.*

Hi all,

once more I'm trying to repair a woodstock keyboard, this time in a HP 29C. One of the keys is not working, and I have no idea how to fix this. It looks like there are two different types of keyboards in the woodstocks, one 'old style' that has a small hole under every key contact, and a newer one that doesn't. This is one of the newer style. It appears that its key contacts are no longer spot welded metal, but plastic domes.

Does anyone have an idea how this could be repaired? Do I have to take it apart and re-apply some sort of conductive material to the contact? And where would I get this in Europe?

Thanks for any help, Victor

Re: Once upon a time... (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 Oct 2003, 7:04 p.m.,*
in response to message #1 by Victor Koechli

Hi;

I remember the days I was at the University (80's) when an HP29C was shown to me as having this sort of problem. I opened the keyboard and I saw the plastic domes for each key, as you mention. And the faulty key had a broken cooper trail, because in these keys, the cooper trails are slightly stretched when the key is pressed. The newer plastic dome-type keyboards have no trails, only a centered conductive island in the inner middle part of the dome.

If, at that time, I had the option to use cooper foil with conductive glue (available today) or the conductive inks, I'd try repairing the faulty key the way you mention: disassembling and applying the conductive material. And I think there are also other options.

Success!

Luiz (Brazil)

(P.S. - I'll be back... soon)

Edited: 23 Oct 2003, 10:51 p.m.

Re: HP 29C keyboard repair?

*Message #3 Posted by **Renato** on 23 Oct 2003, 8:15 p.m.,*
in response to message #1 by Victor Koechli

Victor, I have succesfully repaired woodstock keyboards , plastic dome types.

Two methods:

1. Using conductive ink. It is a graphite based ink, and after dry it becomes a very dark grey. This method is good if the plastic dome is not damaged.

2. Using a 12C metal dome. I cut away one metal dome from a deceased 12c, and successfuly used it in place of a damaged plastic dome. The damaged key was "enter", and the holes is the 12c metal dome matched the plastic pins in the woodstock keyboard.

Good luck,

Renato

Re: HP 29C keyboard repair?

*Message #4 Posted by **Victor Koechli** on 24 Oct 2003, 8:20 a.m.,*
in response to message #3 by Renato

The dome looks intact. Where would I get this conductive ink? I live in Switzerland...

Thanks, Victor

Re: HP 29C keyboard repair?

*Message #5 Posted by **Thomas Radtke** on 24 Oct 2003, 9:40 a.m.,*
in response to message #4 by Victor Koechli

Hi Victor,

any electronics shop should carry it. It's sometimes called 'Leitsilber' in german. Apply it with the finest brush you can find (or cut away some bristles of a not-so-fine brush). Don't forget to shake the bottle very well.

Thomas

Re: HP 29C keyboard repair?

*Message #6 Posted by **Victor Koechli** on 24 Oct 2003, 12:57 p.m.,*
in response to message #5 by Thomas Radtke

Thanks, Thomas. Read it, went there, bought it - I'll do the repair work tomorrow, and I'll keep you posted.

Thanks everybody for the great help in this forum. I love it!

Cheers, Victor

Re: HP 29C keyboard repair?

*Message #7 Posted by **David Smith** on 24 Oct 2003, 2:56 p.m.,*
in response to message #1 by Victor Koechli

Most likely the problem is a bad contact under the key dome. You fix these just like the ones with the access hole under the keys, except that you must drill your own hole with a small hand drill. Be careful not to drill through the etches on the other side. This can be a problem if the circuit board material is that opaque black stuff. Also don't get drill cuttings in the hole.

Once you have your hole, make a small wire brush out of three bristles cut from another brush. Chuck the bristles in a pin vise, twist them together, and trim the end flush. Now put a drop of 91%+ isopropyl alcohol in the hole, dip the wire brush in more alcohol, and then gently scratch around in the hole. Do this with the key up and down.

Re: HP 29C keyboard repair?

*Message #8 Posted by **Victor Koechli** on 24 Oct 2003, 5:56 p.m.,*
in response to message #1 by Victor Koechli

Well, I've done it: Dissassemled the keyboard and applied fresh silver ink to the bad contact where the original silver contact had broken off.

Now I have to get the whole thing back together. It seems that this assembly needs a firm pressure in order to work properly, especially for the conact spots between the keyboard PCB and the row lines in the plastic. How can I accomplish this? So far, I have been unsuccessful. The plastic rivets are not long enough to allow for an easy re-fixing. Should I use glue? screws? magic, perhaps ;-)

Thanks again, Victor

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'Gummy wheel'

*Message #1 Posted by **Phil Jonker** on 23 Oct 2003, 4:57 p.m.*

I am looking for a 'Gummy' Wheel repair for an HP 41 card reader.Can anyone help me?

Kind Regards

Re: 'Gummy wheel'

*Message #2 Posted by **Victor Koechli** on 23 Oct 2003, 5:07 p.m.,*
in response to message #1 by Phil Jonker

Look in the 'Articles' section on this website to find instructions on how to do it. It's actually not difficult if you follow the instructions carefully. Most important is not to lose any of the small parts and not to bend the switch contacts, most difficult (for me) was finding a suitable replacement.

Cheers, Victor

Re: 'Gummy wheel'

*Message #3 Posted by **Juergen** on 24 Oct 2003, 9:48 a.m.,*
in response to message #1 by Phil Jonker

Gummy wheels including repairing instructions are also offered on eBay. See item nr 3054833188. BTW, waterhosko is a very nice guy, a pleasure to deal with.

Juergen

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HP49G+ ,Embedded formulas

*Message #1 Posted by **Andreas Archenti, Sweden** on 23 Oct 2003, 4:32 p.m.*

Hi HP lovers,

I just bought my Hp49G+, but to my surprice I cant find any embedded formuls like tous in 48GX.. Mohrs cirkel etc.

Is that right or am I lost in space ?! :o)

Re: HP49G+ Embedded formulas

*Message #2 Posted by **Paul Brogger** on 23 Oct 2003, 5:05 p.m.,*
in response to message #1 by Andreas Archenti, Sweden

IIRC, the Equation Library was considered a lower-priority feature that wasn't available in time for the calculator's release. I seem to remember mention of hope that it will be included in a future ROM upgrade . . .

Re: HP49G+ Embedded formulas

*Message #3 Posted by **Veli-Pekka Nousiainen** on 23 Oct 2003, 5:53 p.m.,*
in response to message #2 by Paul Brogger

Use this (load in flash using MOVE in FILER)

http://www.hpcalc.org/details.php?id=3181

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HP49g+ Funny price mistake

*Message #1 Posted by **Eric Lundgren** on 23 Oct 2003, 3:58 p.m.*

Hi all,

Interestingly, the 49g+ that my school sells is recorded as 48gII on the purchase receipts...so, any takers before they figure it out ;) I guess 132.99 did sound cheap!

Eric

Re: HP49g+ Funny price mistake

*Message #2 Posted by **Namir Shammas** on 24 Oct 2003, 4:34 a.m.,*
in response to message #1 by Eric Lundgren

That would be one EXPENSIVE HP48GII my friend!

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HP News

*Message #1 Posted by **Brian** on 23 Oct 2003, 2:39 p.m.*

Go here for an article/discussion about the new HP calcs: http://slashdot.org/articles/03/10/23/1351208.shtml?tid=100&tid=137&tid=146&tid=173&tid=187&tid=99

I KNOW you'll want to put your 2 cents in!

Regards... -B-

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Keyboard layout history

*Message #1 Posted by **Arnaud Amiel** on 23 Oct 2003, 9:42 a.m.*

Seeing all the fuss there has been since the introduction of the small ENTER key at the bottom of the calc, I was wondering if there had been such an outcry when the operator keys were moved to the right side of the calc and reordered. I wasn't into calcs at the time but I feel this must have bothered the users much more than the movement of the ENTER key: I still have some problem myself on the 49 multiplying instead of dividing or substracting instead of multiplying, but never had problems with ENTER. The new ENTER key troubled me much less than the rearranged +-x/ on the 49.

Arnaud

Re: Keyboard layout history

*Message #2 Posted by **Juan J** on 23 Oct 2003, 11:29 a.m.,*
in response to message #1 by Arnaud Amiel

Perhaps the rest has noticed it but in RPN mode the 17BII's equal key performs the same function as INPUT, i. e., lifts the stack and allows RPN operation. I have not seen much fuss about that (I haven't checked the Forum archives in detail about this subject.) It takes a little to get used to this second ENTER key, maybe because there is that "long key" above the number key pad. It is much the same thing with the little ENTER key on the 49 series.

Thankfully, on the 49G+ you can assign it to EEX and used the "normal way" but in time it is possible to get used to it. Lately I've been trying a 49 and I am in the process. A good advice is to think of it as if it were the 17BII's equal key.

Re: Keyboard layout history

*Message #3 Posted by **Wouter Peters** on 24 Oct 2003, 1:51 p.m.,*
in response to message #1 by Arnaud Amiel

As far as I am concerned I can live with a small Enter-key to the right of the digits instead of a double one above to the left. I (and not only I) had to learn two different digit layouts when telephony moved from a dial to a keyboard with 123 above and 789 underneath 456. Just the other way around as they are grouped on a calc. Nevertheless I hardly make mistakes punching in numbers either on a phone or on a calc...

It just needs getting accustomed to the thing.

Wouter

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HP-95LX question

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 23 Oct 2003, 8:45 a.m.*

Hi all,

Is those PCMCIA SD/MMC adapters compatible with the HP-95LX? I have MMC cards and I wish to use them on my 95LX (just acquired!) I have a SD/MMC card reader on my PC, I think that this can be a great (and easy!) way of transfer fiels between them. If not compatible, I can do this by serial, but I don't have the discs/manual of the HP-95LX (bought used).

I am searching also documentation about its hardware, to program in assembler or TurboPascal. I know the PC (XT) hardware pretty well (I used to program them in asm/TurboPascal 'eons' ago...), but I need to know the differences/particularities of the 95LX hardware (screen, keyboard, serial/IR, etc).

Thanks in advance!

Nelson

Re: HP-95LX question

*Message #2 Posted by **Terry Ingram** on 23 Oct 2003, 10:02 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Hello Nelson,

I use a PCMCIA adapter with a Compact Flash card with a hp200lx, but not sure about the SD/MMC adapters. The 95lx supports the PCMCIA 1.0 & JEDI 4.0 standards with ram cards up to 2 megabytes.

I use a 512k ram card (HP F1003A) with the 95lx. These are available from Thaddeus Computing. I think I paid around $15.00 used. Larger sizes are also available.

For information regarding programming, try http://www.palmtoppaper.com. They have a 100/200 developer's guide that may also provide information for the hp95lx. They also have a CD Infobase with early issues of a magazine supporting the hp95lx. Some of the information on their CD Infobase is also online at http://www.palmtoppaper.com/PTPHTML/index.htm

Another website for the palmtops is http://www.palmtop.net. There is a file available that discusses assembly language with the hp95lx. I don't remember the name of the file right now, but a search on the site could find it.

Good luck, Terry

Re: HP-95LX question - HP95DEV file

*Message #3 Posted by **Terry Ingram** on 23 Oct 2003, 10:17 a.m.,*
in response to message #2 by Terry Ingram

Nelson,

The file previously mentioned is hp95dev.zip, and is available for download at http://www.reto.com/hp95lx/programming.html.

Terry

reto.com
*Message #4 Posted by **Mike (Stgt)** on 23 Oct 2003, 11:03 a.m.,*
in response to message #3 by Terry Ingram

Thank you very much for the hint to this nice site.

Ciao.....Mike

Re: HP-95LX question
*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 23 Oct 2003, 11:13 a.m.,*
in response to message #2 by Terry Ingram

Thanks for the links, I'll browse them.

I already know that the PCMCIA that the 95LX uses is 1.0, but I can't find what stantard this cards support:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=18872&item=2959311471

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=43450&item=2959502172

Best regards,

Nelson

Re: HP-95LX question
*Message #6 Posted by **Bill Smith** on 23 Oct 2003, 12:18 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

i have successfully used a PCMCIA-CF adaptor on my 200lx, but it doesn't work on my 100lx or 95lx. additionally, most of the 5 or 6 PCMCIA memory cards that also work on the 200lx don't work either. The exceptions being SRAM cards.

i haven't tried using the available drivers, though. all the cards work well in my desktop with the SCM adaptor.

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HP 49G vs. HP 49G+ Prices

*Message #1 Posted by **Ed Look** on 23 Oct 2003, 4:02 a.m.*

Why are prices for a 49G still substantially higher than for a 49G+??

Re: HP 49G vs. HP 49G+ Prices

*Message #2 Posted by **Fred** on 23 Oct 2003, 4:17 a.m.,*
in response to message #1 by Ed Look

Maybe because it's now becoming a rare vintage calculator .... ;-)

More seriously what kind of prices did you see ?

Re: HP 49G vs. HP 49G+ Prices

*Message #3 Posted by **Matthias** on 23 Oct 2003, 6:27 a.m.,*
in response to message #2 by Fred

I guess, that the 49G+ is only a better 49G and the developpment costs ar lower than they were on the 49G itself.

Re: HP 49G vs. HP 49G+ Prices

*Message #4 Posted by **Namir Shammas** on 23 Oct 2003, 7:05 a.m.,*
in response to message #1 by Ed Look

Try to buy a 49G now from HP!

:-)

Namir

Re: HP 49G vs. HP 49G+ Prices

*Message #5 Posted by **Paul Brogger** on 23 Oct 2003, 11:40 a.m.,*
in response to message #1 by Ed Look

I'm guessing the costs of development (and probably production) of the 49G+ are lower than those for the 49G, especially inasmuch as the latter seems to have been largely built on the former's code base.

49G prices probably haven't started to reflect the reality of introduction of the 49G+. H-P may be trying to re-establish a market presence with relatively aggressive pricing on the new high-end models. Once the new models start shipping in quantity, prices of the 49G (and competing graphical models from TI & others?) should be forced downward.

Maybe the 49G fans should correct me -- I don't sense the same level of loyalty to that model that seems

evident for the 48G series (and all the more so for the earlier & classic models).

Re: HP 49G vs. HP 49G+ Prices

*Message #6 Posted by **Ed Look** on 24 Oct 2003, 12:43 a.m.,*
in response to message #5 by Paul Brogger

Paul, give it time. I don't think the 41C's and Spice series got this rabid following in just five or so years. It takes people time to realize how good something is after things change for a while.

I began to love my 34C much more only after I saw the LCD models introduced. I began to love my 32SII more only after I saw the RPL models introduced. And I'm still working on the 48G's... all the while peeking on the UPS website to see if my 49G+ is coming yet!

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Anyone have problems viewing the Symbolic Trig Integration training aid?

*Message #1 Posted by **Gene** on 22 Oct 2003, 7:05 p.m.*

http://www.hp.com/calculators/docs/guides/49gPlusSymtrig.pdf

A user has indicated this PDF shows black boxes for some of the screen prints (i.e., totally black) and that some of the functions show up as black boxes rather than as a readable function.

I can view them fine in WinXP and on my PB G4 Macintosh.

?

Gene

Re: Anyone have problems viewing the Symbolic Trig Integration training aid?

*Message #2 Posted by **Ed Look** on 22 Oct 2003, 10:54 p.m.,*
in response to message #1 by Gene

Gene,

I have only viewed that particular page online. I downloaded it for more leisurely reading, but haven't gotten around to it. So, I can only speak for reading it online with Adobe Acrobat Reader 4.0 via my browser (Netscape 6). It looks fine.

HOWEVER

As I scroll, many of the pictures or objects, such as the equations, etc., would become black rectangles for barest of a fraction of a second as I scroll through the file.

I wonder if it is a compatibility issue between versions of Acrobat. .pdf's sometimes are not so "portable".

Re: Anyone have problems viewing the Symbolic Trig Integration training aid?

*Message #3 Posted by **Veli-Pekka Nousiainen** on 23 Oct 2003, 4:52 a.m.,*
in response to message #2 by Ed Look

Have you tried it directly with Acrobat Redaer 4.0? I think it could be a Netscape plug-in progran (in v.6)

Re: Anyone have problems viewing the Symbolic Trig Integration training aid?

*Message #4 Posted by **Arnold Steekelenburg** on 23 Oct 2003, 5:53 a.m.,*
in response to message #3 by Veli-Pekka Nousiainen

I run Mozilla Firebird 0.7 and have not experienced any problems. I have the acrobat 5 plugin.

Anyone have problems viewing the Symbolic Trig Integration training aid?

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HP-41CX to PC connection

*Message #1 Posted by **Jon** on 22 Oct 2003, 5:46 p.m.*

I would like to connect my HP-41CX to the PC (Windows me). I don´t know which is the best option. I have read it is possible to use the HP-IL/RS232+ ext I/O with linux (Is it possible to do it with Windows? Which software is needed?). I could also buy the card made by K. Klug. Both are quite expensive solutions so I would like to know some opinions before.

Thanks in advance

Jon

Re: HP-41CX to PC connection

*Message #2 Posted by **Pavel Korensky** on 22 Oct 2003, 7:08 p.m.,*
in response to message #1 by Jon

Currently, I am trying to use the HP-IL/RS-232 module. Finally, I have the module. Now, I only need to finish the ROMpack, because I do not have the original Ext.I/O module.

I am planning to write my own WinXP software for file transfer.

Maybe, there will a third possibility in the near future. As far as I know, Meindert implemented the USB interface is his MLDL2000. But I do not know, if it will possible to use this interface for program/data transfer between PC and HP-41.

Re: HP-41CX to PC connection

*Message #3 Posted by **Bill Smith** on 22 Oct 2003, 7:16 p.m.,*
in response to message #1 by Jon

there are several ways to get files from a 41 to a PC. see Articles (on this site) 54, 118, 260, 311 and any related for technical info.

i think the 82973A or the Klug IL2000 may be the most versatile to directly transfer PC files because of the several software packages available, and there are calculator emulators and IL system stuff as well. they may also be a bit cheaper than the 82164A and 82183A combo, as these items seem to fetch $80 and higher apiece on ebay. there was some discussion on trying to develop the necessary XIO commands in mcode to obviate the need for the 82183A, but i haven't heard of any success to date.

perhaps the least expensive is the 9114 disk drive, though not as common as they used to be. actually, i paid less for my 82973A (3 years ago) than the 9114 (1 year ago), and i still need a battery pack for the latter. if file transfer is your only objective and you can find a 9114 ready to go, i'd grab it; then the disks can be read in most PCs with the lifutils software.

best of luck finding what you need, bs

Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #4 Posted by **Dr.J.Kahler** on 23 Oct 2003, 12:52 p.m.,*
in response to message #1 by Jon

Hi Jon

Why a HP-41CX ? I cannot understand. That is an absolutely archaic machine from 1980. Better buy a HP-49G+, this can be connected to PC easily. And the price is quite OK. I saw price discussions on HP-41CX here at the forum. The people spoke about several hundreds of dollars for one HP-41CX from Ebay. That is crazy if compared to prices for HP-49G or G+. Of course, I really can understand the prices. It is for collectors. For collectors any old HP calculator is a very valuable item, I can understand well. But it is not practical for real use and you seem to be someone who really wants to use it, with a PC.

From technical point-of-view a HP-49G+ is of course much better than HP-41CX because it is newest technology with many add ons that have been engineered in 20 years. For example: A HP-41CX cannot do graphics, it has a ridiculous 12-digit display only. A HP-41CX cannot do symbolic algebra. The memory size is negligible. What can you do with 2 or 3 kByte? To be honest, nothing really advanced. It can only be used for relatively simple programs or routines. And one of the worst things may be that the calculator is very slow. I found ridiculous benchmark values at the museums site. The new HP-49G+ has a 75(?) MHz CPU, that's so great! What does a HP-41CX have? Maybe 50 kHz CPU or something like that, I do not know.

OK, there is one real disadvantage: The HP-49G+ has much worse keyboard than all the old HP calcs. But a keyboard cannot drive a decision - that's my opinion. I found a lot ofdiscussion on HP new and old keyboards here at the forum. I believe that this is the reason why so many peolpe still ask for something like a HP-41CX. Why doesn't HP improve that??? That is the only bad point! Even if price would be higher by 30%, who cares?

Finally: My proposal: Forget about HP-41CX-PC-connection but buy one of those brilliant new HP-49G+. Even if keyboard is not one of the best they are absolutely great for relatively little money and can be connected easily. As HP-49G+ has just been launched this is the hour to buy it!

Best regards, Johann

Edited: 23 Oct 2003, 1:06 p.m.

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #5 Posted by **Holger S.** on 23 Oct 2003, 2:13 p.m.,*
in response to message #4 by Dr.J.Kahler

The point ist not the keyboard and not the superior performance of the 49G+ (or any other modern programmable). The point is that the 41CX is magic, beautiful, unique and the 49G+ is not. It's a piece of engineering that has the power to make us happy just by looking at it. It's like a 1970 Mercedes SL500. Even a modern lowly Ford has superior performance. It's not really comparable.

Regds, Holger S.

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #6 Posted by **Keith Gobeski** on 23 Oct 2003, 2:36 p.m.,*
in response to message #5 by Holger S.

http://news.bbc.co.uk/1/hi/technology/3175506.stm

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #7 Posted by **Angel Martin** on 23 Oct 2003, 4:46 p.m.,*
in response to message #5 by Holger S.

Well put!! Here's to the Coconut grove: cheers!

AM.

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #8 Posted by **Wayne Brown** on 23 Oct 2003, 7:08 p.m.,*
in response to message #5 by Holger S.

Exactly! Holger, that is a perfect description of the 41CX. Though I use my 48GX more frequently these days for real work, sometimes I take the 41CX out of its case and just hold it. Feeling the weight and shape, turning it at various angles so that it catches the light, switching it on and watching that crisp display appear, tapping those wonderful keys and feeling the solid "click..." I admire it the way some people admire sculpture or fine jewelry: Not just for what it can *do*, but for what it *is*. It's hard for me to imagine feeling that way about a 49G or 49G+.

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #9 Posted by **bill platt (les Estats Unis d'Amerique)** on 23 Oct 2003, 2:23 p.m.,*
in response to message #4 by Dr.J.Kahler

Hi Dr J.

Well, yes, 'tis true what you say.

But,

Maybe Jon has been using that CX for 20 years and knows it really well. Maybe he realizes that to change to a new machine will take a significant learning curve. Maybe he really knows his field, his stuff, and he is a Well-Oiled Machine. So, the 49 is just a bunch of overhead for him.

Or, maybe he enjoys the old machine--some people actualy like to play with these old machines for no other reason than that they enjoy doing it (I know you know that--I'm just ribbing you).

I fell into the first category for 20 years, but now I find myself falling into the second category.....boyoboy there is no way out now...I'm in way too deep.....

regards,

Bill

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #10 Posted by **David Smith** on 23 Oct 2003, 2:24 p.m.,*
in response to message #4 by Dr.J.Kahler

Becuase the HP49 draws major vacuum and the 41CX does not...

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #11 Posted by **Albert** on 23 Oct 2003, 2:37 p.m.,*

in response to message #4 by Dr.J.Kahler

Hi,

Maybe there are several subjetives (and appreciations) points of view. I understand your "scientific approach". However, I love my HP-25C (27 years old), and even my HP-67 (in the garage, under repair waiting spare parts). The HP-41C (and cousins), are, let's say, wonderful.

Chiao

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #12 Posted by **Raymond Del Tondo** on 23 Oct 2003, 2:51 p.m.,*
in response to message #4 by Dr.J.Kahler

Hi,

I still vote for the HP-48GX (with b/w display). Ok, it's slower than a 49G(+) but in most cases, that's not the main point. For many people an important point is reliability, at least if they spend that much money for just a calculator. From this point of view the HP-48GX outbeats all of it's 'succesors'.

I don't know if you know that the 49G OS took more than 3 (three) years *after* lauch to get to something that you can call stable.

The 48GX has a reliable keyboard, and an OS which is stable enough that you don't need to fear a memory loss every week.

And yes, IMHO the 128K memory is suitable for most serious cases, and if not, it can be easily expanded.

The SD card feature of the 49G+ is very nice, but seriously, do you have or know an application which needs that much? You could load all programs from hpcalc.org into the machine, and maybe some people try it, but I'm not sure if this makes sense.

Even the RAM and flash of the normal 49G was more than enough, except for people who load all games available, or many GROB animations;-)

For the HP-41: The CPU clock is some hundred KHz, and the small amount of RAM lead to another effect: Highly efficient quality programs.

And no, you could do very advanced programming on the HP-41. Of course not much with graphics, but the HP-41 is still great for numerical calculations. One reason is the *much* better keyboard than that of the machines after the HP-48...

And yes, there were some *very* advanced modules for the HP-41, e.g. the CCD ROM, AECROM, HEPAX, to name only a few.

I must admit that a high quality keyboard is essential for me, and this was never a problem with HP calcs up to and including the HP-48 .

You press a key, and the tactile feedback 'informs' you that the key has registered. In other words: You simply can type without checking every key stroke.

When I read things like: ...after I got used to the stiff keys, and knew I had to press very hard to have the key register... (49G+)

or people filling threads debating about the best value range for >KEYTIME to somehow get rid of

immanent key bounces (49G)

or similar then it seems people get what they deserve;-)

Regards,

Raymond

MY REASON

*Message #13 Posted by **Jon** on 23 Oct 2003, 5:28 p.m.,*
in response to message #12 by Raymond Del Tondo

Hi everybody:

I have used a Hp-42S since 1989. It is wonderful. But some time ago I bought a HP-41Cx. And, what can I say, I love it. And I am sure I will not buy a 49G+. Because I don´t like it. I don´t really need the calculator to everyday work (who needs if you have excel in the computer?). But I like playing with it. Can you imagine a calculator from 1983 connected to a modern PC?. Please, don´t compare it to the 49G+ or I will feel offended (It is a joke, of course)

Kind Regards from Spain

Jon

Re: MY REASON

*Message #14 Posted by **Ron Ross** on 23 Oct 2003, 5:39 p.m.,*
in response to message #13 by Jon

Well said.

"Please, don´t compare it to the 49G+ or I will feel offended (It is a joke, of course)"

The joke, I will infer, is the 49G+. 8o) Did I put words in your mouth??

As far as Dr. J. Kahler's post, "Why not buy a PDA, if you don't mind lousy keyboards?" That is the superiority of the calculator, and if you supply a lousy keyboard, no need to stay with the calculator, but simply buy the PDA. Once your input degrades (keyboard), you really have a fancy overgimmicked gameboy. While I like my 42s best, it suffers from lack of I/O and RAM (well, not really, but with no I/O, no use for my 32K). A 48G overcomes this barrier and I now use a 48GX almost exclusively. But it doesn't fit in a shirt pocket. Still, it has a decent keyboard, but if it didn't have that, I wouldn't use it (I never did get used to my 49, I hope the new 49G+ is better).

Re: MY REASON

*Message #15 Posted by **hugh** on 23 Oct 2003, 6:22 p.m.,*
in response to message #14 by Ron Ross

theres a rather nice free version of 48SX/GX or 49G for the palm pilot (and possibly others?).

A reason to reconsider...

*Message #16 Posted by **Gene** on 23 Oct 2003, 7:31 p.m.,*
in response to message #12 by Raymond Del Tondo

"The 48GX has a reliable keyboard, and an OS which is stable enough that you don't need to fear a memory loss every week."

Gene: Hi Raymond!

I've had reason to use the 49G+ for the last 2 months VERY intensely, for obvious reasons.

I have not had a single crash, and I've been trying to MAKE it do that.

I think the days of a memory lost are long gone.

The keyboard is fairly reliable and a friend who has a 49G+ that is 2 months "newer" than mine cannot make the keys miss when he is trying.

You can always give it a try and see. I think it is very nice.

And, as fast as it is, even choose boxes are a joy.

Gene

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #17 Posted by **Pavel Korensky** on 23 Oct 2003, 7:24 p.m.,*
in response to message #4 by Dr.J.Kahler

For me, there are several reasons why to use the old calculators like HP-41 or HP-16C.

1. Those old machines always do, what I suppose they should do. They do not bother me with system crashes, short battery life etc.

2. Whatever they are doing, they are doing it fast and simple way. For example, I have one old HP-41 in my workshop. It is loaded with simple programs, which are usefull for everyday life (resistor divider calculations, metric-imperial conversions, some math, resistor color codes, some machinist equations, ultimate answer to the ultimate question "Should I continue to work and piss my wife, or should I go to the bed ?" and similar). With the user defined keyboard, it is so simple to use it.

3. HP-16C is a separate story. This is the best calculator for the programmer (assembler, microcontrollers etc.) and nobody did not invented nothing better. I am using it approx. 3 hours each day.

4. A bit of nostalgia and the glamour of the old, better times, when men were real men, women was real women and small furry creatures from Alpha Centauri were real small furry creatures from Alpha Centauri. Glamour of the old times, when the things was designed and manufactured to last and work forever.

Of course, I have PDA, I have several PCs. And if I need some graphs or FEM modelling, I am using PC. But when I need to do some simple calculations, I take my old HP in my hand.

(deleted post)

*Message #18 Posted by **deleted** on 24 Oct 2003, 3:25 a.m.,*
in response to message #4 by Dr.J.Kahler

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

You compare apples and oranges

*Message #19 Posted by **Thibaut.be** on 24 Oct 2003, 5:38 a.m.,*
in response to message #4 by Dr.J.Kahler

Your arguments are purely rational, and in that sense you are totally right (excepted that keyboard quality IS an essential quality as it is the first human interface with the calculator).

Our beloving of the 41C series is not only rational, though many actual calculators can do a better job, but also emotional. And in htat sense even being archaic it still remains a very much useful calculator.

Nope

*Message #20 Posted by **Valentin Albillo** on 24 Oct 2003, 6:42 a.m.,*
in response to message #19 by Thibaut.be

Thibaut posted:

*"Our beloving of the 41C series is not only rational, **though many actual calculators can do a better job** "*

I don't agree, at all. There aren't MANY actual calculators that can do a better job than the 41C series. Depending on the job, I doubt if there's even *one*. For many jobs, there's simply none.

"And in htat sense even being archaic it still remains a very much useful calculator. "

A fork is also archaic and I'm sure most of us find it incredibly useful and would not consider replacing it with any other gadget, however "modern" or "new".

The question is *not* if the 41C is "archaic", but whether its functionality and ergonomics are suitable for the tasks its user intends. And for many, many, many tasks and users, it certainly does.

Best regards from V.

Not even a Sharp ?

*Message #21 Posted by **Thibaut** on 24 Oct 2003, 7:10 a.m.,*
in response to message #20 by Valentin Albillo

;-)

Anyway we do agree on the main idea that the 41C series are still great calculators and that there are a lot of good reasons for continuing using them !

Not even a Sharp

*Message #22 Posted by **Valentin Albillo** on 24 Oct 2003, 12:15 p.m.,*
in response to message #21 by Thibaut

Not even a Sharp. One of the features I've always liked the most about the HP-41C series was its card reader.

The sheer fact that you could have a very powerful calculator-cum-computer plus a card holder or two with most if not *all* of your programs, all in a small, easily pocketable zip case, was amazing and invaluable to me. Main RAM could be erased accidentally or on purpose and no big deal, just take a small mag card from the holder, stuck it in the card reader slot, and there

you are, your program and/or data loaded in seconds ! Your whole program library always with you, at all times, anywhere !

That you can't do so conveniently with most any modern calculators. Yes, the 42S is faster, larger RAM, but that's no big deal if you have to enter all your programs using the keyboard. You are so aware of just how boring and painful entering programs is that you'll usually enter the ones most useful to you, then find yourself reluctant to enter any other, lest you would have to purge some to make room. Yes, the 48/49 can hold tons of programs in their largish RAM but then it may get corrupted, or erased, or whatever, then what ? Linking to a PC ? Is then a PC a 'required', vital "accessory" for the calculator ?

On the other hand, with the 41C/Card Reader you wouldn't give a second thought to purging some program to make room for another, nor would care if MEMORY LOST would appear while sleuthing synthetics. Loading an status card with the precious synthetic assignments was easy as pie. Deleting that 3-module Checkers program to load a 3-module Othello program for a quick game was done almost without thinking. Just imagine a 42S user considering doing the same !

Which is more, with the 41C/Card reader, you could even afford to lose not just the RAM, but the entire machine (say it dropped from your hand to that ravine below) and you could borrow another from your pal out there in the field, feed the card with your program and continue working, within seconds. And don't even get me started on plug-in ROM modules !!

Most Sharp models can be connected to a normal audio tape recorder via a small 'docking station' or else there are small docking stations including printer and mini-tape where the unit can be docked, but locating/loading/saving programs is far, far slower than using magnetic cards, and the docking stations themselves, though small, are many times bigger than a 41C/Card reader, and not pocketable at all.

That being so, I rest my case. There's nothing as convenient as a 41C for many taks, nor a best combination of features, excellent engineering, and usability will be achieved any time soon.

Best regards from V.

mag cards and nostaliga

*Message #23 Posted by **bill platt** on 24 Oct 2003, 12:52 p.m.,*
in response to message #22 by Valentin Albillo

Hi Valentin,

My father's friend was an aerospace engineer, and we used to stop by on out way through Connecticut when I was a kid. I distinctly remember playing moon-lander on an HP when I was, oh maybe 9. Boy was that a cool machine! I remember it had a card reader--and that was how he loaded the game. It was probably a 65 or a 67--may be even older?

That magnetic card thing really did work well, huh? I never owned one :(

On the topic of audio tape storage: In 1985, when I was in design school, we had the very beginnings of CAD for ship design---a TRS80 model II (III?) which read 5" FD's, a Timex Sinclair (1000?) and a commodore vic 16 and some other little tiny Timex. All of these (little) machines were quite clever, and could be programmed in BASIC and were good for doing things like propeller and propulsion calculations (way more than my HP 11C could handle on account of the regression tables).

BUT the audio tape thing S**KED!!! It was so unreliable. The tapes really did not safely store digital data. Stuff would just get corrupted with no warning--or worse the confuser would crash while saving down--and you'd have 3 hours of work lost!

Amazingly, the 5" floppies on the trash80 seemed so stable by comparison (but once the 3-1/2" came along, that perception changed--and now even the latter are terrible! compared to flash or CD...)

SO, How did the mag cards really compare? Were they better made (than analog audio tape)? Do they really still stack up against a storage technique such as USB Flash (Sony Microvault et al)?

Best regards,

Bill

PS, (Off Topic) you must see this video--it gives you a sense of the sheer joy of sailing--and imagine the sense of accomplishment from the designer----THAT is what I do--design things that go on the water (but not the one in the link!)--and THAT is what my HP's are really for :^)

http://www.bayer-voile.com/fr/media/index.php?id=54#54

Edited: 24 Oct 2003, 12:53 p.m.

Re: mag cards and nostalgia and lunar lander

*Message #24 Posted by **Renato** on 24 Oct 2003, 1:05 p.m.,*
in response to message #23 by bill platt

I just got my recently acquired 67 to read magnetic cards. You ask about reliability ? Well, I just read all the cards in a HP original standard pac - perfectly, not a single error.

I felt like a 9 year old kid playing lunar lander in the 67 - it is much better than others because it does not require you to press R/S after each entry.

Re: mag cards and nostaliga

*Message #25 Posted by **Valentin Albillo** on 24 Oct 2003, 1:55 p.m.,*
in response to message #23 by bill platt

Bill asked:

"How did the mag cards really compare? Were they better made (than analog audio tape)?"

Yes, certainly. To prove the point, my card reader can still read perfectly all my 24+ year-old mag cards, no errors whatsoever. For comparison purposes, most of my audio tapes that old have degraded noticeably (despite them being top-class TDK Super Avilyn tapes), not to mention my 15 year-old VHS tapes.

Which is more, though I've used mag cards thousands and thousands of times, I've never seen more than two or three bad cards in all. Same for the long, HP-71B magnetic cards. A set of then still keeps my EXTENLEX lex file after 15+ years.

"Do they really still stack up against a storage technique such as USB Flash (Sony

Microvault et al)?"

Not at all. Magnetic cards were among the costlier media, being expensive and having very little capacity. An HP-41C card would hold just 224 bytes, 112 per side. The longer HP-71B ones stored something like 600+ bytes per card, IIRC. It goes without saying that this can't compare with the typical 128 or 256 *mega*byte USB flash "hard disk" for US $25. Storing and retrieving information would be many orders of magnitude slower, too.

But the comparison isn't fair, of course. Back then, 24 years ago, there were no such devices to compete. Just very expensive floppy disk drives, bar code, digital tapes, and audio tapes, to name a few. None of them could provide the convenience and portability of mag cards, by far.

Best regards from V.

Re: mag cards and nostaliga

*Message #26 Posted by **Mike - Leavenworth KS** on 26 Oct 2003, 12:10 a.m.,*
in response to message #23 by bill platt

A little bit of apples and oranges comparison.

I have magnetic tapes that were made in the early 60's (and have had some even earlier), and can attest that they are a very stable medium, even under less than optimum storage conditions. They play music and/or voice fine each and every time I take them out, and amaze (and confuse) the children and others who see this in my office and in two rooms in my house.

HOWEVER - in the quest for the best fidelity and high frequency response in studio environments, the extremely high end tapes are another story. As the crescendo of audiophile and production interest peaked in the 1970's and 1980's, new formulas were adopted that served the SHORT TERM advertising/production/ needs, but were (still under discussion as to if known or unknown) not stable for long term storage. Good to excellant storage would protect the tapes for a few years, but over time they absorb moisture, and the "binder" (that holds the magnetic particles to the mylar tape base) turns to GOO. This is known in the industry as "Sticky Shed" or similar, and can make a MESS of recording heads and your evening of listening to old master tapes for enjoyment.

IMPORTANT - Tape is formulated differently for digital applications than for analog ones. Digital seeks a tape that will securely hold a +/- state and can consistently be changed when needed. Analog applications (like music and voice) require a tape that retains more subtle variations, and is therfor more easily "modified" by external forces from + to - or similar . Early attempts to use analog tape in a digital environment compensated for this by slowing down the data transfer rate (more tape per bit, etc.) to reduce errors rather than making their customers seek (more costly) digital quality tape.

Digital data tapes can be used for analog applications, and vice-versa. The results may be satisfactory for your needs, but most likley you will be somewhat disapointed.

SO - the HP magnetic strips were formulated differently than high end magnetic tapes for different reasons. The strips that have been reasonably protected from heat and colld, and from excess humidity can be used, almost without worry, and so can most CONSUMER tapes.

The high end tapes are another story. They are a problem, and it gets worse over time. Their musical history can be salvaged by heating the tapes in ovens (fairly low tech approach) and recorded to another medium (possibly new and "improved" tapes, most likley digital of some sort) and then saved some more or tossed out or even (WATCH OUT) sold on Ebay.

My $0.02 worth in an effort to avoid unncecessary defamation of recording tapes. As in any hobby - knowledge is power, and I hope this helps

Best in HP's and Reel Tapes

Mike Leavenworth, KS

Edited: 26 Oct 2003, 12:15 a.m.

Re: mag cards and nostaliga--Knowledge IS power

*Message #27 Posted by **bill platt** on 27 Oct 2003, 9:52 a.m.,*
in response to message #26 by Mike - Leavenworth KS

Mike,

Thank you very much for your post. Wow, I am ashamed to say that it never occurred to me that the expensive audio tapes may in fact be lower quality for archiving---

And as you say, knowledge is power---and I will add, that understanding the principles is more valuable than merely memorizing the results. (E.G. understanding that the binders have properties which may or may not be conducive to archiving).

On the topic of old audio tapes---I helped my father move to a new place recently, and we found a box of audio tapes he made of us when we were little (4 ears old)---WOW! was that a mind-bender! And they were pretty regular tapes, and they played just perfectly, even being 30+ years old! But I have Super Wiz-Bang HIFI MAXELL or TDK fancy sshmancy tapes that I made back in the 80's, of my favorite albums (Specials, English Beat, Peter Gabriel, Herbie Hancock, Grand Master Flash etc) and they are GARBAGE. And I KNOW they were not that bad the last time I heard them (15 years ago). This anecdotally supports the information you provided.

Best regards,

Bill Platt

A bit OT - - Knowledge IS power

*Message #28 Posted by **Mike McDonald** on 27 Oct 2003, 9:49 p.m.,*
in response to message #27 by bill platt

Bill -

Analog Tapes are great fun, and it is a shame for them get goo'ed up. Here are some differing perspectives on recovering those sounds from TapeOp Magazine (a FREE paper magazine)at www.tapeop.com

==========

Analog Tape Baking: instead of sending your old analog master tapes to New Jersey to be baked in the famous Ampex ovens, read 3 different articles on how to bring yr analog tapes back to life by baking them using a hairdryer and some cardboard...

by Eddie Ciletti: http://www.tangible-technology.com/tape/baking1.html

by Mike Rivers: http://www.josephson.com/bake_tape.html

author unknown: http://members.aol.com/sparecord/tapebaking.html

REEL TO REEL IS COOL.... dolby sucks

*Message #29 Posted by **Norm** on 29 Oct 2003, 5:18 a.m.,*
in response to message #28 by Mike McDonald

THAT'S COOL that you keep a reel-to-reel running.

I still use the occasional cassette. (Cassette tape is poor man's reel-to-reel.... has small tape and small reels).

REEL TO REEL incredibly cool even during its golden era of the 1970's and 1980's.

BE IT DOLBY OR CASSETTE..... one thing I can assure you, straight from the Analog Electrical Engineering department.....DOLBY SUCKS!!!!!!!!!!

It's a masterful marketing coup, a tax on every cassette deck ever sold, and its LOUSY! Want to make your tape deck sound TEN TIMES better than it ever sounded before ??? TURN OFF THE DOLBY SWITCH!!!!!!

It's just a scam from marketeer wacko's like who get rid of our RPN calculator. I looked at Dolby circuits and they sound as rotten as their schematics. Use a lousy stinkin' JFET to set a variable rolloff point for turning the treble up and down according to the musical content (cute on paper, lousy in practice). True to form, its a terrible amplifier of "tape dropouts". When a bit of dirt glides over the heads, it makes it sound 10 times worse than it actually sounded in truth. Also, cannot respond quickly during transients, Dolby ruins cymbal crashes, piano notes, and other quick-attack sounds.

If you don't believe me, then you can believe Professor Emeritus Ward Helms at University of Washington, and from the master himself I do quote:

"when recording with cassette tapes, the correct position for the Dolby switch is OFF".

Re: REEL TO REEL IS COOL.... dolby sucks

*Message #30 Posted by **Ed Look** on 29 Oct 2003, 11:16 p.m.,*
in response to message #29 by Norm

Norm, what about tape hiss. It BUGS me. I know that the digital of a CD can't compare to the warm analog of a vinyl disc, but the CD does not

have hiss! (I can live with the occasional snap, crackle, and pop of a vinyl record, though... just prejudiced, I guess.) Oh, it may not count, but my 90's tape deck has blue-green LEDs (I can swear that there was no blue in those days, however!).

tape hiss is better than dolby

*Message #31 Posted by **Norm** on 30 Oct 2003, 1:40 a.m.,*
in response to message #30 by Ed Look

You say 'dont like tape hiss'.

Well, tape hiss is better than the artifacts of Dolby.

Listen, if you set the gain properly and as high as is fair, so that the signal comes close to saturation during the loud spots, the music is plenty louder than the tape hiss. And the tape hiss is smooth & even but the dolby artifacts are nasty and make the tape pretty much unlistenable.

Just make sure you set the record level high enough up. It's always bad if you dont use the full dynamic range of an audio recording system because then the S/N ratio is worse than it could otherwise be.

- Norm

Re: tape hiss is better than dolby

*Message #32 Posted by **jimc** on 30 Oct 2003, 9:58 a.m.,*
in response to message #31 by Norm

I'd like to interject a comment that some music sounds better with hiss, pops, or lp crackles. I can't imagine Barbeque Bob's voice without the crackles of the original 78's. How about Memphis Minnie? Or even Enrico Caruso or Edith Piaf. Cleaning these up might make 'em sound better to my kids, but it would lose some of the originality.

Just figgered out that there is a connection between my HP41 and my musical tastes. (to the Vapours tune: "I'm turning Luddite, I really think so...")

12345

The worst of both worlds

*Message #33 Posted by **james (UK)** on 30 Oct 2003, 6:01 p.m.,*
in response to message #30 by Ed Look

Unfortunately, if you have my taste in music - early jazz - a lot of stuff is only available on CD but has been copied from LP so not only do you get the inherent coldness of CD but it comes with hiss, crackle and pop as well.

Unfortunately, very few cassette deck manufacturers, other than

Nakamichi, could be bothered taking compact cassette to its limit so Joe Sixpack never realised how good it could get and was easily persuaded that the new fangled silver disc was the answer to everything .....hmmm.. now what does that remind me of?

Re: The worst of both worlds

*Message #34 Posted by **unspellable** on 31 Oct 2003, 1:50 p.m.,*
in response to message #33 by james (UK)

Used to buy an LP then copy it onto a tape cassette. The results were much better than buying the pre-recorded cassette, particularly with regard to tape noise since I used decent tape. Now if I could do this at home, it dosn't say much for the quality of the commercial pre-recorded cassette.

Re: The worst of both worlds - Check This

*Message #35 Posted by **Juan J** on 2 Nov 2003, 10:27 a.m.,*
in response to message #34 by unspellable

A few years ago Thomas (was it? I am possibly wrong with the name) Dolby was interviewed in Scientific American's "Profile" section. Back then he praised how signal analysis, for some a very cryptic subject, had improved sound quality since its invention.

Back then, emphasis was also made on how scratches had been eliminated "forever" from recording and how digital processing could make sounds and music cleaner and better. Sounds convincing, doesn't it? Take a look at

http://www.vttoth.com/addnoise.htm

It turns out that some noise can improve a "pure and pristine" digital sound quality. Adding complexity or improving the format does not necessarily makes for better result or improved efficiency. What ever happened to "Practical"?

Re: The worst of both worlds - NOISE in the audio signal

*Message #36 Posted by **Norm** on 4 Nov 2003, 12:13 a.m.,*
in response to message #35 by Juan J

Many have wondered why the high-noise, high-THD environment of vinyl records, tapes, etc., sounds so much better and more natural.

Here is a pet theory. The addition of hiss is like "dither". It means there is noise in the signal that makes it wander in amplitude beyond the true signal itself.

I suspect that the total audio experience may be enhanced by the deliberate inclusion of noise. It may help the

eardrum to 'rattle back & forth' as well as the speakers, not to mention all the neurons inside of your brain.

Though never tried this experiment, I would suggest that a summing circuit which deliberately injects white noise (or what the heck... pink noise) into an otherwise pristine digital signal, would find on A/B comparisons that the inclusion of the noise makes for a radically more delightful listening experience.

Re: The worst of both worlds - NOISE in the audio signal

*Message #37 Posted by **Ed Look** on 4 Nov 2003, 1:20 a.m.,*
in response to message #36 by Norm

Are you saying that a summer's day with the window open sounds better than with the (soundproof) windows closed and and nobody home, no neighbors around, and all machines unplugged?

A silence can be deafening, especially right after somewhat loud sound. A silence can be deafening, even when your blood vessels and nerves are quiet.

Sugar is good, but when some lemon, dash of orange, ice, etc., is thrown in, it's better?

I think you have something there! The THD and background (not environmental; I think you know what I mean) noise may make a sound more "expected" and not so "die-cut" or "laser-printed", so as not to sound artificial or sterile. Hmmmm... I have thought about this a long time ago...

you pegged the meter

*Message #38 Posted by **Norm** on 4 Nov 2003, 1:58 a.m.,*
in response to message #37 by Ed Look

you pegged the sarcasm-detector. Now, now, there is no need to play devil's advocate on this stuff.

No, we didn't say to add the sound of a fire engine passing by, nor the sound of a hubcap being tossed onto a scrap metal heap. We said "dither"..... "white noise" ..... "pink noise" ..... does not equate to the sound of throwing a cherry bomb into a toilet, etc. or whatever other noises you were thinking of adding.

See the thing is, with a vinyl record, its already in there. You get it included for free. But with digital

sources, you are going to have to pay extra if you want noise added.

Frankly I'm surprised there haven't been pre-amps marketed which include a "analog enhancer" button that simply adds a noise source.

There are mechanical equivalents to this problem. Suppose you have a mechanical actuator (rudder controller on an airplane) but there is a little bit of slop in the linkage. And the whole thing is run by an autopilot, or some other feedback loop.

If the system is run under pristine laboratory conditions, you will get a "limit cycle" where it slowly oscillates and keeps bumping into its own slop-limits. HOWEVER put it into the real world, with it being rapidly buffeted by wind, control stimuli, turbulence, etc., and guess what, it doesn't make a bit of difference.

So, in all seriousness, Ed, my own belief is that a noise source added (which would sound like the hiss of a leaky tire) helps overcome nonlinearities of

(a) the speaker drivers, which are hanging on cloth, resin & plastic

(b) your eardrum, which is just a bunch of ground beef hanging on some bones & tendons.

(c) the funny little hairs in your cochlea, which bend in the breeze but perhaps nonlinearly (esp. if half of 'em are busted off from that AC/DC concert)

(d) the neurons in your head, which absolutely nobody on earth has any idea how they are wired, much less work, but they might benefit from some ongoing stimuli that exists in parallel to the signal to be decoded (i.e. the music).

KNOW HOW MAGIC it sounds when you visit a big waterfall? Kind of like you got a sensation of awe and grandeur ? Same topic. Just one more demonstration of the appeal of white noise energy to the auditory system.

Re: you pegged the meter

*Message #39 Posted by **Wayne Brown** on 4 Nov 2003, 7:40 a.m.,*
in response to message #38 by Norm

Perhaps my sarcasm meter is broken, but I

didn't detect any sarcasm in Ed's message. I thought he was completely serious.

Re: you pegged the meter

*Message #40 Posted by **Ed Look** on 4 Nov 2003, 1:21 p.m.,*
in response to message #39 by Wayne Brown

Wayne, you are precisely right.

Norm, there was no sarcasm; your (very good) post brought back a flood of feelings and memories from the days way back when I still cared much about the crossover dB of my speakers and the timbres from the cone materials, etc. Heck, I even used tons of Discwasher and worried about the (-70 dB!) rumble of a turntable.

Then CDs came around and when you're calm and even just sort of listening, you can hear a kind of nebulous quality difference between the old vinyls (and I include their homemade cassette recordings) and the CDs. Initially I really scratched my head, for heck, it's digital, right? Digital allows for much control in editing and recording and NOISE CONTROL, right? Well, son of a gun, it turns out that normal background noise is a PLEASANT thing after all! And here all us college kids were doing our best to scrub all noise out of tapes of our records. But what's Thelonius Monk (or Keith Jarrett for that matter) without the occasional mumble of satisfaction or impassioned grunt?

No, my friend, the SU meter needle (sarcasm unit... just in case; litigous society today...) stays at 0 dB. But it's funny that you said I "pegged the meter" rather than "maxed the red LEDs"! ;)

Compression on CDs?

*Message #41 Posted by **Jim Chumbley** on 4 Nov 2003, 9:22 p.m.,*
in response to message #40 by Ed Look

Just one thought. I have been a singer in symphony choruses for quite some time. Recorded music, vinyl and open-reel tape, never sounded real to me because they never were able to sound like

putting me right inside the tenor section of a great chorus. Cassette tape was much better, and CDs were astounding, except for one flaw. The dynamic range on a CD always sounds to me as if it has been "enhanced" by the mixer. What I mean is that, on CDs, from most quiet to most loud is a range that is much greater than reality.

I bought a Lexus back in 1993, and its stereo had an option on it that I have never before seen on any other playback unit. It had a "CD Compression" button on it, which amazingly lowered the dynamic range so that from max. quiet to max. loud sounded exactly like it does while singing in the middle of the tenor section. Unfortunately I wrecked the Lexus and have never been able to find another CD playback deck with a "CD Compression" button on it. Is there one? Can you tell me where to buy it?

I'm sorry not to be talking about HP Calculators, the love of my life, but I would really appreciate your help and thoughts about this audio topic.

Re: Compression on CDs?

*Message #42 Posted by **Ed Look** on 4 Nov 2003, 10:30 p.m.,*
in response to message #41 by Jim Chumbley

Sorry, I can't help on the CD player (nor the car, either!), but I was just wondering if the differences in sonic spatial imaging among these various media isn't like the difference between an image from a conventional projector and a holographic image. Given the physical limitations of most recording media materials, there must be some loss of information and in my opinion, the first aspect to be affected is the information that would help recreate a sense of three dimensionality. It's probably impossible with the old monaural techniques to do this, but stereo was a step in the right direction. But I fear that the acoustics of the playback room must also be tailored to make faithful reproduction of the

original sound.

Now calculators- even 2D (graphing) is on the edge; I can sometimes see its utility... if you're a student. But after one masters basic function plotting, most often, a more "one dimensional" approach, like just dealing with digits or even symbolic manipulations and programming may be enough (and lessens the cost of the calculator, hopefully).

even the 12AX7's Re: you pegged the meter

*Message #43 Posted by **Norm** on 5 Nov 2003, 1:11 a.m.,*
in response to message #40 by Ed Look

yah, pegged that meter movement,

and even the 12AX7's seemed to glow just a little brighter!

easy on the Discwasher fluid.. ever try brushing, with a
drycarbon fibre brush. In hindsight what should
be the best..... HEPA FILTER, and a nozzle with dry-filtered compressed air back to an oil-less compressor! No dust ! PSSSHHHT!

Re: even the 12AX7's Re: you pegged the meter

*Message #44 Posted by **Ed Look** on 5 Nov 2003, 10:27 p.m.,*
in response to message #43 by Norm

Now you're gettin' facetious: who has dry compressed air in the living room? Maybe a HEPA filter for the real bad allergy sufferers or in your Hoover, but I don't think I've ever heard, "PSSSHHHT!" in anyone's living room.

Microdust is hard to remove, though. If there is static attraction, even air may have a hard time. This is the only advantage of the 3X distilled H20. Yeah, easy on it; I don't think I can buy it anymore and I don't want to set up a

still in my living room! Anyhow, I play vinyls these days just to get a howl out of the little ones... and then I try to explain my they've got a rainbow on the bottom of the (music AND PC games) CD they rather play.

Now this reminds me of a back on topic question- what would happen to a keyboard, and not necessarily on a HP RPN beauty, in a high grit environment, like by a chalkboard or a very dusty place? I wonder if any of the surveyor guys here have any experience with grit under the keys and etc.

Norm is Analog

*Message #45 Posted by **bill platt** on 5 Nov 2003, 10:46 a.m.,*
in response to message #40 by Ed Look

Yes, but Norm likes RED LED's because they feel closer to his analog roots than the LCD's---if he had his druthers, he would have a calculator with dial read-out ;^0

Re: Norm is Analog

*Message #46 Posted by **Ed Look** on 5 Nov 2003, 10:19 p.m.,*
in response to message #45 by bill platt

Ha ha ha!

But Norm, take heart- one of the best golden oldies of the past, one of the best sci fi digests, was named, "Analog". Notice they didn't call it "Digital". We know what happened to THEM! I wonder... is there any Digital (as in DEC) left in HP since they ate Compaq, who ate DEC?

Re: Why that archaic 41..

*Message #47 Posted by **jimc** on 24 Oct 2003, 1:34 p.m.,*
in response to message #4 by Dr.J.Kahler

Again, at the risk of entering a discussion with no conclusion (and perhaps a flamebait response); I think that a couple of questions need to be asked before one suggests a product to someone.

If you need graphs, plots, built in rudimentary equation libraries, then a 49+ will probably work quite nicely. I expect a steep learning curve, though.

For pure unadulaterated (guilty?) pleasure, the 41 is a dream to work with. Does a Bugatti Royale lack because it is several years old? Hardly. When I look at the Chrysler Building, I don't think about how old it is. The Chrysler Building probably will not hold as many people as other, newer buildings, but the newer buildings lack for identity or personality. The product represents an era - and does it quite nicely, thank you - even with it's shortcomings.

Philosophically, My HP-41 is an extension of my problem solving technique and thought patterns. It has been a formative tool in my educational process. Hence, my lifelong love. Also, this explains in part, why it is so difficult for me to get along with a newer HP calculator.

Will the 49G+ have a life long partnership the way the forums' 41C have? Only time will tell, but the 49 won't with me.

12345 to delete

Re: Why that archaic (and bad) HP-41CX ? Take the great HP-49G+ !

*Message #48 Posted by **Wouter Peters** on 24 Oct 2003, 2:14 p.m.,*
in response to message #4 by Dr.J.Kahler

With an HP41C alone you can't do graphics. But if you have a printer connected you can and your display would be much wider.

A limited amount of memory forces you to economise and optimise your programming. And even then with a 41CX you've lot's of memory compared with a 25C and even that one was capable of highly complex calculations.

Bill Gates started his DOS with a limit of 640k "Most likely one never would use software that needed more". And he was the one that lets us stuff Gigs of harddisk- and Megs of RAM into our PCs. But most of those Gigs and Megs of programs go to OS and hardly ever used features of applications and of data to big graphic or audio files. The core of calculations still use only peanuts compared to the shell around it.

Still using my 41CX but on the other hand I must say that I am very interested in the new 49g+

Wouter

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WHAT is this ? HP-41 / HP-IL rarity @ Ebay

*Message #1 Posted by **Tom Sleeves (UK)** on 22 Oct 2003, 9:53 a.m.*

What is this ?????

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2759620593&category=8101

Does someone have an idea ? Seems to be a very interesting item ...

Tommy

Edited: 22 Oct 2003, 9:58 a.m.

Re: WHAT is this ? HP-41 / HP-IL rarity @ Ebay

*Message #2 Posted by **Raymond Del Tondo** on 22 Oct 2003, 12:52 p.m.,*
in response to message #1 by Tom Sleeves (UK)

Hi,

it's an HP-IL to serial interface, which is switchable between pure serial printer output, and serial I/O. For this some of the signal lines have to be swapped, which is done via a switch here.

Back then these interfaces were, amongst other things, used to connect HP's to surveying equipment, like total stations / theodolits.

Raymond

Re: WHAT is this ? HP-41 / HP-IL rarity @ Ebay

*Message #3 Posted by **Tom Sleeves** on 22 Oct 2003, 1:09 p.m.,*
in response to message #2 by Raymond Del Tondo

That's very interesting information, thank you very much! Regards, Tommy

Edited: 22 Oct 2003, 1:10 p.m.

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Temporary email before the new one

*Message #1 Posted by **Emmanuel, France** on 22 Oct 2003, 9:42 a.m.*

```
Provider till 27/10  : Aol (56K PCI)
Provider from 27/10 (?!) : Télé2 (128K ADSL)
My temporary email is xeq41@caramail.com
Thanks.
```

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Eurpoean sellers...

*Message #1 Posted by **Matthias Wehrli** on 22 Oct 2003, 9:11 a.m.*

As you know I very often buy HP items all arround the world. After 3 years I have to concluse, that the easyies seller conditions are in the U.S. There I can pay through paypal what is, as I think the best way of transaction in the net. European sellers often accept bill or cash, but no payment by credit card. I wonder why... I only know some people that accept paypal or bidpay. I know, that there are fees to pay, but on a transaction bank to bank you also have to do. So this is a appeal to all european sellers to accept paypal payment. It´s free (and if you want, you can tell the seller to pay the fees)...

Matthias

Re: Eurpoean sellers...

*Message #2 Posted by **Thibaut.be** on 22 Oct 2003, 9:55 a.m.,*
in response to message #1 by Matthias Wehrli

The reason why I refuse paypal is very easy to understand : I can without any problem send money to anyone (though the fee I have to pay is totally illegal in Belgium), but cannot receive any cent.

In the past, this was possible, but you never got reimbursed when the balance of your credit card was in your favour.

Bidpay is quite similar : I can't receive any money from them.

But Western Union works fine and this is one of my preferred payment method : I don't have to wait for clearance as it is immediate.

But there are still some interesting ways to pay : the new IBAN bank account structure authorizes to send web-based banking drafts to anyone in the EU, and the fees are very low for both parties. In addition you can always track payment and know the real identity of the person who has received the money.

Hope this helped,

Gruessli,

Thibaut

Why is this here in this forum?

*Message #3 Posted by **GS Leong** on 22 Oct 2003, 12:19 p.m.,*
in response to message #2 by Thibaut.be

shouldn't this be addressed elsewhere?

Re: Why is this here in this forum?

*Message #4 Posted by **Veli-Pekka Nousiainen** on 22 Oct 2003, 2:50 p.m.,*
in response to message #3 by GS Leong

Because people want to know how to buy/sell calculators in/out/inside EU, etc. I think it's relevant information.

Re: Eurpoean sellers...

*Message #5 Posted by **Massimo Gnerucci (Italy)** on 22 Oct 2003, 12:24 p.m.,*
in response to message #1 by Matthias Wehrli

Once you'll convince PayPal to accept italian based bank accounts I will be really happy to use it. It's three years now that, now and then, I mail them to know if/when they'll do.
The answer is always the same: we don't know; we are not planning this in the near future.

Massimo

P.S. I think I should take a swiss account...

Re: Eurpoean sellers...

*Message #6 Posted by **Matthias** on 22 Oct 2003, 3:40 p.m.,*
in response to message #5 by Massimo Gnerucci (Italy)

Switzerland becomes more and more a interesting place to collect HP calculators:

- We can use paypal without problems (as seller and buyer) - We get the new calculatros for a reasonable price and we get then very fast (remember the 49G+) - We have some relevant collectors here who like to join meetings (I do not only think about me)

Matthias

Re: Eurpoean sellers...

*Message #7 Posted by **GE (France)** on 22 Oct 2003, 5:42 p.m.,*
in response to message #6 by Matthias

In Europe plastic money is not regarded as a natural extension of your arm, people are still cautious - a cultural thing. Another topic would be to explain WHY OH WHY so many sellers only send to the continental US. I wonder.

Re: Eurpoean sellers...

*Message #8 Posted by **Pavel Korensky** on 22 Oct 2003, 6:58 p.m.,*
in response to message #7 by GE (France)

This answer is easy. They either do not want to make a necessary paperwork or they do not know how to do it.

This is the answer I received from several US sellers. Also, they have problems with buyers from Europe, who won the auction, but when it comes to the shipping charges, the total price is suddenly twice more and they refuse to pay.

Eurpoean sellers...

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HP 38C

*Message #1 Posted by **Paul** on 22 Oct 2003, 8:17 a.m.*

I have had an HP 38C for about seven years now and had received it as a hand me down. It came with nothing but the functioning chasis, battery door and battery carousel.

I keep hearing about a "charger" for this model in the classified section. Does anyone know what the charger is for? Is it simply a "power cord"?

If in fact it is a power cord, I may make a bid for someone selling the cord or the cord with a non functioning 38C in classifieds.

Thanks for any help you can offer.

Paul - NY, NY

Re: HP 38C

*Message #2 Posted by **Thbaut** on 22 Oct 2003, 9:05 a.m.,*
in response to message #1 by Paul

All 3X series (Spices, not recent 38 or 39) do use the same adapter. Thje connecter is similar for all models, a long square notch with 2 contacts.

This calculator can even work with the adapter and no battery pack connected.

You will easily find such an adapter by placing an ad on this site or on ebay. I you don't I think I do have a few US models for spare but because of shipping costs consider ebay as a 1st option.

Good luck !

Thibaut

Re: HP 38C

*Message #3 Posted by **DougT** on 22 Oct 2003, 12:20 p.m.,*
in response to message #1 by Paul

Hey Paul,

Go look under "Battery Packs & Chargers" on the main page for the P/N of chargers for your 38C. The "B" model chargers are preferred; per the manual (I've got a 38C, too) the "A" models won't harm the calculator but may clear the continuous memory. The manual also warns to not operate the calculator via charger without a battery pack in place. There's been plenty of discussion on the Forum on this topic before.

You should be able to score an applicable charger on eBay for $20-30 - that's what I did last year.

Regards,

Doug

Re: HP 38C

*Message #4 Posted by **David Smith** on 22 Oct 2003, 3:44 p.m.,*
in response to message #3 by DougT

Actually Spice series chargers can still be had on Ebay for $5-$10 if you are willing to do some hunting. The "B" series chargers are best for the continuous memory models (otherwise you can lose memory when plugging the charger in).

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"HpMad"

*Message #1 Posted by **Brandon Del Bel** on 22 Oct 2003, 12:15 a.m.*

You think they could have slowed down the easter egg tetris? How am I supposed to play when the pieces fall so quickly?

Re: "HpMad"

*Message #2 Posted by **Ed Look** on 22 Oct 2003, 12:27 a.m.,*
in response to message #1 by Brandon Del Bel

Forget it, hang up your spikes!

Give your new HP-49G+ to some little kid; only he has the reflexes to play such a game! (You want my kid's shipping address?) ;)

Re: "HpMad"

*Message #3 Posted by **Juergen Rodenkirchen (GER)** on 22 Oct 2003, 3:06 a.m.,*
in response to message #1 by Brandon Del Bel

Please forgive me the question, but I think I missed this "easter-egg": Which key-combination does reveal the tetris game on the 49G(+) at all?

Juergen

Re: "HpMad"

*Message #4 Posted by **Joeesph** on 22 Oct 2003, 3:18 a.m.,*
in response to message #3 by Juergen Rodenkirchen (GER)

HpMAd is way too fast, but "MINEISBETTER" works.

Re: "HpMad"

*Message #5 Posted by **Brandon Del Bel** on 22 Oct 2003, 6:58 p.m.,*
in response to message #4 by Joeesph

Oh yes, I forgot about MINEISBETTER. Are there any other easter eggs? It looks like there is no equivalent of the pictures in the 49G's ON-F4 menu.

Re: "HpMad"

*Message #6 Posted by **Brandon Del Bel** on 22 Oct 2003, 6:54 p.m.,*
in response to message #3 by Juergen Rodenkirchen (GER)

to get the HpMad tetris, go to one of the check boxes (such as 'Beep' in MODE) and type "HpMad" (with

quotes) and press ENTER.

Re: "HpMad"

*Message #7 Posted by **Juergen Rodenkirchen (GER)** on 23 Oct 2003, 3:03 a.m.,*
in response to message #6 by Brandon Del Bel

Brandon, thank you very much for this information!!! Though knowing the "easter-eggs" by means of "ON-F4+some keys", where espec. the pic of Cyrille (I think) shows up with the text "HPmad", I couldn't get it run ... and that drove me crazy as you can imagine :-) Thanks again!

Juergen

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HP-34C "PR error"

*Message #1 Posted by **Frederic** on 21 Oct 2003, 10:32 p.m.*

Thank you in advance for helping me.

I have a hp-34C fully working but everytime i switch it on/off i get "PR error" and my program is erase. I clean the switch contacts and the calculator didn't switch off alone by itself anymore but i still get pr error when powering it on. What can cause this situation?

By the way, can someone gime me a tip for opening the case of this series : every time i open the case i pray that the case will resist the high pulling i give to separate the two shells (the bottom of the case is very hard to dissambled without a great great force).

Fred

Re: HP-34C "PR error"

*Message #2 Posted by **Victor** on 22 Oct 2003, 12:45 a.m.,*
in response to message #1 by Frederic

I had an HP-33C that had the same problem. It was caused when I replaced the power supply board (the board with the ribbon cable attached to the battery connectors) with one from an HP-38E. Apparently the power supply boards from the "E" series are not the same as the ones from the "C" series. No power was being supplied to the memory when the calculator is swithed off.

If your calculator does not have a power supply board borrowed from an "E" series calculator, I would suspect a bad component on the power supply board.

Re: HP-34C "PR error"

*Message #3 Posted by **Frederic** on 22 Oct 2003, 7:55 a.m.,*
in response to message #2 by Victor

Well, i replaced the battery connector and the ribbon with a 33E in good condition but not the board itself... Are the ribbon the same in a 34C and a 33E?

Re: HP-34C "PR error"

*Message #4 Posted by **Victor** on 22 Oct 2003, 1:49 p.m.,*
in response to message #3 by Frederic

As far as I know, the ribbon cables and battery connectors are the same.

Re: HP-34C "PR error"

*Message #5 Posted by **Jon** on 22 Oct 2003, 4:44 p.m.,*
in response to message #4 by Victor

I had the same problem with a HP-34C. Two of the chips were in wrong position. If you tell me the position/ reference that they have probably I can help you.

Best Regards from Spain

Jon

Tips for opening Spices (incl. 34C)

*Message #6 Posted by **Karl Schneider** on 22 Oct 2003, 2:54 a.m.,*
in response to message #1 by Frederic

Frederic --

Here's one copy-'n'-paste link to a posting on the subject (I plan to make this into a single tech article with pictures, along with illustrations from Luiz Veiera).

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=22660

-- Karl

Re: Tips for opening Spices (incl. 34C)

*Message #7 Posted by **james (UK)** on 22 Oct 2003, 8:56 a.m.,*
in response to message #6 by Karl Schneider

See also Norm's notes on how to make it easier to open your Spice the next time once you get it open for the first time

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=361

Good luck!

yes for 22 seconds!

*Message #8 Posted by **Frederic** on 22 Oct 2003, 7:22 p.m.,*
in response to message #1 by Frederic

I realize that the calculator is able to keep a program for about 22 seconds on "off". More than that i get the "PR error"; less the program is intact. What can cause this issue?

Fred

Re: yes for 22 seconds!

*Message #9 Posted by **Victor Koechli** on 23 Oct 2003, 5:14 p.m.,*
in response to message #8 by Frederic

In the C models, power has to be delivered to the RAM even if the calc is OFF. In your calc, that seems not to be the case. Turning off has the same effect on your machine as removing the battery: A built-in capacitor preserves memory for 22 seconds, then the capacitor is empty and your memory is erased.

Im not familiar with the ciruitry in the spices, but you should look for a trace (on the PCB or the flex ribbon) that supplies power to one of the chips without being interrupted by the power switch. That trace could be broken or have a bad contact somewhere. In fact, it would have to be broken somewhere between

the battery and the capacitor.

Just thinking out loud, of course...

Good luck, and keep us posted. Regards, Victor

Re: yes for 22 seconds!

*Message #10 Posted by **Jon** on 23 Oct 2003, 5:30 p.m.,*
in response to message #9 by Victor Koechli

Fred:

Let me insist. I had the same problem. I am quite sure the chips are in wrong position.

Jon

Re: yes for 22 seconds!

*Message #11 Posted by **Nelson M. Sicuro (Brazil)** on 23 Oct 2003, 5:40 p.m.,*
in response to message #10 by Jon

I think that if the chips are in the wrong position the calc cannot work (don't turn ON or display garbage) or simply fry the chips.

The power converter connections of the HP-25 and HP-25C are different, there is a path to power up the RAM even if the calc is OFF. In any case that one swaps the power converter or flex ribbon of the 25 and 25C, I think that 25C will not have the continuous memory (at last ~20 seconds powered by the backup capacitor).

Just my $0.02...

Best regards,

Nelson

Re: yes for 22 seconds!

*Message #12 Posted by **David Smith** on 24 Oct 2003, 3:04 p.m.,*
in response to message #11 by Nelson M. Sicuro (Brazil)

All the wiring on the 8 pin chips are conencted in parallel, except the one for the RAM chip has a separate line to the battery power supply. The machine will work just fine if the chips are in the wrong places. If the RAM chip is wrong, it will not get battery backup power. Only the filter cap will power it (for a few seconds). This can also happen if the RAM chip in the correct place but not seated properly.

Re: yes for 22 seconds!

*Message #13 Posted by **Nelson M. Sicuro (Brazil)** on 24 Oct 2003, 3:42 p.m.,*
in response to message #12 by David Smith

I was thinking of "wrong" as "upside-down"... not one in the another's place... You're right, the upmost chip has the vcc connection to the battery and the other two doesn't (if I recall right from my HP-32E).

Thanks for the correction!

Best regards,

Nelson

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41CX schematics

*Message #1 Posted by **Michel Beaulieu** on 21 Oct 2003, 8:19 p.m.*

I already have the 41C schematics that can be found on the Museum CD set but i need the 41CX one in order to know the value of some small capacitors on the main board; where to find this information?

Thanks Michel

Re: 41CX schematics

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 21 Oct 2003, 8:59 p.m.,*
in response to message #1 by Michel Beaulieu

Now that you mentioned it, I was looking at the schematics also. It isn't accurate, the chip named "RAY 8024" isn't the LCD driver, is the power supply chip.

The schematics that I have is from a HP-41C. The 41CX may have another power supply design, but try to measure all discrete components and compare with the marked value on them (color-coded resistors and "cryptic" marked capacitors, you need to be familiar with that).

Old capacitors usually are the guilt.

Good luck!

Re: 41CX schematics

*Message #3 Posted by **Michel Beaulieu** on 21 Oct 2003, 9:16 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

I just change the 2 electrolitic ones without resule. Now i want to change the tiny colorful capacitor near the coil but i don't know their capacity. It written on them :

a orange one : 471

2 orange : 352

one tiny blue : 1517

There is also a small but "long" metalic component glue on a spongious tape that i don't know what it is; if i do i will be able to try another one.

Re: 41CX schematics

*Message #4 Posted by **Holger Veit (DE)** on 22 Oct 2003, 5:16 a.m.,*
in response to message #3 by Michel Beaulieu

>Now I want to change the tiny colorful capacitor near the coil but i don't know their capacity. It

written on them : a orange one : 471 2 orange : 352 one tiny blue : 1517

471 is 470pF

352 is (theoretically) 3500pF, but this is not a standard value. I think it is rather 392, which is then 3900pF.

The rule would suggest the tiny blue one is 15*10^17pF but this is nonsense, so probably better read it as 151 and a (not-well readable) letter, which stands for the tolerance. Plausible might be J=5% or Z=-80%/+20% (!). The value is then 150pF.

Holger

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HP-41CV without serial number!

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 21 Oct 2003, 5:37 p.m.*

I acquired a non-working HP-41CV last month for parts to fix my other 41CV (leaked display). The most interesting thing is that it hasn't the serial number engraved on the back! The reserved space is there, untouched, clean and... blank! It appears to be older than mine (2214B03932, Brazil) and is made in USA. Is fullnut and the CPU board has a different layout and the front lower plate where is printed the name the letters are printed in bright reflective golden ink. The brazilian one is printed on a more "brownish" ink and not reflective.

This calc was toasted! I had to replace the CPU and display boards with my old 41CV. The display chips has the epoxy melted! What can cause this? Wrong batteries? (those of 12V x 4?)

Any information will be welcome.

Nelson

Re: HP-41CV without serial number!

*Message #2 Posted by **Raymond Del Tondo** on 21 Oct 2003, 9:53 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Hi,

I can't say anything about the electrical problems of your calc, but about the nonexistent serial number.

Those 'virginal' cases were used for replacement units by HP, and could be ordered from HP by companies which made custom accessories.

For example, I once worked for a company in Germany where HP-41 cardreader housings w/o serial numbers were used as containers for RAMBoxes (Guess the name;-)

Raymond

BTW: I also have a new and empty HP-41 housing w/o serial number

Re: HP-41CV without serial number!

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 21 Oct 2003, 10:05 p.m.,*
in response to message #2 by Raymond Del Tondo

Thanks for the help!

Best regards

Nelson

Re: HP-41CV without serial number!

*Message #4 Posted by **David Smith** on 22 Oct 2003, 3:48 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

It is most likely a service replacement unit. These were supposed to have the old serial number hand engraved in them, but many times the service tech got lazy...

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So what's the lowest prices for an HP49G+?

*Message #1 Posted by **Namir Shammas** on 21 Oct 2003, 4:59 p.m.*

So what's the lowest prices for a new HP49G+?????

Namir

Re: Best I've heard of is $132.00 .

*Message #2 Posted by **Paul Brogger** on 21 Oct 2003, 6:08 p.m.,*
in response to message #1 by Namir Shammas

Eric Lundgren wrote below that they're available for $130.00 at his school (wherever that is).

I paid $149.99 at H-P, but shipping and state sales tax boosted the total cost to $170.00 .

Amazon's Also Good Source

*Message #3 Posted by **Namir Shammas** on 21 Oct 2003, 11:00 p.m.,*
in response to message #2 by Paul Brogger

Amazon is selling the 49G+ for $140. You can ask for free shipping (and wait for a few extra days), and that's your TOTAL cost!!!!!

Re: Amazon's Also Good Source

*Message #4 Posted by **JohnW** on 22 Oct 2003, 8:16 a.m.,*
in response to message #3 by Namir Shammas

maybe I'm missing something, but I can't find the 49g+ on Amazon.com?

Amazon has HP49G+ AND HP48GII

*Message #5 Posted by **Namir Shammas** on 22 Oct 2003, 3:19 p.m.,*
in response to message #4 by JohnW

John,

Please check this URL:

http://www.amazon.com/exec/obidos/tg/detail/-/B0000DK662/qid=1066850257/sr=8-1/ref=sr_8_1/102-2200770-5075361?v=glance&s=electronics&n=507846

I ordered one!!

I also ordered the new HP48GII!!!!

BOTH machines are in stock over at Amazon.

Namir

Re: So what's the lowest prices for an HP49G+?

*Message #6 Posted by **David Smith** on 22 Oct 2003, 3:57 p.m.,*
in response to message #1 by Namir Shammas

Who cares? Home Depot has bags of manure for $1.00... not much difference...

C'mon! Tell us what you REALLY think! ;-) (NT)

*Message #7 Posted by **Paul Brogger** on 22 Oct 2003, 4:34 p.m.,*
in response to message #6 by David Smith

;-)

Re: So what's the lowest prices for an HP49G+?

*Message #8 Posted by **Tom Cox** on 22 Oct 2003, 7:29 p.m.,*
in response to message #1 by Namir Shammas

A Google search shows one place with a price listed of $130, but they also indicate that they don't have them currently available. 12345 to delete.

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HP-41CX fullnut noise!!!

*Message #1 Posted by **Michel Beaulieu** on 21 Oct 2003, 4:35 p.m.*

I still continue searching my main board problem. I cleaned every contact, i check every diodes, condensators and resistor the best i can. I reassembled the calculator and it works great for about 1 minutes : great improvement over the 1 second i was use too...

I realize another things : in the minute of good working, nothing anormal is heard but the calculator is slowly beginning to give a distortion noise comming from what i think is the main board. When the noise is steady, the calculator stard do freegames again (about 1 minutes).

I thought it was the piezospeaker giving that noise so i removed it. reassembled the calculator and the noise is still there!!! WHAT ELECTRONIC component can do noise in the mainboard of a HP-41CX mother board?!?

Thanks for help!

Edited: 21 Oct 2003, 5:27 p.m. after one or more responses were posted

Re: HP-41CX noise!!!

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 21 Oct 2003, 5:24 p.m.,*
in response to message #1 by Michel Beaulieu

The only other component I think that can make a noise is a coil. But I don't know it the halfnut have one, the fullnut have one in the switching power supply.

Good luck!

Nelson

My immagination

*Message #3 Posted by **Michel Beaulieu** on 21 Oct 2003, 5:56 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

It was my immagination : when i remove the piezo, no noize can be hear... So the noise is from the piezo.

When i turn on the calc no noise (calculator 100% fonctionnal) and slowly a quiet creaking high frequency noise noise is heard mor and more continuously. a minute after, the noise get steady and calc get buggy LCD and key.

Edited: 21 Oct 2003, 5:57 p.m.

Re: My immagination

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 21 Oct 2003, 6:55 p.m.,*
in response to message #3 by Michel Beaulieu

It must be the power supply regulator! There is a coil in the board that is switched in high frequencies but if you can hear it the regulator can be defective (lower frequency) and the voltage may be altered (erratic behaviour).

This can be caused by a discrete component (probably a capacitor) that is too old. Can you check the components or the voltage? It can start good and drop to a altered voltage (the point that you hear the noise).

Good luck

Nelson

Re: My immagination

*Message #5 Posted by **Ed Look** on 21 Oct 2003, 10:07 p.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

I have never had or even held a 41C of any kind, but some calculators' rechargeable batteries emit oftentimes a high frequency whine. But in my cases, I had to hold the calculator somewhat close to my head to hear it.

Re: My immagination

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 21 Oct 2003, 10:12 p.m.,*
in response to message #5 by Ed Look

The battery or a battery pack? I have some TIs that uses a battery pack with two NiCD cells and a power converter with a coil. That coil can emit a high frequency noise, I think...

Regards,

Nelson

My fullnut 41CX has same problem

*Message #7 Posted by **Karl Schneider** on 22 Oct 2003, 2:41 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

Nelson --

I hope that you're right about the symptoms Michel hears, being cause by a failed discrete component. My 1984 fullneut 41CX has nearly identical symptoms -- intermittently works properly, then a high-pitched ringing broken by clock pulses, key-presses causing shutoffs, and erratic display.

Perhaps www.fixthatcalc.com will be able to make this one functional for little more than the standard $60 fee. I don't mind paying them -- I'm not an electronics technician or a 41C* expert.

Re: My fullnut 41CX has same problem

*Message #8 Posted by **Victor Koechli** on 22 Oct 2003, 4:50 a.m.,*
in response to message #7 by Karl Schneider

I have acquired a pretty rotten fullnut 41C some time ago that had the same problem, but only itermittent. I eventually found out that the contact between the battery/module flex connector

and the keyboard PCB was the problem. Repeated thorough cleaning of this contact with contact spray has finally resolved the issue, the machine now works pefectly.

I found this out because a) the same problem occurred with this calc after I had exchanged the main PCB with a known good one, and b) because I could cause or prevent this behaviour by pressing the case halfes together at various spots near or between the ON/USER and PRGM/APLHA switches.

I guess the other contact (between keyboard PCB and main PCB) could cause similar problems, plus a few others. I'd try to get these as clean possible.

Hope this helps, and keep us posted!

Cheers, Victor

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What's the black conductive stuff in Pioneer keyboards?

*Message #1 Posted by **Paul Brogger** on 21 Oct 2003, 2:57 p.m.*

I'm attempting repair of a couple of Pioneer keyboards. (Taking 'em apart isn't so hard -- getting them stuck back together may be interesting!)

I've diagnosed at least one problem: the matte black conductive "dots" inside the mylar (or whatever) dimples on the bottom row have worn through under oft-used keys. It's deposited itself among the black interlaced "fingers" imprinted on the facing contact sheet.

Cleaning the contact sheet fingers with alcohol went nicely, and seems to have rejuvinated a formerly "dead" 32SII and a 42S. But the dimple dots have visible wear, with some areas lacking the black stuff entirely. Keypress detection for these keys is intermittent, at best.

An obvious solution is to replace the dimple sheet with a better one. But as you might imagine, these things are in rather short supply. Because the plastic itself seems in relatively good shape, I'm wondering whether I can re-coat the inside of the dimples with something adhesive, flexible, durable and conductive. (I assume all those properties are required, as well as perhaps some others I haven't come up with.)

Does anyone have any idea what the flat-black carbon-looking stuff is that is used to effect contact inside these Pioneer keyboard assemblies?

Any info or ideas re: substitutes will be appreciated!

Thanks.

Re: substitutes

*Message #2 Posted by **Renato** on 21 Oct 2003, 8:30 p.m.,*
in response to message #1 by Paul Brogger

Paul,

I have not tried, but I think Caig´s Gold Pen would be a good candidate for fixing the "dots" - Newark had it. I have also found a dark grey conductive ink here in Brazil - it is graphite based, and after dry it looks very similar to the dots in the 48G keyboard mylar.

Good luck,

Renato

Re: substitutes

*Message #3 Posted by **David Smith** on 22 Oct 2003, 3:50 p.m.,*
in response to message #2 by Renato

The Caig Gold Pen is just a contact cleaner/corroison inhibitor. It will not restore a missing conductive

thingy.

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HP 25C keyboard repair

*Message #1 Posted by **Victor Koechli** on 21 Oct 2003, 12:10 p.m.*

Hi all,

I have a HP 25C whose keyboard PCB has come off, and now I'm confronted with the necessity to put it back on. What's the best way to do this, i.e. can I somehow 'redo' the heatstaking that keeps the PCB in place?

Thanks for any helpful suggestions, Victor

Re: HP 25C keyboard repair

*Message #2 Posted by **Thibaut** on 21 Oct 2003, 1:25 p.m.,*
in response to message #1 by Victor Koechli

Hi Victor,

If you need some spares, I have a dead 25.

Best regards,

Thibaut

Re: HP 25C keyboard repair

*Message #3 Posted by **Victor Koechli** on 22 Oct 2003, 4:20 a.m.,*
in response to message #2 by Thibaut

Would that be a 25C? Because the machine I'm trying to reanimate is a 25C...

Thanks, Victor

Re: HP 25C keyboard repair

*Message #4 Posted by **David Smith** on 22 Oct 2003, 3:51 p.m.,*
in response to message #3 by Victor Koechli

The HP25 and 25C use the same keyboard. Only difference is in the "HP25C" and "Continuous Memory" labeling.

Re: HP 25C keyboard repair

*Message #5 Posted by **Victor Koechli** on 23 Oct 2003, 5:04 p.m.,*
in response to message #4 by David Smith

Yes, I know that, but the 'Continuous Memory' writing is just so cool...

Anyway, Thibaut, what about that dead HP 25 of yours? Is its keyboard intact?

Thanks, Victor

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Where can I get a 49G sliding cover?

*Message #1 Posted by **gifron** on 21 Oct 2003, 10:44 a.m.*

Anyone know where I can get a replacement?

Re: Where can I get a 49G sliding cover?

*Message #2 Posted by **Raymond Del Tondo** on 21 Oct 2003, 12:56 p.m.,*
in response to message #1 by gifron

maybe try to get a dead 39G/49G from eBay?

Alternative: Buy a 49G+, which comes which comes with a serious leather case ;-)

Raymond

Re: Where can I get a 49G sliding cover?

*Message #3 Posted by **Tom** on 21 Oct 2003, 1:02 p.m.,*
in response to message #1 by gifron

The 49G and 39G use the same sliding cover. So one answer would be to buy a 39G on eBay (available new for $20-25 plus shipping). A little expensive for a cover, but then you have a great back-up calculator (without cover!), equivalent to the TI-83. Maybe somebody else has a much better solution.

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MoHPC *The Museum of HP Calculators*

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HP41CV / CX interfacing with MCUs [LONG]

*Message #1 Posted by **Giuseppe Marullo** on 21 Oct 2003, 9:42 a.m.*

Hi to all, I would like advice on purchasing a 41CV or CX model. I would like to build some HP-IL interfacing circuits to communicate with MCUs like pic and DSP.

I would like to know useful tips in choosing a good one, common pitfalls and mistakes.

What does it mean halfnut, fullnut, which one is best and how can I check which is which.

Is there a firmware revision better than others, and the like.

I would like advice on how to succesfully interface using the HP-IL module, I am not sure about what to look for.

Minimum - HP41CV or CX. Is that worh getting a CX instead of a CV?

- eurocharger (Italy 220V/50Hz) or at least a power cord

- HP-IL interface module (82160A or 82401 ?).

- HP-IL cable to get the IL connectors.

- HP-IL expansion ROM or HP-IL DEVELOPMENT ROM . Not sure about this, which one, if any is necessary to control a HP-IL bus?

Nice to have: - A magnetic card reader (even broken) to host some circuitry

- 82164A HP-IL/RS-232 May be useful to transfer programs between computer and the hp41? I would like to know alternatives that works, this seems a little expensive unit to get.

Is it correct, or am I wrong? Am I missing something important and/or useful?

Giuseppe Marullo

Thanks in advance

giuseppe.marullo@iname.com

P.S. please I need a quick answer time goes by...

Re: HP41CV / CX interfacing with MCUs [LONG] come on!

*Message #2 Posted by **Giuseppe Marullo** on 22 Oct 2003, 10:35 p.m.,*
in response to message #1 by Giuseppe Marullo

Nobody willing to help? I won a auction so now I have a HP-41CX halfnut (in a few days).

I am sorry if I did't do all of my homework before posting, but now I know a little more, even major part of

infos is still missing. TIA,

Giuseppe Marullo

Re: HP41CV / CX interfacing with MCUs [LONG] come on!

*Message #3 Posted by **Christoph Klug** on 27 Oct 2003, 7:38 a.m.,*
in response to message #2 by Giuseppe Marullo

Dear Giuseppe,

for hardware interfacing solutions with HP41 take a CX model plus IL-Module plus EXT-I/O Module and the HP82166A IL-Converter. The last unit gives you a parallel 8 or 16 bit port and some handshake lines for interfacing your external hardware - for example a PIC. Some more details, hardware circuits and software routines you find in the I/O-board manual (over 300 pages)and the IL2000 manual (150 pages).

Best wishes from Germany - Christoph Klug

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49g+ stunt calc in photo (long)

*Message #1 Posted by **Eric Lundgren** on 21 Oct 2003, 12:56 a.m.*

Hey, yep...still sitting here in the lab trying to do my homework, with occasional staring/gazing bouts at the sealed 49g+ on my desk...why don't I open it?? Oh, well you know, the '7' key looks like someone jabbed it crooked with a pencil. I can't believe I missed that in the store!! Arghh..so anyway, in my staring, I noticed that the calculator in the hand of the guy featured on the package isn't really in his hand, but looks superimposed, hahaa, folly. Oh, he's holding a real set of blueprints in the other hand, but no real calc. Hey, if you have seen it, it makes me think of star trek, "capt, I'm getting strange readings..wait there's nothing in my hand!" Or is it a garage door opener..heh heh.

Ok, enough of that, I am eager to use my new calc, just gotta wait to go back for an exchange in the morning. They won't take opened packages, and claimed that they've had nearly 200 returned 10bii+ (is that what its called?) already...though, if its rpn I think it just might be uninitiated college students who didn't see that brickwall on their radar...

I'm in deep envy of those of you who can already use your machines!! Ok, back to fracture mechanics for now.
Eric

Re: 49g+ stunt calc in photo (long)

*Message #2 Posted by **Joesph** on 21 Oct 2003, 1:34 a.m.,*
in response to message #1 by Eric Lundgren

agreed, it is a fake picture for sure.

Re: 49g+ stunt calc in photo (long)

*Message #3 Posted by **David Brunell** on 21 Oct 2003, 1:55 a.m.,*
in response to message #1 by Eric Lundgren

I always laugh at the dweeby-looking people that marketing types come up with for product promotion photos. Can the photo look any more contrived than it already does? Is the guy on the left "dancing the Egyptian" or relating his latest surfing story? And when is the last time you saw a couple of civil engineers in suits? Don't go anywhere without your safety glasses and hard hats, either! We wouldn't want anyone to get hurt when that guy's keyboard stops working and he hurls his 49g+. ;)

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41CX LCD viewing angle

*Message #1 Posted by **David Brunell** on 20 Oct 2003, 11:16 p.m.*

I have a 41CX halfnut from 1985 which has mediocre display contrast when viewing at 90 degrees but good contrast when viewing from below (such as when it is on a desk in front of you). I don't see this behavior on my 41C or CV fullnut. Is this normal for some 41's, or my LCD dying?

Thanks,

David

Re: 41CX LCD viewing angle

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 20 Oct 2003, 11:51 p.m.,*
in response to message #1 by David Brunell

I have a HP-41CV fullnut, the contrast at 90° is very good (it has a great viewing angle).

The display uses different voltages generated by a regulator chip in the fullnut, in the halfnut I really don't know. If you open it try to check all contacts.

Best regards,

Nelson

Re: 41CX LCD viewing angle

*Message #3 Posted by **Karl Schneider** on 21 Oct 2003, 1:59 a.m.,*
in response to message #1 by David Brunell

David --

On loan, I have a 1987 halfnut 41CX with the very same display problem. The unit is also somewhat sluggish in its response, and shows signs of having been dropped or banged against something.

My own 1986 halfnut 41CV exhibits neither problem, and is cosmetically and functionally perfect.

Low internal voltage due to damage or broken circuitry?

Re: 41CX LCD viewing angle

*Message #4 Posted by **Ángel Martin** on 21 Oct 2003, 2:53 a.m.,*
in response to message #1 by David Brunell

Halfnut models are capable of changing the contrast settings, but unfortunately HP never got to update the function set to include control on this, so you'll need a (EP)ROM with the function actually implemented.

Or if you can key in MCODE, this is the rutine that will do the work. Input the contrast value (from 0 to 15) in the X register, then execute the function.-

094 "T" 013 "S" 012 "R" 014 "T" 003 "C" 0F8 READ 3(X) 38D ?NC XQ 008 ->02E3 0A6 A<>C S&X 130 LDI S&X 010 CON: 16 306 ?A<C S&X 01F JC B8BC +03 085 ?NC GO 0A2 ->2821 270 RAM SLCT 3F0 PRPH SLCT 0A6 A<>C S&X 168 WRIT 5(M) 3E0 RTN

Best, ÁM.

Re: 41CX LCD viewing angle

*Message #5 Posted by **David Smith** on 21 Oct 2003, 4:23 p.m.,*
in response to message #1 by David Brunell

This is how all HP41 machines behave. Fullnuts were designed to look best straight on, halfnuts at an angle.

Re: 41CX LCD viewing angle

*Message #6 Posted by **David Brunell** on 21 Oct 2003, 10:29 p.m.,*
in response to message #5 by David Smith

Thanks everyone! It's nice to know there's nothing wrong with this calc. It would still be nice to have a way to adjust contrast. What's the path of least resistance to being able to write and execute MCODE?

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HP 49g+ Warning

*Message #1 Posted by **Michael** on 20 Oct 2003, 10:13 p.m.*

I received my HP 49g+ today and opened the manual to see how to put the memory battery inside. I followed the illustration in the book pushing down on the plastic piece with a pen while sliding the door off. The pen broke off the plastic retainer, Be very carefull when installing battery, plastic brakes VERY easily !!!

I think I hold a world record for breaking a 49g+ :(

Michael

Re: HP 49g+ Warning

*Message #2 Posted by **Ed Look** on 21 Oct 2003, 12:09 a.m.,*
in response to message #1 by Michael

Thanks for the warning.

I'm many of us, even we hardened, experienced HP calc nuts have broken a battery door or chipped a case.

It always feels bad, though worse when it's new. I am very sorry this happened to you. But because the calc is so new (not all resellers have it yet!), maybe if you contact HP, you can get a new battery cover.

Re: HP 49g+ Warning

*Message #3 Posted by **Bob** on 21 Oct 2003, 10:10 a.m.,*
in response to message #2 by Ed Look

I would probably contact HP and first ask for a free replacement door, rather than buying one. Since it was a new calculator and you were almost certainly handling it gently, it might have been a void or flaw in the molded plastic piece. (Examination of the fracture under a magnifying glass can sometimes be helpful in this effort)

Small areas in molded parts are sometimes diificult to fill with the polymer during the molding operation. They might appreciate knowing this is a part that is prone to failure. It could be an under-designed part or a start-up problem.

Now, if you were fumbling, tearing at the packaging, and being ham-handed due to the excitement of actually seeing a new RPN HP (and who among us could blame you ?)it might actually be your fault. You will have to judge.

Good luck

Re: HP 49g+ Warning

*Message #4 Posted by **Michael** on 21 Oct 2003, 1:28 p.m.,*
in response to message #3 by Bob

Thanks guys, I didn't break the door, what I did break is in the battery compartment itself it's a small black plastic protrusion that helps hold the door in. It does seem to be secured but I will use some tape to secure it.

Re: Do you think it's repairable?

*Message #5 Posted by **Paul Brogger** on 21 Oct 2003, 1:36 p.m.,*
in response to message #4 by Michael

I haven't got a 'G+ yet, so I don't know what kind of plastic is used in its case, but someone here recommended methylene chloride for fixing broken plastic, and I've found some that works *really* well.

What I found at a hobby shop (flying airplanes, R/C cars, plastic & balsa models, etc.) is called Ambroid "ProWeld". While it's apparently not "pure" methylene chloride, it does contain a substantial amount, and it is wonderful for fixing broken plastic -- even pieces that must tolerate some stress.

It certainly won't work for ALL plastics, nor in all situations, but you may wish to try it . . .

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Is this the "great" 49g+ we've been waiting for?

*Message #1 Posted by **Eric Lundgren** on 20 Oct 2003, 10:02 p.m.*

I was surprised and happy to find the 49g+ in my bookstore tonight...and it was only 132.00! So, I bought one, and sit here in the library in awe...the '7' key sits like a lifted pickup with one flat tire! The policy is open=permanent sale, so...guess I can't afford that risk, gotta go play with one at fry's...

Too bad, the machine looked great in the dim light of bookstore...

eric

Yes, it is . . .

*Message #2 Posted by **Paul Brogger** on 22 Oct 2003, 11:32 a.m.,*
in response to message #1 by Eric Lundgren

Well, I don't know about *great*. It's too soon to say. But it sure looks nice. (Same image, but over twice as big: nearly 1 Mb.)

(Sorry about your "7" key, by the way. I hope you get a suitable exchange.)

The ROM upgrade went well -- read *everything* in the upgrade instructions before starting. Note that the messages & prompts won't read *exactly* as documented, but they're close enough. And you may want to practice the paper clip "reset" first, just to get the feel of it.

The USB cable and connectivity software seem to work, and the program offers clear, helpful prompts. Note that, for some reason, downloading (for example) a .txt file is a different process than backup & restore, and while doing the latter the download/upload options are not active in the Conn4x menu. Just disconnect the backup/restore connection to make the down/upload options available.

I note that the calculator face and screen seem to be plastic, and hence *will* show wear over time! (I've a Casio wristwatch that I *thought* was entirely stainless steel when I bought it -- now I can see the gray plastic case beneath its once deceptive silvery finish.) So, you collectors, buy a second unit and don't use it! Also, I think putting the calculator in the case facing the front may be a good idea, to minimize scratching by the metal magnet clasp on the hinged case cover.

And, by the way, isn't this the *best* standard case ever provided with a calculator? I don't know of a better quality one, though I grant it is a bit bulky.

But the keyboard isn't perfect -- it does miss keystrokes -- some keys worse than others. It is amazing -- my cheapo little HP-10Bii has (so far, at least) a more reliable keyboard!?!? I like to believe it will be more consistent when it gets "broken in", but I'm not holding my breath.

All in all it is, I think, an elegant unit and a credible attempt to reestablish a presence.

Re: Yes, it is . . .

*Message #3 Posted by **Ed Look** on 22 Oct 2003, 7:13 p.m.,*
in response to message #2 by Paul Brogger

Gee, it looks THIN! Is it the width of a Pioneer or a Charlemagne (48's, 38G, 39G)? Or does it look so thin only because it's long?

It's Thinner front-to-back -- and what's it's "code name"?

*Message #4 Posted by **Paul Brogger** on 22 Oct 2003, 7:39 p.m.,*
in response to message #3 by Ed Look

If by "thin" you mean front-to-back depth, yes, I think it does indeed have a slightly lower profile than the 48G, etc.

It appears slightly wider (side-to-side), however, and that probably emphasizes its thinness.

I don't have a Charlemagne at hand for comparison just now, but I was able to zip up the 49G+ my 48G's nylon case -- the increased width compensated for the decreased depth, and so it was a snug fit. (Length-wise, top-to-bottom, I'd guess they're the same.)

By the way, the fancy case is rich, supple, textured vinyl, with a fuzzy lining and a magnetic closure. Classy, but not actually leather, so use the Armor-All, not the lanolin.

Also, I entered "3" and started pushing X^2 . . . about 15 times or so. (I had to wait for each operation to finish before I could enter another one.) Anyway, I ended up with an integer with almost 63,000 digits(!) before giving up. I suppose I might have continued at least once more, but the last multiplication took something like two hours!

Not having had a 49G, some of these features are new to me!

Aaaaannnnddddd . . . Speaking of "Charlemagne", does anyone know what the code names are (if any) for H-P's new calculator lines?

Re: It's Thinner front-to-back -- and what's it's "code name"?

*Message #5 Posted by **Ed Look** on 22 Oct 2003, 9:58 p.m.,*
in response to message #4 by Paul Brogger

Hmmmm... verrry interesting!

No one has even mentioned that it has one!

I wonder if this is not because the codenames were more a cultural artifact of the original American or Australian-based designers. By "cultural", I mean that of a small group, as in "corporate culture", but much more local than that.

I suppose the Kinpo people do look at things differntly...

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MoHPC *The Museum of HP Calculators*

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3421 Control Module for HP-41C

*Message #1 Posted by **Jeff** on 20 Oct 2003, 5:50 p.m.*

Can anyone tell me what a 3421 Control Module does on the HP-41C? I have never seen this one before. Currently on e-bay.

Re: 3421 Control Module for HP-41C

*Message #2 Posted by **Raymond Del Tondo** on 20 Oct 2003, 7:56 p.m.,*
in response to message #1 by Jeff

I don't have one of these, but AFAIK the module is intended for use with the HP-3421 Data Acquisition/Control Unit .

HTH,

Raymond

Re: 3421 Control Module for HP-41C

*Message #3 Posted by **Dave** on 20 Oct 2003, 8:58 p.m.,*
in response to message #2 by Raymond Del Tondo

It contains programs fro controlling the HP-3421 data Acquisition unit. This unit is an old HP instrument that can be interfaced either HP-IL, HP-IB, or RS-232 and has cards that cna connect to the outside world (volts, frequency, etc.)

Re: 3421 Control Module for HP-41C

*Message #4 Posted by **Philip** on 20 Oct 2003, 10:24 p.m.,*
in response to message #1 by Jeff

What is the item number on eBay for the item, I haven't found it? I'm asking because I know there is another ROM that was created by HP that shows up as either "CONTROL" or "MONITOR" with a CAT2 that was used for internal testing in particular with HP-IL devices. I believe it mimics most of the HP-IL Development ROM functions. More than likely the eBay listing is for the HP3421A Data Acquisition and Contorl ROM is it labeled.

Re: 3421 Control Module for HP-41C

*Message #5 Posted by **Karl Schneider** on 21 Oct 2003, 2:42 a.m.,*
in response to message #4 by Philip

The eBay auction number is 3053369397 - a fullnut 41CV with Time Module and the 3421 Control module. I would suspect that the Time Module was acquired for providing inputs to the 3421.

I didn't know what the 3421 was either -- I thought it might be a rocket-launch game: "4-3-2-1 Mission

Control"

Re: 3421 Control Module for HP-41C

*Message #6 Posted by **Tracy Vermeyen** on 20 Oct 2003, 11:25 p.m.,*
in response to message #1 by Jeff

I have used one of these ROMs and it says "3421 Control" on the ROM case. The HP 41C CAT 2 commands shows "--INST 1B--" The ROM contains many programs which control the 3421A via HP-IL. Some of the more useful programs is the Data Logger (DL) which allows the user to setup complex data logging applications that acquires data from multiple channels and output data on digital tape and/or thermal printer. The ROM also came with two HP-41C keyboard overlays - one for the DL program and another for a Front Panel (FP) program which allows you to measure (V, Ohms, Freq, Temperature.

I hope this information is useful. I think it is a useful ROM especially if you are a novice at interfacing with HP data acquisition systems. If you have any additional questions, feel free!

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PPC-ROM Ebay prices down again

*Message #1 Posted by **Malden** on 20 Oct 2003, 3:02 p.m.*

The PPC-ROM prices are at reasonable level again. Fortunately! They ranged between $350 and $450 two months ago. Now I saw twice around $160 and now $113, all in perfect condition with perfect manual and pocket guide.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3051383863&category=11713

... happy those who did not ran into Ebay trap ...

Edited: 20 Oct 2003, 3:03 p.m.

Re: PPC-ROM Ebay prices down again

*Message #2 Posted by **jose goncalves** on 20 Oct 2003, 3:57 p.m.,*
in response to message #1 by Malden

Right now I´m looking for Bruno Maignan from Texas. I payed him my Paypal money for an HP17B calc plus mail expenses and I´m ableto conclude our exchange. No replies to my emails, other than "this account will not accept messages from you" and no other direction that I can try to reach. Is there any other means to reach Mr Bruno ? Does anyone know him ?

Jose

Dallas Property Taxes

*Message #3 Posted by **Secret Agent Man** on 21 Oct 2003, 2:00 a.m.,*
in response to message #2 by jose goncalves

According to the interactive property tax website in Dallas, TX:

MAIGNAN, BRUNO JEAN &

BEVERLY, ANN ROCHON

13450 CHALLABURTON DR

FARMERS BRANCH, TX 75234-5028

(Note, I am not posting anything that anyone couldn't find on their own. If you pay your property taxes your info is public, just as it is if you register to vote or have a HAM radio license, or....)

Re: Dallas Property Taxes

*Message #4 Posted by **jose goncalves** on 21 Oct 2003, 12:44 p.m.,*
in response to message #3 by Secret Agent Man

Hi

I thank you for the info. Now I will try to find this friend by regular mail.

And still there are people that don´t understand what are secret agents for ....

Jose

Re: Dallas Property Taxes

*Message #5 Posted by **Secret Agent Man** on 21 Oct 2003, 1:04 p.m.,*
in response to message #4 by jose goncalves

Additional info from extensive web crawling:

Bruno Maignan Computer Svcs

Phone: 972-488-0222

I hope you can resolve the issue and find that it was only a misunderstanding. Otherwise, it's not fair cheating and thinking one is inaccessable just because the deal is done across the internet.

Re: PPC-ROM Ebay prices down again

*Message #6 Posted by **Larry Corrado, USA (WI)** on 21 Oct 2003, 5:34 p.m.,*
in response to message #2 by jose goncalves

I bought a lot of 20 calculators through Ebay from Bruno Maignan in March. Transaction went fine. In fact, He accidently sent me a box with only the hard calculator case in it for one of the machines; when I notified him, he sent me TWO machines of somewhat greater value.

More recently, on October 10, I won his auction for a Si IC wafer. I haven't received it yet, and haven't heard anything from him about shipping it. He did answer the "Ask seller a question" query I sent him on about October 4.

FWIW... Larry

Re: PPC-ROM Ebay prices down again

*Message #7 Posted by **Mitch** on 22 Oct 2003, 12:49 a.m.,*
in response to message #2 by jose goncalves

Jose, You can get contact info from Ebay that will give you his phone number.

Re: PPC-ROM Ebay prices down again

*Message #8 Posted by **Matthias** on 20 Oct 2003, 4:23 p.m.,*
in response to message #1 by Malden

But you do not think, that this wil be the final price? I guess it will be arround $400.

Matthias

Re: PPC-ROM Ebay prices down again

*Message #9 Posted by **Matthias** on 20 Oct 2003, 4:24 p.m.,*
in response to message #8 by Matthias

Ups, you are right, the auction is over... Well, in that case a good deal.

Re: PPC-ROM Ebay prices down again

*Message #10 Posted by **Ángel Martin** on 21 Oct 2003, 2:58 a.m.,*
in response to message #9 by Matthias

Good things happen to those who (knwo how to) wait...

Best, ÁM.

Re: PPC-ROM Ebay prices down again

*Message #11 Posted by **Matthias** on 21 Oct 2003, 6:38 a.m.,*
in response to message #10 by Ángel Martin

Angel, I payed $75 for mine, :) (and I didn´t wait, I bought it two years ago)

Matthias

Re: PPC-ROM Ebay prices down again

*Message #12 Posted by **F.R.Muller** on 21 Oct 2003, 7:28 a.m.,*
in response to message #11 by Matthias

Also ZENROM is cheap again! I remember prices around $600 maybe a year or half a year ago. Now you get it for $108.50, only, with following stuff (ended auction!):

1. 1 Zenrom 1 plug in module. 2. 2 keyboard overlays. 3. 2 quick reference cards for synthetic programming. 4. 1 instruction book for synthetic programming and machine language programming that came with the module. 5. 1 book HP-41 Synthetic Programming Made Easy by Keith Jarett. 6. 1 book Synthetic Programming on the HP-41c by W.C. Wickes.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3051384485&category=11713&rd=1

I think that this price is MAXIMUM reasonable for a 4k only ROM (no 8k, no RAM, nothing!).

I believe that all prices for HP calculators are going down again now. Like stock market dynamics.

It is very dangerous to invest in HP calcs because maybe there will be less people buying these calcs in the future. It's like very dangerous stock options. I do not understand people that buy Zenroms or PPC ROMs for $300 or more, crazy!

Frank

Re: I agree

*Message #13 Posted by **RR** on 21 Oct 2003, 9:28 a.m.,*
in response to message #12 by F.R.Muller

I agree. This is purely a market for collectors and hobbiests, all others need not apply. Many of Hp's products skyrocketed simply because there was nothing compariable left on the market. The Hp32s is an excellent example. Now that the 33s is in sight and will be available shortly, people (users and uniformed) are willing to wait rather than pay over $200

for a pocker RPN scientific (whether this is really smart or not, ie, if the 33s is of the same quality as the Hp10BII, the 32s will still be the calc to own). If the 33s were a $30 calculator, I would overlook a slight drop in quality, if it is $60, I expect Hp32s type quality, nothing less (and I suspect I will be disappointed)!

But users actually influence this market as much as collectors, because, these Calculators are STILL the right tool for the job. True a PDA can have all the functions of our beloved Hp's but none come with the keyboards that we demand.

48GX is up a lot

*Message #14 Posted by **bill platt** on 21 Oct 2003, 10:39 a.m.,*
in response to message #13 by RR

3 months ago, it was easy to buy a 48GX for $75 to $100 USD. Now, I just did a survey and found the price is more from $115 to more than $200.

So, market forces are very product specific. Perhaps this is just a "lull" in the 41 market.

Re: PPC-ROM Ebay prices down again

*Message #15 Posted by **Ángel Martin** on 21 Oct 2003, 7:45 a.m.,*
in response to message #11 by Matthias

Good for you.

BTW, Which one of them was this? :-)

Best, ÁM

Re: PPC-ROM Ebay prices down again

*Message #16 Posted by **F.R.Muller** on 21 Oct 2003, 9:22 a.m.,*
in response to message #15 by Ángel Martin

Hi Angel,

>>Good for you.<<

No, please don't misunderstand me, I did not win the item, I did not even bid. I only observed the scene ;-)

>>BTW, Which one of them was this? :-) <<

All the six different items TOGETHER including the Zenrom were sold for $108.5 only!
please see: http://cgi.ebay.com/ws/eBayISAPI.dll?
ViewItem&item=3051384485&category=11713&rd=1

Regards, Frank

Edited: 21 Oct 2003, 9:24 a.m.

Re: PPC-ROM Ebay prices down again

*Message #17 Posted by **Ángel Martin** on 21 Oct 2003, 10:29 a.m.,*
in response to message #11 by Matthias

Matthias, mine is from 1982, first pressing. I can still recall the anticipation and excitement of the whole PPC ROM project, perusing the PPC Journals from cover to cover as they were published...

Having said that, I don't think that it's anybody's business to dictaminate, judge, or value the appropriateness (or lack thereof) of any price paid by other people on auctions... for what's worth.

Best, ÁM.

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"RPN LIVES ON"? I don't think so...

*Message #1 Posted by **W. Bruce Maguire II** on 20 Oct 2003, 2:17 p.m.*

In my semi-monthly ;-) visit today, I saw Gene's post about the new articles posted on HP's calculator site. I had some trouble downloading some, and while I was staring at the page, I saw the "News from the GM: RPN LIVES ON" snippet right under the smiling guy's picture (he must be pretty proud of himself---with his picture on the main page, and again at the top of his "message"). *I'll bite*, I thought. So I went to the page, and I saw this in the first paragraph:

> Quote:
>
> HP is dedicated to its unique Reverse Polish Notation (RPN) entry mode...The HP 49g+, our most powerful scientific and engineering graphing calculator, has the familiar "Enter" key - revealing its RPN heritage.

I got kind of excited (HP nerds are like that)! Wow, *"...has the familiar "Enter" key..."!* I thought I had seen a picture of the 49G+, but I didn't remember it having a *real* Enter key! I'll buy one, if it really has the Enter key where it belongs---not just throwing RNP a really-small bone like we saw on the 49G...

Well, you know the rest! I quickly zipped over to the 49G+ page, and enlarged the picture...and to my real disappointment, I saw that the "familiar Enter" key, was *not*, in fact, familiar; it was the same pathetic b*stard son that it was on the 49G. HP's not "dedicated to...RPN"! They're dedicated to their marketing department and nothing else. They'd drop that "RPN" in a heartbeat if they thought the result would be more appealing to students!

I'm really beginning to dislike Mr. GM! He's awfully full of himself, and he's awfully wrapped-up in the glorious HP past---as evidenced by the "familiar" Enter key on the 49G+! As we all know, the trouble is that the current Kinpo/HP calculators have *absolutely* no connection to their wonderful ancestors. Oh well. I'm not really *too* mad or upset; I really did give-up on HP a while ago---when they killed all the good calculators to replace them with the new crap.

A final question: Does Mr. GM *know* that he's shovelling B.S.? Or does he really believe it? I guess that boils down to: Is he an unscrupulous swindler, or is he just stupid?

Bruce.

Re: "RPN LIVES ON"? I don't think so...

*Message #2 Posted by **Ed Look** on 20 Oct 2003, 2:33 p.m.,*
in response to message #1 by W. Bruce Maguire II

I agree in essence, but have to differ on a few points. I don't think they can sell enough to make profit of the original style RPN scientifics we grew up with. Valentin Albillo believes that teaching RPN to today's students is not profitable, neither for them or manufacturers of calculators. He has a point. RPN's efficiency, born of the old expense of RAM, is initially counterintuitive (like riding a two wheeled machine or getting into a large body of water, though once you learn it...) and kids today... well, they're fed color graphics, flashy cases, beeping noises (my 48G's still scare me when they go "beep" when I screw up), and mostly, they suck at math

(and science, and language, and history, but two of the latter may not matter with regard to HP calcs).

I'm not sure it really matters substantially if HP no longer has in house calculator manufacturing. I'm not sure the American labor and management is capable of or willing to achieve what it used to, in terms of quality. Of if so, any of us could really afford to buy the product.

I forgot who, but another poster here said that even if these new calculators are nothing compared to the old RPN babies we nursed (rather, nursed us through school), if it helps to get HP back on track, then it's a welcome step in the right direction.

Mine is still in the mail, but from what I've seen of its specs, the 49G+'s design was well thought out, unlike the affordable, but apparently rush-designed algebraic models they released in recent years, after the original 49G.

Re: "RPN LIVES ON" (and is doing quite well, thank you)

*Message #3 Posted by **Paul Brogger** on 20 Oct 2003, 2:43 p.m.,*
in response to message #1 by W. Bruce Maguire II

I don't think it's as negative as all that . . .

I'm sure it takes a significant investment in design, implementation, testing, and documentation to offer a second mode of operation. It would have been much easier for HP had they gone ahead & dropped RPN altogether.

Given the state of things for the last several years, I'd say things are looking about as good as might be expected, small "Enter" key notwithstanding.

We could all come up with things *we* might have done differently, and I suppose changes to the keyboard layouts on the newest models would be high on the lists of many folks who frequent this Museum.

But pay attention to the basics: new RPN-capable models are being made available, with features like SD card memory and USB connections. Pooh-poohing that is like throwing the baby out with the bathwater.

I don't really mind the new ENTER key

*Message #4 Posted by **bill platt** on 20 Oct 2003, 3:08 p.m.,*
in response to message #1 by W. Bruce Maguire II

Hi Bruce,

...And a new user does not care at all! Come on, remember the voyagers--they have a different position. HOw about the move of the aritmetic operators? (from woodstock to voyager) Like, this ENTER key fixation is going a little too far. Heck, on my 48, I use SPACE more than ENTER anyway--it's right next ot the numbers!

But then again, last week I said I would WAIT before buying on account of potential bugs.....

Best regards,

Bill

Re: "RPN LIVES ON"? Don't get me started.

*Message #5 Posted by **Ron Ross** on 20 Oct 2003, 3:13 p.m.,*
in response to message #1 by W. Bruce Maguire II

I would love to refute your RANT of HP. But I can't.

As others have said, just be glad we get crumbs from Carly's table. Hp published its board members and their portfolio's. Less than half were of technical backgrounds (and that is probably generous), to me that says volumes for a sceintific company. Carly herself is a History Major, now running what used to be a Creme de la Creme Tech Company. Now we have a marketing company existing and trading off the great heritage that once was.

Hp supposedly bought out Compaq, but check out who is there and who is GONE! Aside from Carly (she sold out the Hp Brass, who probably deserved the shaft anyway), a greater percentage are Compaq. Sounds like a deal was made to me.

If I were buying out a company, I would can their execs over mine (if I had competent ones, Within Hp that might be debatable).

I will end my RANT before I have a heart attack or start frothing at the mouth.

With this background, I think we have to be happy to still get RPN calculators. ACO was shut down right after Hp bought Compaq (can't have calculators compete with ipaq's can we?). With this philoshpy rampant, we are very lucky to get a new calculator. I would still like to see a 42s capable calculator with 32K or MORE RAM and I/O. To hell with the exams, make something for the professional. A real pocket calculator on par with the business professional's Hp 17B, not the wimpy 33s.

Sorry, I Rant again.

Re: "RPN LIVES ON"? Don't get me started.

*Message #6 Posted by **Erik Ehrling (Sweden)** on 21 Oct 2003, 3:33 p.m.,*
in response to message #5 by Ron Ross

> I would still like to see a 42s capable calculator with 32K or MORE RAM and I/O

Yes! Yes! Yes!

/Erik

Re: "RPN LIVES ON"? I don't think so...

*Message #7 Posted by **james (UK)** on 20 Oct 2003, 4:13 p.m.,*
in response to message #1 by W. Bruce Maguire II

A quote from the April 1980 'Solving Problems with your HP calculator' that came with my 34C

"And, you'll wonder why anybody makes a scientific calculator without an ENTER key. We wonder too."

How things change....

Now that's funny! (was Re: "RPN LIVES ON"?)

*Message #8 Posted by **W. Bruce Maguire II** on 20 Oct 2003, 4:29 p.m.,*
in response to message #7 by james (UK)

James:

Yes, things do change! Thanks for that great quote!

Bruce.

Re: "You'll wonder where the ENTER went When you use a Texas Instrument!"

*Message #9 Posted by **Paul Brogger** on 20 Oct 2003, 7:03 p.m.,*
in response to message #7 by james (UK)

That is a fine juxtaposition of an old quote against current practice. It does emphasize that in many ways, you're really talking about TWO different companies that happen to have shared a name.

11 Calculators By Year End?

*Message #10 Posted by **Patrick** on 20 Oct 2003, 5:42 p.m.,*
in response to message #1 by W. Bruce Maguire II

The 49G+ announcement by the GM says that 11 calculators will be available by year's end. At the risk of embarrassing myself, I can only count 10:

10bII 12c 12cp 17bII 9s 30s 9g 48gII 49g+ 33s

What am I missing??

Re: 11 Calculators By Year End?

*Message #11 Posted by **Veli-Pekka Nousiainen** on 20 Oct 2003, 5:53 p.m.,*
in response to message #10 by Patrick

If you search www.hp.com with "hp 39g", that will reveal hp 39g+

Re: 11 Calculators By Year End?

*Message #12 Posted by **Mark Hardman** on 20 Oct 2003, 6:51 p.m.,*
in response to message #11 by Veli-Pekka Nousiainen

And don't forget the lovely gold HP-19BII+ that WILL feature the correct size enter key in the correct place.

http://www.hp-network.com/newhps/

Mark Hardman

Re: 10BII's ENTER Key

*Message #13 Posted by **Paul Brogger** on 20 Oct 2003, 7:07 p.m.,*
in response to message #12 by Mark Hardman

(. . . but it says "INPUT" . . .)

Re: 10BII's ENTER Key

*Message #14 Posted by **Raymond Del Tondo** on 20 Oct 2003, 7:37 p.m.,*
in response to message #13 by Paul Brogger

...but it does what it should: ENTER ;-)

Re: 11 Calculators By Year End?

*Message #15 Posted by **Raymond Del Tondo** on 20 Oct 2003, 7:46 p.m.,*
in response to message #12 by Mark Hardman

Interesting thing is if you click on the 'click to enlarge' area for the 19BII+xyz@...

To my surprise it shows a 'classic' 19BII then, which isn't a disappointment, however...

Raymond

BTW: the 'names' of the current 'hp calcs' tend to get somewhat lengthy. It was much nicer when one could abbreviate the calc's name by a simple C, CV, CX, or SX, GX ;-)

Re: 11 Calculators By Year End?

*Message #16 Posted by **Jim Chumbley** on 20 Oct 2003, 7:12 p.m.,*
in response to message #10 by Patrick

Well, the -49g+ operates in Algebraic mode by default, so that would make as the 11th calculator the roughly 2.7% of -49g+s whose owners will go to the trouble to change modes to RPN. By the way, it takes a minimum of FIVE carefully pressed keystrokes to place the machine into the operating mode about which we are promised that "HP is dedicated to its unique Reverse Polish Notation (RPN) entry mode...The HP 49g+, our most powerful scientific and engineering graphing calculator, has the familiar "Enter" key - revealing its RPN heritage." Yep, the promise is there all right. It's just too bad that it takes FIVE very unintuitive key depressions to begin to realize on what very shaky ground that promise is based. "Ya wanna use RPN? Sure! It's easy, see. Just press the MODE key, and then the CHOOS key--no, look in the bottom of the window--that's right, and then the DOWN key--no, it isn't labeled; it's the round button that has the down-looking arrow on it, then the OK key once, and then the OK key again for the second time. What? Why do you have to press the OK key twice? I guess so you can convince the calculator that you really, really do want to change to the operating mode to which Hewlett-Packard is so highly dedicated. Maybe the calculator wouldn't believe you were serious if you only pressed it once."

Actually, only 3 keys pressed to change to RPN

*Message #17 Posted by **Gene** on 20 Oct 2003, 9:57 p.m.,*
in response to message #16 by Jim Chumbley

MODE +/- OK

That will do it.

Gene

Some won't be caught DEAD pressing "OK" on a new HP calculator

*Message #18 Posted by **Paul Brogger** on 20 Oct 2003, 10:03 p.m.,*
in response to message #17 by Gene

. . . it don't actually matter *how many* keystrokes, but whether they seem to imply *agreement* or *submission* . . .

;^)

Re: Actually, only 3 keys pressed to change to RPN

*Message #19 Posted by **Joshua Belsky** on 21 Oct 2003, 8:01 p.m.,*
in response to message #17 by Gene

Is that documented, or is that one of those magic things that you just have to "know"?

-Joshua

It is in one of our training aids for sure

*Message #20 Posted by **Gene** on 21 Oct 2003, 10:43 p.m.,*
in response to message #19 by Joshua Belsky

That's why it may help to download those documents and read through them.

Anyone have an easy way to put them all in one PDF? I have the individual PDFs and word files, but don't relish doing 54 copy and paste actions.

Gene

Combining multiple PDFs

*Message #21 Posted by **Dave Shaffer** on 22 Oct 2003, 1:50 a.m.,*
in response to message #20 by Gene

I have full-blown Acrobat 5.0 (i.e. not just the reader, but the writer/creator as well), and it took me about two seconds to concatenate two PDFs into a single file which had all the pages from both files. It shouldn't take much longer to combine an arbitrary number of files (once I can get my hands on them!).

I'll offer to combine any number of files (I have only a slow connection at home, but much faster at school) on a time-available basis if I can get them easily from the web.

Re: It is in one of our training aids for sure

*Message #22 Posted by **Katie** on 22 Oct 2003, 7:25 p.m.,*
in response to message #20 by Gene

I use PDF-Tools http://www.docu-track.com/index.php?page=36. It lets you do almost anything with PDF's, is fast and cheap.

Documentation Possibilities?

*Message #23 Posted by **Paul Brogger** on 22 Oct 2003, 7:55 p.m.,*
in response to message #20 by Gene

I upgraded the SD card in my digital camera, and put its 16Mb card into my 49G+. For some reason, that shows as ~13Mb in the FILES menu.

But regardless, you can get 256Mb SD cards for a reasonable price. That means the whole freakin' manual could be put (somehow, in some format) *in the calculator itself!*

I well remember boggling at the 28S' "CATALOG" (I think) command, which not only listed all commands, but their various requirements re: arguments on the stack. Imagine having a link from the "CAT" menu to brief text explaining what each command or operator does, what it requires, and perhaps even with examples of its use!

I know the 49G+ screen isn't exactly e-book-capable, but now that memory is really no object, a likely candidate for a popular download will no doubt be a calculator-formatted and -indexed version of the manual(s).

Re: Documentation Possibilities?

*Message #24 Posted by **James M. Prange** on 23 Oct 2003, 6:31 a.m.,*
in response to message #23 by Paul Brogger

Don't forget that sectors are used up for the boot sector, FATs, and root directory. I expect the filer to show you how much is actually available for storage.

Yes, no doubt the entire manual could easily be stored on a card. And you'd still have plenty of room to store objects from your calculator.

The 49gII desparately *needs* a PDF reader! ;-}

Regards,{nl]James

BIG Memory Enables Other Options

*Message #25 Posted by **Paul Brogger** on 23 Oct 2003, 11:28 a.m.,*
in response to message #23 by Paul Brogger

Another thing that occurred to me -- I wonder which of the programmable calculators are capable of running a (single?) program which exercises *every* command and feature available -- a sort of "calculator calisthenics routine"? (And, BTW, what is the minimum size of such a routine?)

Probably the 67/97 models could. (Has it been tried?) And the 41C & 42S presumably. I'd guess that the 15C, 34C and 32S/SII cannot. 12C? (Would the 12C Platinum's extra memory push it over the line?) What about other models with which I'm not familiar?

The 48G? 49G? 49G+? Probably all can, but with (IIRC) 2,700+ commands/features to be exercised, a 49G+ calisthenics program would be extensive.

If I may amend the (alleged) Chinese proverb: "*May you live in interesting times* ***-- with plenty of inexpensive memory***".

Re: "RPN LIVES ON"? I don't think so...

*Message #26 Posted by **James M. Prange** on 20 Oct 2003, 6:54 p.m.,*
in response to message #1 by W. Bruce Maguire II

Oh, c'mon now, Bruce. Even if the ENTER key happens to be in a position that you're not familiar with, it's still an ENTER key. The very first HP calculator (a desktop model) I ever used had a QWERTY keyboard with one ENTER key (or maybe it was RETURN or something) at the bottom right of the numeric keypad, and another one somewhere at the right side of the standard alpha group of keys.

I'd prefer a large centrally located ENTER key, but having it at the lower right isn't that hard to get used to. Like Bill, on the 48 series, I more often simply use the SPC key to separate the arguments on the command line and put them all on the stack with one press of the ENTER key (or a keypress that does an implicit ENTER). On the 28S, I use the "," key to separate the arguments. Now that I think about it, the ENTER key is probably one of my "occasionally used" keys; I more often press a key that does an implicit ENTER.

And at least it is an RPN calculator, though I expect that it will come set in ALG mode by default.

If the location and size of the ENTER key turns out to be the worst thing about the 49g+, I'll be extremely happy with it.

Regards,
James

Re: "RPN LIVES ON"? I don't think so...

*Message #27 Posted by **Wayne Brown** on 21 Oct 2003, 7:25 a.m.,*
in response to message #26 by James M. Prange

> Quote:
>
> Even if the ENTER key happens to be in a position that you're not familiar with, it's still an ENTER key.

It's not so much the postion as the size to which *I* object. I won't accept anything but a double-sized **[ENTER]** key.

Re: "RPN LIVES ON"? I don't think so...

*Message #28 Posted by **Veli-Pekka Nousiainen** on 22 Oct 2003, 11:12 a.m.,*
in response to message #27 by Wayne Brown

Great news! I will fit a wide ENTER key to your new 49g+ or old 49G for a mere 1000 €uros. Works perfectly (if the old key worked perfectly). The old tiny key is destroyed for good! (-;

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HP-41CX fullnut strange issue

*Message #1 Posted by **Michel Beaulieu** on 20 Oct 2003, 1:19 p.m.*

My belove HP-41CX begin to do freegames! 2 months ago i remove the batteries and put the calc in a closet. 2 days ago i put new batteries in it and i get that :

2 beeps MEMORY LOST message and the calculator is blocked in PRGM mode all keys i push rapidely close the diaplay and i get a "memory lost" message

I cannot "off" the calculator; i need to remove the batteries.

The battery contact are shinny new and the plastic post looks to do a good job (i don't open the calculator yet)

Any suggestion - I REALLY LOVE THAT BEAST HELP!!!

Thanks, crying Michel

Edited: 20 Oct 2003, 1:20 p.m.

Re: HP-41CX fullnut strange issue

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 Oct 2003, 1:29 p.m.,*
in response to message #1 by Michel Beaulieu

Hey, Michel;

just for the records: is it a full- or a half-nut?

If it is a fullnut, chances are you have some sort of problems with posts and/or bad contact between the mother-board and the keyboard. I have also seen some related symptoms when a RAM/ROM chip is faulty or with bad connection as well.

If it is a halfnut, I'd check for broken connections and/or cold soldering, too.

Let us know what happens next.

Bonne chance!

Luiz (Brazil)

Re: HP-41CX fullnut strange issue

*Message #3 Posted by **Michel Beaulieu** on 20 Oct 2003, 3:59 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

HEY HI LUIZ; i lost your email months ago; i hope you remember me my friend!

I have a lot of questions for you about my newer programs; can you still answer them via email?

For my CX; you know i love it since it's a full nut; but i used my normal 41-c for months and when i need my CX it wasn't working good... Do you think i need to open it? You know, chances are that i will broke a plastic post for ever no?

I know it's better that not working in good cosmetic condition ut is there some kind of soft/hardware things i can do before that operation on a 25 years old calculator.

By the way, how can i know the magnufaturing date on my CX and c with the serial?

Thanks and email me!

Re: HP-41CX fullnut strange issue

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 21 Oct 2003, 1:04 p.m.,*
in response to message #3 by Michel Beaulieu

Hey, Michel! Good friends are never forgotten... And yes, let me know what you need. Just let me find some time...

lcvieira@quantica.com.br

Be my guest... as always.

I'm finding a bit of free time for these days, I think that in about two weeks I'll be back to the Forum Daily activities. I'll post a brief about these activities, because they involve Linux, Data Acquisition and HP calculators. As I believe others will be interested on these subjects as well, I must also confess that I'll need some advice in some particular matters.

Best wishes, my friends.

Luiz (Brazil)

New clues

*Message #5 Posted by **Michel Beaulieu** on 20 Oct 2003, 6:47 p.m.,*
in response to message #1 by Michel Beaulieu

I took my HP-41C and the 41-CX apart and exchange the CPU board : The 41C board is working ok in the 41CX case but the 41CX board not working at all in the 41C case.

The 41CX board in is original case : i can sometime get some 0.000 screen and make a fast calculation but in a second i get "MEMORY LOST" and a second after i get the "goose" and the anonciator "PRGM". After that all key i push i get an instant "MEMORY LOST" and a accompaging Beep...

I'm sure that it's on the CPU board and i'm sure it's repairable BECAUSE i get ok 1 or two seconds every hour... ;-(

Thanks for any tips!

Michel

Re: New clues

*Message #6 Posted by **Jim Chumbley** on 20 Oct 2003, 7:34 p.m.,*
in response to message #5 by Michel Beaulieu

Michel, I am so sorry about your broken HP-41CX calculator. Those of us who love them, really do love them. There is a firm: fixthatcalc.com that advertises to repair the HP-41CX for a flat rate fee of US$59.00 plus cost of parts (logic board in your case, I think) and actual cost of shipping. It might be worth your while to check them out. I don't have any experience with them at all, so I cannot rate them for you. But it would at least be a place to start. The very best of luck to you, Michel. Regards from: Jim Chumbley

Fixthatcalc.com

*Message #7 Posted by **Karl Schneider** on 21 Oct 2003, 3:13 a.m.,*
in response to message #6 by Jim Chumbley

Jim --

Many thanks for listing the website! I have an intermittently-functioning 1984 fullnut 41CX that is cosmetically real good, and which I believe is repairable for a reasonable price -- hopefully just a bad connection, and not a bad chip.

I think I'll give them a try.

Re: HP-41CX fullnut strange issue

*Message #8 Posted by **David Smith** on 21 Oct 2003, 4:32 p.m.,*
in response to message #1 by Michel Beaulieu

One thing that brings back a lot of flakey HP41 CPU boards is to clean the card with 91%+ isopropyl alcohol. Scrub it well with a toothbrush, rinse with more alcohol, and repeat. Shake it well, and let dry several hours. Many of these CPU cards have some hand soldered components on them with old solder flux residue. Others have some kind of invisible contamination. Both things seem to interfere with the low current CMOS chips.

Keep the alcohol off of the calculator display window. It will leave a stain...

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49G+ on HP's site now ... and so are 55 Training aids on how to use it

*Message #1 Posted by **Gene** on 20 Oct 2003, 10:55 a.m.*

Four of us worked on these. Myself, VPN, Wlodek and Nick. Hope these are useful.

http://www.hp.com/calculators/graphing/49gplus/realestate.html

http://www.hp.com/calculators/graphing/49gplus/business.html

http://www.hp.com/calculators/graphing/49gplus/educators.html

http://www.hp.com/calculators/graphing/49gplus/scientists.html

The technical professionals page is the same as the scientist and engineers page.

Keep in mind...these are written for beginner! users and may not do things the fastest possible way!

If you find any mistakes, (and there are bound to still be some), we'd like to get them fixed. Either post notices of the errors here or email them to GeneWright143 AT hotmail DOT com

Gene

Re: 49G+ on HP's site now ... and so are 55 Training aids on how to use it

*Message #2 Posted by **Veli-Pekka Nousiainen** on 20 Oct 2003, 11:19 a.m.,*
in response to message #1 by Gene

It is still not in the "driver & support alerts/notifications sign-up"

Re: 49G+ on HP's site now ... and so are 55 Training aids on how to use it

*Message #3 Posted by **John Cadick** on 20 Oct 2003, 11:21 a.m.,*
in response to message #1 by Gene

Well done Gene and others. They look good. Any chance that all of the training aids are available in one pdf, or do I need to download them and put them together.

John

Re: 49G+ on HP's site now ... and so are 55 Training aids on how to use it

*Message #4 Posted by **John Cadick** on 20 Oct 2003, 1:01 p.m.,*
in response to message #1 by Gene

Gene: FYI - The numberical integration module seems to have a problem. I can't get it to download.

John

Re: 49G+ on HP's site now ... and so are 55 Training aids on how to use it

*Message #5 Posted by **Massimo Gnerucci (Italy)** on 20 Oct 2003, 1:10 p.m.,*
in response to message #1 by Gene

These links are not accessible (even after spell checking them...) **Numeric Integration** *http://www.hp.com/calculators/docs/guides/49gPlusNumberic.pdf* and **Using the Hyperbolic functions** *http://www.hp.com/calculators/docs/guides/49gPlusHyberbolic.pdf*

Massimo

Re: 49G+ on HP's site now ... and so are 55 Training aids on how to use it

*Message #6 Posted by **Juergen Rodenkirchen (GER)** on 20 Oct 2003, 1:49 p.m.,*
in response to message #1 by Gene

Copying "http://www.hp.com/calculators/graphing/49gplus/scientists.html" (without quotes, of course :-)) into the address field of my browser would immediately change the address to "http://www.hp.com/country/us/eng/js/hpwpc_utilities.js" and then return an hp-site telling me "we're very sorry, the page you requested cannot be found". What am I doing wrong?

Juergen

Another way to get to the training aids...link

*Message #7 Posted by **Gene Wright** on 20 Oct 2003, 2:08 p.m.,*
in response to message #6 by Juergen Rodenkirchen (GER)

Try going here:

http://www.hp.com/calculators/graphing/49gplus/

and then click on the categories on the right side of the page...under the "solutions" header.

educators & students scientists & engineers

etc.

Don't know why the links aren't working for some of the modules.

And, FYI, I have nothing to do with the creation of the webpage...only the mistakes in the modules are my fault! :-)

Supposedly, all the links to training aids are fixed now

*Message #8 Posted by **Gene** on 20 Oct 2003, 6:54 p.m.,*
in response to message #7 by Gene Wright

Remember, I didn't name the files on the web page. :-)

I asked them to correct the spelling and it should all be ok now.

Hope these are helpful/useful to new users or existing users who haven't tried certain features.

I view the creation of this many training aids as a good thing. HP didn't have to do this, but chose to do so.

That is a positive!

Gene

Re: Supposedly, all the links to training aids are fixed now

*Message #9 Posted by **Juergen Rodenkirchen (GER)** on 21 Oct 2003, 10:23 a.m.,*
in response to message #8 by Gene

Gene, that's positive indeed, I fully agree! Thanks a lot for your advice and all the time and work you spent in participating in these documentation!!!

Juergen

Re: 49G+ on HP's site now ... and so are 55 Training aids on how to use it

*Message #10 Posted by **Namir Shammas** on 20 Oct 2003, 10:37 p.m.,*
in response to message #1 by Gene

Gene,

Congrats on participating in the HP49G+ documentation.

Are there any publishers interested in small books for the 49G+?

Namir

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Aurora FN 1000 photo

*Message #1 Posted by **db(martinez,california)** on 19 Oct 2003, 10:16 p.m.*

I was at Fry's and picked up what i guess is the only non-hp RPN made since the late 70's. Mike Davis let me put a photo of it on his site and if you want; you can see it at http://www.msdsite.com/forums/upload.php?upload=zoom&pid=302

Let's all hope for an Aurora / hp 15c clone next.

Re: Aurora FN 1000 photo

*Message #2 Posted by **Pierre Brial** on 19 Oct 2003, 10:54 p.m.,*
in response to message #1 by db(martinez,california)

What is the overall quality of this calculator (keyboard, display,...) ?

All the best

Pierre

Re: Aurora FN 1000 photo

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 19 Oct 2003, 11:03 p.m.,*
in response to message #2 by Pierre Brial

Here in Brazil it is sold for about US$53 (R$150), there is a link to an auction (in portuguese):

http://www.mercadolivre.com.br/jm/item?site=MLB&id=13231402

Re: Aurora FN 1000 quality

*Message #4 Posted by **Wlodek Mier-Jedrzejowicz** on 19 Oct 2003, 11:16 p.m.,*
in response to message #2 by Pierre Brial

Pierre Brial on 19 Oct 2003, asked:

What is the overall quality of this calculator (keyboard, display,...) ?

None of it is traditional HP quality, but it is not bad. Rather soft keys, excellent big and contrasty display. The worst design feature IMHO is that when the lid is closed, it is easy to press it above the general area of the ON button, and turn the calculator on. Since the display is hidden, you will not see that you have turned it on, and so you can do this repeatedly and run down the battery. My other complaint is that the keyboard is evidently taken from a different Aurora model, so the right-shift (orange) key is labelled "Alpha", though it does not provide any alpha features :-)

But, yes, a non-HP RPN model at last, and let's indeed hope for an HP-15C clone next :-) But it's only a hope.

Many thanks to Dave Hicks for helping me get one to Europe!

Wlodek

Re: Aurora FN 1000 quality

*Message #5 Posted by **Pierre Brial** on 20 Oct 2003, 4:10 a.m.,*
in response to message #4 by Wlodek Mier-Jedrzejowicz

Thank you Wlodek, for these informations.

I just received your book, it's great !

A bit difficult to order it from France, but I finally succeed. Very good job, congratulations ! I read it like a novel, but faster.

All the best

Pierre

Re: Aurora Patent Infringements?

*Message #6 Posted by **Jim Chumbley** on 20 Oct 2003, 8:45 p.m.,*
in response to message #1 by db(martinez,california)

In the early 1970s, HP bought up ALL the RPN-type patents from the old office-machine companies. This is why my baby, the National Semiconductor 7100 calculator, was algebraic and not RPN when it was under development in 1976/1977. This is also the major reason why nobody else in the entire world has ever dared to infringe HP's RPN patents now that they have bought them all. I just wonder if Aurora is named for the (rumored) Aurora space-plane, which has supposedly replaced the U-2, and the SR-71, and which is believed by many to fly faster than Mach 8. Mach 8 may well be the speed required to outrun Hewlett-Packard's herd of lawyers.

Re: Aurora Patent Infringements?

*Message #7 Posted by **William** on 20 Oct 2003, 9:03 p.m.,*
in response to message #6 by Jim Chumbley

Patents expire after 20 years (I think).

Re: Aurora Patent Infringements?

*Message #8 Posted by **David Smith** on 21 Oct 2003, 4:34 p.m.,*
in response to message #7 by William

Old patents died 17 years after issue. New ones die 20 years after initial fileing.

Re: (One-time) Patent Renewals?

*Message #9 Posted by **Paul Brogger** on 21 Oct 2003, 6:00 p.m.,*
in response to message #8 by David Smith

Isn't/Wasn't it possible to renew patents once for an additional 17-/20-year period? If so, does anyone know how to find out whether a particular patent has been renewed?

Re: (One-time) Patent Renewals?

*Message #10 Posted by **William** on 21 Oct 2003, 11:27 p.m.,*
in response to message #9 by Paul Brogger

One can always do a patent search, costs money though.

Re: (One-time) Patent Renewals?

*Message #11 Posted by **bill platt** on 22 Oct 2003, 9:13 a.m.,*
in response to message #10 by William

You can search for free (I've done this extensively):

www.uspto.gov/patft/index.html

Regards,

Bill

Re: (One-time) Patent Renewals?

*Message #12 Posted by **David Smith** on 22 Oct 2003, 3:56 p.m.,*
in response to message #9 by Paul Brogger

You cannot renew your patent. At one time people used to be able to play the "reissue" game where you added something to the patent to keep in in paperwork limbo. Since old patents did not start their 17 year clock until they were issued, this effectively extended their lives. Really sleazy people kept patents alive for over 40 years. When the revolution comes... I have a wall...

Re: Aurora Patent Infringements?

*Message #13 Posted by **GE (France)** on 21 Oct 2003, 4:12 p.m.,*
in response to message #6 by Jim Chumbley

Hello Mr Chumbley. "...my baby, the National Semiconductor 7100 calculator..." !? Dare I ask you were in some way involved in the design of this one ? I'd be *VERY* (major understatement) interested in any information regarding this machine. Was there any prototype built ? Blueprints ? Thanks.

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HP-41CX

*Message #1 Posted by **Gary** on 19 Oct 2003, 8:04 p.m.*

Hi, I have a HP-41CX that turns itself off after only about a minute. Everything else seems to work. Any suggestions?

Thanks

Re: HP-41CX

*Message #2 Posted by **Fred** on 20 Oct 2003, 9:29 a.m.,*
in response to message #1 by Gary

Learn to calculate quickly?

Re: HP-41CX turning off quickly -- was discussed here recently

*Message #3 Posted by **Paul Brogger** on 20 Oct 2003, 10:42 a.m.,*
in response to message #1 by Gary

I'm no 41 expert, but I believe this has been discussed here recently. If I remember right, it's either bad contact between the keyboard and the cpu board, or it's a bad capacitor on the cpu board.

But don't take my word for it. Search the Forum or the Archives -- I'm sure you'll find some recent discussion of this very problem.

Good Luck!

Re: HP-41CX turning off quickly -- was discussed here recently

*Message #4 Posted by **David Brunell** on 20 Oct 2003, 10:58 p.m.,*
in response to message #3 by Paul Brogger

I've made a habit, anytime I open a 41 for the first time, of replacing the two electrolytic capacitors with tantalum units. One is a 470 uF @ 6.3 V and the other is a 100 uF at 10 V. I believe the former holds the memory while changing batteries and the latter controls the shutoff time.

I had one 41CX that was eating batteries even while shut off, and it turned out to be a leaky 470 uF cap.

Re: HP-41CX turning off quickly -- was discussed here recently

*Message #5 Posted by **Gary** on 26 Oct 2003, 7:39 p.m.,*
in response to message #4 by David Brunell

Thanks David, I will change the capacitors and let you know the results.

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Question about the Create-a-Calc contest, and 33S Info

*Message #1 Posted by **Tony David Potter** on 19 Oct 2003, 5:52 p.m.*

When the Create-a-Calc contest was announced, there was a part where the school that submitted the most calculator entries would receive a prize of (I believe) 100 calculators for the school. Does anyone know which school won this? The HP contest results seems to have forgotten this part of the contest, and the Scholastic site doesn't have anything either.

Also, for those Swiss out there, I found the HP-33S on the Swiss HP website: http://h40043.www4.hp.com/products/calculator/wiss33s.htm and http://h40043.www4.hp.com/products/calculator/wiss33s_f.htm . Although there's a purchase button, it doesn't seem to work yet.

Since there are others better at navigating the HP site here, I'll let them do further exploring.

Thanks in advance. Tony David Potter.

Re: Question about the Create-a-Calc contest, and 33S Info

*Message #2 Posted by **Ben Salinas** on 19 Oct 2003, 10:50 p.m.,*
in response to message #1 by Tony David Potter

As far as the HP contest, the school that won the 100 calculators is mentioned in the Scholastic Instructor Magazine from last month. I looked at a copy of it. If you want a great laugh, find a copy of it. It is hilarious.

The article is surrounded by pictures of student's calculators. I was looking at some. One looks like a pen and has 6 buttons (numbers 1, 2, 3, 4, 5, and 6) I thought it was a base 7 calculator, until i noticed there was no 0. They spotlighted several calculators, and the elementary and middle school grand prize winners. Then, in size 10 font, under the title "Runners Up" was my name. I wasn't too pleased.

So, in conclusion, if you want to know the other winners, or you just want a good laugh, go and find a copy of Scholastic's Instructor Magazine.

oh, BTW Tony, one of the runners up for the high school level was also from Texas (George West to be exact). I wonder if he does UIL.

-Ben

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How to refill inkjet cartridge?

*Message #1 Posted by **Larry** on 19 Oct 2003, 11:51 a.m.*

Hi, Plese, advise how to refill a cartridge to my HP Officcejet K80 printer?

Thanks for any advices or links.

Re: How to refill inkjet cartridge?

*Message #2 Posted by **Fred** on 19 Oct 2003, 12:44 p.m.,*
in response to message #1 by Larry

First take your HP-49G+ calculator and write a program to calculate the desired volume needed. Then go out to your local chemistry store and put together a recipe of fast drying pigmented ink. There are a number of patents and references you can find on putting together a formula. Build the processing equipment and make a lot to last a lifetime (don;t worry, shelf stability limit a lifetime to months - 1 year). Or, go buy a refill kit and follow directions there, poking a hole in the appropriate place, refilling with a syringe and praying for no leaks or mess to destroy your printer...

Or maybe a calculator forum isn't quite the right place to get answers along this line....

Re: How to refill inkjet cartridge?

*Message #3 Posted by **Larry** on 19 Oct 2003, 1:47 p.m.,*
in response to message #2 by Fred

Which one is better ? http://lazybuyer.com/category.php?category=ColorFast+Refill+Kits&lazy

Thanks

Re: How to refill inkjet cartridge?

*Message #4 Posted by **Moe** on 19 Oct 2003, 2:13 p.m.,*
in response to message #3 by Larry

Just make sure it does RPN and you'll be fine.

Re: How to refill inkjet cartridge?

*Message #5 Posted by **Thibaut.be** on 19 Oct 2003, 4:30 p.m.,*
in response to message #4 by Moe

Wow... how subtle disguised ad... lol

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How to refill inkjet cartridge?

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CRT has a strange disease

*Message #1 Posted by **Marc** on 19 Oct 2003, 7:12 a.m.*

Hi,

I'm facing an unusual problem on my 9845's CRT : since a few months, dozens of little white spots developed along the sides of the screen. Clearly they're on the outside of the tube, but they also seem to be under the surface since I can't wipe them off by any chemical or mechanical means. Above it all I'm afraid the problem may get worse as time passes... In advance thank you for your help !

Regards Marc

Re: CRT has a strange disease

*Message #2 Posted by **James M. Prange** on 19 Oct 2003, 11:14 a.m.,*
in response to message #1 by Marc

I don't have one, so this is obviously just a guess, but I wonder whether the CRT's glass has some sort of protective coating that's starting to separate.

Re: CRT has a strange disease

*Message #3 Posted by **Marc** on 19 Oct 2003, 1:35 p.m.,*
in response to message #2 by James M. Prange

Hi James,

Thanks for your answer ! If such a protective coating is used, it is actually glass. That makes me wonder whether the whole tube is not built with some kind of glass sandwich (two layers or more ?). Another fact : I found other spots, apparently on the inner side ! They're dark, hard to locate (need intense lighting). Your guess is probably the right one. Sigh ! I don't think that such a phenomenon is reversible... What surprises me the most is that the computer has always been stored in a safe place (no temperature / moisture hazards). Maybe just a few batches of these CRTs are concerned ? Anyway it still works ! Informations are welcome ! Thank you...

Regards

Re: CRT has a strange disease

*Message #4 Posted by **David Smith** on 20 Oct 2003, 4:08 p.m.,*
in response to message #3 by Marc

Many CRTs are built with a protective layer of glass bonded to the tube like a car windshield. This is to protect the user from an imploding tube if it shatters. You might have a problem with the bonding layer. It is usually a clear rubber/plastic compound.

Re: CRT has a strange disease

*Message #5 Posted by **Dave Brown** on 20 Oct 2003, 5:39 p.m.,*
in response to message #1 by Marc

Marc- This sounds just like the problem I had a year or so back- Basically mould-like stuff in the layer of clear 'adhesive' between the antiglare screen on the tube front and the bonded faceplate on the tube itself. Mainly around the egdes of the screen area. I had to separate them completely and clean all the adhesive off both surfaces- a task that needs to be done with considerable care but is not all that difficult.

Hardest part was extracting the CRT from the case in the first instance-I had to get a very long philips screwdriver to reach all the way in from the back of the case to the mounting screws on the two bottom CRT mounting brackets. Then mount the CRT on a stable and solid wooden frame before doing any work on it. The tube front needs to project well forward of the corner frame mounts so you have clear access to the edges of the 'gap' all the way round.

When reasssembling I just used a very small amount of replacement adhesive-clear silicon rubber- in the corners ONLY of the antiglare screen- the resulting gap between the tube faceplate and the antiglare glass has not caused any lack of visibility etc. While dust etc can now get in that gap it should also be fairly easy to clean it out again.

I am considering maybe filling in the gap down both sides of the antiglare glass with silicon rubber as well. That will give a bit more strength to the assembly-and will leave a top to bottom air path that can still be used for cleaning etc as required.

Dave Brown Christchurch, NZ

Re: CRT has a strange disease

*Message #6 Posted by **James M. Prange** on 20 Oct 2003, 6:20 p.m.,*
in response to message #5 by Dave Brown

Keep in mind that there is some hazard involved when working on a CRT. It can be very messy if a CRT implodes. Handle carefully of course, and don't neglect personal protection, at least safety glasses or goggles. If you have any spectators while working on this, be sure that they're protected as well.

Don't forget that you can get a nasty shock from the CRT's anode. Even in cases where the shock may not be truly life-threatening, the surprise could be enough to cause you to drop the CRT. I've personally found that even CRTs that have been stored "on the shelf" for months still can have a charge. I've found that even discharging the tube doesn't entirely solve the problem; after a while, there may be enough of a charge available to give me a shock.

Regards,
James

Thank you so much !

*Message #7 Posted by **Marc Ferrer** on 21 Oct 2003, 2:13 a.m.,*
in response to message #6 by James M. Prange

Hi !

James, Dave, David, I'd like to thank you all for these valuable informations. It's good to know that a solution exists. Doesn't seem to be very easy, but sure, I'll try it some day ! First, I need two important things : spare time, and enough room to work it out safely (these dear old machines take some place...)

Best regards, Marc

Re: CRT has a strange disease

*Message #8 Posted by **David Smith** on 21 Oct 2003, 4:38 p.m.,*
in response to message #5 by Dave Brown

Hello Dave Brown,

Did you ever get your HP9100 working?

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HP48GX Banned from Exams

*Message #1 Posted by **Don Queen** on 18 Oct 2003, 8:48 p.m.*

Since the ban of the HP48GX by NCEES, does anyone have the number and availability of the new calculator that is being released by HP that will be allowed in the Engineering and Surveying Licensing Examinations?

Re: HP48GX Banned from Exams

*Message #2 Posted by **Veli-Pekka Nousiainen** on 18 Oct 2003, 8:52 p.m.,*
in response to message #1 by Don Queen

"Since the ban of the HP48GX by NCEES, does anyone have the number and availability of the new calculator that is being released by HP that will be allowed in the Engineering and Surveying Licensing Examinations?"

hp 33s

Avail? Nov/Dec?

Re: HP48GX Banned from Exams

*Message #3 Posted by **CME750** on 18 Oct 2003, 11:10 p.m.,*
in response to message #1 by Don Queen

According to NCEES, the forthcoming HP 33S will be acceptable for use on the engineering and surveying licensing exams. NCEES also states that "Hewlett Packard expects the HP-33s to be available by 12/1/2003":

http://www.ncees.org/exams/calculators

Expected retail price is $60 to $66. Some unofficial pre-release info about the 33S is available at:

http://www.hpcalc.org/images/datasheet33s.pdf

It's hard to believe, but there are *no* RPN scientific calculators in current production that can be used on professional engineering or surveying exams. If you can't wait for the 33S, the only alternative is to find an older discontinued model, like the 32SII, 42S, 15C, or 11C. However, the market value of such models has risen markedly since NCEES banned the HP48 and 49 series.

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Fry's Availability of New HP Calculators

*Message #1 Posted by **SV** on 18 Oct 2003, 6:59 p.m.*

I was at Fry's today and found the newest calculators: 12C Platinum, 17bII+ as well as the older ones eg. 39g, 12C, 30s, 10bII and even the 48gX!

They told me that the 49g+ will soon be stocked and was on its way....

Which Fry's was it? [NT]

*Message #2 Posted by **Karl Schneider** on 19 Oct 2003, 3:52 a.m.,*
in response to message #1 by SV

Re: Which Fry's was it? [NT]

*Message #3 Posted by **sv** on 19 Oct 2003, 2:39 p.m.,*
in response to message #2 by Karl Schneider

San Diego, Aero Drive

Re: Fry's Availability of New HP Calculators

*Message #4 Posted by **rsenzer** on 19 Oct 2003, 11:49 p.m.,*
in response to message #1 by SV

The Fry's in West Phoenix had 12C, 12C platinums, and hp17bII+s as well as 2 or 3 hp48gx models [made in Indonesia] in the hp cardboard boxes rather than the new plastic packaging.

I was surprised to see the extent to which the platinums had the same form factor as the old 12c. This was not apparent [to me] from the pictures I had seen on the net.

On the other hand, the hp17bII+ has a form factor similar to the hp10bII, as has been stated previously on the board.

Edited: 20 Oct 2003, 12:37 a.m.

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Teaching with a 32SII and a new RPN user (hopefully)

*Message #1 Posted by **Juan J** on 18 Oct 2003, 6:10 p.m.*

After a busy week, finally I got some time to write about this. It was encouraging for me.

I got a part-time job teaching Physical Chemistry to engineering students at a local college. Last Wednesday, after a laboratory session, we were discussing error analysis and how to fit curves using experiment data. While discussing how to calculate averages and standard deviation using a calculator (it might be the exception rather than the rule, but most college freshmen don't really read their calculators' user manuals) when one of the students pulled out an HP 32SII with the stat menu on screen. "How can I do with my calculator?" he asked. I have seen a few 48s and 49s on campus but not in my class and had given up on trying to find one. "Can I use it to show you and everyone?" I asked.

With the 32SII I managed to explain how to calculate averages and other statistics, and how to fit data. Surprisingly, the 32's menu system proved to be quite good for the job of explaining how to find a function and use it with your data, and when I noticed I was working some examples using it while the class listened and gave their calculators a try. Function names as shown on screen turned out to be useful to explain some concepts. Then I noticed that other manufacturers have mimicked HP's menu system on their products, and that the 32SII had became a teaching aid. They all had understood what to do with their data and how to do it on their calculators. Finally we discussed about the examinations that rule out most calculators but not the 32. It felt good but it wasn't the end of it.

The 32SII's owner was amazed at the power of his machine. After finishing the class, when I gave him his calculator back, he told me that he got it from his father, a retired engineer who received it as a gift (how many of us would like such a gift) with no manual. His father himself had a 41C with some peripherals and had found the 32 of little interest. The kid had managed to learn about RPN and the stack but did not know how to work through complex expressions without using parentheses, among other things. I had to recall the Mach number equation from memory (by that time we were sitting on the grass below a tree) and explained about the four-level stack and how to start from the inside out. The benefit of knowing intermediate answers showed by itself. "This expression would need a lot of parentheses if entered in another calculator," was all he managed to say, adding later "but on the HP it is much easier to solve."

Then came the next question, "how can I integrate a function?" After making it clear that the 32SII does numerical integration only, we discussed the integral of cos(x) between 1 and 2. The kid understood easily how to enter a function in program memory and then integrate it; later he checked it doing the integral by hand. He didn't believe his eyes. As most of us did when numerical integration was not standard on calculators.

The next day he approached to me to ask some more things and comment on the 32's functions. And he had confirmed that his dad's machine was 41C. "The best scientific calculator family ever made, the 41 series," I said, mentioning how the 41 had been used on the Space Shuttle when there were no laptops as a backup for the main computer. He found it interesting and said he will get his dad's 41 to see what it can do. Hopefully he will start to use it. But for the moment he's been "converted" to RPN. I was happy.

It felt good to see that RPN does not scare users as most marketing experts and similar fauna are inclined to say. And it was encouraging to see the same emotions when discovering it in a college freshman of today that I (and most other users and Forum contributors) felt back when I was his age. I was also amazed that the 32SII could be

so fine a teaching aid.

Re: Teaching with a 32SII and a new RPN user (hopefully)

*Message #2 Posted by **GS Leong** on 19 Oct 2003, 11:07 a.m.,*
in response to message #1 by Juan J

That is a beatiful thing and I feel that the only way RPN will survive is by passing it to future gererations by repected peers (i. e. father,professor et al) the problem I see is that hp refuses to make a quality machine of even the caliber of the 32 SII. So there are very limited resources to pass. And as we can all see on ebay the prices reflect this shortage. So hp is really not helping the cause but I guess that all that read this forum know that already

my $.02 worth

Not at all

*Message #3 Posted by **Valentin Albillo** on 20 Oct 2003, 6:02 a.m.,*
in response to message #2 by GS Leong

GS Leong wrote:

"I feel that the only way RPN will survive is by passing it to future gererations by repected peers (i. e. father,professor et al)"

RPN will only survive for future generations as a gimmicky, purely intellectual, miscellaneous notation to compute mathematical expressions in a weird way, never as a mainstream method.

People aren't fools in general, despite what we RPN addicts may think (i.e: "we are right and they are wrong"), and will always select the easiest, most natural, prominent and accepted way to do calculations, and that's algebraic, mind you. RPN was Ok only when RAM was scarce and expensive and every register or memory resource would greatly add to the price. Now that's not the case and RPN is utterly obsolete, and economically unappealing so it's no great surprise that neither HP nor anyone else cares about it anymore.

By teaching childs to learn and use RPN you will only succeed in alienating their minds, and create constant frustration when they see that noone does or explains things like this neither in class nor in real life, no RPN calculators are easily available, and the ones which are can't compete in quality, features and price with the ones their pals do own.

I suggest you teach RPN to your childs as some sort of intellectual "game", if at all, a mere curio, but making a strong point that they are comfortable and can use proficiently algebraic systems, mainly. Otherwise you'll be doing a serious disservice to your children's education and future math capabilities.

Best regards from V.

Oh, it might just surprise you.

*Message #4 Posted by **Jim Chumbley** on 20 Oct 2003, 9:31 p.m.,*
in response to message #3 by Valentin Albillo

Mr. Albillo said, "no RPN calculators are easily available, and the ones which are can't compete in quality, features and price with the ones their pals do own." Sir, I am looking at my brand new HP-49g+ while I'm composing this response. Let me just say that I'll bet you have not yet been able to see and hold a 49g+ or try any of its built-in 2,700 operations.

Re: Oh, it might just surprise you.

*Message #5 Posted by **Valentin Albillo** on 21 Oct 2003, 4:10 a.m.,*
in response to message #4 by Jim Chumbley

Jim Chumbley posted:

"Let me just say that I'll bet you have not yet been able to see and hold a 49g+ or try any of its built-in 2,700 operations."

:-)

You'll lose the bet hands down.

I've had a 49g+ "in my hands" *weeks* (if not months) before you even saw one :-)

Best regards from V.

Re: Oh, it might just surprise you.

*Message #6 Posted by **Veli-Pekka Nousiainen** on 21 Oct 2003, 5:56 a.m.,*
in response to message #5 by Valentin Albillo

Since August 2003...

Oh, it might just surprise me.

*Message #7 Posted by **Jim Chumbley** on 22 Oct 2003, 12:23 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

As I was about to say, I never bet against a sure thing or a man who is holding all five aces! What I was hoping was that Valentin had not had an opportunity to compare the 49g+'s hardware/software with the big dogs in the neighborhood. It makes me sad to realize that he thinks the 49g+ "can't compete in quality, features and price" with TI's 89 and Voyage 200. I am reminded of a song from the 1960's: "Teach your children well. No one can tell what they might grow like. Feed them on your dreams . . ." At least Mrs. Susan Marie (Chumbley) Rook, now age 34 and with two handsome sons, still uses her HP-15C from college. Even to add up a grocery bill.

Re: Oh, it might just surprise me.

*Message #8 Posted by **bill platt (les Estats Unis d'Amerique)** on 22 Oct 2003, 3:03 p.m.,*
in response to message #7 by Jim Chumbley

Hi Jim,

My wife still uses her Sharp Elsimate from high school (age 37)--but she was a theatre major so she is forgiven;^)

Re: Oh, it might just surprise me.

*Message #9 Posted by **Jim Chumbley** on 22 Oct 2003, 11:10 p.m.,*
in response to message #8 by bill platt (les Estats Unis d'Amerique)

I know the feeling. After earning a BS in Mechanical Engineering, which is bad enough, I finished an MA in English Literature. But don't tell a soul. Maybe they'll still let me play.

Edited: 22 Oct 2003, 11:13 p.m.

Re: Teaching with a 32SII and a new RPN user (hopefully)

*Message #10 Posted by **Arnaud Amiel** on 24 Oct 2003, 2:03 a.m.,*
in response to message #1 by Juan J

I have a PDF manual for the 32SII, I believe I downloaded it from amazon but I am not sure. If you want I can try to email it to you, it is 2.5Mb so I am not sure my or your mail can cope with it. I can also put it for download on my web site. Let me know at aamiel at hotmail with a subject that makes it obvious it is hp related and not SPAM

Arnaud

Re: Teaching with a 32SII and a new RPN user (hopefully)

*Message #11 Posted by **Jordi Hidalgo** on 24 Oct 2003, 12:52 p.m.,*
in response to message #10 by Arnaud Amiel

Hi Arnaud, here it is.

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HP number?

*Message #1 Posted by **Matthias** on 18 Oct 2003, 4:42 p.m.*

In my collection I found a tiny little golden box with the Hp number 82048A. I got it with a HP-01 watch as I remember. Is it true, that this is the box for the Battery door opener?

Matthias

Re: HP number?

*Message #2 Posted by **David Smith** on 20 Oct 2003, 4:11 p.m.,*
in response to message #1 by Matthias

Yes, it sounds like it. The battery door tool was actually the back side of a holder for the three button cell batteries. The kit also included a replacement o-ring.

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HP Algorithms

*Message #1 Posted by **eclectic_echidna** on 18 Oct 2003, 3:35 p.m.*

I downloaded emu48, and have attempted to trace through what the calculator executed to do a square root (5 enter SQRT).

After stepping through hundreds of lines, I am almost convinced that I never made it to the actual algorithm. It seemed to be stuck in the housekeeping portion of the ROM.

Can anyone offer me any advice on how to trace through SQRT or other numerical functions? Or better yet, are there any ROM maps around? I can only guess that someone has looked into this already.

--ee

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HP9100B parts and information

*Message #1 Posted by **Jools Smyth** on 18 Oct 2003, 2:34 p.m.*

I am the owner of a hp9000b + Printer & other bits. The rubber on the magnetic card reader roller, cables and printer have deteriorated. Does anyone have some experience of replacing these parts? Apart from this the machine is in full working order.

Will the value be increased by replacing the rubber?

Additionally the unit has a large folder with program listings, a few journals, and a few hundred magnetic cards. Do these extras have any kind of value attached ? I have read that the cards are hard to come by ?

Edited: 18 Oct 2003, 2:38 p.m.

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eBay bargains

*Message #1 Posted by **Randy** on 18 Oct 2003, 12:29 p.m.*

I've been ignoring eBay silliness of late, but I had to post this one.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3053527421

Yeah, right, $500 for a used 41C with no case or manual. This is about the best a job of distorting facts as I've seen lately. But then we are approaching election day so perhaps this ad copy was written by a political speech writer.

Such a deal we've got for you...

Notice the the bottom photo is a gold border halfnut and the top photos are a silver C fullnut. I wonder which unit is for sale. Then there is the number of feedbacks of both buyer and seller... humm.

My latest eBay calculator lie: "Looks like it just came out of the box". Translation: It just came out of the 50 lb box of 10 penny nails that has been bouncing around in the back of Buba's truck for six months.

Re: eBay bargains

*Message #2 Posted by **Pascal** on 18 Oct 2003, 2:06 p.m.,*
in response to message #1 by Randy

Aren't you not supposed to post such messages in the Classified ad section ?

Re: eBay bargains

*Message #3 Posted by **Don Davis** on 18 Oct 2003, 10:59 p.m.,*
in response to message #2 by Pascal

Pascal wrote: "Aren't you not supposed to post such messages in the Classified ad section ?"

I don't think Randy is the seller - his post is not an ad for a calculator, it is a comment on dubious ebay practices.

Have a great day, Don

Re: eBay bargains

*Message #4 Posted by **Ed Look** on 19 Oct 2003, 12:27 a.m.,*
in response to message #1 by Randy

I'm from the NYC area and real estate prices here are out of control. If you assessed my house you'd think I was some kind of rich guy. No one thinks it's going to fall back down for a long time (if ever). Still, the value, in my opinion, despite my owning it, is way overinflated.

I love HP calculators, especially all their scientific/graphing RPN models, old or new. But what some people

have the nerve to ask for something that even when it was new that cost less than $200 USD at most is... well, disappointing. Even if you're a rabid collector, is it truly worth so much?? Oy, eBay!... a mirror image of game shows!

It reminds me of businesses that gouge their (often longtime) customers when things go bad, as when local discount stores here were charging ten, twenty, or more US dollars for flashlights and batteries during the recent and infamous blackout.

Gouging?

*Message #5 Posted by **Patrick** on 19 Oct 2003, 3:45 a.m.,*
in response to message #4 by Ed Look

I have to disagree with you, Ed. I think the word *gouging* can only apply when an individual or company is in a monopoly situation. When there is competition, the free market system works to punish those who overprice their goods -- customers go elsewhere and the would-be gougers generally don't make any money.

The people who bid on eBay do so of their own free will, I suspect. For the auction in question, a modest amount of research would show a would-be bidder that this item is not worth what the seller suggests. Someone who bids based solely on what the seller tells them, when better information is readily at hand, deserves whatever deal they wind up with.

Re: Gouging?

*Message #6 Posted by **Ed Look** on 19 Oct 2003, 6:01 p.m.,*
in response to message #5 by Patrick

Valid points, all, Patrick.

It's just that I was beginning to get the impression, however, that most if not all eBay auctions for HP RPN calcs were going out of control. The few I happened to look at were getting up there in price. But, you're right; bidders go their on their own, hopefully with their eyes open (wide).

Personally, research notwithstanding, and no matter how much I'd love to have a particular model, there's a line in my gray matter past which the wallet does not go. F'rinstance, I'd love to own a HP-25 or 25C, just because they were the first HP's I laid eyes on before I got my own (by which time these guys were discontinued). But I'm not sure I'd be willing to pay for one of those what I'd pay for a spanking new 49G+! Again, this is only my opinion. This is why some of those prices seem to me to be "gouging level" numbers.

Thanks for your constructive reply.

HP-25 Fans

*Message #7 Posted by **Patrick** on 19 Oct 2003, 8:05 p.m.,*
in response to message #6 by Ed Look

I wonder if the HP-25 is one of the most beloved of HP's amongst my generation (I was a new undergraduate at the time of its release). When the HP-25 came on the scene, the alternatives available which had programming cost considerably more, so it was something of an affordable programmable for its day, and extremely capable in its own right.

Through the vagaries of life and broken relationships, I lost my original HP-25. Through the wonder that is eBay, I have managed to get a replacement. The bizarre thing was that the seller was

local and it turned out that the machine previously belonged to a friend of mine! He had given it to a charity.

Every time I hold that HP-25 in my hand, I see again how its contours were designed to be held just that way. I am flooded with the memories of my undergraduate days. To say that the price of the machine has been paid back to me would be a terrible understatement.

Re: HP-25 Fans

*Message #8 Posted by **Ed Look** on 19 Oct 2003, 8:16 p.m.,*
in response to message #7 by Patrick

Ah, see, I only *PLAYED* with some professor's old 25C and never really got to work with one. By the time I got to college, the 34C was introduced (though the 41C's were the cat's meow, I couldn't afford one then... I'm not sure I can now!) so I'd side with Norm Hill in that to me, the 34C is the epitome of affordable handheld programmability! But, one reason why I made the comments I did was because there were times I could have sworn I was going to max out the 34C's memory capability (storage registers get converted to program memory as needed); I think the 25's memory was smaller!

See, we have different ideas as to what constitutes a pinup, even if they have very similar pinouts!

Re: HP-25 Fans

*Message #9 Posted by **Valentin Albillo** on 20 Oct 2003, 4:58 a.m.,*
in response to message #7 by Patrick

I couldn't agree more, Patrick. I'm also a very great fan of the HP-25, which was my first HP. It had that incredible physical quality lost ever since (the 34C couldn't compare at all), was eminently affordable (unlike the 65 and 55), and it was amazing what you could do in just 49 steps, I guess even its very creators couldn't anticipate just how much some people would put in it.

Newer generations of HP fans are somewhat 'spoilt' with models having far greater RAM, but at the time (1976), the mere fact that you could compute elliptic integrals on a handheld calculator was nothing sort of miraculous on engineering clasees. Not to mention doing things that could barely be attacked on our faculty computer, using FORTRAN and a batch of perforated cards (the least intereactive kind of programming you could imagine), such as root finding and even solving differential equations using 3rd and 4th-order Runge-Kutta. That could be done with an HP-25, single-handedly, on the spot. People were astonished to the most.

There were programs you could fit on a 49-step HP-25 that wouldn't on a 100-step HP-65, not to mention the HP-55. I wrote dozens of programs for it at the time, and even though they were of increasing complexity, I don't think I really reached the limits of ingenuity for 25's programming. There are still cleverer programs that could be written for it.

Anyway, I fully doubt that any person not having experienced this first hand would be able to ever grasp the feeling, but for those of us who did, nothing compares, be it 34C or 41CX or 42S or 49G+. The HP-25 was an amazing feat of engineering, the like of which the calculator world would never experience again.

Best regards from V.

Re: HP-25 Fans

*Message #10 Posted by **Namir Shammas** on 20 Oct 2003, 10:34 a.m.,*
in response to message #9 by Valentin Albillo

Valentin,

I agree with you. The early programmable HP calculators were revolutionary in that they gave you a "programmble" AND personal device.

My first calculator was the HP-55 (which I chose over an HP-65 because it had more memory, a timer, unit conversions, and built-in linear regression). I pushe dprogramming the HP-55 to the limit. I did interpolation, polynomial evaluations, and mostly linearized regression. By the time the HP-67 showed up I was more than ready for it power. My favorite HP calculator is the HP41C which I used in graduate studies and my first job. It was my little companion that I took on job assignments. After work (especially whne I was out of town) I'd sit in my hotel room and write programs that I'd document and send to the HP User's Library in Oregon.

Programming in BASIC, Pascal, C++, VB, C#, and so on has definitely overshadowed keystroke programming, but the latter still remains a nostalgic activity.

Namir

Re: HP-25 Fans

*Message #11 Posted by **Ed Look** on 20 Oct 2003, 2:14 p.m.,*
in response to message #9 by Valentin Albillo

Ow!

Smack me for being a little kid with the "newfangled" 34C!

LOL!!! :D

At least SOME people have had "more ancient" HP calculator experiences than I!

I truly wish I could have used a 25C (no continuous memory... I used to store stuff like Plank's constant, permittivity of space, etc., just so I didn't have to flip open the bookcover. You know, when you're slumped on the couch or at the desk poking away at the calculator and scribbling on paper, YOU JUST DON'T WANT TO GET UP just to look up some silly constant.) But by the time I was really needing a good calculator AND had some money, the 34C the was latest thing.

No offense, but here's where I must say I like the 48's and 49's better even than any 25, 34C, 32S- these 48's and 49's have prerecorded scientific constants built in (unfortunately, I have accidentally memorized quite a few of them now, so this is no longer so useful)! And, I was able even to load in a periodic table, along with much even non-numeric chemical data, without using up the RAM! Well, that may not thrill too many people, but for me, it's a bit of a timesaver.

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HP28 question

*Message #1 Posted by **Colin Lambert** on 18 Oct 2003, 8:12 a.m.*

I recently bought a HP28s and wonder if anyone can advise on the folliwing.

Using the manual I have been able to change display format to have a full stop for the decimal point rather than a comma. However can I change the display to show 'thousand seperators' eg I will get 3,000,000 rather than 3000000. As you will hopefully appreciate the former is much easier to read and take in, especially for my aging eyes and brain. The manual makes no reference to this issue but I can't believe that the older calcs HP 11, 41, 42 etc make this display available but the 28 doesn't appear to.

Thanks

Re: HP28 question

*Message #2 Posted by **Veli-Pekka Nousiainen** on 18 Oct 2003, 2:28 p.m.,*
in response to message #1 by Colin Lambert

Sorry: no can do! You should upgrade to 48S...or to 49g+

Re: HP28 question

*Message #3 Posted by **Colin Lambert** on 18 Oct 2003, 3:15 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

Thanks

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HP-49G+ finally shipping

*Message #1 Posted by **Ernie Malaga** on 18 Oct 2003, 7:52 a.m.*

Just checked Samson Cables' site. Now they say the 49G+ is **in stock**.

Funny thing, though -- HP's site *still* doesn't mention the machine. Is there no end to their idiocy?

-Ernie

Re: HP-49G+ finally shipping

*Message #2 Posted by **J. Lopez** on 18 Oct 2003, 11:42 a.m.,*
in response to message #1 by Ernie Malaga

Well, I ordered one yesterday (Friday) from the hp website mentioned here in another thread (www.smb.compaq.com). Later, I received an e-mail confirmation of shipment, with a UPS tracking number. Checking the UPS' site says the package is in transit from Ontario (not Taiwan, mind you) and will be delivered in New York on Tuesday the 22nd.

Now what to do to spare my nails from this biting while waiting...

Re: HP-49G+ finally shipping -- it seems to be true.

*Message #3 Posted by **Paul Brogger** on 19 Oct 2003, 7:08 a.m.,*
in response to message #1 by Ernie Malaga

If you care, details re: ordering by phone are to be found below.

One twist not fully explained there: H-P's **Small-Medium Business** (SMB) unit has a physical presence in all 50 states (as well as internationally) and so must charge any applicable state sales taxes.

Their **Home Office** unit, however, works from only one(?) location (I don't know where), so if the new calculators become available from the Home Office web site at the same list price, your overall cost will likely be lower.

However, at this point, it seems only available via the SMB site, and that via a not-exactly-obvious path.

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Sparcom´s Drive95

*Message #1 Posted by **Massimo Gnerucci (Italy)** on 18 Oct 2003, 3:34 a.m.*

Three weeks ago there was a thread about this accessory. I managed to find one in really good shape, the only thing it is missing is the floppy with drivers/software.
Does anyone have it? Would you be so kind to share it with me?

TIA!
Massimo

Re: Sparcom's Drive95

*Message #2 Posted by **Raymond Del Tondo** on 18 Oct 2003, 5:38 a.m.,*
in response to message #1 by Massimo Gnerucci (Italy)

You have mail.

Raymond

Re: Sparcom's Drive95

*Message #3 Posted by **Massimo Gnerucci (Italy)** on 18 Oct 2003, 5:49 a.m.,*
in response to message #2 by Raymond Del Tondo

Thank you VERY much Raymond!

Massimo

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There is such calculator?

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 17 Oct 2003, 11:44 p.m.*

Hi all!

Is there some scientific calculator shaped like the HP-10BII? I think that I saw something like that but I can't remember where.

Regards,

Nelson

Re: There is such calculator?

*Message #2 Posted by **Raymond Del Tondo** on 18 Oct 2003, 5:30 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

You sure saw the 17BII+ , which has a similar housing like the 10BII...else you may have seen some other machine from Kinpo.

Raymond

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Calling Captain Zener!

*Message #1 Posted by **james (UK)** on 17 Oct 2003, 6:24 p.m.*

Dear Captain Zener

I've given in to temptation and acquired a HP-34C and have a few queries:

1) The dreaded 2 disease - fortunately it seems to be OK with full blanking when calculating functions (eg the Gamma function) - is there any preventative maintenance that can/should be undertaken to try and keep it sound?

2) I haven't psyched myself up yet to try and open it - without opening it is there anyway to tell whether it has the solderless construction - serial no. 2033S?

3) Should I open it anyway in order to lubricate the on-off and run-prog switches?

4) What's the best stuff to clean the display (a few minor scratches) and the keyboard (suffering from bits of sticky black plastic from the pouch - I have just put the pouch through the washing machine [yes - I remembered to take the 34C out first] following a post I saw a while ago on the forum which did the trick on a 41CV pouch which suffered from the same problem)?

I'll leave it at that for the moment.

James

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HP-41cx Question?

*Message #1 Posted by **MB** on 17 Oct 2003, 3:14 p.m.*

Can the display's digit separators and decimal point be changed from periods to commas and back? How?

Re: HP-41cx Question?

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 17 Oct 2003, 3:21 p.m.,*
in response to message #1 by MB

Hi To use a comma as a decimal separator press CF 28 (clear flag 28), and to use a dot press SF 28 (set flag 28)

Regards

Nelson

Re: HP-41cx Question?

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 17 Oct 2003, 5:39 p.m.,*
in response to message #1 by MB

Oh, I forgot to mention that if you clear the flag 29 (CF 29) you can disable the digits separator (and SF 29 to enable again...)

Regards,

Nelson

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HP-49g+, First Impressions

*Message #1 Posted by **Jim Chumbley** on 17 Oct 2003, 12:51 p.m.*

I have been asked to post my first impressions of the new HP-49g+ machine, so here they are: I received the machine on 10/8, so I have had it in constant use for 9 days. I had no experience with UserRPL programming, but I have used HP calculators since 1970, beginning with the 9100A desktop machine. The new gold 49g+ is the most beautiful of all the HPs, even more beautiful than my 41CX. The display is so much easier to read than that on my 48GX, and you have a choice, depending on font size chosen to see either 7, 8, or 9 stack levels simultaneously! This is a stupendous achievement, and HP has not gotten any credit for it in the commentaries I've been reading. The display now has jet black characters against a greenish-cream background. Others have complained about the paint. Mine is perfect, and the two-color silk-screening (green and red) over gold is perfectly registered and easily read. The main complaint others have listed in their commentaries is that they have keyboard problems in that their machines do not always recognize a key depression. I had that problem also at the beginning, when I was pressing too softly. Now that I know that the keys require a firm, sharp depression, I don't have any keyboard problems any more. It's rather like the difference between a soft USA typewriter keyboard compared with a firm German DIN-standard typewriter keyboard. To make it work, you just have to press harder. I printed the 856 page User's Guide, and spent most of my time learning the stack and UserRPL programming. The learning curve is steep, but not impossibly difficult. I think a new section, call it a "Quick Start Guide for Experienced RPN Users" is needed. Oh, yes, the version of the User's Guide that comes on the CD with the calculator has all of its chapters in order. Be ready for a number of typographical, grammatical, and even key-stroke errors throughout the manuals. They read as if they were not written by a native speaker of English. So that's all, folks. It's beautiful, I love it, and I am even getting pretty good at writing UserRPL programs.

Edited: 18 Oct 2003, 6:22 a.m. after one or more responses were posted

Re: HP-49g+, First Impressions

*Message #2 Posted by **Paul Fox** on 17 Oct 2003, 4:21 p.m.,*
in response to message #1 by Jim Chumbley

Brilliant review .. thanks!

Refreshing and mouth watering...

Re: HP-49g+, First Impressions

*Message #3 Posted by **Ed Look** on 17 Oct 2003, 7:54 p.m.,*
in response to message #2 by Paul Fox

I agree, great review!

A-n-t-i-c-i-p-a-t-i-o-n-!

H(einz) P(ackets)-57 (Varieties!)?

I wonder, though, how different is its implementation of RPL and programming from the HP-48 series calcs?

Re: HP-49g+, First Impressions

*Message #4 Posted by **Veli-Pekka Nousiainen** on 17 Oct 2003, 8:07 p.m.,*
in response to message #1 by Jim Chumbley

Please, Jim, write the same text in the newsgroup "comp.sys.hp48", too. There is simply not enough text like this there!

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College Course using HP-42S

*Message #1 Posted by **Bill (Smithville, NJ)** on 17 Oct 2003, 10:55 a.m.*

I just ran across the following course offered at CEET, Northern Illinois University. Looks like a very interesting course in use of HP-42S. I wonder if they still offer it or if their web pages are just out of date.

http://www.ceet.niu.edu/courses/ee/list/ele202.html

If it's still being offered, maybe that's where all the HP-42S on ebay are going to - CEET students.

Re: College Course using HP-42S

*Message #2 Posted by **CME750** on 17 Oct 2003, 10:50 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

It appears that the course is no longer available. Check the NIU class schedule database at:

http://www.reg2.niu.edu/CFDOCS/findclass/search.htm

According to this database, there are no scheduled classes for ELE 202 in Summer 2003, Fall 2003, or Spring 2004. Other 200-level ELE courses are scheduled, but not that one.

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HP 49G+ pre-order available from HP

*Message #1 Posted by **Alexander Castro** on 17 Oct 2003, 9:49 a.m.*

Go check out: www.smb.compaq.com and look up HP 49G+. The price is $149.00.

Re: HP 49G+ pre-order available from HP

*Message #2 Posted by **Paul Fox** on 17 Oct 2003, 11:55 a.m.,*
in response to message #1 by Alexander Castro

Wow! Brilliant..I would never have guessed that HP would advertise their brand new baby on one of the most obscure URLs ever (using compaqs brand name)...and then hide it. Its like a game of Adventure...now which door should I try now to find it.... :-)

The HP49G+ is beginning to be the best calculator I have never owned.....

Re: HP 49G+ pre-order available from HP

*Message #3 Posted by **James M. Prange** on 17 Oct 2003, 12:29 p.m.,*
in response to message #1 by Alexander Castro

Well, US$149.99 actually. I wonder what the "Authorized Resellers" think of HP selling it direct at $26 under the MSRP.

Regards,
James

Re: HP 49G+ pre-order available from HP

*Message #4 Posted by **Hp Calc Lover** on 17 Oct 2003, 2:45 p.m.,*
in response to message #3 by James M. Prange

This is not an hidden web site, it is HP's SMB (Small Medium Business- inherited from Compaq hence the URL) site and ALL the HP Calcs can be observed under Handhelds and then Calcultors- it isn't hidden.

Re: maybe not "hidden", but how to get there again???

*Message #5 Posted by **Paul Brogger** on 17 Oct 2003, 3:19 p.m.,*
in response to message #4 by Hp Calc Lover

I'll delete this if my third try is successful, but (at this moment, at least) "handhelds" from the SMB home doesn't have a "calculators" option.

And "Handheld Devices / Calculators" from www.hp.com doesn't show any of the new models.

I'm sorry, but it's not obvious to me how to get there from here.

But, I assume I'm being impatient -- perhaps things are in a state of flux, what with U.S. availability only now becoming a reality . . .

Re: maybe not "hidden", but how to get there again???

*Message #6 Posted by **martin cohen** on 17 Oct 2003, 8:21 p.m.,*
in response to message #5 by Paul Brogger

The key is to indicate "software and peripherals", not "smb store"!!!

Re: HP 49G+ pre-order available from HP

*Message #7 Posted by **James M. Prange** on 17 Oct 2003, 3:22 p.m.,*
in response to message #4 by Hp Calc Lover

Well, it wasn't me who wrote that it's hidden, but I do think they could've made it a lot easier to find.

Let's see: http://www.hp.com/, now click on "Handheld Devices" to get to http://welcome.hp.com/country/us/en/prodserv/handheld.html, now click on "Calculators" to get to http://www.hp.com/calculators/, and now click on "graphing" to get to http://www.hp.com/calculators/graphing/9g/index.html. There, that wasn't so hard, but this looks as if they haven't released the 49g+ yet; only the 9g is listed. But wait! What if I click on

"buy online from SMB store"? That gets me to http://www.smb.compaq.com/sp_main.asp?hp_url=searchresults.asp?store_id=8&search_id=164&dept_id=1001&dsc=calculators, just scroll down, and glory be! They really do offer the 49g+! How could anyone miss it !?

And with that price so much below the "Manufacturer's Suggested Retail Price", if word does get around, why would anyone buy them elsewhere? So why would anyone else stock them? Great marketing HP! It's not hard to see how HP got to where it is now.

Regards,
James

Re: Thanks for that. (Bot don't overlook the small print ...)
*Message #8 Posted by **Paul Brogger** on 17 Oct 2003, 3:30 p.m.,*
in response to message #7 by James M. Prange

Ahh, yes. I assume the Webmaster is working on updating links as we type . . .

But take a look at that footnote on the $149.99 price;

HP is not liable for pricing errors. If you place an order for a product that was incorrectly priced, we will cancel your order and credit you for any charges. In the event that we inadvertently ship an order based on a pricing error, we will issue a revised invoice to you for the correct price and contact you to obtain your authorization for the additional charge, or assist you with return of the product.

Not exactly a guaranteed price!

Re: Thanks for that. (Bot don't overlook the small print ...)
*Message #9 Posted by **James M. Prange** on 17 Oct 2003, 3:38 p.m.,*
in response to message #8 by Paul Brogger

Yes, I noticed that. If I recall correctly, they had something drastically underpriced not too long ago, so I hope that that's just a "CYA" disclaimer. I doubt that they'd get away with saying "Oops, we really meant $175.99, so either send another $26 or return the product."

Regards,
James

Edited: 17 Oct 2003, 3:39 p.m.

Re: I assume it's a provisional DB entry, perhaps with wrong price.
*Message #10 Posted by **Paul Brogger** on 17 Oct 2003, 3:53 p.m.,*
in response to message #9 by James M. Prange

I'm guessing the web site updating started with a provisional database entry, and perhaps a wild stab at a price. It looks as if none of the to-be-expected HP-48G+ hype is yet to be found on the publicly-available web pages, but a database search returned the 49G+ product entry. (As other parts of the probably-not-even-yet-completely-integrated HP & Compaq web sites get updated, things will get brought more into line.)

It will be interesting to see whether $149.99 is indeed going to be HP Shopping's true price. As you said, undercutting one's distributors doesn't seem to be a wise way to do business.

Re: I assume it's a provisional DB entry, perhaps with wrong price.
*Message #11 Posted by **Veli-Pekka Nousiainen** on 17 Oct 2003, 7:55 p.m.,*
in response to message #10 by Paul Brogger

You mean HP-48G+ => hp 48gII

Re: ... actually, I meant HP-49G+
*Message #12 Posted by **Paul Brogger** on 19 Oct 2003, 7:00 a.m.,*
in response to message #11 by Veli-Pekka Nousiainen

... a slip of the fingers.

This all looked pretty clear, until I was actually able to order by phone -- now it looks as if the price may be correct. Hmmmmmmmmmm . . .

Re: HP 49G+ pre-order available from HP
*Message #13 Posted by **Paul Fox** on 17 Oct 2003, 3:48 p.m.,*
in response to message #4 by Hp Calc Lover

Hm...well my eyes must be duff. Ive looked at that page twice (Handhelds) and still cannot see any reference to calculators.

I visit the main HP calc web site and at present not a mention of the HP49G+.

It is sincerely shameful how much the web masters dont care about the product. I can understand its not as popular as ink refills etc but its a shame....

Maybe I am seeing a different page to other people....

Re: HP 49G+ pre-order available from HP
*Message #14 Posted by **Paul Fox** on 17 Oct 2003, 3:51 p.m.,*
in response to message #13 by Paul Fox

Praise the lord! I didnt realise you needed a Ph.D in web site infiltrating to buy an HP calc. Least not last time I bought one..

must be getting too old....

Look closely at the HP-49G+ keyboard ...
*Message #15 Posted by **Paul Brogger** on 17 Oct 2003, 3:56 p.m.,*
in response to message #14 by Paul Fox

... maybe there's a new "FERRET" command that is used in conjunction with the USB cable and HP's web sites?

Re: HP 49G+ pre-order available from HP
*Message #16 Posted by **Alexander Castro** on 17 Oct 2003, 3:57 p.m.,*
in response to message #14 by Paul Fox

I agree with everyone...I don't know how I found the site...serendipity I suppose. I doubt the webmaster knows how serious this could be.

Re: HP 49G+ pre-order available from HP
*Message #17 Posted by **Hp Calc Lover** on 17 Oct 2003, 4:32 p.m.,*
in response to message #16 by Alexander Castro

Ok everyone who is exited about these. This is what I found. The HP SMB sales site which is easily found at WWW.HP.COM, there is an area for Home and Home office and Small Business (SMB) on the top right side. Click there (SMB)and a series of categories come up in the middle, including HANDHELD devices (isn't a calculator a handheld-yes)? Click there and scroll down, CALCULATORS SHOW UP and an area where it says SHOP for Hp calcs at SMB- Click there and you are in the area where these are sold. Let's face it Calculators will NOT be the first screen anyone see's at HP.COM. Be reasonable they have 10 million different products and this is ONE of a million. Just use common sense about it. Here is the exact link: it gets you right to them! Don't worry about the price, it probably is correct, if not you'll be contacted however compare what the other units sell for- none are list price, I think they call this street price don't they. In any case Enjoy and be happy stop being upset, you can buy one if you want it!!!!

http://www.smb.compaq.com/sp_main.asp?hp_url=searchresults.asp?store_id=8&search_id=164&dept_id=1001&dsc=calculators&c=HPSMBCtr_calculators&n=D_I_DR_X_T_x_GenericNVP&t=ad&r=HP_SMBCtr_O&jumpid=re_R295_store/busproducts/computing/calculators

Re: HP 49G+ pre-order available from HP
*Message #18 Posted by **sv** on 21 Oct 2003, 12:40 a.m.,*
in response to message #16 by Alexander Castro

The HP calculator website URL is:

http://www.hp.com/calculators

You can click on the 49g+ pic under "Graphing Calculators" and it brings you to a "buy online button" right next to the product. This says it is "coming soon" but if you click on "Buy from SMB Online", you will be able to buy from the business store.

Happy shopping.

One additional step to find 49G+ page
*Message #19 Posted by **Matt Kernal** on 17 Oct 2003, 4:22 p.m.,*
in response to message #1 by Alexander Castro

Go check out: www.smb.compaq.com, **select software & peripherals**, and look up HP 49G+. The price is $149.00.

Re: HP 49G+ -- I just ordered from HP . . .
*Message #20 Posted by **Paul Brogger** on 17 Oct 2003, 5:53 p.m.,*
in response to message #1 by Alexander Castro

FYI --

I called the SMB order line (800.888.9909) and entered the required button-pushes. The salesperson couldn't find (!) the HP-49G+ using the typical path, so I offered the manufacturer's number (#F2228#ABA) and voila!

Interestingly, the SMB unit has a physical presence in all 50 states, so I had to pay Washington State sales tax, which sorta' cut into the savings a bit -- as in, completely wiped 'em out and then some!

But his system showed the 49G+ in stock & shipping, so I went ahead.

(Now for the waiting . . .)

Re: HP 49G+ -- I just ordered from HP . . .
*Message #21 Posted by **CalcKidd** on 17 Oct 2003, 8:56 p.m.,*
in response to message #20 by Paul Brogger

I too, just ordered a 49G+... see what happens (?).

I also have a 49G+ and 48GII on order from Samson Cables.

Hopefully, someone will come thru! :-D

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Kettleware

*Message #1 Posted by **Ernie Malaga** on 17 Oct 2003, 6:38 a.m.*

I've been following the 49G+ saga with great interest. As the release date keeps being pushed further and further, I wonder if there's a hardware equivalent to the software "vaporware."

Hmm. "Kettleware." Sure describes the 49G+ perfectly. Opinions, anyone?

-Ernie

Re: Kettleware

*Message #2 Posted by **Valentin Albillo** on 17 Oct 2003, 6:48 a.m.,*
in response to message #1 by Ernie Malaga

The 49G+ it's been released in Spain for several weeks now, at some 250 euros or so. Don't know why does it take so long to be released elsewhere ...

Best regards from V.

Faster than the speed of light???!!!

*Message #3 Posted by **Namir Shammas** on 17 Oct 2003, 9:05 a.m.,*
in response to message #2 by Valentin Albillo

Valentin,

I get the impression that HP is subcontracting the new calculator from another (presumably small or smaller) manufacturer. If my assumption is true, then it explains why the new calculators are hitting the market at a speed that exceeds the speed of light (said with tongue and cheek).

Or maybe there is a black hole that appeared near the factory that makes the new HP calculators.

Or .... a more possible explanation ...

A band of fanatic TI calculator gremlins are messing up the production of the new HP calculators.

soooooooooooo ... pick the explaination you like ... or be my guest and throw one of your own making!

Frustrated Buyer for new HP calculator!!

:-(

Namir

PS: Until the new HP calculator arrive I have much time to write silly comments that this one!

PS2 (no this is NOT the PlayStation 2): I am actually busy writing an HP-67 emulator in Windows.

Re: Faster than the speed of light???!!!

*Message #4 Posted by **Paul Fox** on 17 Oct 2003, 12:26 p.m.,*
in response to message #3 by Namir Shammas

Faster than the speed of light...hmm doesnt that mean things start to go backwards...maybe the MBAs at HP are working hard to discover a steam engine...

Me too ... too much time on my hands trying to decide if its worth spending the money....

Maybe I'll start collecting stamps...

Re: Faster than the speed of light???!!!

*Message #5 Posted by **Namir Shammas** on 17 Oct 2003, 2:11 p.m.,*
in response to message #4 by Paul Fox

Paul,

If you find stamps for the HP65, HP67, HP55, and HP41CX drop me a line please!

:-)

Namir

Re: Faster than the speed of light???!!!

*Message #6 Posted by **Veli-Pekka Nousiainen** on 17 Oct 2003, 3:10 p.m.,*
in response to message #4 by Paul Fox

Kjeh, kjeh (G) I have been using the best calculator there currently exists from last month, I also have a hp 48gII in my hands plus a hp 17bII+. The memory in the 17 is good, the currency calc from the 19 has been added, so it's ok. The 48gII has a fast serial port and is best used as a controller, but the 49g+ is the king! the overall speed is very good (like in the 48gII, too) so it just feel snappy. The manuals are a must even for a former 49G user: finally there is a usable manual (even with details in ODE & Matrix calculations. Yammy!) Sorry that you Yankees can't have it yet...aaah! It feels so good to finally have some warp speed....

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An HP48/49 CAS question

*Message #1 Posted by **Valentin Albillo** on 17 Oct 2003, 5:01 a.m.*

Hi everybody. Not owning any HP48/49 model, there's no immediate way for me to test this, so I'd appreciate if any of you HP48/49 owners would try this for me and post here the results.

The question is: what result does the HP48/49 symbolic algebra system produce for the following indefinite integral:

```
Integral[ sin(x^n) . dx ]
```

where n is a constant ? Specifically, I'm interested to know if it does produce some kind of exact closed result, in terms of known functions (elementary or not). I'm not interested in Taylor-series-expansion based results or any other non-closed approximations (not to mention purely numerical results).

In case it can't produce a closed result for general, arbitrary n, I would then be interested to know if it can produce a closed result for some particular values of n, and if so, the specific values of n it can solve. I would expect it to be able to produce a closed result for n = 0 and n = 1 at the very least, but what about other values of n, both integer and non-integer (n = 2, 3, ..., 1/2, 1/3, ...) ? What about negative values of n (n = -1, -2, ..., -1/2, ...) ?

Thanks in advance for any results or comments and best regards from V.

Re: An HP48/49 CAS question

*Message #2 Posted by **Werner Huysegoms** on 17 Oct 2003, 7:23 a.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin. Firstly, the 48 does not dispose of a CAS worth mentioning; And the 49 cannot solve any but the most trivial of these integrals (ie with N=0 or 1). All the rest are simply returned in integral form. Not a great surprise, as for N=2 the result is a Fresnel integral, and for larger n it is expressible as complex incomplete gamma functions, both of which are not builtin to the 49G.

Cheers, Werner

Re: An HP48/49 CAS question

*Message #3 Posted by **Valentin Albillo** on 17 Oct 2003, 9:26 a.m.,*
in response to message #2 by Werner Huysegoms

Werner posted:

"The 49 cannot solve any but the most trivial of these integrals (ie with N=0 or 1). All the rest are simply returned in integral form."

Thanks for replying, Werner, but have you actually tried it on an HP-49, or is your comment just what you think based on your experience ? I would need an actual attempt on the calculator.

"Not a great surprise, as for N=2 the result is a Fresnel integral, and for larger n it is expressible as

complex incomplete gamma functions, both of which are not builtin to the 49G."

But what about non-integer and/or negative values of N ? Have you actually tried some ? Which ? If it cannot deal with values other than N=0 and N=1, it *would* be somewhat of a surprise, at least for me ... Please try it on an actual machine, if you haven't done already so, and tell me what values did you try and what results did it produce.

Best regards from V.

Re: An HP48/49 CAS question

*Message #4 Posted by **rolando** on 17 Oct 2003, 10:11 a.m.,*
in response to message #2 by Werner Huysegoms

Valentín: I have used an HP-49G emulator downloaded from hpcalc.org and I got the following answers:

INTVX(SIN(X^N)) = INT(SIN(EXP(N*LN(X))) RISCH(SIN(X^N),X) = INT(SIN(EXP(N*LN(X)))

I did no try the IBP (integration by parts) command because the function to be integrated must be expressed as a product of functions.

The ROM in the emulator was 1.18

It seems that this is too much for the HP49G CAS.

Rolando

Re: An HP48/49 CAS question

*Message #5 Posted by **hugh** on 17 Oct 2003, 12:39 p.m.,*
in response to message #1 by Valentin Albillo

you're expecting a bit much arent you. these integratals are mostly only in terms of special functions (like complex gamma, sinc, and fresnel) which arent even there. except for the cases n = 0, 1 and 1/2.

interstingly the case n = -1, is close to one of my numerical tests: integrate(cos(1/x), 0, 1) numerically or otherwise. so far no calculator has even got close (-0.0844109505)

Re: An HP48/49 CAS question

*Message #6 Posted by **hugh** on 17 Oct 2003, 2:41 p.m.,*
in response to message #5 by hugh

there's some more. 1/m (m = 1,2...) are also representable since int(sin(x^n), dx) can be solved when int(x^n sin(x), dx) is soluble.

i'd be interested to know if these come out of the 48/49, using alg48, for example.

Re: An HP48/49 CAS question

*Message #7 Posted by **Werner Huysegoms** on 20 Oct 2003, 3:30 a.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin. I did use a real 49G in the process: n>1 or negative: integral returned n=0,1 OK n=1/2 '2*SIN(SQRT(X))-2*SQRT(X)*COS(SQRT(X))' n=-1/2,n=1/3 integral returned That was in 'real mode'. In complex mode, nothing much changes. For negative n, the integral is split in two parts that are both left

unintegrated, eg for n=-1 I get: 'INT(-(i*EXP(i/Xt)/2),Xt,X)+INT(i/(2*EXP(i/Xt)),Xt,X)'

The Xt stuff is a change of variable and the 4x's way of saying it can't solve the integral.

Cheers, Werner BTW you can play with a 49 yourself using the excellent Emu48 emulator and a 49G ROM, both of which can be found at www.hpcalc.org

Re: An HP48/49 CAS question

*Message #8 Posted by **Valentin Albillo** on 20 Oct 2003, 4:33 a.m.,*
in response to message #7 by Werner Huysegoms

Thanks Werner, it's more or less what I expected and what would be reasonable, by the way. The fact that it manages to solve the n=1/2 case is encouraging.

I've always been somewhat amazed by the fact that sin(sqrt(x)) is elementarily integrable while sin(x^2) is not. One would tend to expect exactly the opposite, as the square root function seems more 'irrational', so to speak, than the simple, polynomial, 'square' function :-)

Best regards from V.

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Thermal paper

*Message #1 Posted by **John Dundas** on 16 Oct 2003, 4:15 p.m.*

Probably no surprise to others, but I was pleased to pick up a package of 9 rolls of thermal paper ("for gas pump receipt and credit/debit card printers") at Staples today for $9.95. Works just fine in the 82240A and I'm sure the other similar printers as well.

Specs are 2-1/4" x 85' or 57mm x 26m.

That's a lot better than ebay!

John

Re: Thermal paper

*Message #2 Posted by **Bill (Smithville, NJ)** on 17 Oct 2003, 1:04 p.m.,*
in response to message #1 by John Dundas

John, I've used this paper also and agree it works great and is cheaper than trying to buy original paper.

But - I've been real lucky this year on finding boxes of original HP paper at local ham fests (Amateur Radio Flea Markets). I've picked up about ten full boxes (both older and newer styles) for $1 each. The last ham fest is this weekend, so I'll see if my luck still holds.

Re: Thermal paper

*Message #3 Posted by **Paul Brogger** on 17 Oct 2003, 3:34 p.m.,*
in response to message #2 by Bill (Smithville, NJ)

Another place to watch is the clearance bins/tables at Staples/OfficeMax/OfficeDepot/etc. They all seem to have one or more pre-opened packages, presumably wrong-sized rolls returned for exchange. They're usually Saran-wrapped and ~half-priced.

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rom fix for 49G

*Message #1 Posted by **Eric Lundgren** on 16 Oct 2003, 2:04 p.m.*

Recently a post showed up regarding the adjustablity of the time in which the 49g records a key press, I believe the function is "KEYTIME". I have checked my rom version and it was the latest official release from HP, since my 49g isn't in front of me, I will guess and say 1.18. Here's the procedure I tried:

1. Clear stack. 2. Introduce the desired value to the stack, I tried 500. 3. Key in 'KEYTIME', including the ' marks.

When this didn't seem to work, I tried : 500-> 'keytime', and other variants. Will someone please point out the correct variant that I must have missed? Or is this feature only on the unofficial 1.19 rom?

Eric

Re: rom fix for 49G

*Message #2 Posted by **Veli-Pekka Nousiainen** on 16 Oct 2003, 2:58 p.m.,*
in response to message #1 by Eric Lundgren

How about using it from the CATalog? The command to set the value is ->KEYTIME. You will find it more easily (while in the CATalog) by pressing [Right-Shift] [0], which says -> in red.

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Batteries?

*Message #1 Posted by **Mike Brady** on 16 Oct 2003, 12:26 p.m.*

I've had difficulty finding alkiline and silver oxide batteries at local retailers, and some battery web sites are outrageously expensive. Anyone know if the site, www.sr44.com , is a good source for batteries? Any suggestions?

Re: Batteries?

*Message #2 Posted by **Tom Cox** on 16 Oct 2003, 12:31 p.m.,*
in response to message #1 by Mike Brady

Have had good success with the batteries I got from that source. Used them in HP-20S, HP-32SII, and HP-42S with no problem. 12345 to delete.

Re: Batteries?

*Message #3 Posted by **John Limpert** on 16 Oct 2003, 2:34 p.m.,*
in response to message #1 by Mike Brady

I recently ordered some calculator batteries from BatteryMart.com. Their prices seem very reasonable if you order 5 or more of a given type. I paid $1.38 each for some Eveready 357s.

Re: Batteries?

*Message #4 Posted by **David Brunell** on 16 Oct 2003, 4:08 p.m.,*
in response to message #1 by Mike Brady

Any good camera shop will have SR/LR 44's. What does it matter what they cost, given the infrequent replacement? ...unless you do a lot of printing of course.

Re: Batteries?

*Message #5 Posted by **Michael** on 17 Oct 2003, 1:24 a.m.,*
in response to message #4 by David Brunell

I bought replacements for my 32S at Radio Shack, bit pricey but I seldom change them.

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Price on ebay

*Message #1 Posted by **Matthias** on 16 Oct 2003, 11:05 a.m.*

People become more crazy than me. I don´t believe it...

http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&item=2563974211

Re: Price on ebay

*Message #2 Posted by **Alfred** on 16 Oct 2003, 12:08 p.m.,*
in response to message #1 by Matthias

Ya, das ist colosssssaaaaaaaallllllll !!!!

Re: Price on ebay

*Message #3 Posted by **Namir Shammas** on 16 Oct 2003, 12:27 p.m.,*
in response to message #1 by Matthias

Way tooooooooooooooooo high!!!!!!!!!!!!

Re: Price on ebay

*Message #4 Posted by **truemondu** on 16 Oct 2003, 2:18 p.m.,*
in response to message #1 by Matthias

Matthias you stupid fool, I can't believe it !!!

Add the prices of your auctions that you won, they include the same items and result to the same amount !

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3034338412 http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3239989263

Probably you should learn to use the calculator(s) you acquired !

Re: Price on ebay

*Message #5 Posted by **truemondu** on 16 Oct 2003, 2:28 p.m.,*
in response to message #1 by Matthias

...sorry for that. I didn't realize that you must be a kind of "handicapped person".

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3045839960

Re: Price on ebay

*Message #6 Posted by **Emmanuel, France** on 16 Oct 2003, 2:31 p.m.,*

in response to message #5 by truemondu

Not fair... Who are you, Mr truemondu?

Re: Price on ebay

*Message #7 Posted by **truemondu** on 16 Oct 2003, 2:57 p.m.,*
in response to message #6 by Emmanuel, France

...not fair? Give me a break and go back to kindergarden !!!

I'm the one who acquired that completely overpaid Calculator! (Which I actually use for work)

Re: Price on ebay

*Message #8 Posted by **Thibaut.be** on 16 Oct 2003, 3:33 p.m.,*
in response to message #7 by truemondu

There is no reason for being aggressive.

We all one day overpaid an ebay item we really desired... Who did not ?

Re: Price on ebay

*Message #9 Posted by **Frederic** on 16 Oct 2003, 4:11 p.m.,*
in response to message #8 by Thibaut.be

You are right, i overpaid ofen on eBay for calculators ... But not over 100$ for a paper brochure indee... But i can understaand it's easy to get crasy with eBay : HP offers is less than the demand so....

Re: Price on ebay

*Message #10 Posted by **truemondu** on 16 Oct 2003, 4:15 p.m.,*
in response to message #8 by Thibaut.be

...if there is anything agressively in my statements then I apologize for all exclamation points that I typed...

...by the way, could you or my "new friend" Matthias sell a really virginal HP-41CV with memory-, time-, and Schenk modul, mint original manuals in its original boxes for less than 500US$?

Re: Price on ebay

*Message #11 Posted by **Raymond Del Tondo** on 16 Oct 2003, 8:01 p.m.,*
in response to message #10 by truemondu

It depends.

The NIB CX's from last year first went for about 75 EUR, and two years ago a complete Schenk module went for about 50 EUR. Of course this was before the price inflation;-) I think it's a mixed calculation. Sometimes you get an item for that much, sometimes nearly for free. So the medium price over time may be moderate.

However, there are some really rare HP-41 related items which I wouldn't let go for less

than you paid for the mentioned set. Interested?

Raymond

Re: Price on ebay

*Message #12 Posted by **Matthias Wehrli** on 17 Oct 2003, 12:47 a.m.,*
in response to message #10 by truemondu

Shure I could sell a virgin CX with Bobby Schenk module, I can do this several time cause I have thm all on stock, but I do not sell them to a aggressive person like you!

Schenkmodul

*Message #13 Posted by **Stephan** on 17 Oct 2003, 2:56 a.m.,*
in response to message #12 by Matthias Wehrli

Hi Matthias - I would be really interested in one of your Schenkmodules. But first let me know about the price(-range). I stepped in to a "Fettnäpfli" before remember the diagnostic module? By the way, did you get it at last? Looking forward hearing from you soon. Gruss Stephan

Schenkmodul die Zweite

*Message #14 Posted by **Stephan** on 17 Oct 2003, 3:10 a.m.,*
in response to message #12 by Matthias Wehrli

Sorry Mattias I have entered a wrong e-mail address in the previous posting. This posting has the corrected one. Gruss Stephan

Re: Price on ebay

*Message #15 Posted by **Matthias** on 17 Oct 2003, 12:51 a.m.,*
in response to message #8 by Thibaut.be

Thibaut, I think he´s become aggressive, cause he now realize his overpaid bid, hehehe... happy paying my dear friend "truemondu" (who does not publish his real name)

Matthias

Re: Price on ebay

*Message #16 Posted by **Emmanuel, France** on 17 Oct 2003, 4:22 p.m.,*
in response to message #7 by truemondu

```
Oh, Sir, please accept my apologies.
I did not realize that I was just a lowly HP-41 user compared with you.
Kindergarten? Why not?
When you are old, you want to be a child,when you are young, you would like to be
older.
There's certainly here some sexy baby sitters. ;o)
No hard feelings, Mr incognito!
```

Re: Price on ebay

*Message #17 Posted by **Namir Shammas** on 16 Oct 2003, 10:11 p.m.,*
in response to message #1 by Matthias

I encourage folks to check out Warren Furlow's HP41CX emulation. This babe has NO key problems, NO battery corrosion, NO display problems, AND NOOOOOO COST!

Also, you can read and write programs to you PC. Now that is a class act!

Namir

PS: DID I MENTION THE EMULATOR IS FREE????

:-)

Warren Furlow's HP41CX emulation

*Message #18 Posted by **David Brunell** on 16 Oct 2003, 11:14 p.m.,*
in response to message #17 by Namir Shammas

I was thinking that a nice feature for the emulator would be the ability to use the keyboard for input. The TI-59 emulator allows this. :p In fact, if all 41CX keys were mapped, then you could get one of those customizable PC keyboards and recreate the 41CX's keyboard.

Next on the wish list would be the ability to resize it (a 2X switch would be fine). On high-resolution screens, the calculator gets pretty small.

David

Re: Warren Furlow's HP41CX emulation

*Message #19 Posted by **Veli-Pekka Nousiainen** on 17 Oct 2003, 3:44 a.m.,*
in response to message #18 by David Brunell

Where is that emulator? URL? I would like to try it at 2048*1536 resolution (21" Sony F520)

Re: Warren Furlow's HP41CX emulation

*Message #20 Posted by **Massimo Gnerucci (Italy)** on 17 Oct 2003, 5:58 a.m.,*
in response to message #19 by Veli-Pekka Nousiainen

Cannot post URL here...

Anyway it's still quite usable @ 1800x1440.

Massimo

Re: Warren Furlow's HP41CX emulation

*Message #21 Posted by **Veli-Pekka Nousiainen** on 17 Oct 2003, 3:02 p.m.,*
in response to message #20 by Massimo Gnerucci (Italy)

I have the URL, and I downloaded the V41. Can someone please send me the LCD4.TTF font file, it was broken...BIG is good at 2048, but HUGE would be even better...

Re: Warren Furlow's HP41CX emulation

*Message #22 Posted by **Richard Garner** on 18 Oct 2003, 1:00 a.m.,*
in response to message #21 by Veli-Pekka Nousiainen

If you go to Warren's website and go to the all emulators download section, you will find a download for the fixed LCD4.TTF for Windows 2000 SP4 and up.

Re: Warren Furlow's HP41CX emulation

*Message #23 Posted by **David Brunell** on 20 Oct 2003, 12:50 a.m.,*
in response to message #18 by David Brunell

My mistake! I was using ev41 and not V41. Everything is much better now. :)

Re: Price on ebay

*Message #24 Posted by **Pavel Korensky** on 17 Oct 2003, 7:36 p.m.,*
in response to message #17 by Namir Shammas

The emulators are perfect. But...

Firstly, there is no value for collector to own the emulator. Secondly, you cannot take the emulator in your pocket and have a good calculator anywhere you go. For me, the main problem with emulators is, that I am not able to use them when I am working on PC. Of course, I have both HP-41 and HP-16C emulators in Start/Accessories/ menu of WinXP, but when I need to calculate something, it is more confortable for me to grab a real calculator.

And one more argument against emulator. It is almost impossible to take bunch of papers, pencil, HP-16C emulator and go to the toilet, where I finally have enough time and peace to think if my newest ASM routine will work. :-)

Re: Price on ebay

*Message #25 Posted by **Ed Look** on 17 Oct 2003, 7:45 p.m.,*
in response to message #24 by Pavel Korensky

Nice to know I have company in the washroom. But make sure I don't leave my HP manuals behind when I leave!

Re: Price on ebay

*Message #26 Posted by **Veli-Pekka Nousiainen** on 17 Oct 2003, 7:58 p.m.,*
in response to message #24 by Pavel Korensky

"Secondly, you cannot take the emulator in your pocket and have a good calculator anywhere you go"

You can - if your emulator runs on a HP48/49 [or - without a proper keyboard - a Palm/PPC, etc. device]

Re: Price on ebay

*Message #27 Posted by **james (UK)** on 18 Oct 2003, 4:31 a.m.,*
in response to message #24 by Pavel Korensky

Not to forget the sheer tactile pleasure of holding a 41 or Voyager in your hand and feeling that satisfying click of the keys - heaven!

HP-16C emulator for Windows XP?

*Message #28 Posted by **Herman** on 18 Oct 2003, 11:49 a.m.,*
in response to message #24 by Pavel Korensky

I was not aware of any HP-16C emulator for Windows XP. Is this a real emulator or just a simulator? Thanks.

Re: HP-16C emulator for Windows XP?

*Message #29 Posted by **Pavel Korensky** on 22 Oct 2003, 7:02 p.m.,*
in response to message #28 by Herman

Just a simulator. But it works OK.

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HP-49G Plus on eBay

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 16 Oct 2003, 9:57 a.m.*

Hi everyone

If some of you is interested, I just found this:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3053677869&category=11712&rd=1

The guy is selling 10 pieces for about $160 each...

Best regards

Nelson

Re: HP-49G Plus on eBay

*Message #2 Posted by **James M. Prange** on 16 Oct 2003, 4:03 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

"The guy" is Chris Edmunds, of Samson Cables. I guess that he's very confident that he'll receive the shipment tomorrow.

Regards,
James

Re: HP-49G Plus on eBay

*Message #3 Posted by **Michael** on 17 Oct 2003, 1:21 a.m.,*
in response to message #2 by James M. Prange

According to Samson Cables' web site the 49g+ I pre-ordered shipped today.

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33S in December ?

*Message #1 Posted by **CME750** on 16 Oct 2003, 12:37 a.m.*

Future availability of HP33S:

****

Calculator Source: "We currently have an expected date of arrival of 12/1/03, but this is very tentative."

Samson Cables: "ETA Dec"

NCEES: "Hewlett Packard expects the HP-33s to be available by 12/1/2003 via www.hpshopping.com"

****

http://shop.store.yahoo.com/calculatorsource/hp-33s.html

http://www.samsoncables.com/catalog/index.cfm

http://www.ncees.org/exams/calculators/

Re: 33S in December ?

*Message #2 Posted by **Juergen (CH)** on 17 Oct 2003, 9:48 a.m.,*
in response to message #1 by CME750

I've pre-ordered an HP-33S. Your posting has caused me to ask my Swiss dealer when I will get my calc. He answered that, according to HP, the 33S will arrive in midst of November.

Maybe, it arrives even later, and I can put it under the Christmas tree... ;-)

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Help, 48G+ serial pins got pushed in.

*Message #1 Posted by **Matt Kernal (US)** on 15 Oct 2003, 12:36 p.m.*

I did a bad, bad thing. I misaligned the 4-pin serial cable connector with the mating connector on my 48G+ and pushed the calculator's 4 pins in too far! I pulled them back out with a needle-nose pliers, but the calculator won't communicate serially anymore.

I guess I have no other choice but to open it :-(so I can re-solder the pins on the inside. With all the different instructions of how to disassemble a 48, can anybody recommend the best, first choice method? Or should I send it to someone that has experience? Upgrade memory at the same time to 256KB+ (currently has 128KB)?

Calling all advisors.. Thx.

Matt

Re: Help, 48G+ serial pins got pushed in.

*Message #2 Posted by **bill platt** on 15 Oct 2003, 1:46 p.m.,*
in response to message #1 by Matt Kernal (US)

Hi Matt,

Well, I have copies at least three different methods that I have found. One of the methods reportedly will work without having to drill any holes. I took apart a 48G with a method requiring sokme cutting and drillig, and it worked out OK but it sure would be nice to do it without leaving a loose body and all the holes!

I will look for these files, and fwd them to you.

BTW, I had a pin push in, too, but pulled it right out with pliers and all is fine. I have a very nice new cable made by Konstantin Lysenko, and it has a little "arrow" to show the way, and it fits snugly, so I hope I don't make the misalignment again!

regards,

Bill

Re: Help, 48G+ serial pins got pushed in.

*Message #3 Posted by **Matt Kernal (US)** on 15 Oct 2003, 4:58 p.m.,*
in response to message #2 by bill platt

>it sure would be nice to do it without leaving a loose body and all the holes!

Exactly.

>I will look for these files, and fwd them to you.

Thanks. I believe there are a couple procedures at hpcalc.org too. I need to take a look at them.

>BTW, I had a pin push in, too, but pulled it right out with pliers and all is fine.

Sounds like you were lucky and pushed the shield pin in.

Re: Help, 48G+ serial pins got pushed in.

*Message #4 Posted by **Victor Koechli** on 16 Oct 2003, 6:18 a.m.,*
in response to message #2 by bill platt

Can you publish these files for all of us? I'd be interested specifically in the method of opening a HP 48 without any drilling...

Thanks, Victor

Re: Help, 48G+ serial pins got pushed in.

*Message #5 Posted by **Ed Look** on 15 Oct 2003, 3:03 p.m.,*
in response to message #1 by Matt Kernal (US)

You might want to try Randy Sloyer at FixThatCalc.com. I believe his specialties are the 48's, both the S and G series, and the Pioneer series machines (32SII, 42S, 20S, etc.) He sometimes posts here and his site and e-mail addresses are listed somewhere on one of the pages of this Museum site.

Re: Help, 48G+ serial pins got pushed in.

*Message #6 Posted by **Matt Kernal (US)** on 15 Oct 2003, 5:08 p.m.,*
in response to message #5 by Ed Look

Thanks for mentioning Randy. I see his repair pricing is pretty reasonable- $39.

I'll have to ask him if he can upgrade memory as well. My feelings are that it could get too expensive to justify (especially cause I'm savin' for a 49G+).

Matt

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MoHPC *The Museum of HP Calculators*

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HP-71 Math Pac Manual

*Message #1 Posted by **Ángel Martin** on 15 Oct 2003, 10:48 a.m.*

Hello,

Anybody has a copy or file available of the HP-71B Math Pack? Will appreciate your letting me know.

Thanks, ÁM.

Re: HP-71 Math Pac Manual [LONG][SPANISH]

*Message #2 Posted by **Valentin Albillo** on 15 Oct 2003, 11:01 a.m.,*
in response to message #1 by Ángel Martin

Mientras lo consigues, espero que esto te pueda servir. Saludos de V.

```
================================================================================
# GUIA DE CONSULTA RAPIDA DE OPERACIONES COMPLEJAS Y MATRICIALES DE LA HP-71 #
================================================================================
--------------------------------------------------------------------------------
|                       OPERACIONES CON NUMEROS COMPLEJOS                      |
--------------------------------------------------------------------------------


COMPLEX A,B(2),C(3,3)
COMPLEX SHORT C(5,5)


    Define y crea en memoria variables, vectores, y matrices complejas, de
    precision REAL (12 cifras mantisa, 3 exponente), o SHORT (5 cifras de
    mantisa, y 2 de exponente)


IMAGE 2D,C(2D.2D,2D.2D,"i")


    Especifica formatos de salida para variables complejas


Todas las funciones que siguen a continuacion funcionan en modo CALC, y
dejan el resultado accesible mediante la funcion RES, como las funciones
normales de la maquina:



Z=(2,3)          Asignacion de un valor complejo (2+3i) a una variable
Z=(2,3)+(4,5)    Suma de complejos
Z=(2,3)-(4,5)    Resta de complejos
Z=(2,3)*(4,5)    Multiplicacion de complejos
Z=(2,3)/(4,5)    Division de complejos
Z=(2,3)^(4,5)    Elevacion de un complejo a la potencia de otro complejo
Z=SQR((2,3))     Raiz cuadrada de un complejo
Z=SIN((2,3))     Seno      id.
Z=COS((2,3))     Coseno    id.
Z=TAN((2,3))     Tangente  id.
Z=SINH((2,3))    Seno hiperbolico id.
Z=COSH((2,3))    Coseno    id.    id.
Z=TANH((2,3))    Tangente  id.    id.
Z=EXP((2,3))     exponencial id.
Z=LOG((2,3))     logaritmo   id.
R=REPT(Z)        Parte real de un complejo
```

```
I=IMPT(Z)       Parte imaginaria
Z=CONJ(Z)       Conjugado de un complejo
Z=ABS(Z)        Modulo de un complejo
Z=ARG(Z)        Argumento de un complejo
Z=SGN(Z)        Vector unitario de un complejo
Z=PROJ(Z)       Proyectividad de un complejo
Z=POLAR(Z)      Conversion de rectangulares a polares
Z=RECT(Z)       Conversion de polares a rectangulares
IF (2,3)=(3,4)  Igualdad entre complejos
IF (2,3)#(3,4)  Desigualdad entre complejos


-------------------------------------------------------------------------------
|                      FUNCIONES MATEMATICAS DIVERSAS                         |
-------------------------------------------------------------------------------


A=SINH(X)       Seno hiperbolico
A=COSH(X)       Coseno       id.
A=TANH(X)       Tangente     id.
A=ASINH(X)      Arcoseno     id.
A=ACOSH(X)      Arcococoseno   id.
A=ATANH(X)      Arcotangente id.
A=GAMMA(X)      Funcion gamma
A=LOG2(X)       Logaritmo en base 2
A$=BSTR$(N,B)   Convierte el valor N a la base B (2,8,o 16)
A=BVAL(N$,B)    Convierte la string en base B (2,8,16) en su valor base 10
A$=NAN$(N)      Da el error contenido en el NaN almacenado en N
N=NEIGHBOR(X,Y) Da el sucesor de X en la direccion de Y
N=SCALE10(X,Y)  Multiplica X por 10 elevado a Y
N=IROUND(X)     Redondea X segun la OPTION ROUND activa
N=TYPE(X)       Da el tipo de la variable X (o X$), que puede ser matricial


-------------------------------------------------------------------------------
|                          OPERACIONES MATRICIALES                            |
-------------------------------------------------------------------------------


NOTA: TODAS ESTAS OPERACIONES MATRICIALES FUNCIONAN TAMBIEN CON MATRICES
      COMPLEJAS.


DIM A(2),B(3,4)
REAL A(2),B(3,4)
COMPLEX A(2),B(3,4)


    Dimensiona (o redimensiona si ya existen) matrices y vectores de
    precision REAL (12 cifras mantisa y 3 de exponente).


SHORT A(2),B(3,4)
COMPLEX SHORT A(2),B(3,4)


    Dimensiona (o redimensiona, si ya existen), matrices y vectores de
    precision corta SHORT (5 cifras de mantisa y 2 de exponente)


INTEGER A(2),B(3,4)


    Dimensiona (o redimensiona si existen) matrices y vectores de
    precision entera INTEGER (-99999 a +99999)


DESTROY A(2),B(3,4)


    Destruye los vectores o matrices especificados, liberando la memoria
    que ocupaban


MAT A=ZER                   Pone a cero la matriz A
MAT A=IDN                   Convierte la matriz A en una matriz identidad
MAT A=CON                   Pone todos los elementos de A iguales a 1
MAT A=(X)                   Pone todos los elementos de A iguales a X
MAT A=B                     Hace la matriz A igual a la B
```

```
MAT A=-B                    Cambia el signo de la matriz
MAT A=TRN(B)                Hace la matriz A igual a la traspuesta de B
MAT A=B+C                   Suma de matrices
MAT A=B-C                   Resta de matrices
MAT A=B*C                   Multiplicacion matricial
MAT A=(X)*C                 Multiplica todos los elementos por un numero
MAT A=TRN(B)*C              Multiplica la traspuesta de B por C
MAT A=INV(B)                Inversa de una matriz
MAT X=SYS(A,B)              Resuelve los sistemas de ecuaciones de matriz A y
                            terminos independientes B, y pone el resultado en X
MAT INPUT A,B               Pide los elementos de una serie de matrices
MAT DISP A,B                Muestra en pantalla una serie de matrices
MAT DISP USING 1000;A,B     Lo mismo, pero utilizando un formato
MAT PRINT A,B               Imprime los elementos de una serie de matrices
MAT PRINT USING 1000;A,B    Lo mismo, pero utilizando un formato
X=DET(A)                    Calcula el determinante de una matriz
X=DOT(A,B)                  Calcula el producto vectorial de dos vectores
X=RNORM(A)                  Calcula la norma por filas (suma de elementos)
X=CNORM(A)                  Calcula la norma por columnas (id)
X=FNORM(A)                  Calcula la norma euclidiana (raiz cuadrada de la
                            suma de los cuadrados de los elementos)
X=UBOUND(A,1)               Subindice superior de la matriz en la dimension 1
X=LBOUND(A,2)               Subindice inferios de la matriz en la dimension 2


Ejemplo: resolver el sistema de ecuaciones


                   2*a+b+3*c=6
                   5*a-b+4*c=8
                  -3*a+2*b-c=-2


DESTROY ALL @ OPTION BASE 1 @ DIM A(3,3),B(3),X(3)
MAT INPUT A,B
                  2,1,3,5,-1,4,-3,2,-1,6,8,-2 [ENTER]


MAT X=SYS(A,B) @ FIX 4 @ DELAY 0.5,0.5 @ MAT DISP X


-------------------------------------------------------------------------------
|               RAICES E INTEGRALES DE POLINOMIOS Y OTRAS FUNCIONES           |
-------------------------------------------------------------------------------


X=FNROOT(A,B,FNF(FVAR))


   Calcula la raiz real comprendida entre A y B de la ecuacion FNF(X)=0
   dada por el usuario. Si no existe, calcula el minimo de la funcion en
   ese intervalo. Se pueden anidar hasta 5 llamadas a FNROOT, pudiendo
   asi resolver sistemas de ecuaciones no lineales con hasta 5 incognitas
   o bien determinar maximos y minimos de una funcion de hasta 5 variables.


   FVAR   representa la variable de la funcion,y contiene su valor. Debe
          emplearse en la definicion de la ecuacion en lugar de la incognita.
   FVALUE es el valor de la funcion en la raiz. Debe ser 0 o casi 0, si es
          una raiz. Sino, la X hallada es un minimo de la funcion.
   FGUESS es la aproximacion anterior a la raiz


   Nota: la ecuacion a resolver puede estar definida:


         - en la propia llamada    : X=FNROOT(1,2,FVAR^3-FVAR-1)


         - en una funcion definida : X=FNROOT(1,2,FNF(FVAR))


               donde se supone  que existe una funcion definida de una
               sola linea o multilinea que define la ecuacion:


                    10 DEF FNF(X)=X^3-X-1
```

X=INTEGRAL(A,B,P,FNF(IVAR))

Calcula la integral entre A y B de la funcion FNF(X) dada por el usuario con la precision P. Al terminar, aparte del valor de la integral, se puede utilizar IBOUND, que da el valor maximo del error cometido. Se pueden anidar hasta 5 llamadas a INTEGRAL, lo cual permite calcular integrales multiples de hasta 5 variables.

IBOUND da el valor maximo del error, si es negativo no hubo convergencia
IVAR representa la variable de integracion, y almacena su valor. Debe emplearse en la definicion de la integral en lugar de la variable de integracion.
IVALUE es el valor de la ultima integral calculada

Nota: la funcion a integrar puede definirse:

- en la propia llamada : I=INTEGRAL(0,1,1E-5,SIN(IVAR)*COS(IVAR))

- en una funcion definida: I=INTEGRAL(0,1,1E-5,FNF(IVAR))

donde se supone que existe una FNF asi:

```
10 DEF FNF(X)=SIN(X)*COS(X)
```

Nota: INTEGRAL puede emplear FNROOT en la definicion de la funcion, y viceversa, de forma que es posible

- resolver ecuaciones en las que aparecen funciones definidas por integrales

  ej: hallar la x que corresponde a un valor dado de la probabilidad definida por una campana de Gauss

- integrar funciones implicitas

  ej: integrar la funcion definida por X^3+Y^3-3*X*Y=0 (folio de Descartes) entre 0 y 1

MAT R=PROOT(P)

Dado el vector P, que contiene los coeficientes de la ecuacion polinomica de cualquier grado cuyas raices queremos hallar, calcula todas las raices reales y/o complejas, y las coloca en el vector complejo R.

Ejemplo: Hallar todas las raices de la ecuacion

x^5-3*x^4+8.1*x^2-1.37=0 (5 raices, 6 coeficientes)

```
DESTROY ALL @ OPTION BASE 1 @ DIM P(6) @ COMPLEX R(5)
MAT INPUT P
              P(1)=?   1,-3,0,8.1,0,-1.37 [ENTER]
```

```
   MAT R=PROOT(P) @ FIX 4 @ DELAY 0.5,0.5 @ MAT DISP R


-------------------------------------------------------------------------------
|                       SERIES Y TRANSFORMADAS DE FOURIER                     |
-------------------------------------------------------------------------------


MAT Z=FOUR(B)

   Calcula la transformada directa o inversa, o la serie de Fourier de una
   serie de datos almacenados en la matriz B, y coloca el resultado en la
   matriz Z.
```

Re: HP-71 Math Pac Manual [LONG][SPANISH]

*Message #3 Posted by **Angel Martin** on 15 Oct 2003, 2:53 p.m.,*
in response to message #2 by Valentin Albillo

Valentin,

mil gracias por tu pronta y efectiva respuesta. Efectivamente esto me encauza por el buen camino a descubrir este modulo.

Saludos desde la selva negra, AM

Un par de ejemplos [SPANISH]

*Message #4 Posted by **Valentin Albillo** on 16 Oct 2003, 6:40 a.m.,*
in response to message #3 by Angel Martin

Celebro que te sea util, Angel. Aqui te adjunto un par de ejemplos de elaboracion propia, para que veas mejor como se usan de forma anidada las potentes funciones "solve" (FNROOT) e "integrate" (INTEGRAL) que este maravilloso ROM proporciona.

Saludos de V.

```
Ejemplo de integral doble (82 bytes):
-------------------------------------


  Calcular la integral doble entre [1,2] y [3,4] de la
  funcion z = 1/(X+Y)^2


  10 DEF FNF(X,Y)=1/(X+Y)/(X+Y)
  20 DEF FNG(X)=INTEGRAL(1,2,.001,FNF(X,IVAR))
  30 DISP INTEGRAL(3,4,.001,FNG(IVAR))


     RUN -> 4.08219617611E-2


  El valor exacto es Ln(25/24) = 4.08219945235E-2. Con
  la tolerancia 0.001 hemos obtenido 6-7 cifras correctas.
  Este ejemplo tambien podria hacerse directamente desde
  el teclado, sin necesidad de lineas de programa.



Ejemplo de resolucion de un sistema de dos ecuaciones
no lineales con dos incognitas (135 bytes)
-------------------------------------------------------


  Resolver el sistema:
```

```
             sin(x+y) = x
             cos(x-y) = y


  1 RADIANS
 10 DEF FNF(X,Y)=X-SIN(X+Y)
 20 DEF FNG(X,Y)=Y-COS(X-Y)
 30 DEF FNY(X)=FNROOT(1,5,FNF(X,FVAR))
 40 X=FNROOT(1,5,FNG(FVAR,FNY(FVAR)))
 45 Y=FNY(X)
 50 FIX 5 @ DISP X;Y


    RUN -> 0.93508   0.99802


           X-SIN(X+Y) -> 2.00000E-12
           Y-COS(X-Y) -> 3.00000E-12


    Hemos especificado que las raices se busquen en el
intervalo [1..5], y los valores obtenidos son exactos
hasta 12 cifras (aunque solo mostramos 5). Para otras
ecuaciones o sistemas mas grandes (hasta 5 ecuaciones
simultaneas), se generaliza sin problema.
```

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Harmonic Analyser

*Message #1 Posted by **Dr. John Hennessy** on 15 Oct 2003, 7:32 a.m.*

I am desperately looking for a hand book for a Harmonic Analyser Number 3 made by Stanley of London. Can any body help please. I would be very willing to pay for a photo copy.

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in london

*Message #1 Posted by **christof (UK for a bit)** on 15 Oct 2003, 3:49 a.m.*

And if I find time- I'd love to meet up with someone local. (I'm in kensignton)

In the meantime, all my meetings and doings in the US are sor tof cancelled for the week :)

-Christof

Re: in london

*Message #2 Posted by **hugh** on 15 Oct 2003, 12:48 p.m.,*
in response to message #1 by christof (UK for a bit)

there's me. anyone else?

Re: in london

*Message #3 Posted by **Paul Fox** on 15 Oct 2003, 3:34 p.m.,*
in response to message #2 by hugh

Possibly me...but when/where. I live in surrey but work in canary wharf ....

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Reverse Engineering HP Solve [long]

*Message #1 Posted by **Patrick** on 15 Oct 2003, 3:28 a.m.*

For the past couple of months I've been engaged in the rather fun intellectual exercise of trying to reverse engineer the HP Solve algorithm, as found on the HP-34C and HP-15C (experiments suggest it is the same). My source material for this effort is primarily the HP Journal article by William H. Kahan on the implementation of Solve for the HP-34C. Very similar discussions appear in other HP literature, such as the HP-15C Advanced Functions Handbook.

After writing a program for the HP-11C which incorporates *most* of the details described in those articles, I wised up and realized that I first ought to build a spreadsheet which implements the algorithm correctly. The spreadsheet is a bit cumbersome as a programming language, but at least I was not restriced to fitting the "program" in to the relatively meager amount of resources offered by the 11C.

In Kahan's article, he uses several examples to illustrate how Solve behaves based on the following family of function:

```
f(x) = exp(x) + A*x + B
```

for various values of A, B and starting guesses.

I was successful in building a spreadsheet which generates the exact (well, almost exact) sequence of root approximations for those problems as does the HP-34C or HP-15C. To say the least, I was very happy there for a while. The spreadsheet correctly computes the secant approximation and takes into account most of the algorithm features described by Kahan.

There is a feature, though, which Kahan describes as *bending the secant*. This happens when a root has been *bracketed* between two guesses but the secant method, used blindly, would land you outside of those brackets. Alas, none of the problems he gives in the article need to bend the secant in order to find a root. Once I found a problem which did have to bend the secant, my spreadsheet results diverged from those produced by my calculators.

Sigh.

So, here I am with a plea to the HP calculator community. If anyone is aware of *any* details regarding the HP Solve algorithm, especially in regards to bending secants, I would be quite grateful for a hint! Dr. Kahan, are you out there? ;-)

Re: Reverse Engineering HP Solve [long]

*Message #2 Posted by **Veli-Pekka Nousiainen** on 15 Oct 2003, 4:06 a.m.,*
in response to message #1 by Patrick

Patrick: could you publish the spreadsheet as it is, please? VPN

Re: Reverse Engineering HP Solve [long]

*Message #3 Posted by **Patrick** on 15 Oct 2003, 4:29 p.m.,*

in response to message #2 by Veli-Pekka Nousiainen

Yes, I will publish the spreadsheet but I would *really* like to get it to be much more faithful to the HP Solve algorithm first. I would also have to write a mess of documentation for it. I wrote this thing for my own use. To get it to the point where it would useful to others is a job.

My question to you all is, what is the appropriate medium for publication? There is also the HP-11C program which implements the algorithm (to some degree!). Maybe our esteemed Curator would like to weigh in on this?

Re: Reverse Engineering HP Solve [long]

*Message #4 Posted by **Bruce Horrocks** on 16 Oct 2003, 10:16 a.m.,*
in response to message #3 by Patrick

> My question to you all is, what is the appropriate medium for publication?

I would be very happy to publish your discoveries in Datafile (www.hpcc.org) if you are willing to write them up in article form.

Bruce <mailto:editor@hpcc.org_sans_spam>

Re: Reverse Engineering HP Solve [long]

*Message #5 Posted by **Dave Hicks** on 16 Oct 2003, 3:33 p.m.,*
in response to message #3 by Patrick

My first thought is the articles forum. If your post is too complex for forum formatting, you can send me HTML and I can insert it into an article post.

David, any chance ?

*Message #6 Posted by **Valentin Albillo** on 17 Oct 2003, 4:24 a.m.,*
in response to message #5 by Dave Hicks

David posted:

"My first thought is the articles forum. If your post is too complex for forum formatting, you can send me HTML and I can insert it into an article post. "

Any chance you would reconsider admitting articles in PDF format ? :-)

Best regards from V.

Edited: 17 Oct 2003, 5:24 a.m.

Re: Reverse Engineering HP Solve [long]

*Message #7 Posted by **Herman** on 15 Oct 2003, 8:35 a.m.,*
in response to message #1 by Patrick

Can the spreadsheet solve f(x) = cos(nx), where n is an integer, given initial guesses a = 0 and b = 2PI/n ?

Re: Reverse Engineering HP Solve [long]

*Message #8 Posted by **Patrick** on 15 Oct 2003, 4:56 p.m.,*

in response to message #7 by Herman

Well, no and ... yes.

Of course, as Kahan points out in his Solve article, any algorithm which depends upon function sampling can be led astray by a careful selection of the function.

Your example, though, is problematic to the HP Solve algorithm due to the mulitples of pi/n that the algorithm tends to generate. The culprit here is the number 100 in the part of the algorithm which makes the restriction:

```
|x3-x2| <= 100 |x2-x1|
```

See Kahan's article for a reference to this. The number 100 is problematic for your example mostly because it is an integer. If I change my spreadsheet to use the number 99.67 instead, it brackets a root and, therefore, eventually converges to it.

I just want to point out that my intent is to reverse engineer the existing HP Solve algorithm, as it is found on the HP-15C. My intent is not to build a better Solver (that would be considered "Phase 2" ;-).

Re: Reverse Engineering HP Solve [long]

*Message #9 Posted by **Patrick** on 15 Oct 2003, 4:59 p.m.,*
in response to message #8 by Patrick

BTW... it occurs to me that precisely the sort of circumstance exhibited by your example is what might have led HP to introduce the randomization I referred to in my initial post.

Solve in HP48

*Message #10 Posted by **Mike (Stgt)** on 15 Oct 2003, 9:20 a.m.,*
in response to message #1 by Patrick

Pls allow me a subject drift to the solver of HP-48GX. A colleague just asked me if the algorithm is available. He has written one in C that up to now never failed where the one from the HP48 did. (Well, I'll give him some patholotic functions that are known to fool every solver like

```
y = 3*SQ(x) + LN(SQ(PI - x))/SQ(SQ(PI)) + 1
```

) Now he wants to see how HP did implement SOLVE on the HP48.

TIA.....Mike

Re: Reverse Engineering HP Solve [long]

*Message #11 Posted by **David Brunell** on 15 Oct 2003, 10:44 a.m.,*
in response to message #1 by Patrick

Why not look at a 41C Advantage or Math Pac listing? I think the algorithm is pretty close to the 15C.

Re: Reverse Engineering HP Solve [long]

*Message #12 Posted by **Mike (Stgt)** on 15 Oct 2003, 11:12 a.m.,*
in response to message #11 by David Brunell

IFAIK, in the Advantage it's written in MCode. PPCROM would be a good idea as it comes with a very complete manual, no - documentation!

But I assume the algorithms in other HP calculators vary in some respects.

Re: Reverse Engineering HP Solve [long]

*Message #13 Posted by **Patrick** on 15 Oct 2003, 4:31 p.m.,*
in response to message #11 by David Brunell

I have the Advantage Pac, but the Solve algorithm is written in assembler. It is not listable as a normal HP-41C program. Of course, if I had such a listing, my reverse engineering job would be somewhat moot! I don't know if that would be a good thing or a bad one...!

Re: Reverse Engineering HP Solve [long]

*Message #14 Posted by **J-F Garnier** on 16 Oct 2003, 8:00 a.m.,*
in response to message #13 by Patrick

You can have a look at the Advantage Solve code with any emulator that supports ROM modules and have a disassembly function (for instance, my Emu41 :-)

J-F

Re: Reverse Engineering HP Solve [long]

*Message #15 Posted by **Valentin Albillo** on 15 Oct 2003, 11:41 a.m.,*
in response to message #1 by Patrick

Patrick wrote:

"There is a feature, though, which Kahan describes as bending the secant. This happens when a root has been bracketed between two guesses but the secant method, used blindly, would land you outside of those brackets. Alas, none of the problems he gives in the article need to bend the secant in order to find a root. Once I found a problem which did have to bend the secant, my spreadsheet results diverged from those produced by my calculators."

Please post *details*, i.e: exact "problem which did have to bend the secant", your exact and complete spreadsheet's results for said example, same for the actual calculator's results.

If you've got more than one "secant-bending" example available, the more the merrier.

Best regards from V.

Re: Reverse Engineering HP Solve [long]

*Message #16 Posted by **Patrick** on 15 Oct 2003, 3:13 p.m.,*
in response to message #15 by Valentin Albillo

To see the effect of the bent secant characteristic of HP Solve, try the following experiment. Using an HP-34C or an HP-15C (other calculators may use the same algorithm, I have not verified any others yet), key in a program which consists of a single instruction, R/S, sandwiched between a label and a RTN:

```
LBL A
R/S
RTN
```

This program forms my lab bench upon which I perform experiments on Solve. If you run "Solve A" the program will stop each time it calls your "function". The program simply waits for you to look at the x

value in the display and type in the y value you want to correspond to it. You then press R/S to continue the Solve algorithm.

Using this technique, you can present the algorithm with any sort of situation you like, without having to craft some sort of mathematical function that does it for you.

With this setup, start Solve running with initial guesses x1=1 and x2=-1 (1, ENTER, CHS, SOLVE A). When your program stops to get y values, suppy the values y1=1 and y2=-1 (i.e., just press R/S each time). Of course the secant line between these two points lands you smack dab at the origin, so the next x point you'll be asked about is x3=0. Well, not quite. There is a certain amount of what can only be described as *randomization* inserted by HP Solve, so what you get is an x3 value *near* zero. For this x value, whatever it is, supply the y value y3=-0.8.

So far, you've given the algorithm three points to consider: (1,1), (-1,-1), and (0, -0.8). Note that the first two x values already *bracket* the root, since the corresponding y values are of opposite signs. The brackets become *tighter* once you know that the value of the function at zero is negative. Now the root should lie between 0 and 1. However, if you try to draw the secant line between the second and third points, the resulting x value is x4=4, outside of the brackets. This is where the bending of secant should take place, so as to guarantee x4 stays between the brackets: $0 < x4 < 1$.

My spreadsheet uses the following algorithm: If the secant method lands you outside the brackets, pick the midpoint of the brackets for the next trial. In this case, my spreadsheet would choose x4=0.5. The HP Solve algorithm on my HP-15C doesn't do this. It selects x4=0.6997201114.

My question is, how is that strange number selected?

In fact, after an initial period of experimentation, I believe that the HP Solve algorithm has computed:

```
x4 = base + randomizer
```

where base=0.7 and the randomizer is on the order of (5e-4 * base). I have an inkling as to why the randomization is included, but it is still pretty foggy to me.

Anyhow, why 0.7? That is my question.

Using this technique, one can generate any number of examples of when the bent secant algorithm is needed. Using a series of experiments, I have determined that:

- The x4 value scales linearly in x1 and x2 (i.e., replace x1 by c*x1 and x2 by c*x2 and the x4 value changes to c*x4)
- The x4 value scales linearly in y1 and y2.
- The x4 value does not depend on a value of x and y previous to (x1,y1).

I have computed the value of x4 for a host of values of y3 and have plotted the results, but don't have a functional relationship there yet. Still trying...

Re: Reverse Engineering HP Solve [long]

*Message #17 Posted by **Mike (Stgt)** on 15 Oct 2003, 3:50 p.m.,*
in response to message #16 by Patrick

Aha! Now I've got the point. Alas I can not tell you the solution right away.

Ciao.....Mike

Re: Reverse Engineering HP Solve [long]

*Message #18 Posted by **hugh** on 15 Oct 2003, 5:46 p.m.,*
in response to message #16 by Patrick

im wondering if its fitting some parabola to the points. according to the manual, it sometimes fits a parabola then takes the x value where this curve is min or max.

for (-1,-1),(0,-0.8),(1,1) i get y = 0.8x^2+x-0.8 using this directly for y = 0, gives x = 0.5542 and it mimimises at x = -0.625, neither of which give 0.7

inverse quadratic interpolation (brents method) gives x4 = 2.222 (out of range) and ridders method gives x4 = 0.6247

ridders method is pretty good btw, i'd recommend it as a possible improved algorithm.

Mystery Solved

*Message #19 Posted by **Patrick** on 23 Oct 2003, 1:45 p.m.,*
in response to message #16 by Patrick

Just wanted to let people know that I've solved this little mystery. I am now quite certain the "true" value in the example I illustrated was, in fact, 0.7. Referring to figure 6 in Kahan's article on the HP-34C Solve algorithm, I believe the following alogorithm is used to bend the secant (I write a, b,c,... instead of the Greek letters alpha, beta, gamma, ...):

Let

```
r = (a-c)/(s-c)
```

Where s is the place line 1 in that figure intersects the x axis. Thus, s is the place where the secant method would bring us to if we *didn't* bend the secant. Set r=0 if the line never intersects the x axis. We see that r is the ratio between the size of the best known brackets for the root and the distance the secant method wants to travel from the previous best estimate for the root (which is c). The HP-34C and HP-15C use the following formula for where the secant should be bent:

```
d = c + (a-c)*t
```

where

```
t = (2-r)/(3-2*r)
```

Applying this to the example I gave, c=0, a=1, s=4, so r=0.25 and t=0.7, as advertized.

As I mentioned in my previous post, this is not exact. There is some randomization added in. I doubt that I'll ever be able to figure out the formula for that since the effects are quite small.

Edited: 23 Oct 2003, 1:48 p.m.

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HP-49G+ shipping?

*Message #1 Posted by **Ed Look** on 14 Oct 2003, 10:25 p.m.*

It appears the 49G+ has started to be shipped from Calculator Source, at least according to their site a few minutes ago...

Re: HP-49G+ shipping?

*Message #2 Posted by **Chris Angus** on 15 Oct 2003, 9:07 p.m.,*
in response to message #1 by Ed Look

Woo-hoo! i'm ready for the speed and plastic keyboard

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Libraries for hp49g

*Message #1 Posted by **rortiz** on 14 Oct 2003, 6:06 p.m.*

Where can I get libraries like the 48gx ones, for my hp49g.

wwww.hpcalc.org (nt)

*Message #2 Posted by **Raymond Del Tondo** on 14 Oct 2003, 6:31 p.m.,*
in response to message #1 by rortiz

www.hpcalc.org (nt;-)

*Message #3 Posted by **Raymond Del Tondo** on 14 Oct 2003, 6:33 p.m.,*
in response to message #2 by Raymond Del Tondo

sorry for the mistake

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Wanting Info on Monroe "Educator" Mechanical Adding Machine

*Message #1 Posted by **Paul Brogger** on 14 Oct 2003, 5:21 p.m.*

Is anyone here, or does anyone know of, a source of information on the Monroe "Educator" mechanical adding machine?

There is no model # on the outside, but I'll look for one in the next few days when I open it up.

I just now picked it up and haven't found anything with a few quick Google searches. If anyone knows something or where to look, I will appreciate hearing from you.

Thanks . . .

Re: Wanting Info on Monroe "Educator" Mechanical Adding Machine

*Message #2 Posted by **Charlie O.** on 14 Oct 2003, 6:07 p.m.,*
in response to message #1 by Paul Brogger

Go here and find Calclist-T and subscribe.

http://www.webcom.com/calc/

There are many links to other sites as well. To use it simply enter the numbers by pressing the keys and turn the large crank. The small crank at the end of the carriage clears the registers and the T crank on front is the carriage shift. Reprints of instructions are available from Office Machines Americana in Idaho.

Re: Thanks for the leads . . .

*Message #3 Posted by **Paul Brogger** on 15 Oct 2003, 10:12 a.m.,*
in response to message #2 by Charlie O.

It seems that in early searching I was too focussed on the "Educator" model name -- searches for "monroe adding machine" & the like gave relevant results -- not surprisingly, some of them right here at the MoHPC.

I also found record of an eBay sale of a similar item, though *that* one appears to have been much more complete and probably in better condition that is the one I found. (Mine appears older, with red & gold block letters for the company logo, but is missing its large right-hand crank.)

I'll check the references you've given. Thanks again.

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hp71 32k CMT Ram Module troubleshooting

*Message #1 Posted by **Andy** on 14 Oct 2003, 5:07 p.m.*

I took a chance and bought an "untested" 32K CMT ram module recently. Well, its tested now and its not working :(Guess that makes the price/Kb infinite.

I have disassembled the module. All of the contact fingers look good. There are two potted ic's and a single memory chip (NEC 8616K910 D43256G-15L).

What are the chances its the memory chip? Is that easily replaceable?

Thanks,

Andy

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HP41CV cardreader

*Message #1 Posted by **Karel Marchena** on 14 Oct 2003, 9:01 a.m.*

I repaired the cardreader with fuel line and it runs o.k. but gives a card error massage each time after reading the magnetic card. I resized the register to 026 so this is o.k. too, but still gives the error massage. I realised that I switched the black electrical wire with the orange wire. Maybe I damaged the cardreader doing so?. After having this problem I switched it back. The cardreader still gives the error masage. Maybe I need to buy a new cardreader? Is there anyone who has a cardreader?Please advise. Thanks Karel

Re: HP41CV cardreader

*Message #2 Posted by **David Smith** on 14 Oct 2003, 12:40 p.m.,*
in response to message #1 by Karel Marchena

Switching the head wires should not damage the reader. Make sure that the black and red motor wires are routed as far from the head as possible.

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HP49G Connectivity

*Message #1 Posted by **Neil Strickland** on 14 Oct 2003, 6:55 a.m.*

Dear All, My HP 49G displays the message "Awaiting Server Cmd" but the PC connectivity kit(ver 3.0r4 running on Windows XP Pro) fails to "Connect to the Calculator" and "Get calculator information". The lower pane on the PC connectivity kit screen just displays "double click to try to connect" and I get the same errors above when I try to do so. I am able to print screen dumps from the calculator to the PC so I know the connection is okay. Has anyone got any suggestions?

Regards, Neil

Re: HP49G Connectivity

*Message #2 Posted by **Victor Koechli** on 14 Oct 2003, 7:27 a.m.,*
in response to message #1 by Neil Strickland

Make sure the port settings (speed, baud rate, parity etc) are the same as on your HP and that you select the correct port.

Cheers, Victor

Re: HP49G Connectivity

*Message #3 Posted by **Neil Strickland** on 14 Oct 2003, 7:41 a.m.,*
in response to message #2 by Victor Koechli

Thanks. I am using kermit and all the settings on the calculator (port, translation, baud and checksum) match those on the PC conn kit. Parity is set to "none", checksum=3, etc. Still no luck...

Neil

Re: HP49G Connectivity

*Message #4 Posted by **Iqbal** on 14 Oct 2003, 11:35 a.m.,*
in response to message #3 by Neil Strickland

Where it says "Connect using" , select HPx9G+ option. Select from file if you want to download or upload. Type filename in box. The rest would be displayed on box tat comes up. Good luck.

Re: HP49G Connectivity

*Message #5 Posted by **Veli-Pekka Nousiainen** on 14 Oct 2003, 12:10 p.m.,*
in response to message #4 by Iqbal

"Where it says "Connect using" , select HPx9G+ option. Select from file if you want to download or upload. Type filename in box. The rest would be displayed on box tat comes up. Good luck."

Where did he say "hp 49g+"???

Re: HP49G Connectivity

*Message #6 Posted by **Neil Strickland** on 14 Oct 2003, 6:05 p.m.,*
in response to message #5 by Veli-Pekka Nousiainen

No, its definitely not a HP49G+.

Re: HP49G Connectivity

*Message #7 Posted by **Brandon Del Bel** on 14 Oct 2003, 6:53 p.m.,*
in response to message #6 by Neil Strickland

same thing happened to me, but I think my home-made cable finally broke (I made it rather quickly).

Re: HP49G Connectivity

*Message #8 Posted by **Iqbal** on 14 Oct 2003, 11:35 a.m.,*
in response to message #3 by Neil Strickland

Where it says "Connect using" , select HPx9G+ option. Select from file if you want to download or upload. Type filename in box. The rest would be displayed on box tat comes up. Good luck.

Re: HP49G Connectivity

*Message #9 Posted by **Veli-Pekka Nousiainen** on 14 Oct 2003, 12:10 p.m.,*
in response to message #8 by Iqbal

"Where it says "Connect using" , select HPx9G+ option. Select from file if you want to download or upload. Type filename in box. The rest would be displayed on box tat comes up. Good luck."

Where did he say "hp 49g+"???

Re: HP49G Connectivity

*Message #10 Posted by **Neil Strickland** on 14 Oct 2003, 6:05 p.m.,*
in response to message #9 by Veli-Pekka Nousiainen

No, its definitely not a HP49G+.

Re: HP49G Connectivity

*Message #11 Posted by **Brandon Del Bel** on 14 Oct 2003, 6:53 p.m.,*
in response to message #10 by Neil Strickland

same thing happened to me, but I think my home-made cable finally broke (I made it rather quickly).

Press DEL when your PC booting...

*Message #12 Posted by **Tizedes Csaba** on 14 Oct 2003, 1:26 p.m.,*
in response to message #1 by Neil Strickland

...then check, that port is setted to 'Enabled', what you tried to use!

Good luck!

Csaba

Re: Press DEL when your PC booting...

*Message #13 Posted by **Iqbal** on 14 Oct 2003, 2:13 p.m.,*
in response to message #12 by Tizedes Csaba

OOPs sorry.

Re: HP49G Connectivity

*Message #14 Posted by **James M. Prange** on 14 Oct 2003, 8:27 p.m.,*
in response to message #1 by Neil Strickland

I've occasionally had this happen. Doing a "Restart" on MS Windows 98SE always seems to get it working again for me. I'm not positive, but I think that connecting to the calculator with HyperTerminal (and then disconnecting HyperTerminal) has fixed it too. I'm guessing that for some reason MS Windows "thinks" that that COM port is already in use.

Re: HP49G Connectivity

*Message #15 Posted by **Neil Strickland** on 15 Oct 2003, 8:05 a.m.,*
in response to message #14 by James M. Prange

Thanks guys, I still can't work out why I can do a calculator screen dump to the PC yet it tells me it has failed to connect. I'm obviously doing something wrong. I will persevere (or perish trying!!)

Re: HP49G Connectivity

*Message #16 Posted by **Victor Koechli** on 16 Oct 2003, 7:24 a.m.,*
in response to message #1 by Neil Strickland

I've tried the new version (3.04) in the meantime, it works without any problems with both my HP 48G+ and 49G.

Some thoughts to consider:

- Make sure that the COM port your calculator is connected to is actually enabled, as suggested by Tizedes Csaba.

- Make sure the COM port you're thinking of is the one you're actually using. I know it sounds silly, but maybe you think you're on port 1 when it's actually port 2.

- Check if any other application (e.g. fax software or the program to make screen shots from your HP) is using that port, preventing HPComm from using it. If so, disable them and try again.

- Make sure you actually use Kermit. Start the server on you HP by pressing and holding right-shift, then pressing right arrow. On my 1.19-5 ROM, not holding right-shift when pressing right arrow starts the Xmodem server instead. It should say 'Awaiting server command' in the display.

- Check if translation (Newline) and checksum (3) settings are the same as in HPComm.

- Delete any IOPAR variables sticking around to revert to the calculators defaults, and move to the home

diretory before starting the server.

Hmmm.. can't think of any more right now. Tell us if you succeed. Good luck!

Cheers, Victor

One more thing..

*Message #17 Posted by **Victor Koechli** on 16 Oct 2003, 7:30 a.m.,*
in response to message #16 by Victor Koechli

.. just crossed my eyes: On HP's website there is no mentioning of Win XP, just older versions up to 2000. Maybe someone else can comment on this? I'm using 2000 myself, which obviously works OK.

Cheers, Victor

Re: One more thing..

*Message #18 Posted by **Arnold Steekelenburg** on 16 Oct 2003, 8:32 a.m.,*
in response to message #17 by Victor Koechli

I have no problems whatsoever using win XP Home Edition.

Re: One more thing..

*Message #19 Posted by **Veli-Pekka Nousiainen** on 16 Oct 2003, 11:15 a.m.,*
in response to message #18 by Arnold Steekelenburg

I have no problems whatsoever using win XP Pro Edition.

Re: One more thing..

*Message #20 Posted by **Victor Koechli** on 16 Oct 2003, 7:58 p.m.,*
in response to message #19 by Veli-Pekka Nousiainen

You are right, of course. With a little searching an clicking you can find a 'Windoes XP compatibility statement' on HP's website. HPComm for HP 48/49 is said to be fully compatible.

Neil, any news?

Cheers, Victor

No news is good news

*Message #21 Posted by **Neil Strickland** on 16 Oct 2003, 10:52 p.m.,*
in response to message #20 by Victor Koechli

Not in this case... No luck as yet but I will try out your earlier suggestions. I really appreciate everyone's input. Neil

HP 49G Connectivity

*Message #22 Posted by **Neil Strickland** on 19 Oct 2003, 4:14 a.m.,*
in response to message #21 by Neil Strickland

Still no luck. One thing I noticed is that the Calculator Communications Settings

dialogue box shows a HP48 and its grayed-out so it can't be changed to a 49. Is that a generic setting for both the 48 and 49?

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A never changing ETA

*Message #1 Posted by **Willem Maat** on 14 Oct 2003, 5:38 a.m.*

So far I liked the ETA of Samson Cables, but now it has been 3-5 days for over a week. :-S Kinda frustrating.

Re: A never changing ETA

*Message #2 Posted by **Arnold Steekelenburg** on 14 Oct 2003, 2:40 p.m.,*
in response to message #1 by Willem Maat

Hi Willem,

According to your mail address you're living in the Netherlands...

Why not try www.dynatech.de or www.cynox.de?

I got a hp49+ from dynatech three weeks ago.

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HP-41 MCODE re-entry question

*Message #1 Posted by **Ángel Martin** on 14 Oct 2003, 3:32 a.m.*

Dear fellow M-Coders,

Does anyone know whether re-entry is possible at all?

I've coded a multi-function routine, which isn't more than normal prompting function that redirects the execution to a series of sub-functions, depending on the input suffix.

Some may recognize this being done on the HEPAX ROM, as a mean to break over the 64-function limit imposed by the FAT constrains.

My contribution to the scheme has been a "catalog" of the subfunctions, triggered with the suffix zero. It currently ends after displaying all the sub-function names, but I'd like it to re-issue the multi-function routine, now with the names fresh in the user's mind.

So, any chance to get it done?

Best, ÁM

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Funny story

*Message #1 Posted by **Pavel Korensky** on 13 Oct 2003, 9:57 p.m.*

This night, I had a really funny time with my HP-41CV. I was reading some materials about HP-41 synthetic programming on my PC and I played with my HP. Suddenly, the calculator died. Totally. No ON, no "Memory lost", nothing.

Hmmm, it seems that the batteries died. So I put a fresh set of batteries into the calculator and.... Nothing. So, I removed the batteries, short contacts for couple of seconds, put the batteries back in, switched ON and... Nothing.

At this time, I started to be a little nervous. Maybe I finally discovered how to fry the HP-41 via synthetic programming. :-)

I took the calculator to my workshop, disassembled it and I tried to short a capacitor. I assembled the HP together, put the batteries in, switched ON and... Nothing.

I disassembled the calculator once more and I applied 6V from my power supply directly to the PCB. Switched on and bingo, the HP works again. So I tried to look at the flexible PCB battery contacts. Yes, there was a big crack in the flex PCB, just at the + battery contact. It seems that it was just a coincidence that the calculator finally died during my experiments with synthetic programming.

So, it was necessary to repair the battery contact. I used the following method (I do not know is this method was posted here in the past. If not, maybe I should call my patent lawyer :-)))

Those flexible PCBs are made on Kapton foil. It means that you can solder them without any problem, because the Kapton will not melt. You only need to solder quickly, otherwise the plastic parts around will start to melt. I have a couple of thin copper foils in my workshop. I bought them couple of years ago from McMaster-Carr. They are 0.05 mm thick. I cut a small piece (approx. 7 x 3 mm) of the copper foil, applied a lot of SMD flux (from the flux pen) to it on both sides and with the soldering iron, I put a small amount of solder on both sides. After that, I put a good amount of flux to the battery contact and applied a small amount of solder on them. Finally, I put the foil to the contact and applied a small amount of heat to it. The foil was nicely soldered to the flexible PCB and the contact is like new. :-)

Re: Funny story

*Message #2 Posted by **Victor Koechli** on 14 Oct 2003, 2:47 a.m.,*
in response to message #1 by Pavel Korensky

Maybe synthetic programming uses *a lot* more power, so that may have killed your battery contact ;-)

Thanks for the repair tips. Do you think that spice calculators could be fixed the same way? If so, it really may be time to call your patent lawyer - or have Dave Hicks list your article permanently on this site.

Cheers, Victor

Re: Funny story

*Message #3 Posted by **Charlie O.** on 14 Oct 2003, 10:38 a.m.,*
in response to message #1 by Pavel Korensky

I bought a 286 computer in late 80's to run AutoCAD R10. I was given a software math coprocessor emulator to save the expense of buying the real thing. I fried 2 motherboards in a short time and went for the coprocessor with the third board. No more problems and the computer was much faster. It still works today.

It is possible to overwork components with software.

Re: Funny story

*Message #4 Posted by **Richard Garner** on 14 Oct 2003, 11:23 a.m.,*
in response to message #3 by Charlie O.

"It is possible to overwork components with software."

I remember when the first 386 computers came out, Norton Utilities would not run properly in turbo 386 mode with out doing damage to the hard drive. So, it is also possible to overwork software with faster components.

Re: Software vs. Hardware (Rocks-Paper-Scissors?)

*Message #5 Posted by **Paul Brogger** on 14 Oct 2003, 11:46 a.m.,*
in response to message #1 by Pavel Korensky

It goes back further and weirder.

Our early library information application was designed by Boeing, run on an IBM operating system, using a German database management system, and (initially) on Japanese plug-compatible drives (IBM 3350 look-alikes).

Early in the application's production life, as the database grew, repeated disk failures on index volumes became evident. A lengthy and painful investigation revealed that the database's indexing structure and search algorithm, when coupled with our application's key length, database size and usage patterns, all introduced harmonics in the drives' read/write heads and positioning circuitry, causing site-specific failures. The cure: switch to a different brand of disk drive (IBM) which embodied physical characteristics *different enough* that our application didn't induce problems!

(At least, that's how it was related to me, a budding DBA. A simpler interpretation might be that, at the time, IBM made better 3350's than did Hitachi . . .)

Re: Funny story

*Message #6 Posted by **WOW** on 16 Oct 2003, 2:39 p.m.,*
in response to message #1 by Pavel Korensky

Well... thats not funny...

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Just received my 49G+ ...already having 2nd thoughts

*Message #1 Posted by **Layne Carruth** on 13 Oct 2003, 6:08 p.m.*

I'm a very long time HP calculator fan -- bought my first one in 1973, and have had a couple dozen since then. I just received my new HP49G+ ordered through CalcPro in Oregon (they did a great job of shipping next day, BTW) and I'm already having second thoughts.

While the keys are better than the 49G and we do have the choice of RPN, the overall feel of the unit is CHEAP. The display is larger, but the dot pitch is so coarse that it doesn't really help much. I think I will order a couple of gross of the little covers for the backup battery, as they should be quite valuable in a few years for replacements.

Perhaps I should reconsider that PDA with a 15C emulator program...

Cheap...

*Message #2 Posted by **Gene** on 13 Oct 2003, 9:41 p.m.,*
in response to message #1 by Layne Carruth

While the keys are better than the 49G and we do have the choice of RPN, the overall feel of the unit is CHEAP.

GENE: Hi. Cheap is hard to describe. Part of the reason may be because the unit is lighter and not as heavy as the 49G or 48GX style machines. Plus, another 10 years has gone by since the 48GX and that means inflation has eaten away at what $175 will buy...$175 then is not $175 now. And, given the attempts to reduce cost, that would also influence it.

The display is larger, but the dot pitch is so coarse that it doesn't really help much.

GENE: Here I would disagree. I remember the 48SX display. Talk about COARSE! :-) The contrast of the new 49G+ looks great in comparison to any of the older 48GX series machines. Maybe a personal preference, but looks good to me.

I think I will order a couple of gross of the little covers for the backup battery, as they should be quite valuable in a few years for replacements.

GENE: This could be a valid concern...but then, backup batteries don't go bad that frequently...if you're replacing one every 2-3 years, just be careful for that 5 minutes!

Perhaps I should reconsider that PDA with a 15C emulator program...

GENE: Perhaps. I've played with that on my AXIM, but I like a real calculator better.

Dot pitch vs. Contrast?

*Message #3 Posted by **Matt Kernal (US)** on 14 Oct 2003, 12:05 p.m.,*
in response to message #2 by Gene

Layne>The display is larger, but the dot pitch is so coarse that it doesn't really help much.

GENE: Here I would disagree. I remember the 48SX display. Talk about COARSE! :-) The contrast of the new 49G+ looks great in comparison to any of the older 48GX series machines. Maybe a personal preference, but looks good to me.

Gene, I enjoy and value your posts, but what does improved contrast have to do with course dot pitch?

IIRC, the pixel count of the 48 Series machines (and 49G) have always been 131 wide by 64 high. The 49G+ has increased the height count to 80 (ie. 131x80).

It's been great(!) that backward compatibility has been maintained over the last thirteen years concerning display dimensions, but I believe he is referring to his desire for higher resolution (higher pixel count) within the new larger display area (ie. like cell phones, PDA's, and even, God forbid, TI89's have (160x100)).

Matt

Re: Dot pitch vs. Contrast?

*Message #4 Posted by **Gene** on 14 Oct 2003, 10:49 p.m.,*
in response to message #3 by Matt Kernal (US)

Hi. I had meant to start a different thought.

My comparison to "dot pitch" was with the 48SX. The 49G+ doesn't seem that "dotty" to me.

The contrast was just a second idea.

Each will have to make their own decision, of course!

Next time, I won't run my thoughts together quite so much. :-)

Thoughts..

*Message #5 Posted by **Matt Kernal (US)** on 15 Oct 2003, 11:58 a.m.,*
in response to message #4 by Gene

>Hi. I had meant to start a different thought.

I do it everyday.. glad I'm not the only one :-)

BTW, I'm jealous you guys have yours (49G+).

"I want my, I want my, I want my MTV" - Dire Straits

Matt

Re: Just received my 49G+ ...already having 2nd thoughts

*Message #6 Posted by **Ed Look** on 13 Oct 2003, 10:40 p.m.,*
in response to message #1 by Layne Carruth

You know, I bought for my son a HP-39G. Now, people have complained about the quality of its keyboard (akin to those for the HP-49G). But it's "feel" is that old heavy, solid, "red LED HP-34C" feel, in contrast to my HP-48's. By comparison, the much adored (and rightly so) HP-48's are light and "cheap" feeling, but

which calculator would you rather have (if you're already out of grade school)?

I'll admit that psychologically, a heavy-and-hard-as-a brick calculator gives many users (most definitely including myself) a major league warm fuzzy, it's not a necessity and the lower weight makes it a better calculator to carry around. No, if HP can make a high quality calculator that is light that's really better than it being heavy, though that loose-halves-of-the-case feeling does turn me off; now, THAT feels "cheap".

Oh, interesting thing I noticed: the 39G has 256 kb while the 48G has only 32 kb RAM. Even the 48G+ and GX max out at 128 kb! ... Kids and games, oh well.

39G/49G heft. vs. 49G+ lightweight.

*Message #7 Posted by **Matt Kernal** on 15 Oct 2003, 6:23 p.m.,*
in response to message #6 by Ed Look

Yeah, I also like the extra "heft" of the 39G and 49G. They do feel solid. Ya know, the front and back half cases on the 39 and 49 **don't** creak at all, whereas most of my 48-series do creak, some more than others.

The 49G+ is much lighter than the 39/49. It's what you'll notice first. At least for me it was. That in itself may lend to the Layne's feeling of cheapness.

Matt

Re: 39G/49G heft. vs. 49G+ lightweight.

*Message #8 Posted by **Ed Look** on 15 Oct 2003, 10:11 p.m.,*
in response to message #7 by Matt Kernal

Yeah, it's fine if you generally leave it in one position, and seldom carry it around. The extra weight, when you throw it into a briefcase, or worse, a coat pocket, over time, becomes a pain. I think that's one of things about the Pioneer series that appeal- they're small, light, and powerful. That's why also I like the 48's: they're light and powerful, if not small.

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N eed good HP-67 picture

*Message #1 Posted by **Namir Shammas** on 13 Oct 2003, 2:08 p.m.*

I am looking for a good picture of an HP-67. I am writing a Windows emulator in Visual Basic 6. The emulator uses a picture of an HP-67 and tracks where on the image a person clicks the mouse. It's not an easy task to emulate the calculator in run and program modes, but I am willing to give it a try. I appreciate if you can "donate" a picture for the project. Email me your hp-67 picture to hpticalcfan@aol.com. Thanks!

Namir

Re: N eed good HP-67 picture

*Message #2 Posted by **Raymond Del Tondo** on 13 Oct 2003, 6:01 p.m.,*
in response to message #1 by Namir Shammas

Hi,

you could ask Dave Hicks, the curator of this site. Chances are good that he has a very good picture of an HP-67 (in both meanings;-)

Raymond

Re: N eed good HP-67 picture

*Message #3 Posted by **Namir Shammas** on 13 Oct 2003, 8:23 p.m.,*
in response to message #2 by Raymond Del Tondo

Thanks Raymond. The picture of the HP-67 in this web site is nice, but it includes the picture of a magnetic card!! I looked on the web for a similar picture WITHOUT the card, but did not find as one that was as good.

Thanks

Namir

Re: N eed good HP-67 picture

*Message #4 Posted by **Chan Tran** on 14 Oct 2003, 10:52 a.m.,*
in response to message #3 by Namir Shammas

Do you have a 67? If so you may try to scan it with a flat bed scanner. I found scanning give a good picture for your application.

Re: N eed good HP-67 picture

*Message #5 Posted by **Namir Shammas** on 14 Oct 2003, 1:11 p.m.,*
in response to message #4 by Chan Tran

Chan,

I don't have an HP-67 right now. I'd like to buy one, so I am watching eBay auctions.

Thanks!

Namir

PS: I am gradually implimenting the emulator ... boy!! So many things to keep track of. Th eHP-67 is one heck of a state engine!!!!

Re: Need good HP-67 picture

*Message #6 Posted by **Katie Wasserman** on 14 Oct 2003, 2:42 p.m.,*
in response to message #5 by Namir Shammas

Namir,

Here's a start:

http://www.wass.net/pictures/hp67.jpg

It needs a little more cleaning up.

-Katie

Re: Need good HP-67 picture

*Message #7 Posted by **Gordon** on 14 Oct 2003, 5:07 p.m.,*
in response to message #6 by Katie Wasserman

Great pic Katie! Any other classics at that resolution??

Re: Need good HP-67 picture

*Message #8 Posted by **Katie** on 15 Oct 2003, 1:35 a.m.,*
in response to message #7 by Gordon

Gordon,

It's just a scan of a 67 at 600x600 with a little photoshop-like cleanup done to it. Are you looking for any other ones in particular? I'll be happy to scan them for you.

-Katie

Re: Need good HP-67 picture

*Message #9 Posted by **Veli-Pekka Nousiainen** on 15 Oct 2003, 4:01 a.m.,*
in response to message #8 by Katie

Hey, Katie! Scan ALL the models you have!! THNX, VPN

Re: Need good HP-67 picture

*Message #10 Posted by **Gordon** on 17 Oct 2003, 3:22 p.m.,*
in response to message #8 by Katie

Do you have a good HP-34C or 33C you can scan?
Thanks.

34c and 33c pics

*Message #11 Posted by **Katie** on 18 Oct 2003, 3:01 a.m.,*
in response to message #10 by Gordon

Here you go Gordon:

http://www.wass.net/pictures/hp33c.jpg

http://www.wass.net/pictures/hp34c.jpg

Re: 34c and 33c pics

*Message #12 Posted by **Veli-Pekka Nousiainen** on 18 Oct 2003, 3:16 a.m.,*
in response to message #11 by Katie

How about a scan of the hp 49g+ & hp 48gII, if not yet available, I settle for HP-71B & HP-75C. Thank You, Katie!

Re: 34c and 33c pics

*Message #13 Posted by **Katie** on 18 Oct 2003, 6:42 p.m.,*
in response to message #12 by Veli-Pekka Nousiainen

Sorry no 49G+, 48GII, nor 33S pictures yet. But here are the 75C and 71B scans:

http://wass.net/pictures/hp75c

http://wass.net/pictures/hp71b

Re: 34c and 33c pics

*Message #14 Posted by **Veli-Pekka Nousiainen** on 18 Oct 2003, 8:50 p.m.,*
in response to message #13 by Katie

Gee - Thanx! What else can you scan, Katie? Bring them all in one bunch of links - take you time until your total collections is scanned. Borrow from friends and/or calc stores to add more. I can't have enough od these!

I have a HP-6S Solar, HP-10B, HP-16C, HP-17B, HP-17BII, hp 17bII+, HP-19BII, HP-25, HP-28S*2, HP-32S, HP-32SII*2, HP 39/40G dualmode, HP-41CX*2, HP-42S, HP 48SX*2, HP 48GX*2, hp 48gII, HP 49G*2, hp 49g+, HP-71B*2, HP-75C, HP-700LX Omnigo+Nokia2110i, HP 720 Jornada AND I'm darely missing the HP-34C & HP-15C (never mind the HP-11C, HP-41CV adjustable speed [self-made], HP-41C) and the HP-200LX

Re: 34c and 33c pics

*Message #15 Posted by **Katie** on 19 Oct 2003, 1:52 a.m.,*
in response to message #14 by Veli-Pekka Nousiainen

I'm not quite sure what the fascination is with the scans of these calculators. Although they're pretty high resolution I don't think that they're as nice looking as the pictures that Dave has on this site. A scan is a nice way of photographing a calculator for use in an emulator/simulator, but otherwise it doesn't really give you as good a feel for what it looks like as do Dave's 3/4 pictures, for example.

Re: 34c and 33c pics

*Message #16 Posted by **Namir Shammas** on 19 Oct 2003, 9:47 a.m.,*
in response to message #15 by Katie

The sideview pictures are excellent to look but are virtually useless for an emulator since I am imposing text box controls over the picture of the LCD to emulate teh display.

Re: 34c and 33c pics

*Message #17 Posted by **Namir Shammas** on 18 Oct 2003, 10:05 p.m.,*
in response to message #13 by Katie

Katie,

I chekced out your web site. I bow in humility in homage to you state of excellent collectorhood. I have a china hutch that is crawling with calculators too, but they are not as well laid as your machines!!

I am very impressed. What do you do for a living?

Namir

Re: 34c and 33c pics

*Message #18 Posted by **Namir Shammas** on 18 Oct 2003, 5:12 p.m.,*
in response to message #11 by Katie

Katie,

You are spoiling me with all these pictures that cry out to be animated with an emulator!!!!!!!

For your most kind efforts I will email you the HP-67 emulator for beta testing. I am still alpha testing and finding crazy bugs here and there. Overall it works and seems to be taking programs!! I am trying to stick to specs as much as possible. It's very tempting (and basically effortless) to add more stack/memory registers and program memory ... maybe that will be for a special souped up emulator ... the HP-67X emulator!

Funny thing, now that I have an emulator my desire to actually buy a

physical HP-67 has died out a bit (ok ok I have 2 HP-97 sitting here :-))

Re: Need good HP-67 picture

*Message #19 Posted by **Namir Shammas** on 15 Oct 2003, 1:39 p.m.,*
in response to message #6 by Katie Wasserman

Katie,

A million thanks! This one hits the jackpot. Borrowing from a popular saying by a dictator currently in hiding, I can say your picture is "the mother of all HP=67 pictures!".

Regards,

Namir

HP-67 Emulator

*Message #20 Posted by **bill platt** on 17 Oct 2003, 3:29 p.m.,*
in response to message #1 by Namir Shammas

Hi Namir,

Great Project! Will you make a real emulator (requiring a ROM image of a 67?)--or will you have to simulate (i.e. write your own native code which mimics the functionalitry).

It will be really cool--a real classic on the desktop--will make a great trio---v41, emu48, and Namir67!

Good luck with the project.

And Katie's scan looks excellent, too.

Regards,

Bill

Re: HP-67 Emulator

*Message #21 Posted by **Namir Shammas** on 18 Oct 2003, 10:03 p.m.,*
in response to message #20 by bill platt

Hi Bill,

I am writing a "simulator" in VB6. It's fun and challenging!!

Namir

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Sound Card Driver HP a282n

*Message #1 Posted by **Rich** on 13 Oct 2003, 10:20 a.m.*

Anyone have the drivers for the sound card that's built on the motherboard for the HP a282n? We did fdisk and loaded Windows XP Pro on the drive.....not realizing that the sound drivers were NOT available from HP. Thanks.

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ROM on HP49G+

*Message #1 Posted by **Rick** on 13 Oct 2003, 7:08 a.m.*

This might sound dumb, but how do you obtain the ROM version on this calculator?

Re: ROM on HP49G+

*Message #2 Posted by **Raymond Del Tondo** on 13 Oct 2003, 8:20 a.m.,*
in response to message #1 by Rick

Type VERSION ;-)

Raymond

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Re: HP-Meeting in Allschwil

*Message #1 Posted by **J-F Garnier (France)** on 13 Oct 2003, 4:46 a.m.*

Hello,

I just built a page on my site with the material I presented during this great meeting:

http://membres.lycos.fr/jeffcalc/allschwil.html

Bye.

J-F

Re: HP-Meeting in Allschwil

*Message #2 Posted by **Mattthias** on 14 Oct 2003, 8:38 a.m.,*
in response to message #1 by J-F Garnier (France)

Great report. Thanks for your detailed infos. It was a great meeting, thanks for joinging as well...

Matthias

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Display on HP-25C shows 000000´s

*Message #1 Posted by **Matti Övermark** on 13 Oct 2003, 4:34 a.m.*

Hi gurus,

I have recently obtained an HP 25 C. However I cannot get it to work. I inserted new batteries, rechargable, in the battery compartment, but all it shows is a full display of 0´s (zeros). In one instant the last zero became a 3. Very wicked, I´d say. The original batteries were dead. Any clues?

TIA Matti, Sweden

Re: Display on HP-25C shows 000000´s

*Message #2 Posted by **Victor Koechli** on 13 Oct 2003, 5:22 a.m.,*
in response to message #1 by Matti Övermark

I'd suggest taking the calculator apart and carefully cleaning the interior contacts that connect the keyboard and the display to the main PCB. While doing so, you can also check for broken traces or loose solderings on the main PCB.

Another oddity of these calcs is that some of them only work after a warm-up period of up to an hour, so if cleaning does not help, try leaving it turned on for some time. I have a HP-25 with that behaviour. It's supposed to be a problem of the ACT chip, and there are a number of fixes you can try (search this forum's archives for more information).

One thing, though: Never, under any circumstance, connect your HP-25C to the AC adaptor when you have no battery installed or if there is even the slightest chance that the battery contacts could be bad! You could kill the calculator's RAM chip just by plugging in the adaptor! In the C-version, the RAM is connected to the power supply even with the calculator off.

Cheers, Victor

Re: Display on HP-25C shows 000000´s

*Message #3 Posted by **Albert** on 13 Oct 2003, 1:13 p.m.,*
in response to message #2 by Victor Koechli

Hello,

Don't touch PCBs with your fingers! Static voltage could destroy ICs.

Check up space / gaps between integrated circuit (ICs) and display pins. Using a sharp / fine plastic, you can remove any dust or suspicious tiny objects. In addition, with a magnifying glass check both printed circuit board faces, ground metal paths mainly. Clean the keyboard printed circuit also. If battery pack was placed for a long time inside calculator, corrosive damage could "blur" device metal contacts.

Good luck,

Albert

Re: Display on HP-25C shows 000000´s

*Message #4 Posted by **David Smith** on 13 Oct 2003, 3:10 p.m.,*
in response to message #1 by Matti Övermark

This problem is almost always caused by a dead ACT chip (the wide 22 pin chip near the bottom of the circuit card). The only source is another Woodstock series machine (except the HP27). The chips have different part numbers, but they are all compaitible.

Re: Display on HP-25C shows 000000´s

*Message #5 Posted by **Matti Övermark (Sweden)** on 14 Oct 2003, 5:39 a.m.,*
in response to message #4 by David Smith

Hi,

Thanks for all hints. I let it (the HP 25C) stay on for a while, a quarter of an hour or so, then I occasionally by turning it on/off reapeatidly got it to show 0.00 in the left corner. But then (sigh!) it failed to show anything.

I think the HP-25C is opened by removing the rubber feet and then there ought to be some screws to work with.

Anyone suggesting what I should do? There seems to be no surplus stock of these calcs around here...

Best regds Matti

Re: Display on HP-25C shows 000000´s

*Message #6 Posted by **David Smith** on 14 Oct 2003, 5:54 p.m.,*
in response to message #5 by Matti Övermark (Sweden)

By bet is still a failing ACT chip, but you might try opening up the machine and cleaning the circuit board with 91%+ isopropyl alcohol. Sometimes corrosion (often invisible) or solder flux residue will stop the machine from working.

If there is a lot of green or white corrosion on the board you may need to use vinegar. Basically stand the board up in a glass of vinegar up to the top of the battery contacts for 30 minutes or so. Scrub it down with a stiff toothbrush. Rinse VERY well. Shake all the water off... better yet blow it off with canned "air"... do not use an air compressor (they blow oil and air). Let dry for at least 24 hours.

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Thibaut, where are you...? (Letter for Thibaut Cousin)

*Message #1 Posted by **Tizedes Csaba** on 13 Oct 2003, 3:51 a.m.*

Hi, Thibaut! Please send me a new email-address, because my mailer prg generates other email-address, when I try to sent email to you.

In my last email I sended some pictures of HP10C.

Please send me replay!

Csaba

Re: Thibaut, where are you...? (Letter for Thibaut Cousin)

*Message #2 Posted by **Thibaut.be** on 13 Oct 2003, 5:36 p.m.,*
in response to message #1 by Tizedes Csaba

Hi,

I'm just here.

I'm abroad all the week, so don't worry if I don't answer you immediately.

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So...who here will be buying a 49G+?q

*Message #1 Posted by **Gene** on 12 Oct 2003, 9:44 p.m.*

Yep...I know Wayne and Norm won't. :-)

But...who else here is waiting until they are available here in the US?

Re: So...who here will be buying a 49G+?q

*Message #2 Posted by **David Brunell** on 12 Oct 2003, 9:52 p.m.,*
in response to message #1 by Gene

I will buy one as soon as they are available at large US retailers. No use burdening a small mail-order outfit with multiple returns or myself with the hassle and expense of mailing defective units back. ;)

Re: So...who here will be buying a 49G+?q

*Message #3 Posted by **Ernie Malaga** on 12 Oct 2003, 10:16 p.m.,*
in response to message #1 by Gene

Gene:

I'd like to get my hands on one for a "test drive" before I commit to buying one. I didn't like the HP-49G (actually, that's a gross understatement), but I'm willing to give the G+ a fair chance.

-Ernie

Re: So...who here will be buying a 49G+?q

*Message #4 Posted by **Aaron** on 13 Oct 2003, 12:39 a.m.,*
in response to message #3 by Ernie Malaga

yes, definitly waiting for the 49g+. If they've got the grapher spead up and the keys are plastic, it will surely make life easier. also looking forward to a better case, and a non-reflective (or at least not as much as the 49G's) screen.

Re: So...who here will be buying a 49G+?q

*Message #5 Posted by **Chan Tran** on 13 Oct 2003, 7:36 a.m.,*
in response to message #4 by Aaron

I don't know what the price of the 49G+ is. If it's around $150 I think I would buy one if I have permission from my wife. May be it works better than Norm's 34c huh?

Re: So...who here will be buying a 49G+?q

*Message #6 Posted by **Jeffrey_G** on 14 Oct 2003, 7:36 a.m.,*

in response to message #5 by Chan Tran

My wife (and me sometimes) can't understand a yet another new calc purchase. I'm going to wait until my 49G to die before I get a 49G+. Of couse if the 49G+ turns out to be a must have winner, my 49G might find itself accidently placed beneath my Honda rear tire!!

Re: So...who here will be buying a 49G+?q

*Message #7 Posted by **Namir Shammas** on 14 Oct 2003, 1:09 p.m.,*
in response to message #6 by Jeffrey_G

Paul,

You also have the option of selling your HP49G on Ebay, Amazon, or even here, and using what you get for the 49 to buy the HP49G+. Thanks to easy online trading we rarely feel "stuck" with aproduct we no longer want to keep.

Namir

Re: So...who here will be buying a 49G+?q

*Message #8 Posted by **Ed Look** on 14 Oct 2003, 11:06 p.m.,*
in response to message #6 by Jeffrey_G

DUDE!!

You brought a tear to my eye. (Similar themes at my house.) Put it under MY tires! (I won't back up... I'll sneak off the car and PICK IT UP!) I'd treat it real good, promise!

Re: So...who here will be buying a 49G+?q

*Message #9 Posted by **Paul Brogger** on 13 Oct 2003, 9:24 a.m.,*
in response to message #1 by Gene

I think so -- it sounds and appears to be a nice unit.

I definitely will buy a 33s because, appearance notwithstanding, that's more like what I really want. But while sitting out its delay in shipment, a 49G+ would probably keep me distracted.

Re: So...who here will be buying a 49G+?q

*Message #10 Posted by **Ernie Malaga** on 13 Oct 2003, 2:14 p.m.,*
in response to message #1 by Gene

As I mentioned in my post of October 12, I'm willing to give the 49G+ a try, and eventually buy it, if I ever see one. So far, however, all I've seen is vaporware -- no hardware.

-Ernie

Re: So...who here will be buying a 49G+?q

*Message #11 Posted by **Ron Rpss** on 13 Oct 2003, 2:23 p.m.,*
in response to message #1 by Gene

I plan to buy one (or hint heavily to wife) around Christmas.

Re: So...who here will be buying a 49G+?q

*Message #12 Posted by **Erik Ehrling (Sweden)** on 13 Oct 2003, 3:09 p.m.,*
in response to message #1 by Gene

Personally, I still keep my fingers crossed for the HP-33S magically being turned into a HP-42S compatible successor with more memory and I/O... if not I would probably buy a HP-49G+ when (if?) Hrastprogrammer has upgraded HP-42X for it...

Best regards, Erik Ehrling

Re: So...who here will be buying a 49G+?q

*Message #13 Posted by **Paul Fox** on 13 Oct 2003, 5:34 p.m.,*
in response to message #12 by Erik Ehrling (Sweden)

I will...might even buy 2...duh!

Tried www.calcpro.com and their web site and must say I am totally disgusted by them. Their ordering web site doesnt make clear how to pay for internal delivery. (Do Americans truly believe that the world is US and CAN only? .. no dont answer that!)

Anyway I placed an order on the web site, quoted credit card.

And waited .. no confirm email. So I mailed them again and told them to mail me at work or at home, and .... nothing. Not a sausage!

I dont know if they have my order or not...I presume not so will have to try somewhere else. Definitely would touch those amateurs with a bargepole again.

(I didnt phone because of the TZ differences).

Oh well...its taking so long that I am beginning to lose interest in the calc altogether....

Re: So...who here will be buying a 49G+?q

*Message #14 Posted by **Paul Fox** on 13 Oct 2003, 5:37 p.m.,*
in response to message #13 by Paul Fox

Darn it...that should have been "would NOT touch them with a bargepole..."

Thinks my PC keyboard is emulating the HP49G+....oh well...

Re: So...who here will be buying a 49G+?q

*Message #15 Posted by **unspellable** on 14 Oct 2003, 5:33 p.m.,*
in response to message #1 by Gene

So where would I see one? Nobody around here carries HP calculators anymore. I don't think the bookstores serving the university in the next town carry them any more.

I'd have to go by the pictures and mail order one. One does like to actually see one before commiting.

Re: So...who here will be buying a 49G+?q

*Message #16 Posted by **James M. Prange** on 14 Oct 2003, 8:30 p.m.,*

in response to message #1 by Gene

Well, I've "pre-ordered" one, hoping that it will be an improvement over the 49G, but I've begun to wondered whether I'll ever receive it.

Let c.s.hp48 beta it

*Message #17 Posted by **bill platt** on 15 Oct 2003, 4:52 p.m.,*
in response to message #1 by Gene

I will wait---until the fall-out.

We'll see about the 33s.

My better judgement is to wait---I like the vintage models--why upgrade!

-Bill

Re: Let c.s.hp48 beta it

*Message #18 Posted by **Ed Look** on 15 Oct 2003, 10:17 p.m.,*
in response to message #17 by bill platt

Bill, vintage calculators are almost by definition on the verge of wearing out. Of course, it probably happens gradually, unless you drop it a lot. (I have on occasion dropped my 34C, but that never impaired its functioning; time took care of that!)

I have heard right here on this forum that some folks are buying the new ones so as to prolong the service life of their old ones, by "taking the load off them". Not a bad idea, really, if one can spare the cash. The 33S is quite reasonably priced and scientific models like it are probably better for students than any graphing model by any company.

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HP-25 Prog Cose Puzzle

*Message #1 Posted by **Gordon Dyer** on 12 Oct 2003, 10:46 a.m.*

I have noticed that the HP-25 accepts the key combination of 15 25 in program mode (g SUM+).
There is no blue key legend for this, so is it an undocumented instruction which does something? or is it a NOP?

Any help would be appreciated.
Thanks.

Re: HP-25 Prog Cose Puzzle

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 12 Oct 2003, 10:57 a.m.,*
in response to message #1 by Gordon Dyer

As fas as I recall, it is a NOP by other OpCode...

Re: HP-25 Prog Code Puzzle

*Message #3 Posted by **Gordon Dyer** on 13 Oct 2003, 8:25 a.m.,*
in response to message #1 by Gordon Dyer

Oooops! sorry about the title!
Thanks for the reply, I can't see any effect of using 15 25 . Does anyone have knowledge of the ROM code?

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HP48/49, converting units

*Message #1 Posted by **Francesc Casanellas** on 12 Oct 2003, 9:46 a.m.*

In the HP49 manuals, the way to convert units is explained as follows. For example to convert 12 m to ft (RPN):

12_m 1_ft CONVERT

However as explained briefly in the HP48 guide, if you are not programming, it is much faster to go to the UNITS/LENGTH menu and type

12_m (type “12” and then “m” soft key) LS ft (Left Shift and “ft” soft key)

Using RS (Right Shift key) units are divided.

I do not understand why this is not explained in the HP49 manual. I think you need to get the User’s Guide and the Advanced User’s Reference Manual of the HP48 to use all the resources of the HP49.

Edited: 13 Oct 2003, 2:23 a.m. after one or more responses were posted

You bet you're right! ;^) (n.t.)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 12 Oct 2003, 5:21 p.m.,*
in response to message #1 by Francesc Casanellas

...

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Missing the Point

*Message #1 Posted by **db(martinez,california)** on 12 Oct 2003, 12:20 a.m.*

I was looking at ebay tonight and i found these two calculator auctions.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3052222576&category=3294

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3052043599&category=3294

They were interesting to look at but i can't help wondering who was more unclear on the concept, the manufacturers or the original buyers.

Re: Missing the Point

*Message #2 Posted by **Thibaut.be** on 12 Oct 2003, 4:07 a.m.,*
in response to message #1 by db(martinez,california)

I couldn't load the images of the 2nd calculator, but I actually got acquainted with Japanese people some time ago and they told me about that special arithmetics method with an abacus, that is the same as presented on the Sharop calculator auction.

It is tought in every school in Japan and is quite impressive how fast it is assimilated and how fast one can do simple arithmetics with.

Unfortunately I have no clue how it works but maybe some people in this forum can explain us better...

Re: Missing the Point

*Message #3 Posted by **lcorrado@uwc.edu, USA (WI)** on 12 Oct 2003, 8:08 a.m.,*
in response to message #2 by Thibaut.be

Well, of course the abacus is an ancient calculating device still used in much of the orient. Each column of sliding beads represents a decade in the decimal number system. Each bead below the bar has a value of 1; each above the bar, 5. Machines I've seen have either one or two 5-counters.

Manipulating the beads lets one add and subtract, with the user performing all carrying and borrowing that has to be done. Multiplication can be performed by shift and add; division by shift and subtract. I understand that square roots and cube roots can be done also, but I don't know anything about their method. Calculation on an abacus by a skilled user can be very fast.

My guess is that this dual-use device is made for doing calculations beyond the abilities of the four-function machine or situations (eg, a store) where there would be multiple users.

Larry

Re: Missing the Point

*Message #4 Posted by **db(martinez,california)** on 13 Oct 2003, 9:30 p.m.,*
in response to message #3 by lcorrado@uwc.edu, USA (WI)

Reading the replies, i got curious about the "soroban" and asked about it in general and that one in particular. My Japanese friend says that the one in the auction is probably not for students and that the older type used two "5 counters" and the newer type uses one "5 counter". I couldn't get a quantification on old/newer. In a culture with roots that old, the one bead type may have been introduced 500 years ago and is still the new wave.

I still think that ebay item is a silly juxtaposition, and i think the Casio fortune telling calculator is ridiculous. Are there Gypsies in Japan?

Re: Missing the Point

*Message #5 Posted by **Katie** on 12 Oct 2003, 11:32 a.m.,*
in response to message #1 by db(martinez,california)

db-

Although I haven't seen one of these fortune telling calculators before, they used to sell an awful lot of astrological and biorhythm calculators; are they any different? I think that the manufacturers got it "right"; no comment on the original buyers.

The abacus calculator sort of makes sense as a bridge between two technologies for those that have trouble switching. Faber Castell made the western version of this. Their TR1, TR2 and TR3 where electronic calculators on one side and slide rules on the back. (I'd love to get one of those, BTW.)

-kt

Re: Missing the Point

*Message #6 Posted by **Chan Tran** on 12 Oct 2003, 12:56 p.m.,*
in response to message #5 by Katie

It could be made for the school market in Japan. I believe that they still teach the use of abacus over there.

Re: Missing (the?) (a?) (which?) Point?

*Message #7 Posted by **Paul Brogger** on 13 Oct 2003, 9:29 a.m.,*
in response to message #1 by db(martinez,california)

. . . or it could be a way to market calculators to conservative buyers -- a way for the old-schooler to justify buying a new-fangled calculating device?

Re: Missing (the?) (a?) (which?) Point?

*Message #8 Posted by **Juan J** on 14 Oct 2003, 12:24 a.m.,*
in response to message #7 by Paul Brogger

Until very recently, clerks in Russian stores used abacus instead of machines, and they were pretty fast with them, much like the Japanese. Soviet-era stores were well known for this accounting method, and probably many stores still use it.

No wonder neighbouring Japan uses the abacus system too. Russians even developed a machine called arithmometer, a small-size mechanical calculator, the first model being named after Feliks Dzherzhinkiy, the founder of the KGB.

Re: Missing (the?) (a?) (which?) Point?

*Message #9 Posted by **Ed Look** on 14 Oct 2003, 12:41 a.m.,*
in response to message #8 by Juan J

When I was a kid, I actually saw real shopkeepers in Chinatown, New York use abacuses. In those days, there were no HPs, handheld nor desktop, definitely NO TIs, Bowmars, though I wonder if they would have used a Wang Labs desktop adding machine if they were invented at the time ;)

I guess only IBM mainframes were around in those days, and mechanical NCR cash registers... you know, the kind with the ornate, baroque metalwork plating!

Great machines

*Message #10 Posted by **Bob** on 14 Oct 2003, 8:03 a.m.,*
in response to message #1 by db(martinez,california)

When I lived in China ('95-'98), the abacus was used everywhere. All of the little shops and stores had them at the ready. (and they were FAST!) We used to challenge them to race in math calculations until we grew tired of being humiliated. It is a skill still taught to accountants in the universities.

I saw one being used in a small village restaurant that looked to be 1000 years old. It had lots of character and was well worn. I bought a new one and took to the little old woman to use to entice her to sell it to me. When I offered an outrageous sum of money and the new abacus, for the old one, she turned me down. My translator told me that she simply didn't trust the new one like the one she was used to. .....? When you think about it, it is just like preferring a 41CV to a 49G because of the keys.

I took the new one home and now it hangs on the wall in my office, at the ready, should my 48GX fail.

Just like HP's, each abacus model has it's loyal fans.

Re: Great machines

*Message #11 Posted by **Patrick** on 14 Oct 2003, 11:36 a.m.,*
in response to message #10 by Bob

Great story, Bob! Thanks.

However, I'm told these things have a very small ENTER key, so it's a real no-go for me. ;-)

If Norm had been born in China.....

*Message #12 Posted by **db(martinez,california)** on 14 Oct 2003, 8:10 p.m.,*
in response to message #10 by Bob

.....he'd be saying "REEEEEEEEEED BEEEEEEEEEEEAAAAAAADS".

(comment to Bob's "Just like HP's, each abacus model has it's loyal fans.")

Edited: 14 Oct 2003, 8:21 p.m.

Re: If Norm had been born in China.....

*Message #13 Posted by **Ed Look** on 15 Oct 2003, 11:30 p.m.,*
in response to message #12 by db(martinez,california)

If he'd been born in China, maybe he'd have been recently in orbit around Earth with his HP-34C. ;)

Re: Sort-of-similar Abacus/Calculator Hybrid

*Message #14 Posted by **Paul Brogger** on 14 Oct 2003, 11:50 a.m.,*
in response to message #1 by db(martinez,california)

I recently found at the thrift shop and then offered on eBay a similar hybrid - this one a marketing combination of a four-banger and an abacus.

(Didn't make a whole lot of money on the deal, though!)

Re: Missing the Point

*Message #15 Posted by **James M. Prange** on 14 Oct 2003, 8:46 p.m.,*
in response to message #1 by db(martinez,california)

Back when I was visiting that part of the world (before calculators were in common use), I noticed that those using the abacus or soroban often did calculations on them faster than I could've done with either pencil and paper or an adding machine. It looked like magic, and as far as I could tell, always got the correct answer.

The combination would be good for when the batteries go dead.

Regards,
James

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Another Misuse of Dave's Images on eBay

*Message #1 Posted by **Mark Hardman** on 11 Oct 2003, 9:45 p.m.*

Once again, a seller is trying to use Dave's images of a museum quality HP-42S to mislead buyers into thinking that the unit being sold is "mint".

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3052781006&category=11026

Dave, is there a better way to inform you of these infractions? Do you mind us bring them up in the forum?

Mark Hardman (LED)

12345 to remove

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HP-01Calculator watch.

*Message #1 Posted by **HENRY SOLAN** on 11 Oct 2003, 6:22 p.m.*

Ladies&Gentlemen, I own a HP-01 Calculatorwatch,all functions are working. Some of the keys are worn because of the use of the metal stylus. I would like to replace either the entire key board or just the few that are worn. I want to offer the watch for sale on e-Bay. I also would like to buy a stylus pen with retractable plastic point, to be added to the package when offered for sale.Would like to hear from you. Henry Solan

Re: HP-01Calculator watch.

*Message #2 Posted by **David Brunell** on 13 Oct 2003, 12:54 a.m.,*
in response to message #1 by HENRY SOLAN

Good luck finding parts for the '01. You really need to buy a parts unit, and even then there's likely to be wear to the keys. I'm sure your watch will fetch a handsome price as-is.

You can find lots of styli at styluscentral.com.

Re: HP-01Calculator watch.

*Message #3 Posted by **David Smith** on 14 Oct 2003, 12:48 p.m.,*
in response to message #1 by HENRY SOLAN

The pen/stylus for the Pulsar calculator watch is identical to the HP. Some are lightly marked with the company name, others are blank.

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Added Feature on the 48gii???

*Message #1 Posted by **Ben Salinas** on 11 Oct 2003, 11:19 a.m.*

According to Samson Cables, the HP48gII does indeed have a SD port. I was under the impression, from the original data sheet, that it did not have the SD port. I would have thought that HP would have stressed something as revolutionary as a SD port on its data sheet.

So, is Samson Cables mistaken, or did HP go back and add some more stuff to the 48gii? This might give hope to the 33s. -ben

Re: Added Feature on the 48gii???

*Message #2 Posted by **Veli-Pekka Nousiainen** on 11 Oct 2003, 3:19 p.m.,*
in response to message #1 by Ben Salinas

"According to Samson Cables, the HP48gII does indeed have a SD port. "

Well, I have a hp 48gII in my left hand when I'm writing this (slowly) and there is a silver-colored cover where the SD slot is in the 49g+. Realize the truth: there is no spoon! VPN

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HP32->HP48

*Message #1 Posted by **Pierre Brial** on 11 Oct 2003, 6:44 a.m.*

Hello,

I have some trouble to translate HP-32sII programs to an HP-48GX just borrowed to me. Well, the RPN calculation part is OK. But what is the simplest way to ask to the user a value for a variable ?

With the HP-32 it is very easy. If you want to ask a value for variables A and B, just type in your program :

INPUT A

INPUT B

Just 6 keystrokes, very easy and straightforward.

But then if you want to do the same with HP48, according to the manual, you need many many keystrokes, with INPUT, OBJ->, and a lot of -> "" {} :: and so on...

But may be I didn't understand the trick ?

Any help ?

Pierre Brial

Re: HP32->HP48

*Message #2 Posted by **James M. Prange** on 11 Oct 2003, 7:31 a.m.,*
in response to message #1 by Pierre Brial

Yes, no doubt it is a lot more complicated on the 48 series, but I suppose that that's because you can do a lot more things with the INPUT command on the 48.

For what you want to do, start with:

```
"Enter a value"    @ Tell the user what to do.

""                 @ An empty string for the command line.

INPUT              @ After the user types in a value and presses ENTER, the string will
end up on level 1.

OBJ\->             @ Assuming that a number was entered, the string will be changed to a
number.

                   @ If you want to store it in a variable:

'VarName'          @ Whatever name you want.
```

```
STO                @ Store it.
```

Note that because the 48 isn't limited to 4 stack levels, you might not need to store the value; just use the stack.

Of course, there are more options that you can use with INPUT, but you don't *have* to use them.

Also consider the PROMPT command for what you're doing.

Regards,
James

Re: HP32->HP48

*Message #3 Posted by **Pierre Brial** on 11 Oct 2003, 1:02 p.m.,*
in response to message #2 by James M. Prange

Thank you James for your clear answer.

As to the HP-48, I balance between love and hatred.

Love for its astounding capability to handle mathematical objects, like matrix, sums, equations. I usually don't like to do matrix calculation, but with this calc it is a true pleasure.

Hatred for programing. Before then I've done a lot of programs in RPN for HP-41, HP-32sII, algebric for TI-59, Basic and machine language with Sharps, so I wrongly believed I could handle easily any other calcs. But Hp-48 is hard nut. Very powerfull indeed, but there is few simple solutions for simple problems, and it is far from intuitive.

I understand better why long-time users of HP-41, 42, 15 prefer to keep their good old calcs.

But on the other hand, there is many many user of the HP-48 and you can find a lot of programs on the net. So some people do really succeed to program it.

I suppose I'm too much rusted with old programming way....

All the best

Pierre

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Emulated HP-41 ROM pacs... at last!

*Message #1 Posted by **Diego Diaz** on 10 Oct 2003, 7:56 p.m.*

Yes, it works. A 28 pin PIC18F252 with the Stuctural Analysis module ROM image is connected to my HP-41 right now... and, of course, it's correctly recognised and fully operative.

I've used the PIC code from John Ioannidis' 18C252 PAC with almost no modifications. Great job John!!

The next step is to place the SOP version of the chip inside a standard module enclosure. It needs nothing but the PIC, one diode and a Xtal to run.

Several issues are still pending though:

1) The device needs 6.5 - 7.5mA wich is a pretty low figure, but... (this are the bad news) it keeps on running even when the calc is off... Still working on that, and have found a simple method to switch the PIC off but... (there's always a "but"... :-(paradoxically this method is only useful when the batteries are weak, as it needs a sensible voltage difference between BAT and V+ lines, and that doesn't occur with fresh batteries. Your comments or ideas are welcomed.

2) As the PIC holds 5 pages (4k words x 10 bits), the B3 and B4 lines can not be used to map the module according with the port number it is connected to. Of course you can sacrifice 3 pages and map the device into the correct port, but I think this small win shouldn't justify the loss.

3) Early 41's introduce two inverted pulses in the SYNC line at phases 49 and 53. This behavior fools the PIC code, thus it can not be used with those early machines.

4) The code is supposed to handle bankswitching between banks 1 and 2 (I haven't try this yet), so modules with pages in banks 3 and/or 4 can not be burned. IIRC only the HEPAX module uses this feature, but may be others. Nevertheless I think this could be implemented with very little code modification.

5) Last, but, again, not least, I have no other modules to cannibalize and experiment with!!

Your comments, corrections, suggestions, and support will be of great help. If you want to mail me please remove the NOSPAM garbage from my address above.

Constructive critics are also welcomed, please send the destructive critics to my ex-wife (she's an expert in that matter ;-).

Kind regards from the Canary Islands.

Diego.

Edited: 10 Oct 2003, 8:06 p.m.

Re: Emulated HP-41 ROM pacs... at last!

*Message #2 Posted by **Hans Brueggemann [GER]** on 11 Oct 2003, 2:34 a.m.,*

in response to message #1 by Diego Diaz

congrats diego! if you can drop me a complete schematic of the electronics (especially interconnect between Hp-41 port and i/o of the PIC),i will be looking into possibilities of powering on/off the whole thing.

cheers, hans (send email to porkpiehat at gmx dot net)

Re: Emulated HP-41 ROM pacs... at last!

*Message #3 Posted by **Diego Diaz** on 11 Oct 2003, 2:36 p.m.,*
in response to message #2 by Hans Brueggemann [GER]

The PIC's on/off switching issue is now fixed... using my first approach: PNP transistor polarised by BAT voltage.

A simple resistor does the job!!!!

Put the blame on me: I forgot Ohms Law!!!!

Still at work, now refining PCB layout.

CU

Re: Emulated HP-41 ROM pacs... at last!

*Message #4 Posted by **Pavel Korensky** on 11 Oct 2003, 5:33 p.m.,*
in response to message #3 by Diego Diaz

Just a question. How did you solved the power on delay ? Depending on the configuration of oscillator, there is either 72 ms (plus more if PLL is enabled) or at least 1024 Tosc clocks delay.

BTW, the pulses on SYNC line are also on my HP-41CV, so it seems that this situation is not limited to early HP-41C.

Re: Emulated HP-41 ROM pacs... at last!

*Message #5 Posted by **Diego Diaz** on 11 Oct 2003, 6:30 p.m.,*
in response to message #4 by Pavel Korensky

You're right, the pulses at SYNC line are not related with the model itself but with the date/version of miroprocessor manufacturing.

It seems like HP modified the microprocessor specs related to that issue some point in the production time line, but for now, I can not find out the exact moment.

I've got five 41's, the oldest (FullNut 41C s/n 2134S...) is the only one that produces those pulses, the next one (FullNut 41CV s/n 2427S...) does not, neither the rest three 41CX: 2502S..., 2646S... and 2819S... (last two are HalfNuts)

It may be interesting to investigate when the change happens, so anyone that can contribute with info about his/her 41's SYNC behavior will be of great help.

Regarding the power-up delay, it's fast enough to cope with the 41 needs (provided it's not a 2x modified unit). I have even try at 28.5Mhz and it still works, 24Mhz crashes the whole thing though, so the limit must be some point in between.

Cheers from Spain.

Diego.

Re: Emulated HP-41 ROM pacs... at last!

*Message #6 Posted by **Meindert Kuipers** on 13 Oct 2003, 5:33 a.m.,*
in response to message #5 by Diego Diaz

Diego,

Congratulations to get everything running! I would like to have the design files if possible. Your observations on the pulsing SYNC are correct. My 'old' fullnut (it has the gold ball contacts) has the pulses, my newer CX shows a stable SYNC.

About the pulses in SYNC, it should not be difficult to handle that. In my hardware MLDL (and in the classic design by Lynn Wilkins) the phase counter is reset by the first CLK02 that occurs after a SYNC occured first and after that a CLK01 occurs without SYNC (or on phase counter=55 in case no SYNC was present). This is probably easier to implement in hardware than in your software, but it does work!

This is the bit of VHDL code which does the job (this code creates two flipflops)

```
sync_detect: process(SYNC, CLK01, CLK02, t1_reset, t2_reset, U7, T6)

-- Generates the actual counter reset after detecting SYNC sequence

-- and on phase 67 (octal) if no SYNC is present

begin

if (CLK01'event and CLK01 = '1') then

t1_reset <= SYNC;

t2_reset <= t1_reset or (T6 and U7);

end if;

ph_reset <= (t2_reset and CLK02 and not t1_reset);

end process;
```

Re: Emulated HP-41 ROM pacs... at last!

*Message #7 Posted by **Diego Diaz** on 13 Oct 2003, 5:30 p.m.,*
in response to message #6 by Meindert Kuipers

Hi Meindert,

I'll send you the files related to this design as soon as I have I have a final release (by the next weekend, hopefully) as I have a *real* job during the week... (I think you also know what I'm talking about... ;-)

For now still some difficulties with the on/off switching, and the needed lines to reprogram the device thru the module connector.

The PCB design is still pending, quite defined though. And I have no clue where can I have some PCB prototypes done.

Still the most annoying issue is the lack of modules (shells + connector) to build the first "real sized" cloned module. Some Ebay auctions are on my "Watch List"...

Regarding the "SYNC line pulses" issue, yes it's really quite more simple in HW than in SW, but for now I'll put my effort in finishing the Module's PCB and specs. As the code can be upgraded to a new version at a later time.

I live in a wonderful place, quite far away from almost everywhere though... Thus, "10Mhz SMD Xtal" might sound like "Klingong dialect" to my local components dealer's clerk (judging by the way he stared at me when I asked...), now I must wait until they make a new order to their supplier... and cross fingers in the meanwhile.

Excuse me for the "list of troubles" but it's usefull to talk about... sometimes you find solutions this way.

Cheers.

Re: Emulated HP-41 ROM pacs... at last!

*Message #8 Posted by **David Brunell** on 14 Oct 2003, 10:54 p.m.,*
in response to message #7 by Diego Diaz

Diego, how soon do you need the PCBs? If you can wait until the second week of November, I can get them done for you. I am too busy right now getting ready for a trade show in the UK.

Can you provide Gerber files, or do you need me to generate them?

I can round up and ship to you any small parts you may need too if you like. That I can do right away as I order parts just about every day it seems.

Best regards,

David

Re: Emulated HP-41 ROM pacs... at last!

*Message #9 Posted by **Diego Diaz** on 15 Oct 2003, 6:16 a.m.,*
in response to message #8 by David Brunell

Hello David,

There is no rush in this proyect, it's a hobby with no defined time line, so your offer widely fulfils my needs.

Regarding the PCB I'll try to built a prototype file this weekend, and mail it to you during the next week.

So far the only component that I cannot find locally is the SMD Xtal. I'll mail the specs this afternoon.

Apart from the Xtal, I'm still willing to buy, beg, steal, trade, borrow... are old/non-

working modules to place my prototypes in... but that's another "mission impossible" story :-)

Thanks a lot for your interest in this proyect, and my best wishes from the Canaries.

Diego.

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Samson Cables update

*Message #1 Posted by **Eric Lundgren** on 10 Oct 2003, 7:55 p.m.*

Hi all,

This sounds kinda promising (off of Samsoncables.com)

>>Product Alerts This new calculator is not available yet but we expect it to arrive with the next week. One of our suppliers told us on October 10th that HP had confirmed the product had shipped to them and that they expected them within the next week. <<

Lets hope for the best, Eric

HP49G+ in Orlando!

*Message #2 Posted by **Art Litka** on 10 Oct 2003, 11:07 p.m.,*
in response to message #1 by Eric Lundgren

I happened to stop by my local calculator dealer for a quick Friday afternoon chat and not really expecting anything new. You can imagine my surprise when he pulled out a 49G+! He had three in stock and had already sold two. His shipment arrived last Friday (Oct 3). To my delight he said he would let me try one out and opened the package. After installing the batteries, I breathlessly awaited his pressing of the ON button. When the moment arrived, nothing happened-no display or beep. He was as surprised as I was-in all his years in the business, a new HP unit has never failed the turn-on test. We checked the batteries and connections and tried several times to fire it up but nothing. He opened unit 2 with the same result! However, the last unit was the charm-it worked beautifully! The keyboard has a good tactile feel and the display contast is very good. There was no hesitation with registering the keystrokes as on the 49. The time to graph a simple function was not lightning fast but still impressive. Believe it or not, I did not purchase it today-I wanted to think about it over the weekend. I am impressed by what I have seen and tried out so far-even the starter manual appears to be an improvement over the old 49's. I guess I was a bit shaken by the quality control and wanted some time to think about it. He said that the 33S is expected in mid November. Any other experieces out there?

Re: HP49G+ in Orlando!

*Message #3 Posted by **Joesph** on 11 Oct 2003, 12:21 a.m.,*
in response to message #2 by Art Litka

Your dealer probably has the early ROM problem. The early ROM will suck power even while the calculator is off. I suggest you upgrade and all will be well.

Re: HP49G+ DOA: Perplexing...

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 11 Oct 2003, 10:52 a.m.,*
in response to message #3 by Joesph

Two questions about a previous message:

1) How could you upgrade the Flash ROM of a machine which doesn't turn on?

2) How could a power management software issue deplete uninstalled batteries?

Re: HP49G+ DOA: Perplexing...

*Message #5 Posted by **Veli-Pekka Nousiainen** on 11 Oct 2003, 3:16 p.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

Two questions about a previous message:

1) How could you upgrade the Flash ROM of a machine which doesn't turn on? VPN_Answer: Use a new set of batteries?

2) How could a power management software issue deplete uninstalled batteries? VPN_Answer: Part_1) Bad batteries?

VPN_Answer: Part_2) European Boxed calcs come with batteries installed AND there was a power-management issue (possibly due to unannounced change in one pin of the used CPU) which should be fixed any_day_now by a new ROM

Re: HP49G+ DOA: Perplexing...

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 12 Oct 2003, 10:56 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

The person reporting the Orlando experience states: "After installing the batteries..." and also says "We checked the batteries and connections, and tried several times to fire it up, but nothing", so the batteries are not factory installed on those units, and it seems they were not discharged either.

I'm afraid that those units have a more fundamental problem than the already-mentioned power management issue.

Re: HP49G+ DOA: Perplexing...

*Message #7 Posted by **Art Litka** on 12 Oct 2003, 11:11 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

Being the person reporting the Orlando (Fla-USA) experience, I would agree that these early 49G+'s have quality control problems. I think that the model is potentially a very good calculator, far superior to the 49 in all ways. It will probably take some problems from "early buyers" to help the rest of us obtain the quality and reliability from HP that we expect. I am eager to own one after my "test drive", but I may wait until the larger retailers have them as you suggest.

Re: Samson Cables update

*Message #8 Posted by **James M. Prange** on 11 Oct 2003, 7:47 a.m.,*
in response to message #1 by Eric Lundgren

Oh yeah, that's really promising. With any luck, the supplier might receive them from HP next week, and Samson Cables might receive them from the supplier the week after that, and then Samson Cables can get them packed up, labeled and on the way to the customers....

Oh, and then the customers get to try them and see if they work....

Regards,
James

Edited: 11 Oct 2003, 7:49 a.m.

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performance of 48g vs 49g

*Message #1 Posted by **Eric Lundgren** on 10 Oct 2003, 6:07 p.m.*

Hi, In waiting for the 49g+, I ran some tests between my 49g and my new 48g.

I ran them side by side calculating the volume of y=1/x revolved about the x-axis from 1 to 10,000. I'd have like to do it to infinity and get an answer of PI, but so far I don't see why the 48g won't like that. I keyed it in as an algebraic object:

'PI*Int(1,10000,(INV(SQ(x)),x)' and was amazed that the 48g finished 63 seconds faster than the 49g..?? I must have something 'flagged' on my 49g that causes the slow down....

Also, I have Chotkeh mechanical engineering software loaded, leftover from my pops PE exam...could its presence be contributing? I don't think it should, but..

Eric

Re: performance of 48g vs 49g

*Message #2 Posted by **James M. Prange** on 10 Oct 2003, 7:04 p.m.,*
in response to message #1 by Eric Lundgren

On the 49G, maybe try it in appoximate mode, or use a trailing decimal on the numbers.

Regards,
James

Re: performance of 48g vs 49g

*Message #3 Posted by **Eric Lundgren** on 10 Oct 2003, 8:08 p.m.,*
in response to message #2 by James M. Prange

Thanks, I just tried it again with Approximate on the 49g, but it still took 191 seconds (I may have miscounted a few on first run). I'd try the trailing decimal if I knew what you meant by that, you don't refer to 'float' as the same thing, do you?

I think I remember trying something like this on the ti89 for fun, and that went quicker. Hahaa, looking at my 49g kbd, the enter key says 'ente ', as the 'r' is gone as well as the alpha c, d, e, and f :)

Eric

Re: performance of 48g vs 49g (long)

*Message #4 Posted by **James M. Prange** on 11 Oct 2003, 6:55 a.m.,*
in response to message #3 by Eric Lundgren

Aha, apparently you meant:

```
%%HP: T(3)A(R)F(.);
'\pi*\.S(1,1000,INV(SQ(x)),x)'
```

(I'm using the "backslash" character translations here, so "\pi" represents the lower-case Greek letter pi, "\.S" represents the integral symbol, "\->" represents the right-arrow, and "\.d" represents the derivative symbol.)

instead of:

```
'PI*Int(1,10000,(INV(SQ(x)),x)'
```

For a while there, I was thinking that by "Int" you meant "INT".

Flag settings (besides exact/approximate) that I think *may* be relevant are:
-2 clear (Constant \-> symb)
-3 clear (Function \-> symb)
and in the 49G:
-99 clear (CAS:quiet)
-100 clear (Step by step off)
-120 set (Silent mode on)
-123 clear (Allow Switch Mode)

All of the times are for a single trial each, and should be considered to be approximate.

I thought that it would be best to get the algebraic evaluated all the way to a numeric value in one step, so I used \->NUM instead of EVAL. It turned out that that wasn't such a good idea.

A 48SX returned 3.13845106094 in 433_s.

A 48GX returned 3.13845106094 in 293_s.

A 49G in approximate mode returned 3.13845106094 in 369_s.

A 49G in exact mode returned 3.13845106094 in 369_s.

By "trailing decimal", I meant:

```
%%HP: T(3)A(R)F(.);
'\pi*\.S(1.,1000.,INV(SQ(x)),x)'
```

Which causes the 49G to treat the numbers as type 0 floating point numbers ("real" numbers, in RPL jargon) instead of type 28 exact integers.

A 49G in approximate mode with reals returned 3.13845106094 in 369_s.

A 49G in exact mode with reals returned 3.13845106094 in 369_s.

BUT...

Using EVAL, the 48SX returned:

```
'\pi*(-INV(x)/\.dx(x)|(x=1000)-(-INV(x)'/\.dx(x)|(x=1)))'
```

in 1.49_s.
EVAL on that returned:

```
'\pi*.999'
```

in 1.12_s.

\->NUM on that returned 3.13845106094 in .0132_s.

Using EVAL, the 48GX returned:

```
'\pi*(-INV(x)/\.dx(x)|(x=1000)-(-INV(x)'/\.dx(x)|(x=1)))'
```

in 1.05_s.
EVAL on that returned:

```
'\pi*.999'
```

in .793_s.
\->NUM on that returned 3.13845106094 in .0092_s.

Using EVAL, the 49G in approximate mode with exact integers returned 3.13845106094 in 365_s.

Using EVAL, the 49G in exact mode with exact integers returned:

```
'(999*\pi)/1000'
```

in 3.54_s.
\->NUM on that returned 3.13845106094 in .157_s.

Using EVAL, the 49G in approximate mode with reals returned 3.13845106094 in 365_s.

Using EVAL, the 49G in exact mode with reals returned:

```
'.999*\pi'
```

in 3.04_s and left the 49G in approximate mode.
EVAL on that returned 3.13845106094 in .0779_s

Go figure....

It looks to me as if the best strategy is to use EVAL (and in the 49G, exact mode) to solve symbolically as far as possible, and only then force a numeric result. And for "real work", I think I'll keep using the 48 series.

Regards,
James

Re: performance of 48g vs 49g

*Message #5 Posted by **Thomas Radtke** on 11 Oct 2003, 2:30 p.m.,*
in response to message #3 by Eric Lundgren

I can't resist: 'Ente' means 'duck' in german and that is a synonym for 'slow'. Try to recover the 'r' and see if it gets faster then:).

Thomas

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hp71 CMT eprom burner

*Message #1 Posted by **andy** on 10 Oct 2003, 5:33 p.m.*

Does anyone out there have a CMT hp71 eprom burner. Are you interested in selling it or offering a service to burn eproms?

Andy

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SD cards for the HP49G+

*Message #1 Posted by **Eric** on 10 Oct 2003, 5:17 p.m.*

Hi, Do these SD cards come in 512KB ? Where in the US could I get them?

Re: Do you mean 512Mb (as in MEGAbytes)?

*Message #2 Posted by **Paul Brogger** on 10 Oct 2003, 6:38 p.m.,*
in response to message #1 by Eric

FWIW, at www.CircuitCity.com I see 64Mb, 128Mb, and 256 Mb card (the last apparently for under $100.00).

My camera came with a 16Mb card installed.

Maybe someone else can address whether 512**K**b are available, but I doubt it, given the sizes of these others ...

Re: SD cards for the HP49G+

*Message #3 Posted by **Ed Look** on 10 Oct 2003, 7:35 p.m.,*
in response to message #1 by Eric

I could have sworn I saw larger capacities at CompUSA. Also, do check the online stores. I think I did see them up to 1GB; the reason why it seems to be in my mind is that I kind of recall seeing some awful price, upwards of $200 USD for one of these.

Re: SD cards for the HP49G+

*Message #4 Posted by **Dave** on 10 Oct 2003, 8:40 p.m.,*
in response to message #1 by Eric

Yes there are 512 MB SD cards, I believe one is on sale today only ay Buy.com for ~$150. Pretty good deal. I don't think the 49G+ can handle that much though I could be wrong...

Re: SD cards for the HP49G+

*Message #5 Posted by **Ed Look** on 10 Oct 2003, 11:53 p.m.,*
in response to message #4 by Dave

Actually, if I recall, VPN (I can't spell his name without looking at it!) mentioned that the 1GB SD card does exist, only it has to be ordered (online, I guess). I'm pretty sure though that I physically saw a 512 MB one in a store. (I'm using a 256 MB one stuck in a portable Jumpdrive unit right now to carry files from one place to another conveniently- no more floppies or even Zip disks; I keep these for backup purposes.)

Re: SD cards for the HP49G+

*Message #6 Posted by **Patrick** on 11 Oct 2003, 12:27 a.m.,*

in response to message #5 by Ed Look

My Palm Tungsten|T uses SD cards and, yes, I've physically seen 512MB cards ($400 Canadian... ouch). The 1GB cards have been announced but are still in pre-production, AFAIK. Of course, you can expect to pay an early adopter premium on that baby. Besides, I'm not sure it is the right choice for a calculator...

Re: SD cards for the HP49G+

*Message #7 Posted by **Ed Look** on 11 Oct 2003, 12:47 a.m.,*
in response to message #6 by Patrick

Patrick, thanks for the confirmation.

Yeah, aside from technical factors, a 512 Mb or 1Gb SD card is just plain too expensive.

But I had asked a question and had not yet gotten an answer. Let me rephrase it:

Is there some minimum SD card size that the 49G+ requires? (I hope not!) This is because, as VPN did ask, how much memory would even a 49G+ need?? Therefore, an affordable 64 Mb or even 128 Mb would make an optimal choice, if they're acceptable to the 49G+.

Re: SD cards for the HP49G+

*Message #8 Posted by **Veli-Pekka Nousiainen** on 11 Oct 2003, 3:28 a.m.,*
in response to message #7 by Ed Look

I have successfully tested 64MB SD, 8MB MMC, 64MB MMC. The Nokia 8MB MMC has plenty of room left for both the calc and the old 9110i Commmunicator. For cameras get the largest. For calc get the cheapest. For Nokia/calc get MMC. I have now that 64MB MMC for my 49g+. The 8MB is back in my B/W 9110i. The 64MB SD is with the original owner.

The DOS FAT16 partition size limits is "standard" 2GB/32K clusters. You maybe may be able to format an SD card as 4GB/64K clusters for FAT16. The 49g+ can handle at least any "legal" size MMC/SD as FAT16. I believe that future ROM upgrades will give better access to long names (non-DOS), but no support for FAT32 (to access some Terabytes).

VPN

Re: SD cards for the HP49G+

*Message #9 Posted by **Ed Look** on 11 Oct 2003, 1:01 p.m.,*
in response to message #8 by Veli-Pekka Nousiainen

Thank you Mr. Nousiainen, for making that all clear. And I will remember you name... at least better than I did last night!

I think then, that I'll just look for an affordable SD card, when my 49G+ arrives. I heard rumors of that...

Re: SD cards for the HP49G+

*Message #10 Posted by **GE (France)** on 11 Oct 2003, 5:23 p.m.,*
in response to message #8 by Veli-Pekka Nousiainen

"FAT" ? "DOS" ? "non-DOS long names" ? Is there some relationship between the 49G+

and the worst OS in the world ? Please be it not so !!

Re: SD cards for the HP49G+

*Message #11 Posted by **Veli-Pekka Nousiainen** on 11 Oct 2003, 6:25 p.m.,*
in response to message #10 by GE (France)

QUOTE: "FAT" ? "DOS" ? "non-DOS long names" ? Is there some relationship between the 49G+ and the worst OS in the world ? Please be it not so !! ######

No, it's Sinclair compatible - you remember that 68010 CPU machine with tape drives? Just kidding! What file system you think your digicamera is using? You need to have some kind of compatibility in the file system. There is no DOS, just FAT16 like in cameras. So don't worry, be happy!

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deleting variables, 19BII

*Message #1 Posted by **Jim** on 10 Oct 2003, 11:33 a.m.*

When I'm doing correlation analysis using my 19BII, as shown on p. 166 of Owner's Manual, I'm having trouble deleting variables created by NAME in the SUM menu. For example, after I've run a problem I want to reload the list and use the same names for X and Y. I'm having trouble doing that. Or, if I want to give the lists new names but delete the old names (variables), I can't seem to find a scheme that works. I've deleted the data and the labels but the variables still remain. Thanks for you help.

Re: deleting variables, 19BII

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 11 Oct 2003, 2:07 a.m.,*
in response to message #1 by Jim

Hi, Jim;

I am not sure that I'll answer your question completely, but I took a look at the HP17BII manual (mine is in Spanish, so I think page numbers may not match) and I read an observation at the bottom of Page # 24 (seems to be "Start Using your HP17BII") where some variables are mentioned to be permanent, meaning they exist anytime in calculator's memory. Also, I remember reading somewhere else (HP19BII User's Guide, and mine is in Portuguese...) that clearing (system?) variables is storing a "zero" on them.

I'm not sure about it, but maybe some statistical variables are created with default names, and the calculator will store "zeroes" on them instead of "purging" them out when they are cleared. As for CLEAR and PURGE (HP28/48/49), I think that the remaining variables are consistent.

Please, if my analysis is wrong, I'd invite others to add applicable corrections.

Let us know if you succeed.

Luiz (Brazil)

Edited: 11 Oct 2003, 2:11 a.m.

Re: deleting variables, 19BII

*Message #3 Posted by **Jim** on 11 Oct 2003, 9:56 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz, I believe I have it figured out. Aren't these the things we work on while they're changing pitchers? Thanks.

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49G+ Shipping Rom Version

*Message #1 Posted by **Tom Cox** on 10 Oct 2003, 9:58 a.m.*

Has HP started shippping 49G+ with the updated ROM? Are those units identified in any other way than the characteristic dead batteries on the older ROM version?

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(deleted post)

*Message #1 Posted by **deleted** on 10 Oct 2003, 12:06 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Has HP bought out TI?

*Message #2 Posted by **Namir Shammas** on 10 Oct 2003, 12:39 a.m.,*
in response to message #1 by deleted

My 15-year old son son would call the seller a "dumb ass"

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Paul's HP memories contribution

*Message #1 Posted by **Eric Lundgren** on 9 Oct 2003, 7:18 p.m.*

I was stepping through the 'memories' section of the MoHPC and I found Paul Brogger's 'Impact-tested' (21c?) HP. I find this funny, since when I was in 3rd grade, I used to show-off my Casio "G-shock" watch's resilience by pounding my wrist against the cement lunch tables! It never gave up, but then again I wasn't that strong back then. If any one has never seen this watch, it was from a child's eyes, an LCD wearing a rubber coated bank vault and two wrist straps.

Interestingly, Paul, you mention your attachment the 42s, a machine my father is also "locked" on to. I was curious to find a SECOND 42s user manual in the house during my last visit, confirming I did indeed have my own copy once...and I remember it too...but where is it?! Hahaa, my search through the boxes is soon to begin :)

If I strike gold, my (meager) collection will include a 42s, 32sii, 48g, 48gx, 49g, 12c, and, any day now, maybe a 49g+ & 33s! Its not huge, but I should never have to use 'algebraic' again :) Oh hey! The post just knocked on the door with my 48g from ebay! Eric

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Instruction manual for HP 20s

*Message #1 Posted by **Richard Clarke** on 9 Oct 2003, 9:56 a.m.*

Hi- I am looking for an instruction manual in English for the HP 20s. Does anyone have an ecopy or a link to where I can find a copy

thanks

Re: Instruction manual for HP 20s

*Message #2 Posted by **David Brunell** on 9 Oct 2003, 5:38 p.m.,*
in response to message #1 by Richard Clarke

I don't know of a source for an electronic English manual, but if you go to the main hp page and search on "20s" you will find a wealth of step-by-step instructions for its use. If you have any specific questions, then ask here and I will try to answer them.

David

Re: Instruction manual for HP 20s

*Message #3 Posted by **Ed Look** on 9 Oct 2003, 11:10 p.m.,*
in response to message #1 by Richard Clarke

Hey! The manual is still offered for sale at Samson Cables! Look at this link:

http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=353&Sku=0002090001

How to download the spanish manual?

*Message #4 Posted by **R Lion (España)** on 10 Oct 2003, 4:03 p.m.,*
in response to message #1 by Richard Clarke

I am in this page but I don't get the download... help, please and sorry if I'm stupid...

Edited: 10 Oct 2003, 4:07 p.m.

Re: How to download the spanish manual?

*Message #5 Posted by **Ed Look** on 10 Oct 2003, 7:27 p.m.,*
in response to message #4 by R Lion (España)

I went to that page and I didn't see a link, either. I think HP took it offline. This may be why some of these companies are selling this out of print manual for so much money (I think that's what it cost when it was still new!)

Re: How to download the spanish manual?

*Message #6 Posted by **Julián Miranda (Spain)** on 11 Oct 2003, 3:27 a.m.,*
in response to message #4 by R Lion (España)

You select the language (only spanish and portuguese available) and click on the arrow at the right of the language window. The page reloads and a new frame appear below with the title of the selected manual and the file size (10 MB for the spanish one, I think is scanned and put in a PDF, so it's not searcheable(?)), you click on the title and the download begins.

The download is complete now and I can confirm is a scanned version.

If you are interested I think I have a spare one some where, contact me and I'll look for it.

Re: Instruction manual for HP 20s

*Message #7 Posted by **CME750** on 10 Oct 2003, 5:03 p.m.,*
in response to message #1 by Richard Clarke

Calculator Source has the 20S manual for $19.95 plus shipping

http://shop.store.yahoo.com/calculatorsource/hp-20s-manual.html

Re: Instruction manual for HP 20s

*Message #8 Posted by **Namir Shammas** on 10 Oct 2003, 5:46 p.m.,*
in response to message #7 by CME750

CME750,

Boy these folks are selling discontinued calculators for out-of-this-world prices!

Namir

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hp49 g algebraic programming

*Message #1 Posted by **Ortiz R.** on 8 Oct 2003, 10:17 p.m.*

I would like to learn how to program my hp49g in algebraic mode. I also want to know where I can get some documents including some examples.

Re: hp49 g algebraic programming

*Message #2 Posted by **Tom (UK)** on 9 Oct 2003, 12:44 p.m.,*
in response to message #1 by Ortiz R.

HP didn't realy support programming for the HP49G, the only guide and examples I know of are in the HP49G user guide. RPL programming support was only there because it was so similar to the HP48G that people could use the many books and programming examples on the HP49G. (HP even suggested to me that if I wanted to learn how to program the HP49G in RPL then I should buy the HP48G manuals!).

There has not been much interest from the calculating community in programming in algebraic mode so support (official and unofficial) is very scarce - this is a pity because although the algebraic mode is not as powerful as using RPL it may be an aption some buyers would like to use.

Those who have received the documentation for the HP49G+ may be able to say if there is any support for programming in algebraic mode.

Re: hp49 g algebraic programming

*Message #3 Posted by **tom lianza** on 9 Oct 2003, 1:20 p.m.,*
in response to message #2 by Tom (UK)

I recently recieved my 49g+ and keeping with the current HP form, the documentation is dismal. The product ships with a "User's Manual" that references the "User's Guide". The User's Guide has all the documentation and it is shipped as a PDF file, which is OK, but they didn't use any of the pdf functionallity for table of contents. Hence, you have to page through 800 or so pages of text whose page numbers in the manual index (listed in chapter-page number) don't correlate to the pdf page numbers.... The answer to the above question is that HP still does not support programming in Algebraic mode....

Re: hp49 g algebraic programming

*Message #4 Posted by **bill platt** on 9 Oct 2003, 2:30 p.m.,*
in response to message #1 by Ortiz R.

Hi,

Well, as some previous posts in this thread suggest, HP is not taking any responsibility for the programming capabilities of the new machine. Now, maybe I am a bit alarmist, but as far as I am concerned, any calculator that does not come with a manual, is merely a toy, and not a real tool. Yes, some people are willing, able, and actively going after the programming of the 49G and the G+, and JYA and others who were intimately involved in the development of the 49 are still actively posting to comp.sys.hp48, and so perhaps that is

"documentation" enough for some, but not for me., Especially in light of the "outsourced" nature of the beast (49G+) and the whole new harware platform--and hte recent track record with the 12C platinum.

I don't trust the product if the manufacturer doesn't even trust it. I will stck with my older machines including the 48, until better documentation comes along. Why rush, if the product is not up to snuff?

There are plenty of new old stock 48's around!

regards,

Bill

Re: hp49 g algebraic programming

*Message #5 Posted by **Eddy** on 9 Oct 2003, 5:56 p.m.,*
in response to message #1 by Ortiz R.

"I would like to learn how to program my hp49g in algebraic mode. "

Good Luck! Algebraic programing just stinks. Its ineficient and confusing. RPN is just to awesome my advice: stick to it.

"I also want to know where I can get some documents including some examples."

Nowhere. All tutorials and documents {and programs) ive ever seen are for RPN.

but, if you really want to srick to algebraic... Get an RPN tutorial and convert instructions to algebraic.

Remember: In RPN, Arguments come first (x+2=Y SOLVEVX) but in algebraic, the command comes first, followed by the arguments inside a parenthesis and arguments separeted by a comma. --> SOLVEVX(x+2=y) Thats about it, if you need any help or more detail reply here, ill give u my email then.

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HP-71 Development Utility

*Message #1 Posted by **Jeff** on 8 Oct 2003, 9:35 p.m.*

Can any one provide me with this program for loading into the HP-71B? Possibly a copy on mag cards or even a program listing. Thanks, Jeff

Re: HP-71 Development Utility

*Message #2 Posted by **Rodger Rosenbaum** on 8 Oct 2003, 10:58 p.m.,*
in response to message #1 by Jeff

I'm not sure what you are referring to, Jeff. There was a booklet, IIRC, that came out at the same time as the 71. Are you referring to something out of that booklet?

Re: HP-71 Development Utility

*Message #3 Posted by **Vassilis Prevelakis** on 9 Oct 2003, 12:51 a.m.,*
in response to message #1 by Jeff

Its in the MOHPC CDROM (71devutl.pdf)

**vp

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HP-15C

*Message #1 Posted by **Eric Lundgren** on 8 Oct 2003, 7:51 p.m.*

In my search for matrix capability I found a 15c for 249...will it hurt my reputation to be caught paying this much? According to the museum it has numerical integration too, and has the solid build that I admire. This of course would be a team mate to my most often used hp, the 32sii. Any opinions?

eric

Re: HP-15C

*Message #2 Posted by **Marx Pio** on 8 Oct 2003, 8:18 p.m.,*
in response to message #1 by Eric Lundgren

Hi Eric,

249 USD for a HP15C?. Too expensive. A brand new HP49G+ do matrix algebra and much more for less bucks.

Marx

Re: HP-15C

*Message #3 Posted by **Larry Corrado, USA (WI)** on 8 Oct 2003, 8:36 p.m.,*
in response to message #1 by Eric Lundgren

Eric:

FWIW, I've been tracking HP-15C's on Ebay for the past month. I found the average price (9/2-10/7) to be $219, with a std dev of $55 and n = 27. This was with a rather generic "completed items" search, which did not include the poorly listed units, which presumably sold for somewhat less. (Who knows how many of those there were.)

I agree: the 15C is a great machine. Should one pay $249? How important are looks to you? Is owner's manual included? Advanced functions manual? My own feeling is that you could do a lot better by waiting a bit.

FWIW...

Good Luck, Larry

Re: HP-15C

*Message #4 Posted by **Dan** on 8 Oct 2003, 10:47 p.m.,*
in response to message #3 by Larry Corrado, USA (WI)

I think that one is a little overpriced, considering that it has some obvious defects, and an engraving. Who

want's someone elses initials on there? It would be like if your wife has a tatoo with an old boyfriend's name - you know about it, but you don't want the constant reminder. However, I see nothing wrong with paying even a lot more for one that is in mint condition. There's nothing better than that new calculator smell, when you open a perfect HP 15C that has been sitting in its box somewhere for 20 years. I think the one you're referring to should probably sell for closer to 200, or maybe 175 considering that it looks like it has some screen defects.

Re: HP-15C

*Message #5 Posted by **Karl Schneider** on 8 Oct 2003, 11:51 p.m.,*
in response to message #1 by Eric Lundgren

Eric --

$249 seems a bit high to me for a HP-15C, unless it is functionally perfect and comsetically immaculate.

However, the 15C is definitely worth having (I bought mine in Nov 1983). At work, I also use a 32Sii, but would take the 15C if forced to choose between one or the other, because of the matrix and complex-number functionality.

As Marx Pio points out below, other units also have matrix functions. However, ease of use and clarity of display are also important; the 15C and 42S are better in those respects for matrices than the RPL-based units (28, 48, 49).

Overall, the 42S matrix functions are slicker and faster than the 15C functions. However, the 15C does a few things better: Matrix annunciators include the label (e.g., "C 4 2" in the displayed X-register, while the 42S will show only "[4x2 Matrix]". If you have matrix descriptors in both the X and Y registers of the 42S for an operation, you'd better remember which matrix is which, because only matrix addition is, in general, commutative.

Edited: 8 Oct 2003, 11:53 p.m.

Re: HP-15C

*Message #6 Posted by **Thibaut.be** on 9 Oct 2003, 5:27 a.m.,*
in response to message #5 by Karl Schneider

Paying $249 for a calculator capable of matrix, num integration, solve and complex is far too expensive.

Paying $400 or even more for an unused 15C mint and complete in its box is cheap.

There are 2 "distribution channels", if I may say so. Using the calculator and collecting them. The difference between these 2 concepts are as important as between day and night.

Re: HP-15C

*Message #7 Posted by **bill platt** on 9 Oct 2003, 8:56 a.m.,*
in response to message #1 by Eric Lundgren

I bought a heavily used 15c for $110. Yes, it is missing the nameplate, and had damage to the back plate, and the owner's name engraved. But it did come with the original manual, box, sleeve, and even the pink plastic bubble pack. The 15-c is a neat device, but quite slow. I am glad to have it, though. It is way compact, has gobs of memory for RPN programming, every function on the buttons, a handy back plate guide, and a very clear display. On of the very best pocket calculators, (so wonderfully compact) though for my use the 32sii is as good or better for most operations--and has that nice alphanumeric feature.

BUt 250 bucks is a lot.

regards,

Bill

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simultaneous eqns. on 32sii...anyone?

*Message #1 Posted by **Eric Lundgren** on 8 Oct 2003, 4:02 p.m.*

I've written a 2 equation in 2 vars program in 36 bytes, in the form of Ax+By=C & Dx+Ey=F. Has anyone pulled off a shorter one? I would hope to get it up to 4eqn/4var without having a massive memory brunch.

I'm also searching for any known space saving tricks like performing one operation on several (3 or more) values at once, or more than one operation on one value, for example:

input, sqre, + A,B,C to individually recall, square, and then add the results. (I know this won't work if I enter as is) It currently takes me ten lines to input, perform, and store this in a variable.

In light of the massive storage capacity offered by models like the 48gx/49G/G+ I am really enjoying the experience of managing stuff in limited space. I analog it to learning the value of a dollar, like dad always said. back to the kbd. eric

Re: simultaneous eqns. on 32sii...anyone?

*Message #2 Posted by **Karl Schneider** on 9 Oct 2003, 12:08 a.m.,*
in response to message #1 by Eric Lundgren

Eric --

Nah, I haven't tried to write an optimal linear-systems solver for the 32Sii. Why do so, if one has other models with the capability built in, as well as Matlab on the workplace PC? Even the 20S has a 3x3 solver, but you'll probably need to consult the manual to run it, and you'll lose any programming and memory contents.

I'd invest the effort in mastering your new-used 15C. On an EE midterm exam in 1991, I was able to solve a three-loop AC ladder network as a set of three simultaneous equations using a 3x3 complex system matrix, and then manipulate the complex-valued solutions in complex mode. The students using calc's without these two built-in features would have had to "collapse the ladder" with laborious manual calculations.

Re: simultaneous eqns. on 32sii...anyone?

*Message #3 Posted by **Valentin Albillo** on 9 Oct 2003, 10:02 a.m.,*
in response to message #1 by Eric Lundgren

Have a look at these HP32SII links:

Simultaneous Linear Equations in 2 unknowns

Simultaneous Linear Equations in 3 unknowns

Simultaneous Linear Equations, 1 Linear, 1 Quadratic

Anyway, perhaps you should try an HP-15C instead. It can solve linear systems up to 7x7, with no programming necessary, in just a few seconds.

Best regards from V.

Edited: 9 Oct 2003, 10:04 a.m.

Re: simultaneous eqns. on 32sii...anyone?

*Message #4 Posted by **eric lundgren** on 9 Oct 2003, 2:25 p.m.,*
in response to message #3 by Valentin Albillo

Thanks for the links Valentin,

My two equation system solver is shorter (36 byte vs. their 45 byte) BUT! I was very VERY happy to learn a new way to enter values. I noticed that they forgot the last step RTN, as their program doesn't seem to run well without it. Thank you for the links though, I found them useful. Btw, do you know of other resources for purely 32sii users? eric

32SII

*Message #5 Posted by **Tizedes Csaba** on 12 Oct 2003, 6:20 p.m.,*
in response to message #4 by eric lundgren

Hi Eric,

I'm not 'purely' 32SII user, but I use day-to-day this machine. I alvays send programs for this machine, and you'll seeing thats on HPMuseum, if Dave will refreshing his pages! ;)

If you want to lettering about this machine, I'm ready! :)

Csaba

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Accuracy of 33s

*Message #1 Posted by **JaSon** on 8 Oct 2003, 1:13 p.m.*

Does anyone know the supposed accuracy of the 33s. The 30s calculates to 24 digits but only stores 12 in variables. Is it the same for this one? Or, do we finally get the whole benefit of 24 digits of accuracy

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Contacting problems with Jim Chumbley

*Message #1 Posted by **Matthias** on 8 Oct 2003, 10:43 a.m.*

Hi Jim Chumbley. Sorry, but your server allways blocks my mail, so I can not reach you. Yes, you can pay through paypal to m.wehrli@balcab.ch (add 4% for fees). Let me know your postal address and I will ship the items to you...

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How does one access files on the HP-75 Visicalc & Text Formatter modules?

*Message #1 Posted by **Tom Sherman (Maine)** on 8 Oct 2003, 9:43 a.m.*

I have an HP-75 that contains the VisiCalc and Text Formatter modules. While I have a manual for the HP-75 itself, I have none for the modules, and these manuals do not seem to be in the HP Museum's CD archives.

Can anyone tell me how to access the programs on these modules? Does anyone have a list of file names, or know where documentation can be found?

Thanks very much. -- Tom

Re: How does one access files on the HP-75 Visicalc & Text Formatter modules?

*Message #2 Posted by **andy** on 8 Oct 2003, 10:34 a.m.,*
in response to message #1 by Tom Sherman (Maine)

To start visicalc type "VC". To exit press shift-attn (like you're turning the 75 off).

To obtain a menu in visicalc press "/" (remember lotus 123?). You should be able to decipher oost of the operations by experiment.

Also, "time" "appt" and "edit" are all toggles...you can experiment to find out what they do because I forget.

Andy

Re: How does one access files on the HP-75 Visicalc & Text Formatter modules?

*Message #3 Posted by **Tom Sherman** on 8 Oct 2003, 12:13 p.m.,*
in response to message #2 by andy

Thank you, Andy! With your instructions, the VisiCalc is now working great. Does anyone have the magic word for starting the Text Formatter? -- Tom

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Where in the World is the 49G+ or the 48GII?

*Message #1 Posted by **Jack N** on 8 Oct 2003, 9:37 a.m.*

I don't know about the rest of you people, but I want to know where and when the 49G+ and 48GII are going to hit the street (in the USA). My mouth has been watering ever since I heard about these calcs. I can't wait any longer!

In the meantime, I happily computing away on my 48GX. I doubt that the new calcs will replace my trusty 48GX, or 48SX, or 42S, or 32S, or 41 (CV or CX), or 32SII, or 28S, or 15C or 11C. But I just still can't wait to take the new calcs for a test drive.

Re: Where in the World is the 49G+ or the 48GII?

*Message #2 Posted by **Namir Shammas** on 8 Oct 2003, 10:44 a.m.,*
in response to message #1 by Jack N

Jack, you are NOT alone! I check the HP web site for new calculator announcements 50 million times a day!!!

So your're the reason...

*Message #3 Posted by **Larry Corrado, USA (WI)** on 8 Oct 2003, 12:44 p.m.,*
in response to message #2 by Namir Shammas

Let's see... 50,000,000 times in 86,400 seconds...578 times a second... So maybe you're the reason that site seems a little sluggish lately :^)

LC

PS, Don't your fingers get tired, or do you have it automated?

Re: So your're the reason...

*Message #4 Posted by **Namir Shammas** on 8 Oct 2003, 2:48 p.m.,*
in response to message #3 by Larry Corrado, USA (WI)

Larry, I was able to get hold off teh robot from Lost In Space, and with a little bit of C++ programming made him connect to the Internet and check the HP website. So yes I have it automated.

:-)

Namir

Re: Where in the World is the 49G+ or the 48GII?

*Message #5 Posted by **Namir Shammas** on 8 Oct 2003, 10:47 a.m.,*
in response to message #1 by Jack N

And another thing. I noticed that Amazon.com has new entries for the HP49G+, HP48GII, and the HP33S.

These items are listed as not yet available, but it sounds like it's coming down the pipeline. This week was SUPPOSED to be the launch week!

Re: I've been watching . . .

*Message #6 Posted by **Paul Brogger** on 8 Oct 2003, 12:52 p.m.,*
in response to message #1 by Jack N

. . . the Samson Cables catalog site since I pre-ordered a 33s. It seems they're doing a good job of keeping visitors posted re: what they hear about the upcoming models.

Re: I've been watching . . .

*Message #7 Posted by **Eddie** on 8 Oct 2003, 6:57 p.m.,*
in response to message #6 by Paul Brogger

I have pr-ordered my HP form Smasoncables myself and I check the hpshopping site 51 million times!! I even called them today and they don not have a clue, get this the person who answered said Christmas!!!! (EEK) I am going to Europe....who wants one

Re: I've been watching . . .

*Message #8 Posted by **eric lundgren** on 8 Oct 2003, 8:19 p.m.,*
in response to message #7 by Eddie

Crikey! Christmas? Maybe they were retaliating out of frustration due to the load of questions they must be getting..

I visited a local Fry's Electronics here in San Diego on Saturday, and the calculator guy said he was waiting "any day"..he said to check back on wednesday which is today. But still no word...

eric

HP49G+

*Message #9 Posted by **Iqbal** on 8 Oct 2003, 9:21 p.m.,*
in response to message #8 by eric lundgren

Might be a disappointment for a few. Normally, when running my surveying programs with my 48GX or 42S I never watch the display because when i press a key it registers. Well believe me when I say that you must watch the 49G+'s display for input. I have regularly pressed buttons and they never registered on my 49G+. Big problem when you are typing about 20 lines of data. But on the plus side, it really is much faster than the 48GX.

Re: I've been watching . . .

*Message #10 Posted by **Ed Look** on 8 Oct 2003, 11:03 p.m.,*
in response to message #8 by eric lundgren

LOL!

These stores always say, "Check back this coming ___day! The truck arrives then!" They tell me this in Best Buy, Circuit City, Radio Shack, Staples, etc. At least Samson Cables, and others online aren't committing to a specfic day in the week to come. I truly wonder what's going on over on HP's end. Could it really be a production issue? Or, as someone else said, it's a financial year issue?

Whatever. We've got to wait in any case.

After reading many of the posters here, I think I'm going to give poor Samson Cable's site a rest from my checking! And here I thought my connection slowed down.

Re: Where in the World is the 49G+ or the 48GII?

*Message #11 Posted by **Jim Chumbley** on 9 Oct 2003, 5:31 a.m.,*
in response to message #1 by Jack N

Hi, Jack, I just bought my new HP-49g+ from CalcPro in Oregon. I ordered it on 10/7 (it was in stock) and arranged for delivery yesterday morning 10/8. It arrived just as advertised and is the third most beautiful thing I ever saw, next to my two daughters. I've enjoyed doing business with CalcPro, and I can highly recommend them to anyone. Regards, Jim Chumbley

Re: Where in the World is the 49G+ or the 48GII?

*Message #12 Posted by **Rob Harris** on 9 Oct 2003, 10:48 a.m.,*
in response to message #11 by Jim Chumbley

Jim,

Since you already have one.....

I'm considering grabbing a 49G+, since my 48SX is recently deceased.

Just looking at the keyboard of the 49G+, I don't see any buttons for Swap, Drop or Roll....Are these functions easily accessible? How?

I'm sure that they are there somewhere, but I'd be a little more comfortable if I knew how a user accessed them.

Thanks,

Rob

Re: Where in the World is the 49G+ or the 48GII?

*Message #13 Posted by **Brandon Del Bel** on 9 Oct 2003, 6:17 p.m.,*
in response to message #12 by Rob Harris

right arrow does swap, backspace does drop. those two and the rest are in the softkey menu that comes after pressing up arrow.

Re: Where in the World is the 49G+ or the 48GII?

*Message #14 Posted by **Ed Look** on 9 Oct 2003, 9:36 p.m.,*
in response to message #11 by Jim Chumbley

Hmmmm.... I wonder how Calcpro got the 49G+'s and no one else did (outside of the U.S.)? Well, since I got hold of a 48G+, it'll make the wait that much easier. Maybe now I can get some stuff done on a 48... the 48G was so memory limited I could only really use it as a scientific calculator, for which it is not really optimized. 128K! Sounds like infinity, almost!

Product Development and Start-ups (Long)

*Message #15 Posted by **Bob** on 9 Oct 2003, 8:51 a.m.,*
in response to message #1 by Jack N

I am not sure how many of you are in the business of developing and manufacturing products, but I can tell you that missing ship and to-market dates are devastatingly easy to do. I'm not making excuses for HP or their contract manufacturer, but that is a fact.

There are a thousand and one things that can go wrong if the product engineering and design are perfect. Some of these include: contract issues, employee training, machine setup/failure, inadequate spare parts, revision of subcomponents, poor project manager, loss of key technical leaders, intervention from marketing and sales, inadequate quantity or quality of raw materials, logistics issues, a typhoon, accidents, etc.

If they are revising the design, or discover flaws in the transition from prototype to production units, it could be even more time before they see the light of day.

If they are not, then this is where the program/project manager and team earns their pay. Provide leadership, do detailed planning to avoid errors, mitigate the negative impacts, resist design change, make contingency plans, delegate tasks, and make the critical path schedule.

With the roll-out of 3 different models, so close together, through a contract manufacturing arrangement in Asia, the challenge must have been tremendous. No one should be surprised that the delivery dates have slipped.

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32Sii BROWN vs. 32Sii BLACK

*Message #1 Posted by **NH** on 8 Oct 2003, 2:43 a.m.*

Greetings:

Anybody got an opinion of which is better..... 32Sii BROWN vs 32Sii BLACK ????

Did they make mostly the brown or mostly the black ??

Is the brown version perhaps more cosmetically pleasant, more viewable, etc etc?

I was thinking of swapping my 32Sii from black to brown, based on a hunch that brown is the earlier version and might be better overall. I am also suspicious that the white ink on the keys of the black version is more likely to come off ?

Re: 32Sii BROWN vs. 32Sii BLACK

*Message #2 Posted by **Tizedes Csaba** on 8 Oct 2003, 3:01 a.m.,*
in response to message #1 by NH

In the room, in the neon-light, my 32 is black. Outside in the sunshine the color of it is brown. And the soft case is too.

Csaba

Re: 32Sii BROWN vs. 32Sii BLACK

*Message #3 Posted by **Thomas Radtke** on 8 Oct 2003, 8:59 a.m.,*
in response to message #1 by NH

Why should the old version be the better one? If you're unlucky you might get a buggy one. If this is what you want we could probably swap our calcs since I'm not a collector and would be pleased to get a full working device (In case you don't know what I'm talking about--some brown bezel devices have the fraction calculations messed up:).

Re: Take a close look at the keys . . .

*Message #4 Posted by **Paul Brogger** on 8 Oct 2003, 10:13 a.m.,*
in response to message #3 by Thomas Radtke

I've one of each, and can attest that the older keyboard puts the newer one to shame.

The older has double-shot keys (indelible legends molded in two colors of plastic) with big, elegant, readable characters and great contrast. The newer has painted-on keytops, with *noticeably* smaller, dimmer, less-well-positioned characters and a distinctly cheaper look & feel.

If one of yours has painted keytops, take special care of the *other* one!

Re: Take a close look at the keys . . .

*Message #5 Posted by **bill platt** on 8 Oct 2003, 10:51 a.m.,*
in response to message #4 by Paul Brogger

Hi Paul and Norm,

I have one of each, too, and even my brown one has painted keys, just as my black and green one has. I wonder if there is any coincidence between resolution of the fraction bug, and phase out of the double shot keys? BTW, my painted keys show no signs of failure--and I have a 48GX with painted keys, and it is fine, too.

Regards,

Bill

32Sii keyboards

*Message #6 Posted by **Randy Sloyer** on 8 Oct 2003, 11:03 a.m.,*
in response to message #1 by NH

A couple of points about 32Sii's.

The 32Sii started life with units made in the USA. These were the only ones with the fraction bug and HP was swapping them out FOC. I doubt there are many buggy ones still out there.

If I had to guess, I would bet there are at least 10 times more brown units out there than black, so there is no way the browns are "rare" as so many eBay sellers like to point out.

Production shifted to Singapore, a very brief period when they where made in Malaysia and then finally to Indonesia.

The black units represent the end of production units made in the last two years of their life as a product. The keyboards tend to have some keys that click louder than others, primarily on release. Some find it to be very annoying, especially those of us who know that not all units do this. This is a trait of all later Indonesian Pioneers, not just 32Sii's. It is my personal belief that the specification for the bi-axially oriented mylar sheet used for the key dome material was relaxed, creating the problem. Never have I seen a Singapore or USA unit with this very annoying habit.

Malaysian and Indonesian 32Sii units, both brown and black, ALL have printed keys and yes, they do wear off. More correctly, they chip off. Only the USA and Singapore models have the better double molded key legends. As Paul so correctly states, the legends are smaller and of a lower contrast. The painted keys do have a clear coating over them to prevent wear-off, which helps but does not prevent a loss of the key lengend.

I personally find the brown scheme to be much easier to see. The teal and purple against a black background is pretty tough for me. The 48 series was better with the blueish-gray background.

IMO, if you're in the market for a brown unit, I would look for one made in Singapore.

Edited: 8 Oct 2003, 11:12 a.m.

Re: 32Sii keyboards

*Message #7 Posted by **Thomas Radtke** on 9 Oct 2003, 5:24 a.m.,*
in response to message #6 by Randy Sloyer

Hi Randy,

my 32SII is a Singapore model and I can confirm all the bugs with the fraction mode on this particular calc. I was not able to swap it since I wasn't aware of the exchange program by HP. About the keys, yes, the symbols are 'molded' into the plastic and the feeling is much softer and more silent than on my '98 48g or even my '90 20S. But again, thats just a detail for collectors and does not affect the usability. At least I-being just a user-don't mind the difference.

Thomas

Re: 32Sii BROWN vs. 32Sii BLACK

*Message #8 Posted by **Bert K** on 8 Oct 2003, 12:06 p.m.,*
in response to message #1 by NH

I have both a black and a brown 32SII and I prefer the brown version. The black 32SII suffers from sticky sounding keys, the brown one does not. The brown one has a better color scheme IMO. Both are Indonesian made and do not suffer from the fixed denominator bug.

Re: 32Sii BROWN vs. 32Sii BLACK

*Message #9 Posted by **NH** on 10 Oct 2003, 4:44 a.m.,*
in response to message #8 by Bert K

Wow ! That was some heavy duty information. Randy especially did quite the meticulous summary of HP-32Sii history.

I too perceived that the last part of the production run had cheap keys..... and I haven't even pulled it out of the plastic. I like the way that was stated by you guys.... the legends are thinner and fainter and harder to see.

As I try to be a connosseur, I would tend to try for earlier in the production run. Of course, I maintain a bias towards 32S as preferrable to 32Sii ..... and 34C best of all :o)

BTW, how do you prove whether or not 32Sii has the bug in the fractions ?? And even if it does, is it enough of a problem to likely interfere with everyday calculations ?

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HP-10C pouch

*Message #1 Posted by **Michel Beaulieu** on 7 Oct 2003, 7:15 p.m.*

Where can i buy te original pouch for that calculator? Is HP still manufacturing these?

What do you think about these plastic shell that can be see on the net; are they rigid enought of cheap?

Thanks Michel

Re: HP-10C pouch

*Message #2 Posted by **Ed Look** on 7 Oct 2003, 9:11 p.m.,*
in response to message #1 by Michel Beaulieu

I do not believe anything for the 10C is made by HP anymore. I don't even believe you easily find it, either. I have not seen the hard cases you are talking about, so I cannot say about those. Can you give an address or link to one of those sites that sell the hard cases?

Re: HP-10C pouch

*Message #3 Posted by **Chris(FLA)** on 7 Oct 2003, 9:36 p.m.,*
in response to message #1 by Michel Beaulieu

This ad was posted awhile back from classic calculators for 1xC series calcs. Leather pouches.

Classic Calculators

Chris

delete:12345

Re: HP-10C pouch

*Message #4 Posted by **Richard Garner** on 7 Oct 2003, 10:05 p.m.,*
in response to message #1 by Michel Beaulieu

Sense HP still makes the 12C and now the 12CP, they are the same size as the 10C. You could try and get a replacement pouch for the 12C from HP.

Re: HP-10C pouch

*Message #5 Posted by **CME750** on 7 Oct 2003, 11:21 p.m.,*
in response to message #1 by Michel Beaulieu

Official HP-12C pouches are currently on sale at Samson Cables for $14.99 plus shipping (which is another $6-7).

According to Samson Cables, the current price is marked down from the normal price of $19.99 and the MSRP of $24.99.

The same pouch was used for the 10C, 11C, 12C, and 15C. It has the HP logo, but no specific model number. So I got one for my 11C.

Details at: http://www.samsoncables.com/catalog/prodByCat.cfm

Re: HP-10C pouch

*Message #6 Posted by **Chris(FLA)** on 8 Oct 2003, 1:16 p.m.,*
in response to message #5 by CME750

I did not know that<g>

I will have to get one for the wives 11C. Her case is looking it's age. 18 years old.

Thanks.

Chris

Re: HP-10C pouch

*Message #7 Posted by **CME750** on 8 Oct 2003, 4:37 p.m.,*
in response to message #6 by Chris(FLA)

I forgot the 16C. It had the same case too.

I paid $22 (with shipping) to get a replacement case from Samson Cables for my 11C. Seems like a lot for a little vinyl case. On the other hand, it's rather amazing that I can still get a factory replacement case for a 1984 calculator.

My 11C seems happier since I got it.

Re: HP-10C pouch

*Message #8 Posted by **Martin (UK)** on 8 Oct 2003, 5:18 p.m.,*
in response to message #7 by CME750

Soft LEATHER case (apparently purpose made) for these calculators can be seen at http://www.classiccalculators.co.uk/hp12ccase.htm

Martin (uk)

Re: HP-10C pouch

*Message #9 Posted by **Patrick** on 14 Oct 2003, 11:40 a.m.,*
in response to message #8 by Martin (UK)

I'd like to hear from people who've purchased one of these newly designed leather cases.

The flap on these new ones is in the long, horizontal direction whereas the flap on the legacy (HP) leather cases was along the short, vertical direction. I imagine this means more case material is needed, and therefore more bulk -- something of a turn-off for me.

Does anyone have both? Which do you prefer?

Re: HP-10C pouch

*Message #10 Posted by **David Smith** on 8 Oct 2003, 7:18 p.m.,*
in response to message #1 by Michel Beaulieu

There have been a couple of people selling new old stock HP vinyl and leather cases for those machines on Ebay rather regularly. They usually go for $10-$20.

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HP 48S and G learning

*Message #1 Posted by **Michel Beaulieu** on 7 Oct 2003, 7:07 p.m.*

Hi, i have, at school, the mission to try calculators in order to give my opinion to my principal (who buy calculators for students) and also to tell students which calculator to buy.

1 months ago i receive a HP-48s, a TI-92+ a HP-38G and a HP-48GX to "try" and give my opinion.

I don't have any problem with RPN or Algebraic mode so my opinion is not base on this "feature".

I begun with the HP-38G and fin that learning this calculator is easy but the capabilities are a little bit limited. Next i try the 48S and 48GX. I read the quick start guide and begun to use the calculator.

after one or two weeks of use i was amase about what it can do but learning it is very difficult for me so i think my student will find that nearly impossible! I always hear the "beep" after entering a key that seems to be the good one!!! That reapiting beep over time get me nervous and i stop using the calculator (i know i can disable the beep).

exemple : just entering a closing parenthesis in an equation is painful and not ergonomic, changing the window range, exchanging files with computer is painful and time consuming to learn.

After that i open the TI-92 and find it easy and ergonimic to learn; i was able to draw at my taste a polar or a parametric situation withou the manual in a clic of an eye.

The problem is that i don't like basic programming and prefer keystroke : no graphing calclator i know is capable of that. Keystroke programming is ergonomic and you don'T have to learn a lot to program it basicly.

So i told my student to buy a TI-89 or a ti-92 or a voyage 200 and for lower grade i also include a hp-38G.

I like RPN, it's logic and fun to teach it to student and see and their eye they catch it in a minute BUT graphing calculator from HP are too hard to learn and time consuming. Why not do a TI-89 like calculator with RPN entry?

I think RPN can have a chance with students if someone can make a calculator that can be fun and easy to learn and ERGONOMIC like the TI-92!!!

My HP-41 is the best but don't have the graphing capabilities i need. For learning the 41, it's not so easy but very FUN and logic!

I'm lucky and open mind because when i compare what other teacher that have the same "job" in others schools, they even don't want to hear about RPN or HP! Thye miss things : RPN is ergonomic but HP-48G is not!

I'm talking about learning a tool, but not the keys, the LCD, the functions, or nothing physical here; i think HP graphinc calculator 48 series have a good quality; the problem is the OS?

Or do you have some tips for me for the 48? learning tutorial?

Is the 49G the same, i never try it yet...

Michel

Edited: 7 Oct 2003, 7:13 p.m.

Re: HP 48S and G learning

*Message #2 Posted by **Jeremy** on 9 Oct 2003, 10:44 p.m.,*
in response to message #1 by Michel Beaulieu

Michel,

You never mentioned what level your students are at. I have had a TI-85 (a predecessor of the TI-89 and 92) for many years, since 1990. I love it. It is so easy and intuitive to use.

It doesn't have the character of an HP though. I think that a student who is very serious about getting the most out of his calculator might enjoy the HP more, but for the other 98%, they just want to get the job done.

I got my 48G on ebay for about $35. I think a TI-85 would go for about the same. A TI-89 would cost considerably more, probably around $100-120. A TI-92 is a huge beast, and obsolete now that the 89 is out. Also, many big standardized tests specifically ban anything with a QWERTY keyboard, so I would steer your students clear of that one.

The TI-89 does symbolic differentiation and integration easily. The 48G doesn't. I'm not sure about the HP49 series.

So if your students are college level engineering students, the HP would be worth a thought. Otherwise, save them a lot of hassle. I know that is sacreligious to say here, but it is true that it takes more 'dedication' to learn an HP. To many of us, it is ultimately more gratifying in the end. To everyone else? Give them simplicity.

-Jeremy

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What is that annunciator? (33S)

*Message #1 Posted by **Tizedes Csaba** on 7 Oct 2003, 5:42 p.m.*

Hi,

who knows, what's that ann. on the 33S's LCD, under the Left-Shift ann., near '0.5...' on www.hpcalc.org?

Csaba

Re: What is that annunciator? (33S)

*Message #2 Posted by **Ed Look** on 7 Oct 2003, 6:23 p.m.,*
in response to message #1 by Tizedes Csaba

Uh, whatever it is, it looks like it has a cable sticking out of it. Perhaps it is a connection (to PC or another calculator) icon?

Re: What is that annunciator? (33S)

*Message #3 Posted by **Ben Salinas** on 7 Oct 2003, 7:01 p.m.,*
in response to message #1 by Tizedes Csaba

While looking at the tiny simple on the LCD screen, I compared it to that of the 32sii, and realized that the only thing that the 32sii's screen has that the 33s doesnt have is all the little arrows pointing down (for selecting stuff in menus). My question is this: Although there are many of the functions directly on the keybaoard of the 33s (such as Cnr, and Pnr), there still will need to be menus (such as for linear regression), so how will these menues be navigated? The 32sii has "softkeys", however it does not look like the 33s has those (judging by the lack of little arrows). I truly hope that you will not have a menu to scroll through (such as on many of the TI scientific calculators), because I can get used to a weirdly arranged keyboard, but if you have to scroll through 4 options to get to some of the features... Just think of the number of keystrokes. On the 32sii, to get 'r' (provided the Stat data is inputted) you need 3 keystrokes (right shift, L.R., y^x). It is possible that on the 33s, it would be 8 keystrokes. IMHO, that takes the advantage out of the scientific calculator (namely, speed) -Ben Salinas

I don't think, that is arrows...

*Message #4 Posted by **Tizedes Csaba** on 8 Oct 2003, 2:20 a.m.,*
in response to message #3 by Ben Salinas

On the right side of LCD it had two arrows (up/down), and had two arrows for left and right. I try zooming and sharping the pic (with ACDSee) it looks like letter 'B', but not really 'B'.

I don't know, what's that. (And I don't want guessing...)

Csaba

Navigation with...

*Message #5 Posted by **Tizedes Csaba** on 8 Oct 2003, 2:29 a.m.,*
in response to message #3 by Ben Salinas

Hmm... Under the LCD, that big empty place look like an four-direction 'joystick' and the four direction is marked with lines.

I'm guessing very hard now... :)

Csaba

Re: Ben, I think you called it . . .

*Message #6 Posted by **Paul Brogger** on 8 Oct 2003, 10:02 a.m.,*
in response to message #3 by Ben Salinas

In the early-release .PDF product summary, 2nd page, top of middle column under "edit" it says "4-arrow key in menu:" and goes on to (sort of) explain (clumsily) how the "up arrow" and "down arrow" actions work.

I've assumed that the large center space between "ALG/SOLVE" and "MODES/DISP" is in fact the "4-arrow key". Note that there aren't up and down arrows, as such, anywhere on the keyboard, and the "up diode" and "down diode" (left-shifted 7 & 8) functions are probably "top of list" and "bottom of list" jumps. (Those are alluded to in the .PDF text as well.)

So, Ben, I'm sure you're on to something. They increased the number of keys by 6-10 (depending on how you count 'em), sprayed every function they could think of onto the keyboard, and short of adding a third shift key, needed to make menus work somehow (given the design all but precludes the use of soft keys). So you get cursor-navigated lists.

Re: What is that annunciator? (33S)

*Message #7 Posted by **Brandon Del Bel** on 8 Oct 2003, 3:05 a.m.,*
in response to message #1 by Tizedes Csaba

it looks like a lock to me

Re: What is that annunciator? (33S)

*Message #8 Posted by **JaSon** on 8 Oct 2003, 1:06 p.m.,*
in response to message #1 by Tizedes Csaba

looks like a printer to me

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HP-Meeting in Allschwil

*Message #1 Posted by **Matthias Wehrli** on 7 Oct 2003, 5:16 p.m.*

I wrote a short report about our meeting in Allschwil, Switzerland.. You can read it (sorry, german only, no one wanted to translate it) here. There are also some photos... For members, you can order all my photos from me on a CD...

http://www.hp-collection.org/meeting.htm

Yours Matthias

Re: HP-Meeting in Allschwil

*Message #2 Posted by **Mark Hardman** on 7 Oct 2003, 9:21 p.m.,*
in response to message #1 by Matthias Wehrli

The Google English translation isn't half bad. Of course that means it isn't half good as well.

"Translated" to English:

I particularly like how "Christoph Klug" gets translated as "Christoph intelligent".

Mark Hardman

Edited: 7 Oct 2003, 9:30 p.m.

Re: HP-Meeting in Allschwil

*Message #3 Posted by **Matthias Wehrli** on 8 Oct 2003, 12:50 p.m.,*
in response to message #1 by Matthias Wehrli

Now the review is available in english. I hope there are not to many faults.. (you can correct me directly by mail)

http://www.hp-collection.org/meeting_e.htm

Matthias

Re: HP-Meeting in Allschwil

*Message #4 Posted by **Mike (Stgt)** on 9 Oct 2003, 11:28 a.m.,*
in response to message #1 by Matthias Wehrli

Here my page about that meeting - a very personal view <G>
http://ourworld.compuserve.com/homepages/nutem/pioneer.htm

Ciao.....Mike

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I feel some hope for new kbds..?

*Message #1 Posted by **eric lundgren** on 7 Oct 2003, 2:39 p.m.*

I think the 33s kbd might be saved. Does anyone know the cycle for releasing new machines? How late could they pull the brake and do a retool of such a component?

I've just got this feeling..factor in also that if I'm correct (if not correct me) the design for the 33s was presented before the new PE exam restrictions. Would this potential market be sufficient motivation for them to slap some 48/32s buttons on that thing?

eric

Re: I feel some hope for new kbds -- but not 33s ...

*Message #2 Posted by **Paul Brogger** on 7 Oct 2003, 5:07 p.m.,*
in response to message #1 by eric lundgren

I was joking elsewhere with regard to the 33s' delayed release. They've slipped delivery of the 48GII and 49G+ a few times already, so it's not at all surprising that the 33s is being delayed too.

I don't think for a moment that, because of complaints on this board, they're going to do a 180 on their racy new design and start from scratch.

It does appear that, inasmuch as the new keys aren't rubber and mushy, they'll be better than we might have expected, and *that's GREAT news* indeed.

Re: I feel some hope for new kbds -- but not 33s ...

*Message #3 Posted by **eric lundgren** on 7 Oct 2003, 5:10 p.m.,*
in response to message #2 by Paul Brogger

Well, how about that! Are they really 'hard' keys?? Great!

Yeah, I was feeling a little optimistic this morning :)

Re: I feel some hope for new kbds -- but not 33s ...

*Message #4 Posted by **John Limpert** on 7 Oct 2003, 7:32 p.m.,*
in response to message #2 by Paul Brogger

I just don't understand this new school of industrial design that insists on doing weird things to keyboards. The HP-33S looks tame compared to some of the new cellular phone handsets. Whatever happened to "Form follows function"?

The old Bell System used to conduct usability studies on new designs for telephone equipment. I wonder if HP did any usability testing on the new calculator designs?

Re: I feel some hope for new kbds -- but not 33s ...

*Message #5 Posted by **Robin** on 18 Oct 2003, 6:11 p.m.,*
in response to message #4 by John Limpert

I'm quite shure they where doing some tests, but in many product lines, the sales/marketing has the last word - they first want to sell, and to many manager's mean that's already done with a "special" design, usability does not seem primary for them :-(.

But there is still hope - I haven't seen the final release yet, the say it will be available in the middle of November in Switzerland. We'll see.

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MLDL2000 for HP41: Update

*Message #1 Posted by **Meindert Kuipers** on 7 Oct 2003, 10:28 a.m.*

You have not heard from me for some time, but I have been working on the MLDL2000. I could not spend as many hours as I would have liked but some progress has been made.

Right now I am debugging the I/O interface, which allows me to program FLASH and SRAM from my PC with ROM images. Due to some issues I had to change (and simplify) the design of the I/O interface, and I hope to release a new version within a week or so. This will be a pretty final specification before I start making the layout for the PCB. After that there is no way back.

The changes in the I/O interface are that the bit-serial interface has gone away, and only a (faster) parallel interface remains. Signal configuration is based on a USB digital I/O module that I am using and that is very likely to be an integral part of the MLDL2000. Both will fit together in a cardreader housing, which is my design goal.

Meindert

Re: MLDL2000 for HP41: Update

*Message #2 Posted by **Jeffrey Davis** on 7 Oct 2003, 1:26 p.m.,*
in response to message #1 by Meindert Kuipers

Meindert, Great work! I have been following your progress and I am looking forward to using one of the completed units soon. From your posting, I had one question. How big is the flash rom and how many rom images could be flashed? For example, could I have both the David Assembler and the Zenrom flashed to the unit and use each separately? Keep up the good work. Jeff

Re: MLDL2000 for HP41: Update

*Message #3 Posted by **Meindert Kuipers** on 8 Oct 2003, 3:10 a.m.,*
in response to message #2 by Jeffrey Davis

Do youreally want to know how much memeory there is? Check out the specifications ;)

There is room for 47 ROM images in FLASH and 11 RAM blocks, is that enough for you?

Meindert

Re: MLDL2000 for HP41: Update

*Message #4 Posted by **Jeff** on 8 Oct 2003, 9:32 p.m.,*
in response to message #3 by Meindert Kuipers

Thanks Meindert. Will you be completing the mfg. of the units for sale, will you provide the kits for assembly or just supply all the specs for the unit that fits into the card reader? Do all of us who want one of these units need to purchase a card reader? Thanks

Re: MLDL2000 for HP41: Update

*Message #5 Posted by **Meindert Kuipers** on 9 Oct 2003, 2:32 a.m.,*
in response to message #4 by Jeff

I will only be offering kits with the complete PCB's. It is up to you to put in in a box, be it a cardreader or something else. I will repeat again that this project is for hobby and fun, and not intended to be very professional and certainly not for profit. Besides, I only have three cardreaders housings that I want to keep for my own unit ;) If you want to put it in a cardreader housing you will need to get hold of one. I suggest you wait purchasing one until I finalize the mechanical details.

Meindert

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Jornada X25 Linux prototype : has anyone seen on sale ?

*Message #1 Posted by **Pascal** on 7 Oct 2003, 8:16 a.m.*

I've searched both forum and classified ad section for the Jordana X25 prototype but I didn't find anything.

Has anyone ever seen those on sale on ebay or anywhere else ? Have some prototype units been distributed to testers like the xpander ? how many units were built ?

Thanks for any info on this subject.

Pascal.

Re: Jornada X25 Linux prototype : has anyone seen on sale ?

*Message #2 Posted by **Laurence** on 7 Oct 2003, 12:17 p.m.,*
in response to message #1 by Pascal

Hi

There have been a few (3 or 4) X25 prototypes sold on Ebay over the last 12 months or so but they seem very rare. A few were sold at the HPCC meeting last year in the UK when a small number of units were available. I have one myself purchased at this meeting. there are more details at http://www.geocities.com/wongyapkong/x25 and you should find a lot more sites via Google

Re: Jornada X25 Linux prototype : has anyone seen on sale ?

*Message #3 Posted by **Colin** on 7 Oct 2003, 7:39 p.m.,*
in response to message #2 by Laurence

About 200 pilot production units were built of the Jornada X25. The X25's were handed out to ACO staff and contractors when we were closed.

Re: Jornada X25 Linux prototype : has anyone seen on sale ?

*Message #4 Posted by **Les Bell [Sydney]** on 7 Oct 2003, 10:17 p.m.,*
in response to message #2 by Laurence

Thanks for posting the link to Wong Yap Kong's X25 site - I think <g>. Looking at his pics, it's obvious that the product was very close to launch, with packaging, manuals, various accessories all ready to go. It's heartbreaking to see all that work wasted, and it would have been a neat product, too.

Best,

--- Les [http://www.lesbell.com.au]

Re: Jornada X25 Linux prototype : has anyone seen on sale ?

*Message #5 Posted by **Pascal** on 8 Oct 2003, 2:39 a.m.,*
in response to message #2 by Laurence

Thanks for the link, the pictures are excellent ! It sounds like it's going to be difficult to get a hand on the rare pieces that were produced ...

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Reading HP9800 tapes

*Message #1 Posted by **Jean-Louis Dornstetter** on 7 Oct 2003, 6:58 a.m.*

Hello everyone

I used to work in the eraly 80's on an HP desktop calculator that was equipped with a thermal printer and two cartridge tape readers, plus a decent green/black display. It looks similar to HP9825 but I couldn't recognize the exact model I was working with, which I didn't find on the WEB. My problem is as follows : the mice did actually eat (!) the listing I kept of some of my junior engineer work deep in the garage. I still have the program tapes, HP200 'certified data cartridge' that are still in good physical shape and weren't exposed to dangerous conditions, and I wonder whether somebody could provide me a hint on how to read such tapes, given that I do no longer have access to one of those machines, I even don't have the precise model, and I have no clue on the (compressed ?) format used to store the lengthy HP Basic routines I would like to read the source code again.

Any help would be more than welcome...

Cheers

Re: Reading HP9800 tapes

*Message #2 Posted by **Vassilis Prevelakis** on 7 Oct 2003, 9:05 p.m.,*
in response to message #1 by Jean-Louis Dornstetter

OK, first the tapes, do they look like these?

http://www.classiccmp.org/hp/hp200.jpg

According to your description, the computer cannot be a 9825 since this one has only a one line LED display. So you are either thinking of a 9835, like this one:

http://www.classiccmp.org/hp/9835a.jpg

Or (most likely as this one can have two tape drives) an 9845. This is not the best picture, but its the only one I could find:

http://www.classiccmp.org/hp/hpjournals/4-78.jpg

Now the bad news, your tapes are probably long gone -- destroyed by age. Assuming that you can find a working 9845 you may have a single chance at reading the data off the tape, but before you do that, you have to make sure that

a) the rubber belt that moves the tape still works. You will have to open the tape housing and look inside. If the belt is broken or about to break you will have to replace it with one from a working tape (preferably manufactured the past 10 years). This is a not so good picture of the internals:

http://www.classiccmp.org/hp/hp-tape.jpg

b) Make sure that the tape is not stuck on itself. Carefully wind (manually) the tape from end to end (DO NOT USE A RE-TENSION COMMAND) checking to see whether the oxide stays on the correct part of the tape. If the oxide is falling off or sticking to the back of the tape, then your tape is gone.

Assuming that the tape passes the above two tests you should assume that you have ONE chance of copying the data.

Have another tape or (preferably) a disk (diskette or hard) ready to accept the contents of the old tape and PRACTICE the copy operation a couple of times with ANOTHER TAPE.

If everything looks OK, insert the original tape, say something comforting to the machine in a friendly and stress-free voice and good luck.

**vp

The pictures above are from the Classic Computers web site www.classiccmp.org.

Re: Reading HP9800 tapes

*Message #3 Posted by **David Smith** on 8 Oct 2003, 7:19 p.m.,*
in response to message #2 by Vassilis Prevelakis

Might also be an HP85...

Re: Reading HP9800 tapes

*Message #4 Posted by **Vassilis Prevelakis** on 9 Oct 2003, 12:54 a.m.,*
in response to message #3 by David Smith

```
David Smith wrote:
> Might also be an HP85...
```

The HP85 does not have two tape drives or a green/black screen, the 9845 has both.

**vp

Re: Reading HP9800 tapes

*Message #5 Posted by **Jean-Louis Dornstetter** on 11 Oct 2003, 2:32 a.m.,*
in response to message #2 by Vassilis Prevelakis

Vassilis

Thanks for your thorough/detailed response. The tapes are exactly that in the upper right corner of the pictures you provide (HP 200 'certfied cartridge") and I already had done the physical integrity check, and this seems OK, so far so good. Of course, they may well desintegrte wfter the first pre-tension operation, life is sometimes a bitch.

My most 'fundamental' problem remains to either access one such machine, I found the model (also thanks for the pictures) by searching deep into my almost fossile memory, and it definitely was an HP9845B, a really rare monster I have no clue how to get one. The last sale opportunity I could track on the Web was from an Autralia-based machine in 1999 :-(

I will try to find a compatible QUIC tape reader and access the binary content, a couple of dirty hacks might prove necessary but I am not afraid with programming, and also seek for such a fossile machine in the garage of research labs, they don't easily junk their past stuff in France...

Best regards

Re: Reading HP9800 tapes

*Message #6 Posted by **Vassilis Prevelakis** on 11 Oct 2003, 2:56 a.m.,*
in response to message #5 by Jean-Louis Dornstetter

```
Jean-Louis Dornstetter wrote:
> I will try to find a compatible QUIC tape reader [...]
```

There are lots of 9825 and (of course) 85 computers out there. I think their drives are compatible with the 9845, but I not sure about data portability.

I know that the 85 will NOT read 9825 tapes, but I do not know whether an 9825 will be able to read 9845 tapes (these two families were quite close, e.g. they had the same expansion cards).

I have looked at the possibility of writing an assembler program on the 85 to read 9825 tapes, but at this stage this task looks hopeless.

Of course TESTING your software will also be a problem, as you do not want to try it on the 20 year old tapes, and (at this stage) you do not have anything more recent.

Of course, you can try recording the pulses as they are coming off the drive and then reverse engineer the format.

**vp

Re: Reading HP9800 tapes

*Message #7 Posted by **Petr Horsky** on 12 Oct 2003, 3:24 p.m.,*
in response to message #1 by Jean-Louis Dornstetter

Jean-Luis:

I am afraid that even if you succeed to read the raw data from your tapes, everything will depend on whether your programs have been SAVEd or STOREd. The former means just ASCII files (which could be also read programmatically as a sequence of ASCII strings), while the latter are binary data corresponding with particular partially-compiled BASIC program lines. I don't see any reasonable method how to reverse-compile the latter outside the HP 9845B or its exact emulator.

BTW, as far as I know, the HP 9845 and HP 9835 data formats are fully interchangeable (again, with possible exception of STOREd programs). So an HP 9835 might do, too. They used to be cheaper, but, I think, also much rarer.

Incidentally, an HP 9845B keeps standing on my kitchen table; it isn't fully operable, though. (Or, from the user point of view, it's rather quite inoperable, as it hangs up with the "MEMORY TEST IN PROGRESS" message on screen.) Unfortunately, one of its two 16-bit processors seems to be defective. I have precisely the same problem as you have (and, moreover, I would probably like to operate the machine just out of nostalgia). I would appreciate any opportunity to borrow the boards (maybe chiefly from the left card cage) somewhere, even from a wreck of this machine, at least in order to be able to locate the defect on the board level.

Best Regards, Petr Horsky

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invalid card data at my hp48g

*Message #1 Posted by **kalimero** on 7 Oct 2003, 4:44 a.m.*

Every time i switch on my hp 48 g , i get the warning "invalid card data ". I tried all kind of memory and hardware tests and everything was all right. what could i do ? Is that a hardware problem and how could i solve this problem!

Re: invalid card data at my hp48g

*Message #2 Posted by **Wayne Brown** on 7 Oct 2003, 7:25 a.m.,*
in response to message #1 by kalimero

Try typing **PINIT** and see if the problem goes away.

Re: invalid card data at my hp48g

*Message #3 Posted by **kalimero** on 7 Oct 2003, 8:08 a.m.,*
in response to message #2 by Wayne Brown

Thanx for your help ! i solve the problem !

Re: invalid card data at my hp48g

*Message #4 Posted by **Wayne Brown** on 7 Oct 2003, 8:32 a.m.,*
in response to message #3 by kalimero

You're welcome. The problem occurs because the 48 series calcs' memory is organized into 128K ports. The expandable models (the SX and GX) can have RAM cards inserted that add additional ports. A little information (such as the amount of memory available in each port) is stored at the beginning of each port. When a new RAM card is installed, this little bit of information may be missing or corrupted. The **PINIT** command scans all the ports and (re)writes this info in them. (It doesn't erase or otherwise affect any files already stored in the ports.) The "invalid card data" message just means that at least one port's header information has become corrupted and needs to be rebuilt with **PINIT**. Since the 48 treats all memory the same, including the built-in memory, it's possible even for a model without expansion cards to get this error.

Re: invalid card data at my hp48g

*Message #5 Posted by **Jonathan Busby** on 8 Oct 2003, 7:05 a.m.,*
in response to message #4 by Wayne Brown

This is somewhat inaccurate. There is no "header" stored at the beginning of each port. All a port consists of is a sequence of library and/or backup objects --each one being immediately followed by its 4-nibble CRC-- which is then terminated by a 5 nibble zero value. The "available memory" of a port is not stored anywhere, but is indirectly determined by a 5-nibble pointer in the PORTnEOS "end of sequence" table. This pointer indicates where the previously described library/backup object sequence ends when the port has been uncovered and is located at address C0000 . Note that this can also be determined by the aforementioned zero value, but the table allows faster access.

When the calculator "boots up" it scans all the ports, while recording the locations of any library objects and also checking the CRC of each backup/library object encountered. If a corrupt object is found, then an "Invalid Card Data" error is generated and the associated PORTnEOS pointer is set to point immediately after the last valid object. When you store something to a port, the corresponding PORTnEOS pointer is used to determine where to place the object. If the port in question is corrupted, then the start of the corrupted portion will be overwritten with a valid object and the PORTnEOS pointer will be updated to point past the new object. So, you can see the second advantage of the PORTnEOS table. PINIT makes use of this fact by storing and then purging a small valid backup object in each port. As just explained, if there is any corruption, it will be overwritten with valid data.

Note that the above doesn't apply to port 0, at least without some modification. While port 0 does have an entry in the PORTnEOS table (the first entry), it is treated differently. Like the other ports, it is scanned at startup, and if a corrupt object is detected, then its PORT0EOS entry is modified, but in this case it has a different meaning to the code that is responsible for storing objects. Unlike the other ports, when an object is stored it is *prepended* to the start of the object sequence and the PORT0EOS pointer is *not* updated. PORT0EOS usually points to address BFFFB or FFFF6, depending on whether port 1 is unmerged or merged respectively. If a corrupt object is detected upon booting up, then PORT0EOS is set to point to the start of the corruption as in the other ports, but unlike in those cases a new 5 zero nibble sentinel is written at the PORT0EOS address -- effectively an automatic port 0 "PINIT". This has the effect of silencing the "Invalid Card Data" errors, but at the price of the space between the "logical" end (PORT0EOS) and the actual end of port 0 being left in limbo. So, you effectively have a "memory leak". This is the cause for all the questions about lost or missing memory that you see every so often on various forums. Since the 48 series has no built in mechanism to reset the PORT0EOS pointer, then a normal user would be SOL. This seems to be a design flaw in the 48 operating system. Fortunately, there is a user written program that can do this, and possibly even recover lost data. See http://www.hpcalc.org/details.php?id=2454 .

Hope this helps...

Jonathan Busby - jdb@SNMAPOhouston.rr.com

Remove the random permutation of "NOSPAM" before replying.

invalid card data at my hp48g

*Message #6 Posted by **bill platt** on 8 Oct 2003, 9:23 a.m.,*
in response to message #5 by Jonathan Busby

Hi,

Thanks for your timely post. Just minutes earlier, I saw "invalid card data" and having the 128 card merged to sysram, I lost access to the object I had stored to port zere, and as you mentioned, the memory is "missing". Thanks again for your timely post.

Regards,

Bill Platt

Re: invalid card data at my hp48g

*Message #7 Posted by **Wayne Brown** on 8 Oct 2003, 12:14 p.m.,*
in response to message #5 by Jonathan Busby

If I understand you correctly, the PORTnEOS table is stored in the calculator and not in the card. Why is it, then, that removing the card's battery to erase it causes the "invalid card data" error? Does it involve the CRC you mentioned? It seems to me that *something* (in addition to the user's files) must be stored in the ports and is lost when the battery is removed. I've also seen cases where a card is only partially inserted and gives the "invalid card data" error, then the error goes away when the card is fully seated (without using PINIT). Are the port CRCs actually stored in the card itself?

Re: invalid card data at my hp48g

*Message #8 Posted by **Jonathan Busby** on 8 Oct 2003, 2:07 p.m.,*
in response to message #7 by Wayne Brown

You wrote:

"If I understand you correctly, the PORTnEOS table is stored in the calculator and not in the card"

Yes. Internal ram (IRAM) to be exact, and it consists of a contiguous series of 33 5-nibble pointers starting at address 80536 hex on the G series.

"Why is it, then, that removing the card's battery to erase it causes the "invalid card data" error? Does it involve the CRC you mentioned? It seems to me that something (in addition to the user's files) must be stored in the ports and is lost when the battery is removed."

Yes, it could be the CRC, but that is unlikely (see below). As stated in my previous post, a port consists of a contiguous sequence of lib/bak-object , 16-bit CRC pairs. Obviously loss of power will invalidate the CRCs. There are also other criteria under which a port is judged to be "corrupted" though. Specifically, if an object other than a library or backup is found in the sequence, if an object's structure is invalid, if the end-of-sequence marker (the 5 zero nibbles mentioned in the last post) is absent, or if an unknown object type is encountered (ie. corrupted or invalid object prologue), which is probably the most common case after a power loss.

"I've also seen cases where a card is only partially inserted and gives the "invalid card data" error, then the error goes away when the card is fully seated (without using PINIT)."

Obviously in this case the data read from the card would be garbled, which would cause it to be deemed corrupted by the OS under the conditions listed above.

"Are the port CRCs actually stored in the card itself?"

Yes, as stated above.

Regards,

Jonathan

Jonathan Busby - jdb@SNMAPOhouston.rr.com

Remove the random permutation of "NOSPAM" before replying.

Re: invalid card data at my hp48g

*Message #9 Posted by **Wayne Brown** on 8 Oct 2003, 3:19 p.m.,*
in response to message #8 by Jonathan Busby

OK, thanks for the detailed explanation. It's a lot clearer to me now.

Re: invalid card data at my hp48g

*Message #10 Posted by **Andy** on 8 Oct 2003, 6:55 p.m.,*
in response to message #9 by Wayne Brown

Many of the Ram card "died" after you take the 2025 out of them. The problem sometimes is that the card has a complete RAM chipset... Even the format is on the RAM, by taking the battery out some times the format goes out with it. It you have a HP 95lx and plug a "dead" card with a new battery, it shows << I/O ERROR. press ESC to exit>>, in that case you have to grab the HP 100lx or the 200lx and formatt the card. PINIT is the formatting command for the HP 48GX, by executing that command you can plug the formatt and bring the card back to "live". You can also reformatt the card with any computer with PCMCIA ports. That should work. you are using the HP cards right?

regards

Andy

Re: invalid card data at my hp48g

*Message #11 Posted by **r. d. bärtschiger.** on 8 Oct 2003, 7:16 p.m.,*
in response to message #10 by Andy

HP-48 ram cards will not fit in a pcmcia slot.

rdb.

Edited: 8 Oct 2003, 7:18 p.m.

Re: invalid card data at my hp48g

*Message #12 Posted by **Wayne Brown** on 9 Oct 2003, 1:57 a.m.,*
in response to message #10 by Andy

> Quote:
>
> You can also reformatt the card with any computer with PCMCIA ports. That should work. you are using the HP cards right?

I have one HP card and three Klotz cards. None of them are PCMCIA cards. (They're the same size as PCMCIA, but have very different connectors.) But PINIT works fine, so that's all I need.

Re: invalid card data at my hp48g

*Message #13 Posted by **Andy** on 11 Oct 2003, 4:02 p.m.,*

in response to message #12 by Wayne Brown

Did I said that!!!!!. Sorry I follow the example of the HP palmtops. They USE the PCMCIA cards. The HP 48GX has different connectors... Well sorry about that..., Just USE the PINIT...

Regards

Andy

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what does the + give a 48g?

*Message #1 Posted by **Eric Lundgren** on 6 Oct 2003, 10:30 p.m.*

What distinguished the G, G+, and GX in the 48 series? Is the SX still a contender if you don't require too much memory?

My guess is that the G has no (8, 16k ?)memory...and G+/32k GX/128k?

eric

Re: + = 128K

*Message #2 Posted by **Paul Brogger** on 6 Oct 2003, 11:39 p.m.,*
in response to message #1 by Eric Lundgren

I think it goes (er, *went*) like this:

48G: 32K

48G+: 128K

48GX: 512K + expansion port(s)

The Museum covers the 48S/SX -- they apparently each had 32K, and there too the "X" was expandable.

I just looked at that for the first time -- the S/SX colors are much nicer than those of the G models. I suspect the G's are faster, and probably have other advantages too. But it may be that, for your use (as it probably *would be* for mine), that the more readable keyboard is more important than whatever advantages the G's offer.

(I think with the final 32SII color scheme, and the announcement of the 33S, we're seeing just how important some of those "mere appearance" decisions can be!)

Re: + = 128K

*Message #3 Posted by **Jonathan Purvis (New Zealand)** on 7 Oct 2003, 12:01 a.m.,*
in response to message #2 by Paul Brogger

The 48GX had only 128KB of RAM builtin, not the 512KB Paul claimed. Initially only the 48G and 48GX were produced, the 48G+ came later when calculator production was shifted to control of the ACO.

Re: + = 128K

*Message #4 Posted by **eric lundgren** on 7 Oct 2003, 2:22 p.m.,*
in response to message #3 by Jonathan Purvis (New Zealand)

So just to confirm, and I'm assuming if you are right that Paul meant 512k including the cards? Well, I really just need a cheapie-who-cares-if-its-stolen back up rpn calc. And it turned out being the G. I'm

hoping that its not muuuuch slower than a G+.

Also, Paul, yes the colors are much more pleasant on the SX!

eric

Re: + = 128K

*Message #5 Posted by **Paul Brogger** on 7 Oct 2003, 4:17 p.m.,*
in response to message #4 by eric lundgren

I believe that all 48G models are created equal with respect to Speed. (Someone will certainly correct me if that's not the case!)

No, the 512K was something I thought I remembered -- if it's 128K, then that's all you get without adding cards. I understand the 48s are cabable of addressing something like 1 or 2 Mb (or more?) of memory, if it is hooked up correctly.

Re: + = 128K (long)

*Message #6 Posted by **James M. Prange** on 8 Oct 2003, 6:00 a.m.,*
in response to message #5 by Paul Brogger

I'm not an expert, so I hope that someone will correct any errors and clarify things that I don't make clear. This has gotten to be a lot longer than I had expected, but now that I've tried to explain it, I've noticed that it doesn't seem quite as simple as I thought it was.

First off, as to how much memory the 48 series calculators can address: The Saturn processor uses 20 bit addresses, thus can recognize 1048576 (1 Meg of) distinct addresses. But addressing is by the nibble (4 bits or a half byte), so that's 1 "Meganibble" (is that a word?), so 512 KiloBytes. 256KB is used for ROM, leaving 256KB for RAM. Well, 256KB of RAM that can be addressed "easily", that is.

Perhaps it's too bad they didn't develop a Saturn+ with larger addresses when they developed the 48SX or the 48GX, but that would have been a major project, and developing a new RPL with larger addresses would be another major project, so I suppose that it wouldn't have been feasible. When they developed the Saturn, who would've guessed at any desire for more addresses in a hand-held calculator!?

I'll refer to built-in RAM together with any merged RAM from expansion cards as "system RAM", which is used for storing global variables, the stack, and "working memory". Note that the operating system reserves some RAM for its own use, so the amount reported as available by the MEM command will be somewhat lower, even immediately after clearing the memory.

"Ports" are used for libraries and "back-up objects", that is, objects that can't be modified (at least not while they're stored in ports); although they can, of course, be stored or purged. "Port 0" comes out of the same pool of memory as the system RAM, sort of a "virtual port". All other ports are on expansion cards. When a card is "free", it's a port (or ports, in the case of the 48GX); when it's "merged", its memory is pooled with system RAM/port 0. Ports (other than port 0) are restricted to 128KB each.

The 48SX has 32KB of RAM built-in. Up to two RAM cards of either 32KB or 128KB each can be added, and each can be either free or merged. That means that 288KB can be used as system RAM! The 48SX manages this by "covering" a portion of ROM with RAM as needed; I think of it as bank switching. The card in slot 1 is port 1 if free, or system RAM/port 0 if

merged. The card in slot 2 is port 2 if free, or system RAM/port 0 if merged.

ROM cards can be added instead of RAM cards. ROM cards can never be merged; they're forever free. RAM cards can (if "free") be mechanically switched to write-protected, in which case they effectively become ROM cards. Write-protecting a merged card is a bad thing to do.

The "low-cost" follow-up to the 48SX is the 48S. Basically, it's the same except without the slots for the expansion cards, and of course, the price.

One company, TDS, marketed 256KB and 512KB cards for the 48SX; these are multi-bank cards. The general idea is that instead of using 2 or 4 128KB cards and physically switching them, you use 2 or 4 128KB banks on a single card, and use software to switch them. But the requirements for switching cards (except turning the calculator off and on) still apply when switching banks. A special library that came with the card allows the user to switch which bank is in use. The card can be merged, but to do a bank-switch, it has to be free. A bank-switch forces a warmstart so that the operating system can find out what's in the bank. Also note that the bank in use (if free) has the port number of whichever slot it's in. So while these cards do offer additional storage space, using it isn't all that easy.

When HP released the 48GX, it looked to me as if they borrowed an idea from TDS, but instead of the user having to make sure that the card is "free" and telling a library to switch to a different bank, the 48GX doesn't allow a card in slot 2 to be merged in the first place, treats each bank of a multi-bank card in slot 2 as a separate port, and doesn't need a warmstart every time that it looks at a different bank.

The 48GX has 128KB of RAM built in. Slot 1 can accept either a 32KB or 128KB card which can be either free or merged, and behaves the same as slot 1 in the 48SX. Slot 2 can take these and larger cards, but can't be merged, so the 48GX can have, at most, 256KB of system RAM, a bit less than is possible on the 48SX. The 48GX can have up to 32 ports: port 0 (from the 128KB built-in), port 1 (up to 128KB in slot 1), and ports 2 through 31 (128KB each in slot 2). So it *can* have up to 4MB of RAM, just not all on one card. The maximum of 30 ports of 128KB each comes out to 3840KB available in slot 2.

That slot 2 can have at most 30 ports would seem to be the reason why the Klotz 4MB cards have a mechanical switch to select between 2 pairs of 128KB banks to be used as ports 30 and 31.

Whether this restriction to 30 ports on the card in slot 2 was an oversight or intentional on HP's part, I don't know. As far as I know, 1MB was the largest card that HP ever marketed for the 48GX, so being able to access only 3840KB of a 4096KB card was never a problem with "Genuine HP" cards.

HP marketed 32KB, 128KB, and 1MB cards. Various other companies have marketed 128KB, 256KB, 512KB, 1MB, 2MB, and 4MB cards.

The 48G is the "low-cost" version released together with the 48GX. Like the 48SX and 48S, it came with 32KB of RAM built-in, and like the 48S, doesn't have any slots for expansion cards.

The 48G+ was, I believe, ACO's very first "new product". It came with 128KB RAM built in, so the "+" means 4 times as much RAM as the 48G, as much as the 48GX. But like the 48G, it doesn't have any slots for expansion cards. I'd guess that the only development required for it was to use the RAM chip from the 48GX, and changing the model number.

As for speed, the 48G series processor runs about twice as fast as the 48S series processor.

Note that having more memory available for the stack generally means that garbage collections won't be needed as often, but when a garbage collection is needed, it will take longer, which many perceive as a slowdown and find objectionable. Similarly, when you turn the calculator on, it checks on "what's out there" so having more memory, and potentially more libraries, probably slows that down too. So "more is better" isn't necessarily true.

Regards,
James

Re: + = 128K (long)

*Message #7 Posted by **Jonathan Busby** on 10 Oct 2003, 7:16 p.m.,*
in response to message #6 by James M. Prange

You said :

"The 48GX can have up to 32 ports: port 0 (from the 128KB built-in), port 1 (up to 128KB in slot 1), and ports 2 through 31 (128KB each in slot 2)."

Actually, the hardware supports up to 34 ports : port 0, port 1, and ports 2 - 33. But there is a bug in the OS that prevents port 33 from being used correctly.

"So it *can* have up to 4MB of RAM, just not all on one card."

Well, as I indicated above, the hardware has the *potential* to access 4MB on one card, but is prevented from doing so by a defect in the software.

"The maximum of 30 ports of 128KB each comes out to 3840KB available in slot 2.

That slot 2 can have at most 30 ports would seem to be the reason why the Klotz 4MB cards have a mechanical switch to select between 2 pairs of 128KB banks to be used as ports 30 and 31."

Actually, that should be 31 ports or 3968KB for the Klotz card. (see the Klotz 4MB card manual at http://www.uuhome.de/oklotz/hp4096ae.pdf) Oh ye cursed inclusive subtraction off-by-one error, how I loathe thee. ;)

"Whether this restriction to 30 ports on the card in slot 2 was an oversight or intentional on HP's part, I don't know."

The bug that makes port 33 unusable is so hilariously trivial it's sad. Specifically, there is a typo on *one* line in *one* file that is the culprit. Even worse, it's just a constant that is off by 5 nibbles in said line. The file is rammap.a and the line is :

=INTRAM EQU (PORT2EOS)+155 a,D1[4321]*,C[15,..,5]* (16)

The "155" constant should be "160" . That's it. Without this, the PORT33EOS entry (see my posts in the thread "invalid card data at my hp48g for a detailed explanation of the PORTnEOS table) overlaps with the space used by the interrupt to save the contents of the registers. The result is that at best you get an "Invalid Card Data" error every time you turn the calc on, try to access the port, or perform a warm/cold-start. At worst, you could corrupt the contents of the port by attempting to store something to it. (this is unlikely though) For the original source of this information, see Jean-Yves Avenard's post on this subject : http://groups.google.com/groups?selm=357e5e4f.0%40isoit370.bbn.hp.com

Regards,

Jonathan

Jonathan Busby - jdb@SNMAPOhouston.rr.com

Remove the random permutation of "NOSPAM" before replying.

Re: + = 128K (long)

*Message #8 Posted by **James M. Prange** on 10 Oct 2003, 8:32 p.m.,*
in response to message #7 by Jonathan Busby

Hi Jonathon,

Thanks for the corrections.

> Quote:
>
> Actually, the hardware supports up to 34 ports : port 0, port 1, and ports 2 - 33. But there is a bug in the OS that prevents port 33 from being used correctly.

Ok, then the 48GX can use up to 33 ports, except that I don't know of any commercially available card that makes 31 ports on the card available at any one time. Whether it's hardware or firmware that prevents port 33 from being used properly makes little difference to the user.

I wonder whether a work-around to the firmware error would be possible with an external library.

> Quote:
>
> Actually, that should be 31 ports or 3968KB for the Klotz card. (see the Klotz 4MB card manual at http://www.uuhome.de/oklotz/hp4096ae.pdf) Oh ye cursed inclusive subtraction off-by-one error, how I loathe thee. ;)

Having made that particular error all too often, I loathe it too. But have another look at the Klotz documentation. Because the card switches two *pairs* of 128KB banks, it only has 30 ports (3840KB) available at any one time. Well, at least that's what the documentation says; I don't actually have the card to experiment with.

I can't help wondering why it switches between two pairs of 128KB banks instead of two 128KB banks, but I suppose that there's a hardware reason.

> Quote:
>
> Specifically, there is a typo on *one* line in *one* file that is the culprit.

> Quote:
>
> The "155" constant should be "160" .

Well, I'd call that a "mistake", not a "typo". You'd think that HP could've made a 4MB card for testing purpose, but I guess they were confident that the code was written correctly....

Regards,
James

Re: + = 128K (long)

*Message #9 Posted by **Jonathan Busby** on 11 Oct 2003, 11:41 a.m.,*
in response to message #8 by James M. Prange

You said :

"I wonder whether a work-around to the firmware error would be possible with an external library"

The possibility exists, but you would need at least a 32K card in port 1 in order to override the interrupt handler.

"Having made that particular error all too often, I loathe it too. But have another look at the Klotz documentation. Because the card switches two *pairs* of 128KB banks, it only has 30 ports (3840KB) available at any one time. Well, at least that's what the documentation says; I don't actually have the card to experiment with."

Yes, I read that too, but it seems my brain decided to filter it out. In fact, the supposed "error" I pointed out in your post makes no sense. I don't know where I got a 32 where you only mentioned a 30 and a 31. Hmmmm... I feel like an idiot. :) The Jonathan "Reality Filter" syndrome strikes again.

"I can't help wondering why it switches between two pairs of 128KB banks instead of two 128KB banks, but I suppose that there's a hardware reason."

I don't know of any hardware reason. Multiplexing port 32 between physical banks 30 and 31 takes the same exact logic as multiplexing ports 30-31 between the physical bank pairs 28-29 and 30-31. Specifically, you need a 4-bit equality comparator and a 2-1 multiplexer, except in the case of multiplexing a pair of ports the output of the multiplexer would select the value of bit 1 of the bank address instead of bit 0 and one of the comparator's inputs would be 14 (decimal) instead of 15. Very simple. Don't know why it was done that way.

Regards,

Jonathan

Jonathan Busby - jdb@SNMAPOhouston.rr.com

Edited: 12 Oct 2003, 6:34 p.m.

Re: + = 128K

*Message #10 Posted by **Andy** on 8 Oct 2003, 6:57 p.m.,*

in response to message #2 by Paul Brogger

The 48GX only has 128KB ram...

... but...

*Message #11 Posted by **Andrés C. Rodríguez (Argentina)** on 10 Oct 2003, 5:22 p.m.,*
in response to message #10 by Andy

the 48 GX accepts expansion cards (memory or else) in two slots, while the 48 G (32K) or the 48 G+ (128K) are not expandable.

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HP15C 'Stuck' in User Mode

*Message #1 Posted by **Melody** on 6 Oct 2003, 5:00 p.m.*

Hello All - I hope someone can help, My husband's HP15C seems to be 'stuck' in the User Mode. The manual states that pressing f+USER keys again will deactivate this mode. Nothing happens when the f+USER key is pressed and USER annunciator continues to display. Anyone have any ideas on how to fix this? Any help would be greatly appreciated. Thx.

Re: HP15C 'Stuck' in User Mode

*Message #2 Posted by **bill platt** on 6 Oct 2003, 6:09 p.m.,*
in response to message #1 by Melody

Hi Melody,

First, check to see if either of the keys have problems---so try "f" with any other key and make sure it works, e.g. f prefix should clear a prefix, and also show the full "mantissa". And check the RCL key: does it recall a register? If both keys work fine, I would then run a self-check and see what comes up--and then clear the machine if need be (following the manual's instructions).

Good luck and best regards,

Bill

Re: HP15C 'Stuck' in User Mode

*Message #3 Posted by **Patrick** on 6 Oct 2003, 8:28 p.m.,*
in response to message #1 by Melody

Bill's suggestion is a good one, but I just wanted to make sure you are not actually pressing the '+' key. You press the yellow f key and then the RCL key which has 'USER' written in yellow just above it.

Sorry if you already realized this... there is a wide range of experience out there.

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33s color scheme is good

*Message #1 Posted by **Eric Lundgren** on 6 Oct 2003, 4:11 p.m.*

Amidst all the 33s-bashing, should we take a moment to summarize the positive points?

1.RPN (not exclusively, but rpn) 2.A pleasant color scheme. 3.Possibility of the 'tactile click' ?? 4.No interchangeable face plate form over function. 5.Presumably a flat screen unlike the 49g. 6.contributions here?

Consider this: If our complaints were more penetrating, like demanding 42s menus, soft keys, etc, we'd have little hope of a redesign, but its really only the shape of the keys and their orientation. I'd happily trade the dual line screen for a normal kbd and possibly return of the big enter key.

el

Re: 33s color scheme is good

*Message #2 Posted by **Ed Look** on 6 Oct 2003, 4:13 p.m.,*
in response to message #1 by Eric Lundgren

Agreed!

Re: 33s color scheme is good

*Message #3 Posted by **Todd Stock** on 6 Oct 2003, 6:44 p.m.,*
in response to message #2 by Ed Look

I'm certain someone has noticed this; however, if not, the new TI business calc looks amazingly like the older HPs. Maybe if the 33S had some business functions, we could argue a change to a more 'TI-like' color scheme and key arrangement...

What new TI business calc?

*Message #4 Posted by **Jeff** on 6 Oct 2003, 7:15 p.m.,*
in response to message #3 by Todd Stock

What is this new calc that you speak of?

Re: 33s attributes

*Message #5 Posted by **Paul Brogger** on 6 Oct 2003, 4:46 p.m.,*
in response to message #1 by Eric Lundgren

6: More (program) memory!

About the two-line display: It'll be great IF it performs something like the 42s handles two lines: occasionally one line for menus, otherwise two lines for program browsing, X & Y stack lines, etc. If they haven't carried two-line *behavior* into the 32S/SII base code, then the second line probably won't mean much. (Formula entry

is o.k., but let's have a full-featured two-line interface!) I suspect you're thinking I worry too much, and you're right: I don't have anything to go on beyond the product sheet and the picture, but let's just say I'm concerned . . .

With regard to menus, I prefer the 32s over the sII, as it has more of the functions buried in menus and not committed to the keyboard, leaving the 32s' front clean and simple. The 33s apparently wears its features on its sleeve rather than discreetly tucked away inside, and consequently its already funny-shaped keyboard is further degraded with generally useless clutter.

OOooops! This was supposed to be about the *positives*! Sorry!

(Hey, I'm pre-ordered, and in that sense, committed to at least give it a try . . .)

Re: 33s delayed?

*Message #6 Posted by **Paul Brogger** on 6 Oct 2003, 6:48 p.m.,*
in response to message #1 by Eric Lundgren

I note that Samson Cables has just changed their ETA for ***MY*** HP-33s to "unknown". (Apparently they've been told by H-P that the thing is delayed indefinitely.)

Maybe H-P is knee-deep in a keyboard redesign? (I doubt it, but one may dream!)

Maybe I should upgrade my order to an HP-49G+ . . .

Re: 33s delayed?

*Message #7 Posted by **Ed Look** on 6 Oct 2003, 7:31 p.m.,*
in response to message #6 by Paul Brogger

Maybe that's the plan! Release it after you get a bunch of guys to go for the big calculator! ;)

Re: 33s delayed?

*Message #8 Posted by **Erik Ehrling (Sweden)** on 7 Oct 2003, 1:29 p.m.,*
in response to message #6 by Paul Brogger

> Maybe H-P is knee-deep in a keyboard redesign? (I doubt it, but one may dream!)

...hm... As I have said earlier in this forum, delays for the HP-33S might not neccessarily mean bad news.

> Maybe I should upgrade my order to an HP-49G+...

Once Hrastprogrammer has adapted HP-42X for the HP-49G+ I would definitely go for a HP-49G+ instead of a HP-33S. (Theoretically HP-42X on the HP-49G+ would be 100% HP-42S compatible, have 96K RAM, have I/O, and run 3-5 times faster than the real HP-42S!)

Best regards, Erik Ehrling

Re: 33s delayed?

*Message #9 Posted by **Fred** on 7 Oct 2003, 2:33 p.m.,*
in response to message #8 by Erik Ehrling (Sweden)

Why would you want a 42S emulator on a 48/49/49G+++ or anything else???? I don't get why you would not just use the calculator you have.. An emulator would not have key labels, the size is bigger,

the emulating calculator has more functionality than the emulated calc, etc... Certainly a calc emulator for a PC or Pocket PC/Palm make some sense, but I am missing something with this desire to emulate one RPN calculator with another RPN/RPL calculator. I must be missing something, could someone help me understand this market?

Thanks

Re: 33s delayed?

*Message #10 Posted by **Erik Ehrling (Sweden)** on 7 Oct 2003, 3:52 p.m.,*
in response to message #9 by Fred

> Why would you want a 42S emulator on a 48/49/49G+++ or anything else????

There are several reasons - 1) You might prefer the keystroke programming of the HP-42S. 2) You want to run programs written for the HP-41C(V/X)/42S. 3) You are running Emu42 on your PC but you need a device to key your programs into (keying in programs on the HP-48GX keyboard is much nicer than on the PC keyboard). 4) You know how to use the HP-42S even in your sleep and don't have the time to learn another calculator (remember, many of us in this forum has *both* demanding jobs and a family!) 5) The HP-42S lacks I/O but a calculator emulator gives you the oppurtunity to emulate a HP-42S with LOAD/SAVE functionality

Just to name a few...

Best regards, Erik Ehrling

Re: 42s-on-a-48g?

*Message #11 Posted by **Paul Brogger** on 7 Oct 2003, 4:24 p.m.,*
in response to message #9 by Fred

If Erik E. didn't already mention it explicitly, four-level RPN is preferred by many over RPL for ad hoc use, as well as for programming.

One drawback to 42x would be the 48G's form factor -- it's pretty clunky in that respect when compared to the actual 42s. But there are certainly several promising aspects as well.

Re: 42s-on-a-48g?

*Message #12 Posted by **bill platt** on 7 Oct 2003, 4:44 p.m.,*
in response to message #11 by Paul Brogger

BUT, don't you need to own a REAL 42s in order to get the ROM?

Regards,

Bill

Re: 33s delayed?

*Message #13 Posted by **Frank Wales** on 8 Oct 2003, 5:14 p.m.,*
in response to message #6 by Paul Brogger

Quote:

> Apparently they've been told by H-P that the thing is delayed indefinitely.

Well, this seller seems more confident:

http://cgi.ebay.co.uk/ws/eBayISAPI.dll?ViewItem&item=2563724118&category=9972&rd=1

Re: Confident seller?

*Message #14 Posted by **Paul Brogger** on 8 Oct 2003, 5:33 p.m.,*
in response to message #13 by Frank Wales

Google's translation:

lt. HP of the successors of the HP 32 SII - attention, as per HP should be available this computer starting from September 2003 - is it however not! The distribution will take place all foresight in November this yearly. Orders it now. The computer as soon as it is verfuebar, to it rausgeschickt with DHL express for euro 6, -. you receive a calculation with proven VAT information in English language under this address as pdf file: http://www.hpcalc.org/images/datasheet33s.pdf

Reading between the lines, I suspect s/he's not so confident . . .

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RAMBox for the HP-42S

*Message #1 Posted by **Erik Ehrling (Sweden)** on 6 Oct 2003, 3:14 p.m.*

Hi!

When I visited the HPCC in London this summer Tony Duell showed me a RAMBox for the HP-41C(V/X). Now I wonder, have anyone tried building such a thing for the HP-42S? Or could anyone hardware oriented judge whether building a RAMBox for the HP-42S would be feasible?

The idea would be to add 32K RAM in the place of the additional ROM and make this RAM programmable from a PC. (Another option could be to use a 32K RAM card from the HP-48SX and use a HP-48 to "program" it). Using the XFCN hook this could be a way to add memory that is both programmable in assembler and possible to call from RPN programs...

Regards,
Erik Ehrling (Sweden)
Homepage:http://w1.322.telia.com/~u32220482/index.html

Re: RAMBox for the HP-42S

*Message #2 Posted by **db(martinez,california)** on 6 Oct 2003, 6:37 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

I don't know if you've seen the posts or not so maybe this is old news to you but; a couple of people have replaced the 8k chip in the 42 with a 32k which is pinned the same. The problem is that it is not removeable or accessable by the 48, except that you could probably write a routine for the 48 to read signals from the 42. The reverse is sadly, not true as far as i know.

Wouldn't it be great if the much maligned (but not yet seen) 33s turns out to have a back door that HP forgot to plug which allows communication with mass storage?

Re: RAMBox for the HP-42S

*Message #3 Posted by **Erik Ehrling (Sweden)** on 7 Oct 2003, 11:19 a.m.,*
in response to message #2 by db(martinez,california)

> I don't know if you've seen the posts or not so maybe this is old news to you but; a couple of people have replaced the 8k chip in the 42 with a 32k which is pinned the same.

Yes, I have indeed seen the posts regarding the 32K upgrade of the HP-42S (and have performed this upgrade to two of my HP-42S's).

However, what I was speaking about was a slightly different idea, where RAM is attached, not to the ordinary RAM position, but rather to the position of the additional ROM. This memory area has the benefit of, at least theoretically, being much more suited to programming in saturn assembly than the ordinary 8/32K RAM.

However, you would probably not like to enter more than very short programs by hand - therefore the RAMBox would need to be programmable from a PC (or some other device).

Best regards, Erik Ehrling

Phantom: RAMBox for the HP-42S

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 7 Oct 2003, 12:37 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

A RAM chip that could be mapped "to the outside", so it can be logically detached from the HP42 while it is off (sleeping), and "dumped" via a serial or USB connector (somehow in the manner of the flash memory keyrings) to a PC... and then loaded from the PC with a memory image... and then reverted to the inside just before the calculator is about to wake up...

a) May be a good idea!

b) Issues:

b1) Standby power controller, there should be Chip Enable signals controlled sometimes from the HP42 (Saturn), and sometimes from the outside...

b2) The memory images would be difficult to edit or "compartimentalize", in some manner this would be similar to the WALL (Write All magnetic card) function on the HP41... not very frequently used. This could be solved with an emulator running on the PC which can read, understand, modify and save an HP42 memory dump...

b3) As the RAM is CMOS Static and a "standard" part, other timing and control issues could be solved.

c) The technique of using a block of memory initialized from one device and then addressed by other as if it was its own memory was called Phantom Memory. It was used for microcode loading (or control store programming, for those who don't like the microcode-microprogram terminology), for boot ROM emulation in the Commodore Amiga 1000, and in some 386 PCs some 12 years ago, to "upload" the image of 8-bit wide ROM in a 16 or 32 wide bit memory page, and so obtain performance benefits from bus usage (and also from better access time on DRAM than in ROM)

Re: Phantom: RAMBox for the HP-42S

*Message #5 Posted by **Erik Ehrling (Sweden)** on 7 Oct 2003, 1:22 p.m.,*
in response to message #4 by Andrés C. Rodríguez (Argentina)

> 1) Standby power controller, there should be Chip Enable signals controlled sometimes from the HP42 (Saturn), and sometimes from the outside...

Hmmm... I might be somewhat naive, but isn't this issue already handled by the RAM Cards for the HP-48SX/GX?

> b2) The memory images would be difficult to edit or "compartimentalize", in some manner this would be similar to the WALL (Write All magnetic card) function on the HP41... not very frequently used. This could be solved with an emulator running on the PC which can read, understand, modify and save an HP42 memory dump...

We do have Emu42 which certainly would be very useful for this. However, remember that my idea was to use this for the ROM area, i.e. the RAM that I am speaking about here would therefore be read-only once installed in the HP-42S.

Best regards, Erik Ehrling

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Problems with La Poste

*Message #1 Posted by **Emmanuel, France** on 6 Oct 2003, 12:23 p.m.*

Problems with La Poste, may be an explanation

5 men arrested, 450 parcels stolen... or more?

http://pageperso.aol.fr/Xeq41/11.jpg

http://pageperso.aol.fr/Xeq41/12.jpg

To be continued...

Problems with La Poste (addendum)

*Message #2 Posted by **Emmanuel, France** on 6 Oct 2003, 12:28 p.m.,*
in response to message #1 by Emmanuel, France

Problems with La Poste may be an explanation

5 men arrested, 450 parcels stolen... or more?

http://pageperso.aol.fr/Xeq41/31.jpg

http://pageperso.aol.fr/Xeq41/32.jpg

The end?

Problems with La Poste (addendum #2)

*Message #3 Posted by **Emmanuel, France** on 6 Oct 2003, 12:37 p.m.,*
in response to message #1 by Emmanuel, France

Problems with La Poste, may be an explanation

How it was so slow...

http://pageperso.aol.fr/Xeq41/21.jpg

http://pageperso.aol.fr/Xeq41/22.jpg

To be continued...

What has La Poste to do with HP calculators ?!?

*Message #4 Posted by **?!?** on 7 Oct 2003, 2:44 a.m.,*
in response to message #1 by Emmanuel, France

?!?

Re: What has La Poste to do with HP calculators ?!?

*Message #5 Posted by **Wayne Brown** on 7 Oct 2003, 7:35 a.m.,*
in response to message #4 by ?!?

Emmanuel has had some problems in the past (when selling calculators to other people here) with long-delayed or missing shipments. (This has been discussed previously in this Forum). He's just providing a possible explanation for these problems.

Re: What has La Poste to do with HP calculators ?!?

*Message #6 Posted by **Emmanuel, France** on 7 Oct 2003, 11:36 a.m.,*
in response to message #5 by Wayne Brown

Thanks, Wayne!

Re: What has La Poste to do with HP calculators ?!?

*Message #7 Posted by **Wayne Brown** on 8 Oct 2003, 5:37 a.m.,*
in response to message #6 by Emmanuel, France

You're welcome.

What's your name Mr. ?!? ?

*Message #8 Posted by **Albert** on 7 Oct 2003, 2:38 p.m.,*
in response to message #4 by ?!?

What's your name and your e-mail address Mr. ?!? ?

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Calcs in production

*Message #1 Posted by **Pierre Brial** on 6 Oct 2003, 12:17 p.m.*

Hello, As my sources disagree, I prefer to ask to the specialists in the forum: What are the hp calculators currently in production ?

All the best

Pierre

Re: Calcs in production -- I'll take a stab at that . . .

*Message #2 Posted by **Paul Brogger** on 6 Oct 2003, 12:29 p.m.,*
in response to message #1 by Pierre Brial

I'm guessing . . .

Older Models: HP-12C

New Models: HP-12C Platinum HP-10BII+ (did I make that one up?), HP-17BII+

HP-48GII, HP-49G+

HP-33S (not quite released yet . . .)

Questionable: HP-9S, HP-9G

Have I missed anything obvious?

Re: Calcs in production -- I'll take a stab at that . . .

*Message #3 Posted by **Tom (UK)** on 6 Oct 2003, 1:10 p.m.,*
in response to message #2 by Paul Brogger

Ouch! Has there ever been this few models in production (after 1975)? In late 1985 / early 1986 there were only 5 (6 if you include options): HP11, 12, 15, 16, 41C(V/X).

Calcs in production -- HP 40g

*Message #4 Posted by **Pierre Brial** on 7 Oct 2003, 9:42 a.m.,*
in response to message #2 by Paul Brogger

The Hp-40g is the last Hp sold in the local supermarket, but it is not in Paul's list. I never try it and it don't seem to have the "HP keyboard". What do you think about it ?

Pierre

Re: Calcs in production -- HP 40g

*Message #5 Posted by **Marx Pio** on 7 Oct 2003, 1:15 p.m.,*
in response to message #4 by Pierre Brial

I guess you forgot to mention the 6S. My pet favourite calc machine!

Pio

Re: Calcs in production -- HP 40g

*Message #6 Posted by **GE (France)** on 7 Oct 2003, 4:13 p.m.,*
in response to message #4 by Pierre Brial

The HP40G seems to pack a lot of power, but I found it very very hard to use. Probably from lack of desire to learn its complicated usage. Apart from that, it feels solid, and is well built (no scratching screen). However, it has a painful hard-to-press keyboard (probably like the 49G), and is very slow (YMMV). Maybe at a middel-class price it would be a good mid-range offer after the same hardware revamping as the 49G+ ?

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RPN vs. AOS: *GOOD* examples [LONG]

*Message #1 Posted by **Valentin Albillo** on 6 Oct 2003, 6:31 a.m.*

In regard with my criticism of the Mach number formula as a totally inadequate example to prove RPN's "superiority" over capable algebraic systems, WXYZ posted:

"You say that thats a flawed example.... could you give a good one?"

Yes, I can. First of all, let's make it clear from the start that RPN is *not* superior to algebraic systems, in general: there will be cases where it will certainly be superior, there will be cases where it will come out as inferior.

In particular, the evaluation of lengthy, complicated, algebraically-written formulas is about the *worst* possible case, and the one where any owner of a decent algebraic machine *who knows how to use it proficiently* (i.e: not the algebraically-challenged, RPN fundamentalist, who won't be able to even enter the formula without getting a syntax error, and will make a mess of it all) will not only give RPN a run for its money, but will win the race outright. In the case of the Mach number formula, said efficient user of an algebraic calculator, who knows his machine inside out, will key in the formula and get the correct result before many an RPN user has even decided on "where to begin" (as this formula cannot be attacked left-to-right in a four-level RPN stack) and "the proper key sequence".

What would then be a good example ? Well, to answer this question you just need to consider what are the main RPN strengths and differential characteristics. These are, of course, the user-manageable 4-level stack (instead of the internal, non-user-accessible stack typical of algebraic machines), and the powerful set of operations acting on it, i.e: X<>Y, Roll down and up, ENTER, automatic top-level replication, LASTx, etc. Any good example will make use to the most of some or all of those characteristics, to achieve results much more efficiently, faster, and in significantly less keystrokes than any algebraic system could. The Mach number formula fails miserably in taking advantage of any of those advanced RPN capabilities to any significant extent, which brings us to the original question: what would then be a *good* example ?

Well, I can think of many. "Think" is not the correct term however, as I do not need to "think" of a proper example. I've used RPN extensively in the last 20+ years, and I've come across many computations where it was most efficient. Just to name a few: continued-fraction evaluations, rational least-squares approximations, series expansions [*very* good examples here], Fourier series, complex-number operations, coordinate transformations, ... but there's a very simple example, that doesn't require high math at all, and which HP did include in each and every manual and many brochures as well, and that is "polynomial evaluation" using Horner's rule. RPN fits like a glove for this particular computation.

An example will make it clear. How would you evaluate the polynomial

```
8*x^4 + 5*x^3 + 2*x^2 - 7*x - 6
```

for arbitrary values of x ? Well, the RPN answer is simply (assuming x is already in the display):

```
ENTER, ENTER, ENTER, 8, *, 5, +, *, 2, +, *, 7, -, *, 6, -
```

Simple as it is, you're using both the stack to hold intermediate results and new operands, and *automatic top-level replication*, to keep a *never-ending* supply of x values. The computation is as fast and efficient as it can be.

On the other hand, if the user of an algebraic system wants to maintain the valuable left-to-right, no-thinking-

needed characteristics of his system, he would have to enter the expression as written, i.e:

```
8*x^4 + 5*x^3 + 2*x^2 - 7*x - 6
```

but this is *vastly inefficient*, because he ends up doing four multiplications *and*, additionally, THREE *slow* x^y operations, not to mention the ancillary additions and subtractions. This is awfully inefficient, can result in greater rounding errors, and it's painfully slow. For higher-degree polynomials, it gets much worse.

Now, a knowledgeable algebraic user would realize this, and would probably sacrifice the "as written, left-to-right" entry, and try instead evaluating the polynomial by mimicking the RPN approach, like this:

```
(((8*x + 5)*x + 2)*x - 7)*x -6
```

but he then needs to first open a number of left parentheses in a row, then keep on closing parentheses at the proper times, not to mention the need to re-enter or recall the x value constantly. This results in many extra keystrokes needed, and for sufficiently high-degree polynomials this approach *is doomed to *fail**, as soon as the maximum number of open parentheses is reached, while the RPN approach works for polynomials of arbitrary degree. There's also the fact that having many pending operations does waste a lot of memory, while the RPN approach needs no extra memory at all but the stack registers themselves.

So you see, this is a clear-cut case where RPN excels over any algebraic approach. Even HP recognized this fact, and the Curve Fitting pac for the HP-71B does include a binary (machine language) subprogram specifically designed for evaluating polynomials, which HP-71B's BASIC, awesome as it is, simply can't do efficiently, for the aforementioned reasons. Even so, said binary subprogram only succeeds in being twice as fast as its BASIC counterpart, and if I recall correctly, can only evaluate polynomials up to 18th-degree. An RPN (or RPL, or FORTH) approach can easily run rings around this.

How's that for an example ? :-)

Best regards from V.

Re: RPN vs. AOS: *GOOD* examples [LONG]

*Message #2 Posted by **hugh** on 7 Oct 2003, 5:50 p.m.,*
in response to message #1 by Valentin Albillo

a cheeky reply,

on the hg9g, your example is indeed shorter. working the formula as written:

M+ 8 M ^2 ^2 + 5 M 2nd x^3 + 2 M ^2 - 7 M - 6 = (20 buttons) or using nested evals: M+ - 6 + M () - 7 + M () 2 + M () 5 + 8 M = (20 again)

BUT your example falls short if you happen to have a zero coefficient (or more). if the 5 were a zero. you would still take 16 steps in your method, assuming you would enter zero for that stage. on the 9g, you would get:

M+ 8 M ^2 ^2 + 2 M ^2 - 7 M - 6 = 15 steps :-)

Re: RPN vs. AOS: *GOOD* examples [LONG]

*Message #3 Posted by **Valentin Albillo** on 8 Oct 2003, 5:22 a.m.,*
in response to message #2 by hugh

hugh posted:

"you would still take 16 steps in your method, assuming you would enter zero for that stage"

And why on earth should you "assume" that !? :-) Of course I wouldn't enter any "0, +" sequence, would you ? !!

Best regards from V.

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HP, if you are watching.

*Message #1 Posted by **Eric Lundgren** on 6 Oct 2003, 3:35 a.m.*

My digital watch reads 10/21/03, the 33s still isn't out, but I walk into my local electronic store for the weekly check of the release status of the new HPs. As I round the corner and eventually pass the stacks, and stacks, and stacks of TIs, the (likely) dark blue or white box will catch my attention...I look away in hopes of storing this anticipated moment...and retrace the arc back to the box...the 33s is ....not v-shaped!!! YES!!! I pull out my cell phone, check my balances, and carry 5 or 6 packages to the counter. I carefully deposit them on the counter and pull out my mastercard and check cash for the anticipated burger/introduction to my new calc lunch, and wait for him to swipe my card. In eagerness, I offer my ID, and sign, wondering if any user groups are waiting to ambush me and fairly distribute my insane greed amongst the masses...but no! My rpn/rectangular future is secure, the shelves are full of them! I carry both bags to the door, exit to the sunny fall weather, stomach indicating hunger levels, and make my way to my car..BEEP BEEP BEEP! 6:00AM Darnit! It was a dream....or..was it? (hint HP...HINT!!) :)

eric

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33s - ALG is default?

*Message #1 Posted by **Eric Lundgren** on 6 Oct 2003, 3:14 a.m.*

I've been staring and holding up my 32sii to compare to the 33s on hpcalculators.com, have any of you noticed some small details...for example the big silver keys near top: ALG is on the key, but rpn is shifted...so we'll have to be the ones who suffer if we inadvertantly press the ALG key..

Well, I'll be prepared to super glue that key out of motion if I have to. Its interesting, to me the 33s has 7 more keys than the 33s, yet the only function that appears to be new is the x^(1/3), could there possibly (dream) be a matrix capability added in to make up for the .5sized enter key?

Well, I will buy one, and give it the honest chance, because I was raised by an rpn-faithful, and I'm not letting those memories go, even if I go cross eyed with that kbd :)

Can you believe that I passed up a stack of 12-20 32sii's trying to convince myself that as a student I have to save money...of course they had just been discontinued, and I had yet to know what I was missing out on (circa 2001-2). Oh the pain. At least I got a 48gx before they escaped into the memories of rpn past. On a more serious note though, let's try to be open minded about HP. I don't agree with all the details, but it is rpn, and it is programmable. Could you imagine the face of the employee who confirmed the new 49g+ was coming and I still bought the old 48gx?? hahaa...

I listened in while he talked another customer into buying a ti89, "If the instructor uses the ti89, you'll really be better off using it too, other wise you might get lost when he reads out the key strokes during lecture. Those HPs are really difficult to use, they are for real scientists not students who are just learning." I'm glad that I'm one of the guys who sits waiting for the rest to catch up and confirm my answers. Thanks Jan Lukaezewikz (sorry for spelling) and HP.

el

Re: 33s - ALG is default?

*Message #2 Posted by **Ed Look** on 6 Oct 2003, 2:37 p.m.,*
in response to message #1 by Eric Lundgren

You know, how "real scientists" got to be RPN guys is because we got our first tastes of it during the some physics pop quiz in high school or chem midterm in college or quantum mechanics later on. Besides, in those days, we also appreciated its ruggedness and longevity more than design aesthetics. (Heck, we thought those old cast iron interferometer cases looked cool.)

I say, blitz the high schools... since all the kids have to calculators even in calculus (which I still say is horrendous pedagogy), then let it be keystroke programmable RPN and NO GRAPHING! (You learn it better as a child if you have to fight with your pencil, eraser, and graph paper, especially if it's semilog or log-log... and what's all this about SIN, COS, and TAN keys? Where are my tables?) Learn all'em teachers t'teach RPN entry in math class!

Re: Log tables on calculators . . .

*Message #3 Posted by **Paul Brogger** on 6 Oct 2003, 2:48 p.m.,*
in response to message #2 by Ed Look

Continuing Ed's thought . . .

. . . just store the four-place log tables in ROM and let students use the cursor control keys to navigate through them (something like the HP-48's matrix editor)!

Re: Log tables on calculators . . .

*Message #4 Posted by **Ed Look** on 6 Oct 2003, 3:57 p.m.,*
in response to message #3 by Paul Brogger

Capital idea, Paul! But I say HP, etc., should throw the students a bone and give them five to eight places!

All joking aside, a "HP-42S--" (as in double minus), in which it becomes very programmable with lots of RAM and optional limited expandability (no games except short programs), but with ONLY FOUR FUNCTIONS HARDWIRED onto the keyboard, well, exponentiation would be okay. The students would have to fiddle with exponentials and such to program their own sines, cosines, etc. And for discipline, there should only be a XYZT four level stack, all of which should be simultaneously displayed by a cut-LCD (as there's no graphing) screen.

I got this idea when Norm Hill said once to me that the HP-31E would be an excellent machine for a kid to learn math on. Well, I disagree... sort of. This "HP-42S--" of mine would have respectable program and data storage space. In fact, to continue, there also ought to be NO HARDWIRED SCIENTIFIC CONSTANTS either, but allow RAM space for kids to go look 'em up and type 'em in. And with respect to this, it should not beep in error when operations with improper mixes of units are done, as with the HP-48 series, so that they have to take a real glance at the display to see if they got the calculation right.

Um... any professional math/science teachers here? What you YOU think? Remember, this is for the kid market.

Re: Kid Market????

*Message #5 Posted by **Paul Brogger** on 6 Oct 2003, 4:54 p.m.,*
in response to message #4 by Ed Look

Ed: You're on the right track, from an educator's/educational perspective.

But your marketing skills are all messed up! ;^)

Don't claim it's for the "Kids Market" -- I doubt many kids will (on their own) want one, nor will they want the work that using one implies. It's for the Parents' and Teachers' markets -- for the folks worried about what that damned younger generation is actually *learning* these days!

Re: 33s - ALG is default? OR My history of Calculators

*Message #6 Posted by **Ben Salinas** on 6 Oct 2003, 6:36 p.m.,*
in response to message #2 by Ed Look

Okay, here is the view of a high school student.

When I was a freshman in high school, a senior asked me if i wanted to check out a calculator (the 32sii). I

originally said no, as I had my TI-30xa which I ALMOST knew how to use blind, and I thought i was pretty fast with it. Well, he insisted on giving me the HP (and I am glad he did). I did a few simple math problems with it and tossed it into my backpack. A few days later I tried doing some more complex problems, and fell in love with it. I was originally so amazed by the fact that I could press "*", "-", "+" with no numbers in between. A week later, I could not do anything with my TI-30xa. And a year and a half later, I could use the 32sii blind, and knew how to use every feature of it.

I used the 32sii for my Algebra II and my Pre-Calculus class soley. Every week my Algebra teacher would tell the class that we should go out and buy a TI-83+, becuase pretty soon the class would be getting really hard, and we would need it. I refused to buy one, and just kept using my little scientific calculator. The funny thing is that most of my classmates wanted my teacher to ban the 32sii because it was too powerful. In Pre-Cal, I kept using my 32sii, and over the two years I became excellent at graphing in my head. Where other students had their crutch of a graphing calculator, I simply drew the graph.

This year I am taking Calculus. At the begining of the year I checked out a TI-89 from my teacher (I was not about to buy a TI-89). I used it a bit, and mainly when I was lazy. I would use it to graph, and for the "factor" function. All other math (such as solving equations) would be done by hand or on my 32sii. Then, I got the 49g+. I messed around with it a bit, and it has replaced my TI-89, even though I still know how to do very few features on it. I use it to graph, and simplify equations. On occasion I will use it do simple arithmetic, but I try to restrain myself from using it for that (mainly because the I am used to the + being at the bototm right of the keyboard, and on the 49g+ the enter key is there)

All of my friends who use RPN (about 10-15 of them) love it also. Although none of them are as diehard as I, they use graphing calculators less than the average student. Consequently, they also do the best on the "no calculator" parts of our exams.

So what is all this saying? I am extremely addicted to scientific calculators, due to their speed of entry, but it will be hard to wean students (at least Americans) off of graphing calculators. However, the best way to do this is to force them to use a better scientific calculator (such as the 32sii, or the 33s hopefully).

I plan on buying a 33s for two reasons. One, I will have to give my school back their 32sii in a bit less than 2 years. But more importantly, I have a sister in 6th grade, and they now use calculators (for what, don't ask me), but I want to get her addicted to RPN, and I figure I will lend her the $50 33s, rather than the $250 32sii, or the $175 49g+.

-Ben

Re: 33s - ALG is default? OR My history of Calculators

*Message #7 Posted by **bill platt** on 6 Oct 2003, 7:43 p.m.,*
in response to message #6 by Ben Salinas

Hi Ben,

Thank you for your post--we NEED to hear this sort of thing--'cause it gets us all FIRED UP! (NORM, Where are you!)

Seriously, you have proven once again that you can't get somthin' fer nothin' and that in mathematics especially, one must gain understanding the hard way--using one's brain! I am heartened to hear that you are learning math, not merely doing homework--though looking at your 51s proposal, I wouldn't expect any less.

Your story also reminds me a bit of my own bragging rights story. Way back in the olden times, ca. 1983, I was the only HP kid in the entire school--an 11c. Well, it broke, (yes, even voyagers can break) and while I waited for the warranty calc (SLOOOOW mail) I asked my Physics teacher if I could

borrow a slide rule. See, I showde up to the test, no calculator, looking like the typical goof-off student (hair down to my shoulders etc). He looked at me sideways, thinking I was joshin' him, but then got a sterling out and handed it to me. I finished the test way ahead of everyone else, and not only got an A, but the highest grade. Boyoboy did I gain respect! (And I still have that slide rule).

But the point is, I loved physics--and I understood it--and I was NOT going to let a crutch stand in my way (as you so wisely have also decided).

I wonder why the adults (!!) who make the policies for teaching are so stuck on the crutches--it seems like you are inadvertently leading a counter-revolution from the grass (silicon) roots.

best regards,

Bill

P/S. if you already heard my story somewhere, pardon me--I am getting old 8^)

Silicon Roots Campaign [long]

*Message #8 Posted by **Patrick** on 6 Oct 2003, 9:51 p.m.,*
in response to message #7 by bill platt

I taught mathematics for a spell at the University level and in my experience there are two distinct camps of students. There are those students who try to understand principles and those who try to understand problems.

Now, I'll likely get lampooned for saying this, and I recognize that it is a generalization, but I say walk a mile in my shoes. It is amazingly clear in a classroom who is who. I'll also let you guess which camp is the bigger, by a lot.

I have a terrible memory so it was just not an option for me to understand large classes of problems. I *had* to understand principles. Fellow students would ask me for certain formulas and I'd stare blankly at them, then go on to get the highest mark on the exam. I could *reproduce* formulas from the handfull of principles I was able to understand and commit to memory.

When I encouraged this sort of behaviour in my students, what I'd mostly get is "Yea, I see what you mean, but could you help me with *this* problem?" It made no difference that *this* problem was a restatement of the *previous* problem that we had just solved together.

I think Ben is showing signs of being in the "principle" category. I applaud you for that, Ben. It is true that technological crutches tend to obliterate a certain kind of learning. There's no doubt that learning is largely about overcoming obstacles. The pride of accomplishment fills you with the energy to go on to greater challenges. Having a box with a few buttons do the work for you may be fun (I certainly think so), but it also takes something away from you.

On the other hand, we must pick our fights carefully. No one would argue, for example, that we should do square roots by the old manual method because it gives us insight into certain types of mathematical algorithms. Those algorithms really don't lead anywhere important.

However, graphing is a certain general kind of skill which I would hope students could do without the aid of a graphing calculator. The experience in plotting those points for all those different kinds of cases is well worth the sweat. It leads, in my opinion, to better *estimation* skills... something that is one of your most valuable assets in engineering, science or business.

Re: Silicon Roots Campaign [longer]

*Message #9 Posted by **eric lundgren** on 6 Oct 2003, 10:24 p.m.,*
in response to message #8 by Patrick

Cheers to that! I remember back when, during one of my calculus courses, we were grouped to work as a team. We were dealing with surfaces and applying triple integrals to yield volumes and areas, and I presented our solutions to which one girl said 'you know, you're one of those who just SEE things'. Maybe, but I also happened to be one of those who enjoyed taking walks and thinking and reasoning about what we were learning.

Incidentally, the calculators helped me with calculus in a sense that I would propose expressions and differentiate and evaluate them at points. So they provided a quick check while I couldn't always integrate the expressions with the elementary methods you first start out with.

I remember the first time I tried to "apply" some calculus soon after learning the wonderful arc length by integration method. I decided to design and fabricate a curved shield that would redirect the A/C blowing down on my head in my room. After thinking about a nice curve whose expression I knew, I soon realized that I knew no way to integrate such a function, hahaa. Well soon later such gems as i.b.p. and trig substitutions came along, but it was sobering to learn the existance of limitations to my 'powerful' new tools. Ben, if you're reading this, there's a lot of great surprises coming your way! I'd love to relive some of those moments again :)

Eric Lundgren

Re: Silicon Roots Campaign [long]

*Message #10 Posted by **Ed Look** on 6 Oct 2003, 10:36 p.m.,*
in response to message #8 by Patrick

Chemistry and physics students, at least on the freshman level, come in WITHOUT GRAPHING SKILLS! Many can't tell abcissa from ordinate and have never heard of them (only "x-axis and y-axis"). They can't scale an axis. They have no clue how to plot points. Let's not even get into actually calculating those points!

To a small degree, I think these very nice graphing calculators have contributed to that. But if you look at the general societal trends, I am tending to the conclusion that even if these calculators were never invented, these mathematical abilities, all mathematical skills would still be in decline among students of recent years. But, these machines don't help it, either.

Re: Silicon Roots Campaign [long]

*Message #11 Posted by **Wayne Brown** on 7 Oct 2003, 7:56 a.m.,*
in response to message #8 by Patrick

> Quote:
>
> When I encouraged this sort of behaviour in my students, what I'd mostly get is "Yea, I see what you mean, but could you help me with this problem?" It made no difference that this problem was a restatement of the previous problem that we had just solved together.

This reminds me of George Polya's classic book, *How to Solve It.* One of the first principles Polya teaches is to relate a new problem to previously-solved problems. "Is this something I've

seen before? Is it something I've seen in a different form? If not, is it at least *similar* to something I've already solved? Can the solution to a previous problem give some insight into this one, or suggest an avenue of approach?" Seems obvious, but I've seen too many people (including adults in the workplace) approach every new problem as if it fell out of the sky without any connection to anything else they've seen before.

Polya and others LONG

*Message #12 Posted by **bill platt** on 7 Oct 2003, 9:42 a.m.,*
in response to message #11 by Wayne Brown

I guess this will qualify me for ultra geekdom, but when I was in 5th grade, my two favorite boks on math were "How to Solve It" by Polya, and another book called the "Rule of Nines". They were my favorites because they were both over my head (I could *feel* it when they went over!) and also totally fascinating. I remember the Eureka! feeling when I finally learned Algebra in 9th grade (yes that was normal timing!) and I realized that by merely moving stuff across the equals sign, all sorts of seemingly intractible concepts that had been over my head, were suddenly not over my head!

Which brings me to one other thought---I am a very self-taught type, and also in addition to science type stuff, I am a liberal arts type (majored in English Literature) and one outstanding difference between the two disciplines (literature vs math[s]) is that oftentimes, a single mathematics book will not be enough to undertand a topic completely--one needs a professor, or absent that for a self taught type, another book. There is a more discrete quantized nature to mathematical knowledge--some concepts you just *get* or *not*. But in literature, you are always free to be rather "soft" in what is hard fact or understanding, and so you can gain a useable understanding without resorting to extra books--though one's understanding and opinions may and usually do broaden from reading criticism in addition to the Work.

In other words, sometimes (as was the case with algebra for me) you may have to wait a while (even years!) before you actually can even have the possibility of understanding!

Now, if only I can find my old books.....where DID they go!

regards,

Bill

Re: Polya and others LONG

*Message #13 Posted by **Richard Garner** on 7 Oct 2003, 11:47 a.m.,*
in response to message #12 by bill platt

I know what you mean, Bill. I too am something of a hands on independent learner. I have always thought that a good printed software/hardware manual was more useful than any help file could ever be. I have several programs I have been working on over the years for various calculators and I will occasionally get to a point were I don't see how to get from point A to point B. I set things aside and I may be reading something or see something that just suddenly goes "CLICK" in my mind and everything is clear. I understand far more math and physics today than I did when I was taking them in high school and college.

Uber Geek

*Message #14 Posted by **Patrick** on 7 Oct 2003, 3:14 p.m.,*
in response to message #12 by bill platt

Well, I can one-up you in the geek department, Bill. I have taught sessions on doing mathematical proofs where the "textbook" for the course was that fascinating little book by Polya!

You gotta love a discipline with terms like "reductio ad absurdum", don't ya? He, he, he... god I love it.... wait... did I just say that?

Re: Uber Geek

*Message #15 Posted by **eric lundgren** on 7 Oct 2003, 5:08 p.m.,*
in response to message #14 by Patrick

don't forget "ad infinitum".. :) I love it too.

Wouldn't it be a great campaign to give math the grasp that video games and pop-culture seem to have on kids? (ben s. excluded of course, and any other young representatives present here as well :))

eric

Re: 33s - ALG is default? OR My history of Calculators

*Message #16 Posted by **Ed Look** on 6 Oct 2003, 10:29 p.m.,*
in response to message #7 by bill platt

I daresay I'm older than you.

And I agree with your feeling about how our general philosophy of teaching has been going (down the tubes).

I am a bit of a calculator nut myself, yet, I DO NOT RECOMMEND them at all for students until halfway through high school. By then, if he is a serious math or science student, then he would already be familiar enough with the theoretical underpinnings that a calculator, with its speed, can only be a boon, even more than a PC because as someone here said, you can run calculations or program it on the subway, in the lunchroom, and even in church. (I saw a kid there a couple of weeks ago with his transparent cased TI-83 or something, totally engrossed in it. I thought, wow, what a hardworking fellow! His mother must be proud! I get closer... heck, he's just playing some game he programmed in or copied in. Oh, and if there's any clergy here- I don't recommend it for services, either, unless you're using it to run some sound or media equipment.)

Of course, for earlier grade levels, any calculator, even the one Mommy uses on the checkout line, is a definite no-no.

Re: 33s - ALG is default? OR My history of Calculators

*Message #17 Posted by **eric lundgren** on 6 Oct 2003, 10:35 p.m.,*
in response to message #16 by Ed Look

Hahaa, I understand your response when you realized he was 'gaming' on his TI. I'm taking engineering school now, and last semester was a clean up semester, with non technical courses (ge stuff) and I sat down in a writing class and looked over to see a guy focused on a black grapher. Hmm...no not an HP, but non the less..a fellow thinker perhaps...alas, no..Tetris on the

86/89...Well, who needs friends anyway. :)

Glad to say I'm deep in the number crunching courses again, and loving it! eric

Re: 33s - ALG is default? OR My history of Calculators

*Message #18 Posted by **Ed Look** on 6 Oct 2003, 10:42 p.m.,*
in response to message #17 by eric lundgren

Be careful you don't slip and load some Klingon zapper or wampus locator (or even chess!) while the instructor is droning on about something you already knew ten years ago. Then, while your about to make your killer move, he switches to something new and noteworthy!

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Prelude to a 49g+ computation

*Message #1 Posted by **Eric Lundgren** on 6 Oct 2003, 2:13 a.m.*

Well, I'm unwinding after my first day owning a new 48gx. Its letting my 32sii get some r&r. I'm a little frustrated, but it must be from going to a slightly different kbd layout. I suddenly appreciated just how efficient I had become behind the keys of the 32sii. I'll have to train myself to accept having more than one calc.

Its funny how going from 'keystroke' programming to more involved stuff can seem like stepping into 3D from a flat world. I am overwhelmed and dont know where to start, it doesnt like my attempts to assign the 'sqrt' function to a user key. Boy, I 'owned' that 32sii...thought I was a power user...heh...um....

Ok, so this is the way to go right? I mean if you all had choices, and had to choose one, would it be the 48gx or the new ..49g+?

By the way, I've been 'imaginarily keying in' computations into the 49g+ on samsoncables.com image of the new calc. Its really frustrating to have to relearn function locations, hahaa. In a way, having a 49g+ and a 32sii almost could work for me, as the keybds are WAY different, enter, more clutter, etc, so in that way I'd instinctively know there is extreme differences between the two and not end up squareing a figure when I need e^x evaluated, lol.

Long post, but its a way to release after the shocks of stepping away from something comfortable.

el

Re: Prelude to a 49g+ computation

*Message #2 Posted by **Joesph** on 6 Oct 2003, 3:42 a.m.,*
in response to message #1 by Eric Lundgren

Having both, I'd say get the HP49G Plus. GX has better keys, but the G Plus blows it away in every other area.

Re: ARE YOU SURE??

*Message #3 Posted by **Ron Ross** on 6 Oct 2003, 8:36 a.m.,*
in response to message #2 by Joesph

I admit the 49G+ looks great. But how good is it on batteries. If you need batteries every 4-6 weeks and when the battery indicator shows low, do you have days/hours or minutes before she crashes and locks up.

A 48G series will still last through the week.

Re: ARE YOU SURE??

*Message #4 Posted by **Massimo Gnerucci (Italy)** on 6 Oct 2003, 9:02 a.m.,*
in response to message #3 by Ron Ross

Quote:

> *when the battery indicator shows low, do you have days/hours or minutes before she crashes and locks up*

Doesn't the 49G+ have a CR2032 for power backup purposes?

I would trust a backup battery more than a capacitor...

Massimo

Re: ARE YOU SURE??

*Message #5 Posted by **RR** on 6 Oct 2003, 9:32 a.m.,*
in response to message #4 by Massimo Gnerucci (Italy)

Thats very comforting during an exam, to know my programs won't be lost. Now how do I pass the exam? Unless I can switch over to the backup battery for that last calculation.

The new 49G+ may very well be as good with batteries as the 48G series (which isn't great, but still would go 2-4 months on average with average use). That is the point I am trying to make.

Re: ARE YOU SURE??

*Message #6 Posted by **Massimo Gnerucci (Italy)** on 6 Oct 2003, 9:55 a.m.,*
in response to message #5 by RR

Apart from bringing with you 3 AAAs ;-) one should try the 1.22 ROM upgrade.

As stated on the HP site:

> Quote:
>
> This version corrects a couple of bugs, most noticeably reduces significantly the power consumption in OFF mode, increasing dramatically the battery life

Massimo

Re: Prelude to a 49g+ computation

*Message #7 Posted by **Tom (UK)** on 6 Oct 2003, 12:50 p.m.,*
in response to message #1 by Eric Lundgren

I had an HP67 first and was happy. (RPN, manual, keys, case, rugged etc.)

I then bought an HP32Sii and was even happier. (Manual, battery life and a few more functions, although LEDs have more of a soul than LCDs)

I then bought an HP49G and was very unhappy. (Impossible learning curve, manual, battery life, quick start guide, keys, scratches, manual, slow (try 2 + 2!), manual, creaky case and before I forget: the documentation was C.R.A.P)

I then bought an HP48GX and was dissapointed. (Good manual and construction but very steep learning curve and completely different to the RPN calcs, have to do alot of work and 'thinking' to do the same tasks as the HP32S).

I then bought an HP42S and was happy again. (see reasons under HP32).

So will I buy the HP49Gxyz? Hmmmm - what do you think. Unless the manual is 1e+99 times better or HP offer a good trade in for my HP49G then no.

Will I buy the HP33S? Well depending on user feedback about construction, manual and battery life - yes.

I'll just have to face it, I'm an RPN man not RPL.

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Basic statistical functions on HP-32SII

*Message #1 Posted by **Ed Look** on 5 Oct 2003, 10:51 p.m.*

The average HP RPN scientific can calculate summations, square them, do all sorts of stuff, like least squares fitting, give an average (mean), and standard deviations, and this includes, of course, the 32SII.

But I'd love to use the 32SII to also calculate a median and modes (frequency, the statistical kind). Personally, I found that keystroke programming with the use of registers seems not to allow data sorting of any kind. Am I wrong, or would that require as many registers as you have data points?

Is it at all possible to create a reasonable (lengthwise) program to calculate a statistical median or mode from a set of data with one of these calculators (any HP RPN handheld before the Charlemagnes)?

Re: Basic statistical functions on HP-32SII

*Message #2 Posted by **Patrick** on 6 Oct 2003, 2:09 a.m.,*
in response to message #1 by Ed Look

In order to compute the median or mode, you need to know the frequencies of each distinct data point. This is essentially equivalent to having all of the data points.

Statistical Challenge

*Message #3 Posted by **Patrick** on 6 Oct 2003, 2:20 a.m.,*
in response to message #2 by Patrick

On the other hand, here is a little challenge which can be solved on the 32SII or any other HP programmable. (Its a little easier on machines which have a pseudo-random number generator, but, if your favourite calculator doesn't have one, you can always code one as part of your solution.)

Imagine a user having a long list of numbers that they key into the calculator under the guidance of a program you have written. The goal is for your program to select one of the user's inputs "at random". By this I mean that when the user is finished keying data, the calculator displays one of the user's data inputs. It must be true that any of the inputs that the user supplied was *equally likely* to have been selected by your program.

And, no, you don't know in advance how many items are in the user's data list.

Re: Statistical Challenge

*Message #4 Posted by **Tizedes Csaba** on 6 Oct 2003, 3:38 a.m.,*
in response to message #3 by Patrick

Err... I think it's workable... HP32SII version:

```
LBL F
INPUT X
SUMMA+
```

```
1/X
RANDOM
X<Y?
GTO C
GTO F


LBL C       #'X->Y'
RCL X
STO Y
GTO F


LBL R       #the 'result'
VIEW Y
RTN
```

The variable X is the actual data, and Y is the 'favourite'. If the RANDOM<1/n (n: number of datas, what typed), then X->Y.

If you want to see the actual Y, type XEQ R, on the 'X?' screen.

Usage: CLSUMMA, (CLVARS), XEQ F, type datas [R/S], XEQ R

Csaba

Re: Statistical Challenge

*Message #5 Posted by **Larry Corrado, USA (WI)** on 6 Oct 2003, 7:15 a.m.,*
in response to message #4 by Tizedes Csaba

A very interesting problem posted by Patrick. My immediate inclination was to say that all the data must be stored, and a point picked out from the complete stored list after each new entry. It just didn't seem "right" to have all but one point ruled out as the winner part way through the data entry.

However, when I constructed the decision tree for n = 3 or 4 inputs, it worked out that each input would have a 1/n probability, where n = number of inputs. And it appears that this scales up to larger n.

It's been along time since I've done any significant calculator programming, but it looks like Tizedes' solution will work.

Interesting...

LC

Re: Statistical Challenge

*Message #6 Posted by **Patrick** on 6 Oct 2003, 5:55 p.m.,*
in response to message #5 by Larry Corrado, USA (WI)

Well done, Mr. Csaba. Your answer is right on.

In words, the basic idea of the algorithm is that the program always keeps the "current" selection stored, together with the current number of items entered to date. When the n'th input is made, it replaces the previous current selection with probability 1/n. So, for example, the first item entered is selected as the current value with probability 1. The second one entered is selected with probability 1/2, and so on.

After all the data is entered (or at any other time) the current selection is the value the program

will return as the "random pick" of the user's data.

Here is the proof that the program selects each item with equal probability. Suppose that the entire list consists of N items. Consider the k'th item in the list, with 1<=k<=N. What is the probability that it ends up as the final selection? In order for our program to be correct, this probability must be 1/N. Well, in order for this to happen, it must be selected when it is keyed in and then all further keyed data inputs must **not** be selected. These events are independent and so we multiply the probabilities for them each to happen:

```
(1/k)*(k/(k+1))*((k+1)/(k+2))* ... *((N-1)/N) = 1/N
```

Techniques like this used to abound in the literature in the days when memory and CPU costs were large. Typically, a large data set was read off of a tape and certain reports were generated from the data. Core memory was not so plentiful that it could maintain all of that data in memory all at the same time. Nevertheless, it was critically important to programs of the day that they not require multiple passes through the data -- reading a tape was expensive, in CPU time and in wall-clock time. "Single pass" type algorithms were key.

The algorithm at the base of this challenge is a simple example of such a single-pass (stochastic) algorithm. Many such have been lost from general knowledge and practice because of how inexpensive memory (e.g., virtual memory) and CPU power has become.

Re: Statistical Challenge

*Message #7 Posted by **Larry Corrado, USA (WI)** on 7 Oct 2003, 5:35 p.m.,*
in response to message #6 by Patrick

Nice proof, elegant and simple!

LC

More and more Challenge and 'REN - Reverse English Notation' :)

*Message #8 Posted by **Tizedes Csaba** on 8 Oct 2003, 2:57 a.m.,*
in response to message #6 by Patrick

:D

I'm very happy to solve little (but interesting) problems. Do you think good idea is to start 'Challenge-Section'? I've got some problems, and I think some of that's interesting...

Csaba

Ps: English notation vs. Hungarian notation: My family name is 'Tizedes', and my first name is 'Csaba' ;) I know, it's not a classical name, and I maked a mistake when I typed it's in the wrong order... No problem! :)

Cs.

Re: Basic statistical functions on HP-32SII

*Message #9 Posted by **Karl Schneider** on 6 Oct 2003, 5:28 a.m.,*
in response to message #1 by Ed Look

Ed --

The RPN/AOS HP-17Bii will store the entire set of input data for staistical analysis, and has built-in functions for median, max, min, and sorting. "Mode" could likely be programmed using its powerful language for equation-solving, documented not in its own manual, but in the HP-19 manual.

I know where I can abtain a 1993(?) HP-17Bii for you.

Re: Basic statistical functions on HP-32SII

*Message #10 Posted by **Ed Look** on 6 Oct 2003, 1:18 p.m.,*
in response to message #9 by Karl Schneider

Karl, could you e-mail me? I cannot access yours. Thanks.

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Has Hewlett-Packard hit bottom yet?

*Message #1 Posted by **DanO** on 5 Oct 2003, 10:04 p.m.*

A man was recently in the calculator aisle of a well-known office supply store. He can't find what he wants. A stockboy wanders by.

Man: Excuse me. I'm looking for the Hewlett-Packard calculators.

Stockboy: The what?

Man: The Hewlett-Packard calculators.

Stockboy: All of our calculators are right here.

Man: Yes, but I'm looking for the Hewlett-Packard calculators.

Stockboy: (blank look) Hewlett-Packard? Ummm . . . I'll have to ask somebody about that.

Man: OK. Thank you.

Five minutes later the man leaves the store. There were no Hewlett-Packard calculators. As he walks through the parking lot the man has a very uneasy feeling. He recalls his conversation with the stockboy and the man wonders to himself, "WHAT THE HELL IS GOING ON HERE?!?"

Re: Has Hewlett-Packard hit bottom yet?

*Message #2 Posted by **Tom (UK)** on 6 Oct 2003, 12:27 p.m.,*
in response to message #1 by DanO

HP calculators are alost invisible in the UK and have been from the year dot. Try looking for an online UK shop with them (there are 1 or 2 but compared to Casio and TI...)

After I asked in a normal high street shop if they could order an HP calculator they said that they did do HP printers and computers and did I mean a Packard Bell calculator / organiser!!

HP in the UK don't seem to push calculators AT ALL. If you want one you have to hunt high and low.

On a day trip to France I did find a reasonable range of HP calculators but no HP32Sii ;-(All the boxes were well worn and looked as if they had been on the shelf for a very long time - the prices looked full list price and my French was not good enough for me to haggle due to the box condition.

Re: Has Hewlett-Packard hit bottom yet?

*Message #3 Posted by **Martin** on 6 Oct 2003, 2:21 p.m.,*
in response to message #2 by Tom (UK)

Why not try www.classiccalculators.co.uk for HP calculators in the UK?

Martin

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HP48GX newcomer

*Message #1 Posted by **Eric Lundgren** on 5 Oct 2003, 5:10 p.m.*

Hey all,

Well, I buckled down and got the 48gx, it appears to be the black screen, but have any of you noticed a 'pulsing' of the screen. Its barely noticeable until you turn the contrast really dark. Just curious, this thing's gotta get me through my BSME! ...saving the 32sii in a dry cool box for the eventual PE fiasco.

Any new-user tips from you all?

el

Re: HP48GX newcomer

*Message #2 Posted by **r. d. bärtschiger.** on 5 Oct 2003, 5:43 p.m.,*
in response to message #1 by Eric Lundgren

I think the pulsing depends on the type of ambiant lighting. Yes, mine has it also when the contrast is turned up.

rdb.

Re: HP48GX newcomer

*Message #3 Posted by **Ed Look** on 5 Oct 2003, 6:08 p.m.,*
in response to message #2 by r. d. bärtschiger.

Someone correctly pointed out on this forum that the refresh rate on 48G screens are a bit over 64 Hz so that if a light has frequency of 60 or so Hz, then the interference "pulsing" is seen.

Strobing

*Message #4 Posted by **Tom (UK)** on 6 Oct 2003, 1:19 p.m.,*
in response to message #3 by Ed Look

Normal bulbs pulse at 2x the ac frequency i.e. 100Hz or 120Hz, I'm not sure about strip lights.

The human eye can only 'see' pulsing up to about 25Hz as the eye has a low pass filter effect above that frequency. Strobe effects can easily bee seen if they are less than 25Hz.

Re: Strobing

*Message #5 Posted by **Ed Look** on 6 Oct 2003, 1:29 p.m.,*
in response to message #4 by Tom (UK)

Tom, in the US, power comes at 60 Hz. Some of our streetlamps seem to have that same frequency.

I was using my HP48G under one once and I could see the flicker! I'm told that its screen refreshes at around 64 Hz or so. I think that information might even be found in this museum site somewhere...

Re: Strobing

*Message #6 Posted by **Tom (UK)** on 7 Oct 2003, 12:44 p.m.,*
in response to message #5 by Ed Look

I don't know what rate the HP48G series updates the screen. Does a 'normal' house bulb give the same result as a street light (i.e. pulsing display)? If it doesn't visibly pulse then there is possibly some other effect.

From my recollection of electronics; if a light bulb runs from 60Hz the light will pulse at 120Hz. In the UK the mains electricity is 50Hz so lights pulse at 100Hz.

Light intensity = Power = ((Voltage)^2) / Resistance

If Voltage = V x COS(freq)

Power cx= (V x COS(freq))^2

Power cx= V^2 x 1/2(1 + COS(2 x freq))

(where cx= is 'proportional to')

Re: Strobing

*Message #7 Posted by **Wayne Brown** on 7 Oct 2003, 1:20 p.m.,*
in response to message #6 by Tom (UK)

My office is lit by a combination of fluorescent lighting on the ceiling and daylight coming through large windows. I normally don't notice any flickering on my 48GX. Sometimes, usually late in the day when there is little daylight left and the fluorescent lights are providing most of the illumination, I notice a slight flicker. However, I have a small fluorescent light on my desk and when I examine the 48 under *that* light the flickering clearly is visible, especially if I view the screen at a shallow angle.

At home, where I have only incandescent lighting, I *never* see any flickering.

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Batteries and such

*Message #1 Posted by **Patrick** on 5 Oct 2003, 1:59 p.m.*

I have a bunch of small questions, mostly about batteries...

1) I've recently purchased an HP-19C and put in a new battery pack with NiMH 1850 mAh AA cells. Is it safe to recharge the batteries in the calculator? I've scoured the HP archives for information on this and it appears the consensus some time ago was that, yes, it was safe. I'm just looking for any updates to those opinions.

2) Same question for the HP-34C.

3) Any reason why a Woodstock would have problems with a rebuild pack using NiMH? I've tried a couple of packs/battery combinations and have gotten nothing. I know the batteries are ok because I can transfer them to another pack for a different type of machine and they work. I also know that the Woodstock calculators work.

3) Can you throw the HP "leatherette" cases into the washing machine? I have Voyager cases spraying the dreaded black powder and a Spice (fuzzy inside) case which stinks. Any experience here?

Re: Batteries and such

*Message #2 Posted by **David Smith** on 5 Oct 2003, 3:10 p.m.,*
in response to message #1 by Patrick

Yes, Nimh cells work fine in the 19C, spices, woodstocks, and classics. You need to keep them on the charger for up to three times as long, since they can hold up to three times the juice.

I have washed numerous HP41 and spice cases in the wshing machine with great success. Sometimes it takes two wash cycles to get the gunk out of a stubborn case. Air dry them with the mouth propped open.

Woodstock and HP19C machines are famous for bad battery pack connections to the machine terminals. The cells in the woodstock pack need to be able to move freely. If they are glued together or strapped tightly at the spring connection, one terminal may not be making contact. Try small wads of aluminum foil between the battery contacts and the machine terminals.

The ends of the woodstock cells should be connected by a welded strap with a little slack in it. Dont trust the springs alone to make good contacts between the cells.

Re: Batteries and such

*Message #3 Posted by **Ed Look** on 5 Oct 2003, 5:12 p.m.,*
in response to message #2 by David Smith

Mr. Smith, please be careful that your old Spice cases are not still deteriorating chemically, in which case you would still be contact with the (most likely) harmful residue.

Re: Batteries and such

*Message #4 Posted by **Ed Look** on 5 Oct 2003, 5:10 p.m.,*
in response to message #1 by Patrick

I only know about the Spice series black vinyl cases. The foam lining inside deteriorates over the years and leaves not only the objectionable powder, but a bit of an oily residue as well. Dollars to doughnuts this stuff is somewhat toxic or carcinogenic. Therefore, I don't advise washing them, as these things are organic molecules and water won't do much to them and they'll just continue to decompose, as the plasticizers evaporate over the years. I advise you do what I did- simply throw away the vinyl Spice case.

Nowadays, office supply places and stationery stores, especially during back-to-school season (just over) have these generic calculator cases for about $5 to about $10. They are made by the people who make notebooks, binders, etc. (Five-Star, I think, is one of the brands I can remember) But I myself have never bought one.

Re: Batteries and such

*Message #5 Posted by **David Smith** on 6 Oct 2003, 1:32 p.m.,*
in response to message #4 by Ed Look

The lining that decomposes is apparently foam rubber... they make pillows and beds out of it... probably fairly safe. The residue washes out quite well. The spice series cases usually come out of the wash looking like new.

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The HP-33S and those evil MBAs
*Message #1 Posted by **Dave Hicks** on 5 Oct 2003, 1:55 p.m.*

Hi Everyone,

I haven't had time to read the 33s thread below until today. I didn't get a lot of sleep last night so please excuse me if I ramble.

A few thoughts on HP Calculators

> Quote:
>
> I wonder why its OK to "stand still" with the calculator for business, but engineering calculators shall be discontinued?

It's funny because I used to ask questions that were nearly the opposite of this - ie Is the inability to replace the 12C an indication that HP isn't willing to put a great deal of R&D into a new business model? That doesn't seem likely though because there were some nice later models, which didn't last as long. Really it seems the most likely answer to me is that the 12C is the defacto standard and people just keep buying it no matter what. This is much more a statement of HP's customers than HP I think. While some may like to make fun of MBAs, they are probably the ones keeping the 12C alive simply by putting their money where their mouth is and paying for a (relatively) expensive calculator in large numbers.

A few years ago I got a call from United Airlines. They wanted to get rid of a bunch of never claimed calculators in their lost and found. When I pressed for details, they told me they had 400 HP 12Cs - and nothing else. Now some might turn this into an MBA joke but I think it says more about sheer numbers and the fact that so many 12C owners are pulling their calculators out on planes and using them. (Which probably sold a few more to the people in adjacent seats. By contrast HP techy calculators have seen much more stealthy in the last decade.)

A lot of people are upset and/or sad at the recent state of HP calculators. However, blaming Carly Fiorina and/or MBAs seems a little misguided to me. At most, I think they are a symptom of the general US (and world) business trends of outsourcing, globalization, and maximization of profits with no other thoughts. I'm not entirely comfortable with this myself, but.....

I happened to be at a party recently with HP employees who used to work on various calculators. Even among such insiders, what happened to HP's calculator group is a matter of debate and mystery. One theory that I found rather plausible and compelling went like this:

HP had at one point moved its PDAs to Singapore. The head of the Singapore division made a great deal of effort to pull calculators into his sphere as well and eventually he succeeded. In the past, this has been seen as a mistake because calculators quickly lost focus while PDAs got all the attention. However, there's another "insider" theory that Singapore saw HP's calculators as a threat to their PDA line all along. They lobbied to get calculator design and production transferred to them so they could kill it. Of course, this is a classic model of business - if a little competitor is causing you some grief - buy them and phase out the "troublesome" products. (You might blame MBAs for such thinking but I've seen engineer-turned-managers do the same thing.)

Since then, calculators have bounced around HP. Each manager has had big plans to try to revive them but found it easier said than done. For one thing, most of the people who developed the original software base moved on. On the business side, surely HP wanted to see serious profits is short order. I had the same problem at my previous employer. They wanted my division to spew forth new businesses. They wanted each new business to become at least a billion dollar a year business within 6-18 months. Gee, what do you know, 99.9% of everything proposed got cancelled. Some in the Powerpoint phase, and some after years of development. It's just not so easy to turn out those billion dollar businesses. **The interesting thing is that while some people want to blame MBAs for everything, my company was run by engineers. It was simple engineering logic that declared those non-billion dollar businesses to not be worthwhile.**

I think some of us old(ish) engineers also have to allow for the fact that the educational market rather than engineering now probably drives calculator development. Sadly, the basic black device that functions forever may now loose to the fashion statement. As Luca suggested, there are cell phones with far more bizarre keypads that people seem to enjoy buying, (For some reason :-))

About the forum

I typically keep very "hands-off" on this forum. Recently I've gotten a couple of emails about the "flame level" of the forum. Spirited debate about a new calculator is great and there are a lot of great comments about potential usability issues with this model (some of which may or may not disappear after you use one for a few minutes.) I too think it looks weird but then so does my cell phone and by current standards my cell phone is one of the **least** weird. Did someone mention rotary dials? Check this one out:
http://www.nokia.com/pics/phones/phone_models/3650_mainpage_s1.jpg

Does this one even have a keypad?
http://www.nokia.com/BaseProject/Sites/NOKIA_MAIN_18022/CDA/Categories/Phones/PhoneModels/Nokia7600/_Content/_Static_Files/noflash.jpg

What I would like to avoid however is calling people mentally retarded, or blaming entire classes of people for everything we don't like about a new model. And while a lot of people like to blame HP's current CEO for a lot of things (many of which may be true) I'm not sure that she can really take the blame on this one. They took the LEDs out a **long** time before she got there, and the "organizational issues" alluded to earlier also greatly predated her. People were complaining about the "bizarre" green and purple color scheme of the 48G (which tested so well in its target educational market) years before Carly got there. (Check out the comments on design choices from a long-time HP designer.) Maybe you can blame her for not recovering HP's calculator business but I think it's much harder to recover than to maintain so why aren't we giving her predecessors at least some of the blame?

I guess you are right, Dave.

*Message #2 Posted by **Norm** on 5 Oct 2003, 3:32 p.m.,*
in response to message #1 by Dave Hicks

I guess you are right, Dave. It is not helpful to elevate posts to "flame" status, not even over the "Chevron" HP-33S.

I apologize for encouraging a chat board war now that HP has hit new lows. As to HP-33S, it will be enough to simply not buy one.

This still leaves us w/o a useful HP engineering calculator in production, however.

Surely we could solve this once and for all, by getting the HP calculator products moved over to Agilent? Agilent still has the proper scientific-community outlook. They would treat calculators properly, not like some sort of cheap PDA or gimmicky cell-phone, as has now been done with the calculators.

Doesn't even one of us know any of these boardroom people, and point out what must be done?

Agilent thoughts

*Message #3 Posted by **Dave Hicks** on 5 Oct 2003, 4:30 p.m.,*
in response to message #2 by Norm

I think you'd start at Agilent. Unless there's some kind of non-compete clause that I don't know about, they don't need HP's blessing to enter the calculator market. So I think you'd start by making a case to them. I just looked at Agilent's financials at yahoo and they're loosing money so I think they're going to want to see how this can make them some. On the plus side, they're a much smaller company than HP (less than 1/10th the revenue) so the calculator business could get more attention there.

Some things to think about are whether this is really a move, or simply Agilent going on it's own. Or perhaps Aglient operating as HP's OEM? I think the latter has the most potential because unless you're going for a very high end / low quantity market, I don't think there's a lot of retail shelf space for another brand. I could be wrong about that though. Back in "my day" we used to buy calculators at the nearest university bookstore or mail order from EduCALC. These days I think they're mostly sold at places like Office Depot and Frys but I could be wrong.

A while back I proposed (very casually) the idea of a "Swiss Watch HP42S". Basically take the 42S design, add a few updates (maybe a serial port or a flash card slot or even HP-IL), and then package it in something like a titanium case with a synthetic sapphire (scratch resistant) screen. Sell it as a super tank/serious calculator (but with the subtle hinting of a little status too.)

When I proposed that someone said something like "Yeah! I'd pay $150 for that!" Trouble is I was thinking more like $400-$600. But that was just my imagination. I have no idea how much it would have to cost or how many you could sell.

Re: Agilent thoughts

*Message #4 Posted by **Eric Lundgren** on 6 Oct 2003, 4:22 p.m.,*
in response to message #3 by Dave Hicks

I really like the idea of a 'skunk works' calculator. I can imagine the familiar case of a 42sii but in gun metal or titanium...it'd be a no-frills deal, programmable, no graphing screen, maybe a sd card like Dave said, and it would cost a (0.5)(paycheck). 400 dollars isn't that outrageous if this is the curtious union of say a 42s, 41cx, 32sii...a discrete looking powerhouse that would never be found on ebay 10 years from now as no one would part with it.

Only frills go out of style with time.

Glad to have a place to read about HPs by HP fans. el

Re: I guess you are right, Dave.

*Message #5 Posted by **Gordon Dyer** on 5 Oct 2003, 7:02 p.m.,*
in response to message #2 by Norm

I am going to buy one, insert some Nokia electronics into it and hold it to my ear on the train whilst talking very loudly!

Re: The HP-33S and those evil MBAs

*Message #6 Posted by **Massimo Gnerucci (Italy)** on 5 Oct 2003, 7:07 p.m.,*
in response to message #1 by Dave Hicks

Very well said Dave! I particularly like this sentence:

> Quote:
>
> *What I would like to avoid however is calling people mentally retarded, or blaming entire classes of people for everything we don't like about a new model.*

This is the best forum I ever happened to follow; here I met many wonderful, helpful *friends*.

I hate when common interests are buried by opinions carried over and over with an ever increasing rate of unkindness the way you could expect when dealing with politics, your favourite team, The Best Operating System etc.

Thanks for calming down the riot,
Massimo

Thanks Mr. Hicks

*Message #7 Posted by **Chris(FLA)** on 5 Oct 2003, 7:56 p.m.,*
in response to message #6 by Massimo Gnerucci (Italy)

> Quote:
>
> *This is the best forum I ever happened to follow; here I met many wonderful, helpful friends.*

I **totaly** agree with you on this Massimo. I come to this forum to relax and learn from everyone something I don't already know, and I have learned quite a bit.

The tone and respect everyone shows here is amazing and most welcome. Unlike what you see on that "thing" that works with NNTP. Thank you everyone, and....

Thank you Mr. Dave Hicks for allowing me to participate in such an enjoyable **and** relaxing venue.

Chris

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Taylor polynomials on HP49G

*Message #1 Posted by **Jostein Trondal** on 5 Oct 2003, 11:32 a.m.*

Im having trouble with the TAYLR command.

I try

3: ln(x^2+1) 2: 0 1: 4

TAYLR

and want to get the 4th degree Taylor polynomial of ln(x^2+1) at x=0, but i get an error.

-- Jostein Trondal

Re: Taylor polynomials on HP49G

*Message #2 Posted by **Jostein Trondal** on 5 Oct 2003, 12:33 p.m.,*
in response to message #1 by Jostein Trondal

I found the solution:

3: ln(x^2+1)

2: x

1: 4

TAYLR

gives what I want. The advanced user guide isn't exactly abundant with examples...

-- Jostein Trondal

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Paypal scam

*Message #1 Posted by **Thibaut.be** on 5 Oct 2003, 10:33 a.m.*

Most of you certainly know this issue, but just for the few of us who don't :

I've received an email with this content

Please verify your information today!

Dear Paypal Member. Your account has been randomly flagged in our system as a part of our routine security measures. This is a must to ensure that only you have access and use of your paypal account and to ensure a safe Paypal experience. We require all flagged accounts to verify their information on file with us. To verify your information, click here and enter the details requested. After you verify your information, your account shall be returned to good standing and you will continue to have full use of your account.

Thank you for using PayPal!

Please do not reply to this e-mail. Mail sent to this address cannot be answered.

The link is redirecting to a paypal-looking site where my card is requested to be confirmed as well as my pin code !

This is of course scam and I reported this to spoof@paypal.com.

If you receive this message, don't fill in the form and eventually report to spoof@paypal.com

Re: Paypal scam

*Message #2 Posted by **Patrick** on 5 Oct 2003, 1:41 p.m.,*
in response to message #1 by Thibaut.be

Better yet, respond to the request and fill in bogus (but credible looking) inputs.

Fill these scumbags inboxes with thousands of totally useless information sets that they'll have to wade through.

Be careful!

*Message #3 Posted by **Mike** on 5 Oct 2003, 9:38 p.m.,*
in response to message #2 by Patrick

I would BE CAREFUL, when clicking an kind of OK button on a form. The ones that I see that come via eamil, don't ask for a reply. They have a form, with a submit button.

How many times have you clicked an OK button form to install some program from a web site? Often we see these things on plugins and other upgrade type forms.

This particular one just sends info to a bogus site that collects names and passwords but what if that was a

ruse to get you to click an ok to install a program on your computer?

Be careful, when trying to play games with SCAM artists. The best course is to ignore them.

Besides, I believe this particular one does not send an email. It executes a CGI file on the server which reads the form. No emails are sent. At least that's the way the ones work that I get.

PS: I always look at the source for these to see what they are doing.
[img=http://www.msdsite.com/images/smile.gif]

Edited: 5 Oct 2003, 9:39 p.m.

Re: Be careful!

*Message #4 Posted by **thibaut.be** on 6 Oct 2003, 1:51 a.m.,*
in response to message #3 by Mike

This form is generated by a http link, and does not ask anything to be installed on your computer.

It is way much simplier than that... bit like "mike, please give me your card#, your csv and your pin code"

Besides I often scan my pc's with adaware... quite impressive tool !

Re: Be careful!

*Message #5 Posted by **Ed Look** on 6 Oct 2003, 1:21 p.m.,*
in response to message #4 by thibaut.be

Thibault, I'll second that. I think everyone should have AdAware or some other equivalent spyware scanner.

Re: Paypal scam

*Message #6 Posted by **Chris Randle (UK)** on 6 Oct 2003, 8:34 p.m.,*
in response to message #1 by Thibaut.be

I hope you have better results than I did. I notified AOL about this outrageous site:

http://www.syisecurity.com

One week later and it's still up.

Re: Paypal scam

*Message #7 Posted by **Steven Kutoroff** on 7 Oct 2003, 8:21 p.m.,*
in response to message #1 by Thibaut.be

I got the same message and also reported it to PayPal and eBay about two weeks ago. All they did was acknowledge my submission with a thank you and a warning to watch out. I too advise letting eBay and PayPal handle the perps.

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Mach number: RPN vs. AOS comparison

*Message #1 Posted by **Karl Schneider** on 5 Oct 2003, 5:08 a.m.*

I evaluated the Mach-number equation given by r.d. baertschiger below:

M= sqrt[5 [({ [(1 + 0.2 [350/661.5]^2)^3.5 -1] [1- (6.875^1E-6) 25500]^-5.2656 } +1)^0.286 -1]]

using a number of diiferent machines.

RESULTS

-- RPN (12C, 15C, 17Bii, 28S, 48G, 49G):

I got the correct answer (0.835724536) every time within one minute of work, once I saw how the expressions nested (match the braces "{}" by multiplying two long results.)

-- Non-symbolic AOS with precedence (20S, Casio fx-3600p):

I got the correct answer on the first try with somewhat more time, when entering the expression exactly as written, which utilizes precedence. Doing the ()'s slows one down a little.

-- Symbolic AOS with precedence (28S, 48G, 49G):

I got the correct answer on the first try, but required more time, due to all the "()". This method gives no intermediate results, however, so the final answer must almost be accepted on faith, unless one scrutinizes the symbolic expressions after-the-fact.

-- Symbolic AOS without precedence (17Bii):

Serious difficulties getting the correct answer, with repeated failures. Extra ()'s must be inserted at the right time to handle lack of precedence, and if it wasn't done, it's difficult to fix.

-- Non-symbolic AOS without precedence (10B):

Repeated failures required completely starting over, and ()'s were shifted. Horrible!

-- Equation writers/editors (48G, 49G, 17Bii):

Very cumbersome; expressions were hard to read. Many failures. 48G equation writer could not keep up with user input.

FINAL VERDICTS

-- RPN:

Probably best for correctly solving this type of problem, because you see all intermediate results, and you know what they represent. Error recovery is easy. Of course, a strategy for evaluation must be devised beforehand, but RPN users are good at it.

-- Non-symbolic AOS with precedence:

Also useable, but the intermediate results produced by ")" are less obvious. (How many operations were performed, and what were they?) The user can enter the problem exactly as written, but it must be written according to the rules of precedence. "Fixing" the calculation midstream is nearly impossible.

Instead of entering the experssion left-to-right, a quasi-RPN approach can be emulated with liberal use of "=" and storage registers.

-- Symbolic AOS and equation writers/editors:

Allows the user to see the complete expression, but not the intermediate results upon evaluation. I wouldn't trust 'em.

- AOS without precedence:

Leave 'em for the business people!

Re: Mach number: RPN vs. AOS comparison

*Message #2 Posted by **Gordon Dyer** on 5 Oct 2003, 6:59 p.m.,*
in response to message #1 by Karl Schneider

I couldn't resist and had a go using a few calculators.
I found RPN on my 11C and 42S easy and quick once I had written the equation by hand with vertical structure and superscripts.
I then turned to my 71B and typed it in very quickly, but got an error message because it gives ^ precidence over unary- This was fixed with brackets around the (-5.2656)

M=SQRT(5*((((1+.2*(350/661.5)^2)^3.5-1)*(1-6.875E-6*25500)^(-5.2656)+1)^.286-1))

This gives M=0.835724535179

Other results were:
17BII 0.835724535179
42S 0.83572453518
11C 0.835724536

Overall I found each method equally slow to set up and debug and about the same speed after debug. I like both RPN and good algebraic calcs!

Re: Mach number: RPN vs. AOS comparison

*Message #3 Posted by **hugh** on 5 Oct 2003, 7:35 p.m.,*
in response to message #2 by Gordon Dyer

is that a bug? something like 2^-2, do you have to write 2^(-2)?

Re: Mach number: RPN vs. AOS comparison

*Message #4 Posted by **Gordon Dyer** on 6 Oct 2003, 4:59 a.m.,*
in response to message #3 by hugh

No, it is not a bug, but the 71B implements operator precedence with ^ first and then unary- next, this

means that it tries to evaluate 2^- before pulling in the number and gets an undefined result, so brackets are essential! Note thay 2^+5 also gives an error, but 2^5 is fine.
This is a strange order and I would like to hear from anyone who has an idea as to why the 71B operator precedence is like this.

Precedence of Operators (from 71B Quick Ref Guide).
The table below lists HP-71 operators in their order of precedence. Where an expression contains two or more operators having the same level of precedence, those operators will be evaluated in the left-to-right order in which they occur within the expression.

Performed first:

(...) (Nested parentheses are evaluated from the inside out.) Functions (such as SIN, RND, etc.)
^
unary +, unary -, NOT
*, /, \, DIV, %
+, -, &
<, =, >, #, ?, <=, >=, <>
AND
OR, EXOR

Performed last.

Re: Mach: RPN vs. AOS vs 48GX

*Message #5 Posted by **bill platt** on 6 Oct 2003, 2:13 p.m.,*
in response to message #1 by Karl Schneider

Hi Karl,

I got pretty similar results, except that I was not as fast!. However, I found the 20s to be just as efficient and easy as RPN--actually I got the right answer on the 20S first (And I am a died in the wool RPN guy!).

But on the symbolic type systems, namely 48GX equation writer: that beast is as useless as teets on a bore-hog! SLOOOOOW and cumbersome and a paint to edit in--it was actually much easier to create an algebraic object on the stack. I do not see any good in that equation writer thing for an equation like this! I wonder if that-there ALG48 or ERABLE or METAkernel whathaveyou is worth it.

I also tried writing the equation into my 32sii equation space--boy did that use a lot of memory! And I still got the wrong answer---don't know why!

Regards,

Bill

Try the MetaKernel

*Message #6 Posted by **R Lion (España)** on 6 Oct 2003, 2:58 p.m.,*
in response to message #5 by bill platt

Quick (VERY quick) editors -numeric & symbolic matrices, equations, text, graphics, etc- with cut, copy and paste.. I actually think that the 48 is MUCH better with MK. I wouldn't use it without MK today...

Re: Try the MetaKernel

*Message #7 Posted by **Ed Look** on 6 Oct 2003, 4:00 p.m.,*
in response to message #6 by R Lion (España)

Forgive me, what is the MetaKernel? An emulator of another calculator for a calculator?

Re: Try the MetaKernel

*Message #8 Posted by **bill platt** on 6 Oct 2003, 4:44 p.m.,*
in response to message #7 by Ed Look

MetaKernel is some sort of cool alternative graphic environment.

But I do have an emulator for another calculator running on a caclulator--it emulates the 41c series and runs on the 48G series---its very cool!

Regarding M-K, I downloaded it, but cannot figire out how to turn it on. I also cannot figire out how to get a lot of other stuff "on" such as XCELL (a spreadsheet) ERABLE (a computer algebra thing) and ERABLE (another computer algebra thing.).

Regards,

Bill

Re: Try the MetaKernel

*Message #9 Posted by **R Lion (España)** on 6 Oct 2003, 5:10 p.m.,*
in response to message #8 by bill platt

MetaKernel: port1
Erable: part in port0 and other parts in port2
Alg48: port2

Tnx, Raul! (NT)

*Message #10 Posted by **bill platt** on 6 Oct 2003, 6:31 p.m.,*
in response to message #9 by R Lion (España)

1

Re: Try the MetaKernel

*Message #11 Posted by **R Lion (España)** on 6 Oct 2003, 5:07 p.m.,*
in response to message #7 by Ed Look

Noooooo: it's (in some way) a better OS for the 48GX

Re: Try the MetaKernel

*Message #12 Posted by **Ed Look** on 6 Oct 2003, 7:38 p.m.,*
in response to message #11 by R Lion (España)

Better?!

If it's not too much trouble, can you briefly summarize how so?

I will admit that using a 48G reminds me a bit of the old days of VMS on mainframes and their clunky little text editors... almost. Nothing really is as bad as that (VMS and all that)!

Re: Try the MetaKernel

*Message #13 Posted by **R Lion (España)** on 7 Oct 2003, 2:21 a.m.,*
in response to message #12 by Ed Look

Here you have a review and condensed version of the documentation but the best is to install and test...

Edited: 7 Oct 2003, 2:24 a.m.

Re: Try the MetaKernel

*Message #14 Posted by **Wayne Brown** on 7 Oct 2003, 8:16 a.m.,*
in response to message #13 by R Lion (España)

I just wanted to point out that the review whose link Raul provided speaks of Meta Kernel being a 128K ROM card and says that it costs about US$90. That was true at the time it was written, but the authors have since released it as a free download. It's available at the same place as the review, hpcalc.org, at this link: http://www.hpcalc.org/hp48/apps/mk/mk230.zip You need a 128K RAM card to use it, which restricts its use to a 48GX. (This is an excellent use for one of the inexpensive Klotz 128K cards.) It fills the entire card, so port 1 has to be dedicated to Meta Kernel, but it's well worth it. With MK in slot 1 and another RAM card (in my case a 2MB card) in slot 2 the 48GX is a whole new machine.

Re: Try the MetaKernel

*Message #15 Posted by **Ed Look** on 7 Oct 2003, 5:52 p.m.,*
in response to message #14 by Wayne Brown

Ah, razzberrys!

I only have up to a G+, 128K native. But I'll review the files and see for myself what you guys were talking about anyway.

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Mach number - RPN vs. Algebraic

*Message #1 Posted by **Valentin Albillo** on 5 Oct 2003, 2:14 a.m.*

r. d. bärtschiger posted:

"Whenever I buy another type of calculator I always use the following equation, from page 106 of the HP-67 Owner's Handbook, to test the useability of the new calculator. Using an HP calculator usually takes about 45 seconds to get the correct answer. Using an algebraic calculator usually takes much longer, twenty minutes or more, if it in fact can solve the problem at all."

With all due respect, and not to doubt your words but your quoted figure and comment "twenty minutes or more if it in fact can solve the problem at all" seems a bit misleading and a lot unfair. 20 *minutes* ? Are you serious ?

If you are, it seems to me to be a typical case of a "language" chauvinist, using ineptly a "language" he dislikes, then pointing out how bad and inefficient are the results he inefficiently produced. You'd have a similar case if someone profoundly disliking RPN were to solve this particular Mach number example using RPN: he would take ages to solve it, would do a lot of false restarts and unnecessary stack manipulations, then would complain how much RPN sucks. Simply preposterous.

"Even trying to enter this equation into an HP-48GX or 49G+ equation writer is a difficult task."

Maybe that's the case for those calculators, but this "difficult" evaluation is a piece of cake for my SHARP PC-1350. The formula is entered like this:

```
Sqrt(5*(((((1+.2*(350/661.5)^2)^3.5-1)*(1-6.875E-6*25500)^-5.2656)+1)^.286-1))
```

where Sqrt is the "square root" symbol (a single keystroke). I timed myself entering this equation, exactly as written, and it took me 60 seconds flat (not "20 minutes"), the displayed result being 0.835724535, correct to all digits shown. If it actually took you 20 minutes, this only shows just how inefficient you are entering and evaluating algebraic expressions, or else just how bad your algebraic calculators are.

"If you really want to see how much easier RPN is, try to calculate the answer to this problem using an algebraic calculator. [...] I think you will agree the HP is easier."

No, I don't agree at all, by the simple reason that it isn't true, and your example is actually flawed. Why do I state this ? Let's see:

- Why it isn't any easier with "HP" (i.e.: classical RPN) ?: it isn't easier with classical HP RPN because, being limited to 4 stack levels, you CAN'T begin to evaluate the expression from the left, but as the actual RPN solution shows clearly, you MUST decide on a strategy for where to begin the evaluation, having to scan the expression to locate the innermost set of parentheses, then begin there, least you would need to store some intermediate result in a register. On the other hand, you CAN enter the expression in the PC-1350 exactly as written, from left to right, no strategy needed, no intermediate results stored.

  Also, there's the fact that RPN isn't particularly "efficient" for this particular example. RPN takes 66 keystrokes to evaluate this, starting from the innermost depths, then going outwards. In the PC-1350, it takes 75 keystrokes to enter the expression, left to right, no reordering necessary, and the ending parentheses could be ommitted as well. I don't think the difference in keystrokes to be groundbreaking at all, and certainly does not compensate for having to decide on the order of evaluation beforehand. The mere fact that you need to give a "proper keystroke sequence" as part of the solution is a real telltale that RPN isn't at its best in this example. The PC-1350 "proper keystroke sequence" is "as written".

- Why your example is flawed ? Because it's hopelessly *aged*. This example was fine, very fine at the time it was published. I remember trying it with my newly acquired HP-67 more than 20 years ago, and being awed at the power of RPN, because this example was well-nigh intractable with the primitive algebraic calculators of the time.

  But using it nowadays, as an example against *modern* algebraic calculators ? Come on !! You must be joking, or you have a serious case of wishful thinking ! Not only modern algebraic calculators, but vintage ones, as the Sharp PC-1350, can take examples like this and bigger for breakfast, without even blinking. You can key in the full expression left to right, as written, you can see it in full in the 4-line display, you can check it and recall it at will after evaluating it, to edit it and change some parameter to play what-if, you can do anything ! Try that with your classical RPN calculator. Will LASTx do you any good if the final result seems absurd ? Or will you have to reenter all of it, perhaps chosing some other order of evaluation ?

  HP used this example, very complex at the time, because algebraic calculators back then had very little memory for their intermediate operands and operators and most couldn't compute this example from left to right, as written, while in RPN you easily could by applying some ingenuity to the order of evaluation, ingenuity that most HP users at the time had in spades. Also, algebraic calculators back them could not display the whole expression at once, but only the number last keyed in, or an intermediate result, not even the operands would appear in the display. There was also no way to recall the whole expression in case of error.

  But what was ok and amazing then, and a very proper example and demonstration of RPN power, cannot be used right now, 2003, to demonstrate RPN "superiority" against "algebraic systems", because RPN hasn't changed an iota (RPL is *far* too different to be considered

> "RPN", more like FORTH) while algebraic systems have improved exponentially, and modern algebraic machines do not have the pathetic memory and display limitations that vintage models had.
>
> That being so, your example is just too ridiculous an "exhibit" to rest your case, and can only succeed with the most fanatic, blinded RPN addicts. Any serious RPN or algebraic user will simply be ashamed of your pathetic argument.

The point is: don't get me wrong. I've been using RPN for the past 20 years, like it very much, and, honestly, there's very few people in this forum or out that can do any calculation or program more efficiently in RPN than I can, even if it isn't proper I would say so myself. But just the same, and for that same reason, I can't suffer seeing RPN being "defended" with such pathetic arguments and such flawed, obsolete, no-longer-valid examples, much less seeing a lot of people being mislead by them into a false feeling of superiority which isn't exactly justified by examples like yours.

Just you try to use this Mach number example to demonstrate the "superiority" of RPN in your HP to someone having a decent algebraic calculator (even if it is as old as the Sharp PC-1350) and you'll only succeed in making a fool of yourself, and proving the other person just how pathetic those "RPN nerds" are. It goes without saying that this is no good to the RPN cause, at all.

Long live RPN !

Best regards from V.

Edited: 5 Oct 2003, 2:39 a.m.

Re: Mach number - RPN vs. Algebraic

*Message #2 Posted by **Ed Look** on 5 Oct 2003, 2:43 a.m.,*
in response to message #1 by Valentin Albillo

Well, given your arguments, I will (tomorrow sometime; I'm so tired, have to teach Sunday School tomorrow morning, and don't what the heck I'm doing up on this forum [it's 2:30 AM in NYC]) give it a try on my Casio fx-4200p just to see if it is hard or easy.

But that wasn't really why I am posting: I was able after seeing a correct display of the equation, to do the calculation on a one-line, four-stack machine, the HP-34C, without having to commit the first innermost term to a memory register. It wasn't necessary. Even with so many nested parentheses, it appears four stack levels is most often enough.

Incidentally, you do make some very good points and I generally agree with you. But I still think that I'll take the five or six steps I saved with RPN entry any day... for that reason, as the smallest economy in finger presses is worth it to me.

On my Casio fx-4000p

*Message #3 Posted by **R Lion (España)** on 5 Oct 2003, 4:55 a.m.,*
in response to message #2 by Ed Look

> Quote:
>
> give it a try on my Casio fx-4200p just to see if it is hard or easy

I needed three trials on this calc because, using RPN calcs for years, I've forgot a gold rule of algebraics: "open parens after sq root"
I'm sure that if I was using this Casio dayly, or if I was using the ALG entry in my 48GX everyday, I had got the answer at first attempt, as I did with RPN and with the MetaKernel Equation editor. Matter of taste, matter of use.

But... I prefer RPN.

Raul

Re: On my Casio fx-4000p

*Message #4 Posted by **Ed Look** on 5 Oct 2003, 8:35 p.m.,*
in response to message #3 by R Lion (España)

Raul, I haven't used that Casio fx-4200p in MANY years. I'm just guessing that it's formula entry is like that of a Hp-32SII or HP-48G series calculator. If not, I'll have to wait even longer, as the only manual I have for it is on my computer's hard drive and I usually hate reading massive texts on the CRT.

Re: On my Casio fx-4000p

*Message #5 Posted by **R Lion (España)** on 6 Oct 2003, 12:32 p.m.,*
in response to message #4 by Ed Look

Sorry... I actually don't know the 4200p... If it helps, I will say that the 4000p and the famous 6300G have the same program "language", but I don't know if it is the same for the 4200p.

Raul

Re: Mach number - RPN vs. Algebraic

*Message #6 Posted by **r. d. bärtschiger.** on 5 Oct 2003, 2:59 a.m.,*
in response to message #1 by Valentin Albillo

I entered your listing of the equation exactly as you wrote it above into a ti-92+, is that modern enough of a calculator for you? Upon pressing enter, it returned 'error syntax'.

rdb.

Re: Mach number - RPN vs. Algebraic

*Message #7 Posted by **Namir Shammas** on 5 Oct 2003, 3:53 a.m.,*
in response to message #6 by r. d. bärtschiger.

rd,

I wrote an expression parser in C# and it gave me a Nan result, because it tripped over the part "*(1-6.875e-6*25500)^-5.2656)" ... when I wrote it as "/(1-6.875e-6*25500)^5.2656)" I got the answer instantly.

Namir

Re: Mach number - RPN vs. Algebraic

*Message #8 Posted by **Rodger Rosenbaum** on 5 Oct 2003, 4:11 a.m.,*
in response to message #7 by Namir Shammas

If I have read your post correctly, it looks like you have replaced a single _*_ by _/_. When I do this, I get a result of .325625586602 instead of .835724535179

Re: Mach number - RPN vs. Algebraic

*Message #9 Posted by **Rodger Rosenbaum** on 5 Oct 2003, 5:52 a.m.,*
in response to message #8 by Rodger Rosenbaum

Looking over Namir Shammas's post more carefully, I see that I overlooked the minus sign in front of the 5.2656

Re: Mach number - RPN vs. Algebraic

*Message #10 Posted by **Namir Shammas** on 5 Oct 2003, 8:35 p.m.,*
in response to message #9 by Rodger Rosenbaum

Roger,

I removed the exponentiation to the negative number and replaced multiplication with division. This change remove the presence of the operatod ^- in this sequence, which can trip many interpreters (BASIC, and other runtime interpreter such as the one I used to evaluation the expression). Namir

Re: Mach number - RPN vs. Algebraic

*Message #11 Posted by **Rodger Rosenbaum** on 6 Oct 2003, 3:11 a.m.,*
in response to message #10 by Namir Shammas

Yes, I realized that when I noticed that the minus sign had been removed. One could also use more parentheses to solve this problem. Those people who typed this expression into their HP71's had this problem, I noticed, but the HP48 in algebraic mode apparently has different precedence in this case.

Re: Mach number - RPN vs. Algebraic

*Message #12 Posted by **Wayne Brown** on 6 Oct 2003, 7:51 a.m.,*
in response to message #6 by r. d. bärtschiger.

rdb,

I just wanted to say that *I* liked your example very much, and thank you for posting it. Although, I confess that I had difficulty using it until Mark Hardman posted the scanned image from the book -- all those brackets and parentheses were hard to keep straight. But the book version was very easy to do with RPN. I just wanted you to know that *some* people appreciated the effort you (and Mark) made and agree with your reasons for doing it.

Re: Mach number - RPN vs. Algebraic

*Message #13 Posted by **r. d. bärtschiger.** on 6 Oct 2003, 1:00 p.m.,*
in response to message #12 by Wayne Brown

Thank You.

rdb.

Re: Mach number - RPN vs. Algebraic

*Message #14 Posted by **Les Bell [Sydney]** on 5 Oct 2003, 4:06 a.m.,*
in response to message #1 by Valentin Albillo

Singularly unimpressive, Valentin. I just grabbed my trusty Jeppesen-Sandersen CR-5 "whizz wheel", place the Calibrated Air Speed opposite the Pressure Altitude, move the cursor to the correct Indicated Temperature, and read the Mach Number off the Mach Number scale.

No keystrokes, no messy programming and the whole process takes about three or four seconds.

Sometimes, the old ways are the best ways. . . <g>

(See http://www.jeppesen.com/wlcs/application/commercewf?origin=itemsummary.jsp&event=link(details)&wlcs_catalog_item_sku=JS514238&wlcs_catalog_category_id=PS2&wlcs_document_type=details)

Best,

--- Les Bell [http://www.lesbell.com.au]

Re: Mach number - RPN vs. Algebraic

*Message #15 Posted by **Rodger Rosenbaum** on 5 Oct 2003, 4:18 a.m.,*
in response to message #1 by Valentin Albillo

What's the problem with doing this on the HP48? Just put a 'tick' mark at the beginning and then type it in just as Valentin has it, with the "Sqrt" replaced with the square root symbol found on the keyboard. The 48 deletes one set of unnecessary parentheses, and evaluates the result as .835724535179
This is "algebraic" mode on the HP48, and it works quite nicely.

Re: Mach number - RPN vs. Algebraic

*Message #16 Posted by **James M. Prange** on 5 Oct 2003, 6:48 a.m.,*
in response to message #1 by Valentin Albillo

Well, I normally use an RPN (actually, RPL) sequence, but when I'm working with an algebraic formula that's already written out on paper for me, I find it easier to just enter it into the 48 as an algebraic object. I've never cared for the equation writer for entering algebraics, although I do like it for viewing them. But my first try didn't work, so I copied it onto paper and inserted the '*' operator for the implied multiplications and added parentheses to make the order of operations explicit.

In the following, "\v/" stands for the square root symbol, "\<<" and "\>>" for the program delimiters, "NEG" is the +/- key, and "^" is keyed in by pressing the y^x key.

Here's the object with flag -53 set (Show all parens):

```
%%HP: T(3)A(D)F(.);
@ Checksum: 68BAh
@ Bytes: 162
'\v/(5*(((((((1+(.2*((350/661.5)^2)))^3.5)-1)*((1-((6.875*(10^(-6)))*25500))^(-5.2656)))+1)^.286)-1))'
```

The same object with flag -53 clear (No extra parens):

```
%%HP: T(3)A(D)F(.);
@ Checksum: 68BAh
@ Bytes: 162
'\v/(5*((((1+.2*(350/661.5)^2)^3.5-1)*(1-6.875*10^-6*25500)^-5.2656+1)^.286-1))'
```

The above look right in the equation writer and when evaluated, result in the answer which others have said is correct: .835724535179

Having what I know is the correct algebraic object, with implied multiplications changed to explicit, the RPL key sequence is pretty straightforward. The sequence also gives the same answer. I've enclosed it within program delimiters below:

```
%%HP: T(3)A(D)F(.);
@ Checksum: CD8Ah
@ Bytes: 172
\<< 5 1 .2 350 661.5 / 2 ^ * + 3.5 ^ 1 - 1 6.875 10 6 NEG ^ * 25500 * - 5.2656 NEG ^ * 1 + .286 ^ 1 - * \v/ \>>
```

Actual evaluation time of either the algebraic object or the program is about a tenth of a second.

Regards,
James

Edited: 5 Oct 2003, 7:37 a.m.

Re: Mach number - RPN vs. Algebraic

*Message #17 Posted by **James M. Prange** on 5 Oct 2003, 8:52 a.m.,*
in response to message #16 by James M. Prange

PS:

Actually, leaving out the redundant spaces in the RPL sequence:

```
5 1 .2 350 661.5/2^*+3.5^1-1 6.875 10 6NEG^*25500*-5.2656NEG^*1+.286^1-*\v/
```

Press either the SPC or ENTER key where a space occurs in the above.

Again, the "^" is entered by the y^x key, "NEG" by the +/- key, and "\v/" represents the square root key. If I count correctly, that's 69 keypresses.

Regards,
James

Edited: 5 Oct 2003, 8:54 a.m.

random tangent

*Message #18 Posted by **hugh** on 5 Oct 2003, 8:22 p.m.,*
in response to message #1 by Valentin Albillo

as a random spin off, i'd like to air some related gripes.

so far, no distinction has been made between aos and formula style entry. i am happy using either rpn or aos. formula calculators are the ones you have to press sqrt then 5, rather than the other way round. some even want brackets round the 5 or else they shout "syntax error" at you. for a long time, i hated them.

more recently, ive been exposed to more and more formula calculators because, pretty much, thats all you get nowdays. scarily, i've begun to get more used to them and, in fact, for certain kinds of problem; like evaluating a big formula, they are easier to work with. for a formula written in front of you, its almost natural to press sin before x as written, possibly because its a no brainer. indeed you have to do this on hp solver models like the 19bii.

my gripes relate to the expression handling abilities and so far, ive seen considerable variation in ability. some are very pedantic. eg "sin 1", "2(3+1)" are syntax errors. personally, i would consider calculators that rejected these as broken and give the whole formula style a bad name. also ones that insist on the final close bracket. it means makers have missed the point about it being a useful tool.

another of my pet hates, is the silly unary minus button on these machines (ie "(-)"). how lame is that. so i have to press 1e-5 using the little minus and not the binary one (or its a syntax error again). same for "2^-3". theres no reason why the expression parser can't use the same "-" sign and get it right. a few things are ambiguous, like "-2^3", but i can handle that.

im still waiting for a model that gets all these right.

Re: Mach number - RPN vs. Algebraic

*Message #19 Posted by **WXYZ** on 5 Oct 2003, 8:45 p.m.,*
in response to message #1 by Valentin Albillo

I pretty much agree with everything. (Except some minor things, but what the hell)

You say that thats a flawed example.... could you give a good one?

Re: Mach number - RPN vs. Algebraic

*Message #20 Posted by **David Brunell** on 5 Oct 2003, 11:49 p.m.,*
in response to message #1 by Valentin Albillo

I keyed Valentin's key sequence into my wife's lowly TI-30, and it spit out the correct answer after about 2 seconds. I also got the correct answer the first time on my TI-59, although I had to save the SQRT operation for last.

I think if this calculation were important to someone, then he would write down the intermediate answers anyway, since keystroke errors are very possible even on an RPN machine.

Re: Mach number - RPN vs. Algebraic vs Basic

*Message #21 Posted by **Vassilis Prevelakis** on 7 Oct 2003, 9:27 p.m.,*
in response to message #1 by Valentin Albillo

The same solution to the

http://www.series80.org/Pictures/Mach-Formula1.jpg

formula is provided in the HP-85 owner's manual:

http://www.series80.org/Pictures/Mach-Formula2.jpg

**vp

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HP48gx

*Message #1 Posted by **Eric Lundgren** on 5 Oct 2003, 1:55 a.m.*

I've found a store that has 4 hp48GX machines, going for 139 dollars. My question is, as an RPN faithful and 'hp-click' lover, and engineering student, do any of you have recommendation of getting this 48gx instead of the new 49G+?

There's one with a torn box, that they are willing to let go for a 10percent discount. With tax that comes to about 135. My concern is that if I will try to finish school with this, is the difficulty/cost of expansion cards worth it or should I just wait for the G+?

I'm searching for a suitable calc to let my 32sii take a break. btw, I do plan on taking the FE and PE exams in 1.5 years or so.

el

Re: HP48gx

*Message #2 Posted by **James M. Prange** on 5 Oct 2003, 7:19 a.m.,*
in response to message #1 by Eric Lundgren

I don't have a 49g+, but I'll think that it will be like the 49G in many ways. The 49G might be better for mathematics students, and is fun to play with, but for "real work", that is, where I want to get a numeric result quickly with a minimum of fussing around, I prefer the 48SX or 48GX.

Yes, the expansion cards are expensive, but keep in mind that the 48GX comes with 128KBytes built-in, so maybe you don't really need an expansion card. If you do feel a need for an expansion card, see http://uuhome.de/oklotz/index_e.html for what's probably the best prices. The Klotz cards look primitive, but many have reported that they work just fine.

I don't know that the price on that 48GX is especially good, you might want to search online or check eBay and compare prices.

As the 48s and 49s may well be banned on the tests, hang on to your 32SII and don't forget how to use it. Or consider the 33S.

Regards,
James

Edited: 5 Oct 2003, 7:23 a.m.

Re: HP48gx

*Message #3 Posted by **Wayne Brown** on 5 Oct 2003, 9:45 a.m.,*
in response to message #2 by James M. Prange

Quote:

> If you do feel a need for an expansion card, see http://uuhome.de/oklotz/index_e.html for what's probably the best prices. The Klotz cards look primitive, but many have reported that they work just fine.

So far I have three of the Klotz cards, with which I am quite satisfied, and plan to buy at least a couple more. Considering that a "genuine HP" *one* MB card sold for about $189 on eBay recently, the approximately $80 I paid for a Klotz *two* MB card seems quite a bargain.

By the way, the Klotz cards may look "primitive" because they do not have covers and so the circuit board is exposed, but if you examine one you will see that the construction of the board and the soldering of the components looks quite neat and professional. They look every bit as well-made as any of the expansion cards that I've ever bought for my desktop PCs.

Re: HP48gx

*Message #4 Posted by **Thomas Otterbein** on 6 Oct 2003, 1:30 p.m.,*
in response to message #3 by Wayne Brown

Wayne: .....the Klotz cards may look "primitive" because they do not have covers and so the circuit board is exposed, but if you examine one you will see that the construction of the board and the soldering of the components looks quite neat and professional.....

Hi!

I have also one card from Klotz and a 2 MB card from Cynox. I agree to Wayne´s statement, the quality is fine and the soldering is professional done....and the card works quite fine! I wouldn´t say, that they looks primitive but professional done in a simple way.

I do not handle the card outside the 48GX. So for me it doesn´t matter if they don´t have a housing. And as Klotz reports on his web page, he never had problems with electric static.

The price is real unbeatable.

Wayne: .....They look every bit as well-made as any of the expansion cards that I've ever bought for my desktop PCs.....

I would wish all my expension cards would look as good as the Klotz cards :-)

Bye... Thomas GERMANY

Re: HP48gx

*Message #5 Posted by **James M. Prange** on 7 Oct 2003, 1:46 a.m.,*
in response to message #4 by Thomas Otterbein

Ok, guys. "Primitive" looking in the sense that they lack any case. To those familiar with other cards, this may make them look "unfinished". But on the other hand, I suppose that this makes them appear more "high-tech".

I don't see any great need for the card to have a case while it's inserted in the calculator, but I suppose that while it's out of the calculator, it would be more vulnerable to shorts, contamination, mechanical damage, and conceivably even static discharge.

So I'd consider the lack of a case to be, at worst, a rather minor disadvantage. I certainly didn't

mean to imply that there's anything wrong with the Klotz cards; quite the contrary. By all reports they work fine and I doubt that you could find even a used card at those prices.

Regards,
James

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YAEA (Yet Another eBay Auction

*Message #1 Posted by **Daniel Sancho** on 4 Oct 2003, 6:03 p.m.*

Here is another auction in eBay that uses this wonderfull web:

http://cgi.es.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3050932640&category=50577 %0ÙÎxÅ Regards

Daniel

Re: YAEA (Yet Another eBay Auction

*Message #2 Posted by **Raymond Del Tondo** on 4 Oct 2003, 7:53 p.m.,*
in response to message #1 by Daniel Sancho

Yes, the auction description is near to spam. I had to press the PgDn key 13 times to get to the bottom (1152x864 resolution)... A link to some site with docs, like hpcalc.org , or since some weeks to here (MoHPC) would be better.

The seller has many non-working links in his auction description, most of them to other eBay seller sites. What a mess...

Raymond

Thanks Daniel

*Message #3 Posted by **Dave Hicks** on 5 Oct 2003, 3:21 p.m.,*
in response to message #2 by Raymond Del Tondo

I asked him to credit the material and he did. I too wonder whether that much text in an auction is a selling point. Whenever I see that much text clearly pulled from some website, I look it all over for a "(Not selling product described)" type message hidden inside.

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Hp 41CX

*Message #1 Posted by **Andreas Archenti, KTH Stockholm** on 4 Oct 2003, 4:47 a.m.*

Hi friends (hp users) !!

I wonder where I can find (by) a nice HP 41CX with modules in Sweden?.

Re: Hp 41CX

*Message #2 Posted by **Eric Lundgren** on 5 Oct 2003, 12:04 p.m.,*
in response to message #1 by Andreas Archenti, KTH Stockholm

Sorry for the language fellow Americans,

Hej du Andreas, hur mor du? Jag kom fran sverige i augusti. Jag bor har i USA. Unfortunately, I dont know where to find the 41cx, just wanted to say hi to a Swede. :)

To keep the rest of you in this post, I simply said 'hi, how are you, I just came back from sweden in august'

Best of luck Eric

Re: Hp 41CX

*Message #3 Posted by **Andreas (en till!)** on 7 Oct 2003, 4:15 a.m.,*
in response to message #2 by Eric Lundgren

I remember seing a retailer near the Sveriges Radio building in Stockholm a few years ago that seemed to specialize in HP calculators - particularly older ones. I now wish I had actually made a note of his address or, even better, bought his entire stock...

/Andreas (som flyttade från Sverige till Irland 1998 och snabbt insåg hur dumt det var)

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New HP Calc

*Message #1 Posted by **Lance Apollonaire** on 3 Oct 2003, 6:41 p.m.*

Are there any new HP Calcs coming out- high end to replace the 48GX or 49.

Ultra High End

Lance

Re: New HP Calc

*Message #2 Posted by **Raymond Del Tondo** on 3 Oct 2003, 8:46 p.m.,*
in response to message #1 by Lance Apollonaire

Theoretically the 49G+ is the replacement for the 49G and 48. Since nearly all of the new calcs (after 1995, that is) have a somewhat unergonomic keyboard layout (aside from their unreliable key response), I'd suggest to get an 48G(X) with the new b/w display.

Raymond

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Other calculators with RPN

*Message #1 Posted by **JAL** on 3 Oct 2003, 4:37 p.m.*

Are there any other calculators with RPN? Mine was swiped from my desk and that is all I have used for the last 19 years. I can't use the standard notation for entering the numbers.

Re: Other calculators with RPN

*Message #2 Posted by **Thibaut.be** on 3 Oct 2003, 5:01 p.m.,*
in response to message #1 by JAL

Yes, if you're looking for a standard RPN calc try the 12C. This forum ads section and ebay are full of non marketed old HP's.

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When does HP 49g+ come to Brazil?!?

*Message #1 Posted by **Sebben** on 3 Oct 2003, 3:58 p.m.*

Hi everybody

I'm from Brazil and I'm looking for somewhere that sells the new HP 49g+. I sent some e-mails to HP, but even they don't know. If you know, please contact me.

Sebben

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49G+ webshop retailers in europe?

*Message #1 Posted by **Jostein Trondal** on 3 Oct 2003, 2:36 p.m.*

Does anyone know any good (serious) webshops in Europe that sells the 49g+?

Thanks.

-- Jostein Trondal

Re: 49G+ webshop retailers in europe?

*Message #2 Posted by **r. d. bärtschiger.** on 3 Oct 2003, 2:59 p.m.,*
in response to message #1 by Jostein Trondal

Try either of these:

http://www.cynox.de/

http://www.dynatech.de/

rdb.

Re: 49G+ webshop retailers in europe?

*Message #3 Posted by **Jostein Trondal** on 3 Oct 2003, 3:10 p.m.,*
in response to message #2 by r. d. bärtschiger.

Thanks!

Cynox sells them from end of October for €199.95, And Dynatech for €189.95 but wont ship to Norway :(

-- Jostein Trondal

Re: 49G+ webshop retailers in europe?

*Message #4 Posted by **r. d. bärtschiger.** on 5 Oct 2003, 12:45 p.m.,*
in response to message #3 by Jostein Trondal

If you are still looking for a place to buy a 49g+, here is another address.

http://www.diamron.ch/website/index.htm

rdb.

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49G+ webshop retailers in europe?

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HP-38G printing

*Message #1 Posted by **Michel Beaulieu** on 3 Oct 2003, 12:22 p.m.*

Hi! I have a HP-38G and i receive a 82240A printer : can i print to this IR printer via the IR link of my HP-38G or the calculator is just for calc to calc transfer?

Thanks Michel

HP-82240A printer

*Message #2 Posted by **Michel Beaulieu** on 3 Oct 2003, 12:33 p.m.,*
in response to message #1 by Michel Beaulieu

There is a possibility of a power supply for this printer; which is the voltage and the polaryty in use?

On wich calculator this printer can be use?

Thanks again

Re: HP-82240A printer

*Message #3 Posted by **Chan Tran** on 3 Oct 2003, 3:53 p.m.,*
in response to message #2 by Michel Beaulieu

I have the 82240B and I bought a walwart power supply from HP and it's designed for the printer. I think it should work with the 82240A. I don't know the model number right now as I am at work and don't have the thing in front of me.

Re: HP-82240A printer

*Message #4 Posted by **James M. Prange** on 4 Oct 2003, 2:11 a.m.,*
in response to message #2 by Michel Beaulieu

For both the 82240A and 82240B, the manuals specify 9-12 V AC or DC; 500-1500 mA. Experimentally, either polarity works fine; I surmise that the external power goes through a bridge rectifier. The manual also says that you should have batteries installed even when using the AC adapter, as the printer may require supplemental battery power during heavy printing; my experience is that it works just fine without batteries, but it's no doubt best not to push your luck on this. The power connector is specified as 5-5.5 mm outside diameter, 2.1 mm inside diameter.

HP made two AC adapters for these printers. The earlier HP 82241A adapter is rated at 9V AC 13.5VA MAX; the later HP F1011A at 12V DC 0.75A. The 82241A uses a fixed input voltage and frequency (120 V 60 Hz for the U.S. option); the F1011A takes an input from 100-240V at 50-60 Hz and is much lighter, but runs warmer. I believe that both are available in various options to fit various styles of outlets.

The 82240A has only the "Roman 8" character set, and works with the 28 series calculators, and I expect a good many others. The 82240B has both the "Roman 8" character set and the "ECMA 94" character set.

The ECMA 94 character set is used in the 48 series calculators, so if you want to print from a 48 series, the 82240B is better. That said, the 48 series provides for character remapping when printing via IR, so the more commonly used characters will still print ok on a 82240A. Of course, the 82240B is also fine for any calculator that prints to the 82240A. I don't know which character set is used in the 38G and so on.

The 48 series calculators, when printing via IR, start out each transmission to the printer (well, except from the CR command) with an escape sequence to switch the 82240B to the ECMA 94 character set. If an 82240A printer is being used, this escape sequence is simply ignored.

Regards,
James

Edited: 4 Oct 2003, 2:32 a.m.

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I'll answering, just on sunday! (If you are answers to my HP-10C ad...) [NO TEXT])

*Message #1 Posted by **Tizedes Csaba** on 3 Oct 2003, 8:37 a.m.*

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(HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #1 Posted by **NH** on 3 Oct 2003, 4:50 a.m.*

Holy Cow! Am I late to the party? Do you guys already know about this ?????? HP-33S is the planned replacement for the HP-32Sii ????????

http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=363&Sku=HP33S

Ha Ha Ha! Cool! My new-sealed HP-32Sii is going to be going up like Microsoft stock! This latest piece of trash from Carly lights my rocketship to the moon!

Can you believe what an incredibly ugly-fied design they came up with? The insanity of saying that an HP-32Sii user would want to use some ugly piece of trash like that????

Well, after watching, and comparing notes, about these insane, mentally disturbed monsters called "MBA's" it should not surprise me anymore.

I guess a fella can just laugh about it, and them.

What, do they think they are building a cowcatcher for a railroad engine?

I have never seen anything so stupid in my entire life.

Hey, they forgot something..... the digits in the display should be all made to look like it is melting, you know, wavy and tilted, big digits towards the right side, littler digits towards the left side..... everything crooked. Whoops! I just gave away the secret to the "next" model they will release in another 6 months. Damn those MBA's are brilliant.

:o|

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #2 Posted by **Luca (Switzerland)** on 3 Oct 2003, 8:59 a.m.,*
in response to message #1 by NH

I am sorry, perhaps you have not understood that the HP-33S is not a calculator (RPN, redleeeeeeeeeeds, HP keyboard) but it's a CELL PHONE with MP3 Player and it's so COOL !!!!!

Welcome to this century, in Carly's world !!!!

Old-fashioned Luca (I still love calculators....)

Re: Switzerland, ROFLMAO !!!!!!

*Message #3 Posted by **Norm** on 3 Oct 2003, 1:02 p.m.,*
in response to message #2 by Luca (Switzerland)

Luca in Switzerland, ROFLMAO !

Excellent reply, love those new HP-33S features !!!!

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #4 Posted by **Charles L** on 3 Oct 2003, 2:46 p.m.,*
in response to message #2 by Luca (Switzerland)

Yes, I've heard it gets great reception too :)

Hey, I just realized something! We should all be happy that they didn't decide to use a rotary-dial for a number keypad, like old telephones used to have :)

cl

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #5 Posted by **Ed Look** on 3 Oct 2003, 4:39 p.m.,*
in response to message #4 by Charles L

Gentlemen, I won't disagree with your aesthetic assessments. I'm more worried that if I actually have to do some serious crunching on this keypad, am I going to be able to find stuff on it? And, weren't we all taught to visualize for the most part on a Cartesian-style orthogonal grid? How are going to remember where the buttons are for speedy usage, like we all used to on the HP RPNs we grew up with?? (When I use a 32SII or 48G is still silently form the 34C keystroke sequences with my mouth; for example, say, even though on the 48G, SQRT x is purple shift key-SQRT x, I'm still thinking, "g-SQRT" [blue "g" shift key- 3], or on my 32SII, the linear regression button is blue shift key-LN, I'm still thinking, "h-L.R." [black "h" shift key-6]!)

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #6 Posted by **bill platt** on 3 Oct 2003, 4:58 p.m.,*
in response to message #5 by Ed Look

That's a good story, as I noticed the same thing happinging with me and my 32sii--I always think of f-LBL-A and g-RTN like my first 11C!

Regards,

BIll

orthogonal grids are out!!!

*Message #7 Posted by **Carly** on 3 Oct 2003, 8:01 p.m.,*
in response to message #5 by Ed Look

How dare you talk about orthogonal grids for the keyboard !!

There are no more orthogonal grids !!! From now on, whatever I say, GOES! Period! You will bow down and worship me, and you will buy my worthless trash and give me all your money!!

We are also going into printing and we have a new line of paper products featuring lines of random pitch, so that no two lines are the same. Also, graph paper where all the lines are crooked and wavy and unevenly spaced. How dare you disagree whether we should do that??

We are the MBA's and the marketeers. Whatever we say, goes. If we kill a few shuttle astronauts along the way, that's good then we get pay raises. For we run the almighty bureacracy, and we have all the money, and you have none, so you will not question my decision making again !

- Carly !

Re: orthogonal grids are out!!!

*Message #8 Posted by **Ed Look** on 3 Oct 2003, 10:17 p.m.,*
in response to message #7 by Carly

Well, why not just sell log-log paper?

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded) (long)

*Message #9 Posted by **Charles L** on 3 Oct 2003, 2:42 p.m.,*
in response to message #1 by NH

uh-oh, someone has a HP32sii that is new-sealed...that means it isn't being used, and thus being forced to fail in its primary mode of function, just kidding :)

I've been using my 32sii day in and out for over 1 year now, and I'm glad I found it in the discard bin at a Fry's. If it had been unopened, I might have been tempted to preserve it too. Its great to see classmates smirk at my 'old' calculator as they pull out their shiny ti89s before a test, then half way thru they look up in surprise as I'm handing my test and heading for an early friday afternoon of beach strolling.

Yes, you are right though, aesthetically, the 33s is a bit offensive. I wish only that the keys could have been in line. I'll get one though, and I will be patient and see how it performs....*dreaming* maybe they just used a really poor camera to take the pictures, jk ;)

cl

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded) (long)

*Message #10 Posted by **Ed Look** on 3 Oct 2003, 4:24 p.m.,*
in response to message #9 by Charles L

Sir! You bring your HP-32SII to school?? Keep a watchful eye on it!

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded) (long)

*Message #11 Posted by **Eric Lundgren** on 3 Oct 2003, 6:36 p.m.,*
in response to message #10 by Ed Look

Yes, in true defiance of collectors, I drive nails with my hammer! I carry it in my back pocket too. :) I love this thing, thanks old HP.

el

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded) (long)

*Message #12 Posted by **Ed Look** on 3 Oct 2003, 6:43 p.m.,*
in response to message #11 by Eric Lundgren

Well, at least you don't wear it from your belt like we used to so many eons ago. Some of us thought it made us look "rich" (afford a calculator) or "hip" (with the new stuff) or "smart" (as if a machine makes your brain or work habits any better)...

... until the girls started to laugh...

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #13 Posted by **Ed Look** on 3 Oct 2003, 5:03 p.m.,*
in response to message #1 by NH

I guess this new keypad face is for those who can think and see in rhomobohedral or triclinic; more likely the latter.

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #14 Posted by **Juan J** on 3 Oct 2003, 6:07 p.m.,*
in response to message #13 by Ed Look

Would the brilliant MBAs on whom HP trusts so much these days come up with the idea of a calculator designed to match the user's cell phone? Like shoes or purse that compliment a dress? A calculator is supposed to be used for serious number crunching, not for fashion.

Will the decision makers be influenced by fashion? If so, it sad they come up with such a contraption.

WHOOOO WHOOOOO!!! HP-33S LEAVING THE STATION!!

*Message #15 Posted by **NH** on 3 Oct 2003, 8:06 p.m.,*
in response to message #14 by Juan J

ALLLLLLLLLL ABOAAAAAAAAARD !!!!!!!!!!!!!!

WHOOOOO!!!! CCCHHHUUGGGGG
CHUG

CHUG CHUG
CHUG CHUG CHUG

CHUG CHUG CHUG CHUG CHUG CHUG
WHOOOOO!!! WHOOOOOOOOOO!!!!!!!
CHUG CHUG CHUG CHUG CHUG CHUG CHUG CHUG CHUG CHUG
WHOOoooooooooooooooooooo WHooooooooooooooooooooooo
chug chug chug chug chug chug chug chug chug chug chug chug chug

Hey..... bet I could "fix" some of those HP-33S cowcatcher models using the train track method.....

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #16 Posted by **Gordon** on 4 Oct 2003, 6:09 a.m.,*
in response to message #13 by Ed Look

Designed for Klingons....

HP-33S on stun!

*Message #17 Posted by **Norm** on 4 Oct 2003, 1:36 p.m.,*
in response to message #16 by Gordon

Klingons! LOL!

Set your HP-33S to "stun" !

Fire at that rock formation!!

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #18 Posted by **James M. Prange** on 4 Oct 2003, 2:29 a.m.,*
in response to message #1 by NH

My theory is that the drawing for the keyboard got stretched out somehow, and whoever made the molds figured "Well, if that's what they want..."

It looks to me as if the keys are about to leak out of the bottom of the calculator.

But who knows; maybe the kiddies will think that it "looks cool".

But maybe it's supposed to be "ergonomic"? Like those wierd-looking keyboards for PCs, "Wave" or something like that.

I think I'll hold off on buying this one. It looks to me as if it would be very un-ergonomic.

Regards,
James

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #19 Posted by **Naim** on 4 Oct 2003, 5:56 a.m.,*
in response to message #18 by James M. Prange

A lot of people are bashing the 33S, but how much of us will be buying one when it is released? I am dis-satisfied with it's design, primarly because of it's looks. But I will definitely be buying one. And I am sure that most of you all who are bashing it would eventually if not as soon as it is released purchase one.

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #20 Posted by **Wayne Brown** on 4 Oct 2003, 9:20 a.m.,*
in response to message #19 by Naim

I will not ***ever*** buy a 33S. If all my other calculators break and the 33S is the only thing available, I will use my slide rules and give up calculators altogether. But I will ***not*** support such a mostrosity as the 33S in any way.

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #21 Posted by **James M. Prange** on 4 Oct 2003, 9:54 a.m.,*
in response to message #19 by Naim

Well, I suppose that it might turn out to be an ok calculator in spite of the wierd cosmetics.

But I don't feel any great need for such a calculator even if it did have a more conventional appearance. What advantage does it offer me over the 48s and 49s? To be sure, it is smaller, but still seems a bit much for a shirt pocket. No thanks.

Regards,
James

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #22 Posted by **CME750** on 4 Oct 2003, 12:34 p.m.,*
in response to message #21 by James M. Prange

I (and probably many others) will be buying a 33S for one reason alone: it appears to be the best calculator (from any manufacturer) that is explicitly approved by NCEES for use on the professional engineering and land surveying examinations.

I would much rather use my 48GX, but it has been banned.

HP33S (Was a ridiculously long subject line)

*Message #23 Posted by **John Cadick** on 4 Oct 2003, 10:57 a.m.,*
in response to message #19 by Naim

Let me see if I have a grasp of the cogent facts in this thread:

(In no particular order)

1. Some (many?) consider the HP33S to be ugly. 2. Some (many?) blame the design of the 33S and the decline of the HP Calculators on Carly and/or on anyone who works for HP that has an MBA. 3. Some believe that the downhill slide in all calculators started when the LEDs were removed from the display. 4. The HP33S is apparently intended to be a replacement for the HP32SII with 32kB of memory instead of 256B.

My thoughts on these four issues:

1. HP had a non-working model of the 33S at HPCC2003. They expressed concern over the negative comments that they had been receiving and asked us all to look at the 33S and comment. Several objected to its appearance. Several were OK with the appearance. No consensus was reached and no "vote" was taken; however, many seemed to feel that actually having the model in hand resolved some

of the issues. Personally, I have liked the design from the beginning. I also like the design of the older calculators, but I know that any company that stands still - dies. One final comment - if you don't like it, say so. However, this persistent loud bashing accomplishes nothing.

2. At the end of the day, HP must make a profit. Whether we agree with the way they choose to do it or not is irrelevant. In any event, arbitrarily trashing a human being on the basis of having an MBA is silly. All that said, the technical personnel design the products, not the MBAs or Carly.

3. Classic Thunderbird (classic success) and Edsel (classic failure) collectors I am sure believe that all would right in the world if only all cars were modeled after these classics. There is a huge collector's market for them and they sell for many times their original price. This does not mean that reintroducing them would result in an enormously successful resurgence of their commercial sales. Avid interest from a group of (at most) a few hundred die-hard collectors does not make a market.

4. Instead of whining about the design, praise the fact that HP realizes the need for a good, scientific, RPN calculator. If it doesn't sell well, they'll change it to something else.

I don't mean any of this personally; however, I have been dismayed by the amount of negativism displayed on this and other issues.

John

(12345 to delete)

Hey John,

*Message #24 Posted by **Norm** on 4 Oct 2003, 1:42 p.m.,*
in response to message #23 by John Cadick

Hey John, I wonder why the MBA marketeers don't make a dumb stupid "cowcatcher" keyboard for their business-model calculator ? (HP-12C)

I wonder why its OK to "stand still" with the calculator for business, but engineering calculators shall be discontinued?

I wonder why for the business people, they get to keep using the classic from 15 years ago, with a standard keyboard that does NOT look like a hood ornament on a Buick, but for the engineers, we get to use the cowcatcher?

I think our negativisim is more than justified, not only that, it's fun!!!!!! Jump on in, the water is fine!

And the sky is blue for those with HP-32S or 32Sii..... c'mon baby.... $500 a calculator..... USED in good condition!

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #25 Posted by **Ed Look** on 4 Oct 2003, 11:35 a.m.,*
in response to message #19 by Naim

Naim and John, to tell you the truth, I did not hear about any poll from HP over their calculator cosmetics. Also, when I first saw an image, about a month or so ago, I was given pause! It did not really look like a calculator at first glance. However, I do realize that gadgets for the younger set do seem to be designed to have a similar appearance. I suppose there could be worse faceplate designs.

My major real complaint (ugliness really isn't one) with the keyboard layout is that it might be harder to memorize, as that really makes for most efficient usage of the calculator.

I would actually buy a 33S as soon as it came out if I had more "disposable income". One reason for this despite its looks is the "HP" logo: I'm crossing my fingers and hoping that it works and lasts like all other HP calculators I've had.

If my 32SII bit the dust, then I would seriously consider going out and getting one... this is on top of the fact that I already set to buy a HP-49G+.

After having said this, I just might wind up buying a HP-33S in a few months to year or so, as in the words of other posters, "to take the load off my HP-32SII".

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #26 Posted by **Graham Wilson** on 4 Oct 2003, 1:20 p.m.,*
in response to message #19 by Naim

I definitely will not be buying a 33S. The ENTER key is in completely the wrong place and the calculator with its sTRaNgE keyboard looks wierd. I'd be embarrassed to be seen by my colleagues using one. Besides I'm very happy with my 32Sii -- by contrast it looks serious, professional and has ENTER where I expect it to be.

Re: (HP-32Sii) and HP-33S, the latest calculator from Carly (for the mentally retarded)

*Message #27 Posted by **Ed Look** on 4 Oct 2003, 1:35 p.m.,*
in response to message #26 by Graham Wilson

Yeah, it looks like it's designed for the JHS/HS/college crowd. In some ways I still wish I was one of them, but then I'd have missed out on the 34C and 32SII!

HP-33S is $59.99 ??????

*Message #28 Posted by **NH** on 4 Oct 2003, 3:47 p.m.,*
in response to message #27 by Ed Look

MBA's are so brilliant.

First they mandate an HP-33S calculator that looks like trash.

Then they know its so stupid and ugly looking that nobody
will want to buy it.

So how much do they charge for it?? $59.99 suggested price?

In a desperate fit to encourage a few suckers buy it...
sell it for next to nothing.....
to the ones who toss it in a drawer without trying to use it...

Meanwhile they could be getting $130 per unit if they would
merely sell an HP-32S or a HP-32Sii, and they don't
even have to pay anybody to design & tool anything.

Brilliant! Simply brilliant. Those brilliant MBA's
and their marketeering and management brethren.
Time to buy a Dilbert cartoon book..... "
Please dont step in the management".

Again, with the attacks on those of us with MBAs?

*Message #29 Posted by **Gene** on 4 Oct 2003, 5:06 p.m.,*
in response to message #28 by NH

Give it a rest and take it elsewhere. You are exposing your ignorance in public, which is an unwise thing to do.

I guess it's ok to attack MBAs out here. I can always haul out the engineering jokes, but then I have more respect for others than some do here.

Perhaps if you understood profit and loss, you might be able to better communicate.

Gene

P.S. To those who are not as obnoxious...I too wonder why the wild/weird keyboard...but I have it on good authority that once people hold this 33S in their hands, they like it. If you don't, great...go buy a $500 HP-32SII somewhere.

How do you loose an argument with an idiot?

*Message #30 Posted by **Randy** on 4 Oct 2003, 5:18 p.m.,*
in response to message #29 by Gene

You argue with him.

Thank you Gene. Well said.

Re: Again, with the attacks on those of us with MBAs?

*Message #31 Posted by **bill platt** on 6 Oct 2003, 6:49 p.m.,*
in response to message #29 by Gene

Hi Gene,

You know, I know some MBA's--some are cousins, some are friends, others are acquaintences, and the fact is that I do not find a discernable stereotype (except maybe more drive for getting ahead:-) One MBA in my in crowd is very much of a scientist--he runs a small value investment company, which he founded after leaving a big Institutional which he found was going the wrong way. He loves digging into the nuts and bolts of a comnpany--researching it in detail--and then developing a value. He likes this so much, that he has not been doing enough marketing. So, he hired someone else (who is not an MBA but a sharp guy) to do the marketing. In other words, an MBA (in this case Wharton) is merely a tool in the box--he learned some tricks for analysis there, got his foot in the door etc.

Another friend is a Princeton Mech Engineer, who after 4 years in the paper and pulp business, then 4 years in the industrial controls business, went back to school (Kellogg) and earned an MBA. He now works for a major pharmaceutical---teaching hospitals and doctor's groups how the vaccines they are offering work. And he is climbing the ladder.

The point is, MBA does not automatically equate with SLEEZE. There is SLEEZE everywhere and it has NOTHING to do directly with business school. It may have much more to do with, well, the evolution (devolution) of American culture.....

regards,

Bill

That sounds OK Bill Platt,

*Message #32 Posted by **Norm** on 7 Oct 2003, 1:34 a.m.,*
in response to message #31 by bill platt

That sounds OK Bill Platt,
I will reflect upon your words.

Of course you must realize life is so much simpler
if all problems can be blamed onto one category of person :o|

BTW "Sleaze" is spelled "sleaze" not "sleeze".

http://www.dictionary.com

Also "sleazy", "sleaze-ball", "sleaze-bag".

I stand corrected

*Message #33 Posted by **bill platt** on 7 Oct 2003, 10:15 a.m.,*
in response to message #32 by Norm

Sleaze sleeze sleezy cheezy cheazy wheezy pass the greasy greezy freedon fries pleeze freezing popsicles eating bleating sheep

Where am I going? I don't know; go ask your Seuss!

Re: HP-33S is $59.99 ??????

*Message #34 Posted by **CME750** on 4 Oct 2003, 5:29 p.m.,*
in response to message #28 by NH

There are some odd things about the 33S, but its retail price is not one of them.

The 33S replaces the 32SII, which also retailed for about $60. Do a search on Google, and you can still find old advertisements listing the 32SII at that price (don't expect to find any in stock, though).

The cost of the 32SII soared after it was discontinued. It may come down somewhat after the 33S becomes available.

MBA's, hear this: I AM STUNNED

*Message #35 Posted by **Norm** on 5 Oct 2003, 1:41 a.m.,*
in response to message #34 by CME750

MBA's hear this: I AM STUNNED that there are actually a number of MBA types on this chat board who actually defend the stupidity of the HP-33S.

MBA's whom actually think it is reasonable that HP has destroyed their classics such as 41C, and expect technical people to instead use a calculator with keys shaped like a cowcatcher. Who say "its not so bad if you try it".

MBA's, dear friends, if you just read what I said, I rest my case. You are the only ones dumb enough to buy what you advocate. The people intelligent enough to be engineers prefer rectangular coordinates. Perhaps an MBA does not know what those are.

what's next, a keyboard based on polar coordinates? Make the keyboard look like a big round circle ???

Why not make the calculator completely spherical, so that the keys are on all sides of of a big round ball ????

I bet when you actually get it into your hands, it will "not be so bad".

Sheeeshhhhhhh! the lunacy of you business people. Why don't you go buy a Dilbert book, to see what engineers think of you ! No, people actually working with technical realities won't be buying your stupid HP-33S , and its proof that business people have sunk far lower into the gutter than even the most cynical engineers might have imagined !!!!!

Re: MBA's, hear this: I AM STUNNED

*Message #36 Posted by **Eric Lundgren** on 5 Oct 2003, 2:07 a.m.,*
in response to message #35 by Norm

Hey, yeah...I know. If worse comes to worse, we could buy a batch and retro fit them into our own "weird" rectangular layout keybd cases. Just wondering, does the "s" in 33s stand for 'slanted'?

Or maybe we could create an 'overlay' like the ooooold hp's had, and it would be rectangular. That would be the 33R. :)

el

Re: MBA's, hear this: I AM STUNNED

*Message #37 Posted by **Ed Look** on 5 Oct 2003, 2:32 a.m.,*
in response to message #36 by Eric Lundgren

Yeah, but to create such an overlay, you'll have to use the calculator first to solve some transform equations, I imagine, to map the chevron shaped grid onto an orthogonal one. So, I guess, one might as well get used to it's weird layout. ;)

As one who started off with a TI SR-40, my second calculator, which was the HP-34C, needed some getting used to (algebraic to RPN, addressing storage registers, shift keys, etc.). Then, when the formerly trusty ol' 34C started to get a little dotty, I tried to replace it with the HP-48G. The general keyboard layout was very similar, but still wasn't exactly the same and required some getting used to. This was displaced by a HP-32SII (as at the time, I needed more of the 32SII's features than the 48G's). Yet again, I had to adapt to another calculator keyboard, as all the functions and labels, etc., were again in different places from that of the other two.

Admittedly, these were all HP RPN models, but so is the HP-33C. Hopefully, this will give it an underlying similarity to its predecessors so that sloped positions of the keys will be merely the slightest of annoyances. Again, as I said in another post, just being ugly is not really a problem. Compared to the Spices, I think all other calcs just don't look so cool. Functionality over form. In fact, in this very museum site, I think we can all find a calculator or two that may be "beautiful", but may not be much of a joy to use.

Re: MBA's, hear this: I AM STUNNED

*Message #38 Posted by **Eric Lundgren** on 5 Oct 2003, 2:54 a.m.,*
in response to message #37 by Ed Look

Hey Ed,

Ive seen alot of this SPICE on here, what exactly is SPICE? Is there any relation to the spice expansion boards for the 48gx?

eric

Re: MBA's, hear this: I AM STUNNED

*Message #39 Posted by **Graham Wilson** on 5 Oct 2003, 3:09 a.m.,*
in response to message #38 by Eric Lundgren

Eric - "Spice" was the code name given to the HP-33E, 33C, 34C, 38E and 38C calculators of the late 70s and early 80s.

See http://www.hpmuseum.org/3qs/34c3q.jpg for a good example of the aesthetics of the Spice machines that Norm and others have written about.

Re: MBA's, hear this: I AM STUNNED

*Message #40 Posted by **Wayne Brown** on 5 Oct 2003, 11:37 a.m.,*
in response to message #35 by Norm

Norm,

I think it's a bit unfair to use MBA as a derogatory label. While there are, I'll agree, many idiots who become MBAs, there also are many MBAs who are not idiots. The degree someone earns is not a reliable indicator either of intelligence or character. (Personally, I can't imagine anyone being interested enough in business to want to major in it -- I successfully avoided taking any business or accounting classes in high school, college or grad school; I didn't even take high school typing class!). But I know a number of business types who are intelligent, pleasant and reasonable people.

Having said that, I agree with you about how horrible HP's recent calculators (especially the 33s) have turned out to be. I prefer the 41C over the 34C, and unlike you I actually *like* the 48GX (which IMO is the last acceptable HP machine to be made), but otherwise we are in agreement about HP products. I also agree with your low opinion of current HP management, and because of their treatment of Walter Hewlett, I would like to see Carly and the whole board not only unemployed but reduced to poverty and jailed, if possible; but I don't think we can blame it on them being MBAs (if indeed they are). I really don't think engineering degrees would have

saved those people from being scum.

I also share your frustration with those who are willing to settle with HP's current offerings. It's a bit like the case of a former co-worker of mine who was chronically late. His boss finally told him he had one more chance. If he was late again for *any reason* -- it didn't matter if his car broke down, or the roads were closed, or he had to go to the hospital, or whatever -- he would be fired immediately, no questions asked and no appeal. He had already used up all his excuses and second chances, and *no* further excuse would be acceptable. That's the way I feel about HP. They've had *years* to get it right -- and have proven on many occasions that they *can* get it right -- and they have screwed up now so often and for so long that I no longer give them the benefit of the doubt about anything. Either they get *every* detail *exactly* right, or it's completely unacceptable to me. If that seems unfair, well, they shouldn't have squandered their good name on the extremely bad decisions they've made in recent years (and I'm *not* talking just about their calculators).

Second Guessing

*Message #41 Posted by **Patrick** on 5 Oct 2003, 1:37 p.m.,*
in response to message #40 by Wayne Brown

I sure would like to return to the days of old, when HP calculators were solid, understandable, and well documented. I'm sitting on the fence in regards to the 33S. I'd like to hold one in my hand before I make statements I might regret. It sure does look ugly in pictures, though.

I am also a Palm enthusiast and I remember not long ago the discussions that went on in those forums when Palm introduced its low-end Zire model at $99. This thing had only 2MB of memory, no colour, no backlight, and only a couple of the standard application launcher buttons on the front. In a place where people were looking for MP3 and video playback, built-in cameras and WiFi, it did not impress. Of course, by all accounts, Palm went on to sell a bazillion of them, with the Zire becoming the most popular handheld of all time.

Those "dumb" MBA's sure got lucky, eh?

Wayne.... Calc's need to be Agilent

*Message #42 Posted by **Norm** on 5 Oct 2003, 3:16 p.m.,*
in response to message #40 by Wayne Brown

Hi Wayne, I agree. I like your style.

One other pointer..... calculators need to be over at "Agilent". Agilent took all the scientific instruments and HP went on to build personal computers (wow).

AGILENT is why we still have microwave spectrum analyzers, impedance analyzers, and other sophisticated tools in production. The "Carly" types would've simply said 'derr wuts all this' and discontinued it.

AGILENT should have the calculator products also. THIS is the essential heart of our problem. I have often suggested we need a PETITION to move calculators over to Agilent..... but nobody has bit on that idea yet. Considering the "Chevron" HP-33S, moving calculators to Agilent is, obviously, our only hope!

Re: Wayne.... Calc's need to be Agilent

*Message #43 Posted by **Wayne Brown** on 5 Oct 2003, 6:16 p.m.,*
in response to message #42 by Norm

I absolutely agree; Agilent is now the "real HP" as far as I'm concerned.

A few months ago I read something the head of Agilent said. He was explaining an unpleasant decision he had to make -- I believe it involved layoffs -- and he said something like, "I always ask myself, what would Bill and Dave do in this situation?". *That's* the kind of person that ought to be running HP.

Wayne..... about that head of Agilent

*Message #44 Posted by **Norm** on 5 Oct 2003, 6:56 p.m.,*
in response to message #43 by Wayne Brown

Hi Wayne,

you mentioned the head of Agilent asked "what would Mr. Hewlett and Mr. Packard do" about a problem.....

Got the name of that executive? I am ready to write him about this festering problem of 'no calculators for the engineers'...

Re: Wayne..... about that head of Agilent

*Message #45 Posted by **Wayne Brown** on 6 Oct 2003, 12:14 p.m.,*
in response to message #44 by Norm

Norm,

You can find the article (from April 2002) to which I referred here:

http://groups.google.com/groups?selm=a9ntpn0reu%40enews3.newsguy.com

Here is a relevant excerpt from it (there's much more at the link I gave above):

"Agilent is run by three people, one of whom is alive. At the earthly level, there's CEO Ned Barnholt. Barnholt, a 35-year veteran of HP, sports big gold-framed glasses that droop slightly at the sides. He wears his gray hair in a comb-over. He is completely without pretense. When Barnholt, 58, chats with employees--something he does frequently enough that in the past six months he's given speeches to and taken questions from some 20,000 workers--they call him Ned; calling him "Mr. Barnholt" elicits giggles from employees. But while Barnholt manages the company, he seems to consider himself only a caretaker for HP founders Dave Packard and Bill Hewlett. All big decisions are vetted with the question, What would Dave and Bill do?

"Indeed, the entire company functions on the premise that it is the real heir of Packard and Hewlett. When HP's house archivist had to choose between staying at HP or going with Barnholt, she went with

Agilent. The company's Palo Alto headquarters is home to Hewlett and Packard's original 200A Audio Oscillator, which launched HP, and its labs still churn out testing and measurement devices. But even more, Agilent considers itself the true keeper of the HP Way--the management objectives devised by Hewlett and Packard that spelled out how to treat customers, shareholders, and most of all employees. The Way's key precept is that workers will give their best if they're treated honestly and listened to. In his 1995 book The HP Way, Packard asserted that making people feel that they are working toward a common purpose or solving a common problem creates "participatory management." To get there, all managers had to keep to a strict open-door policy and practice MBWA--management by walking around."

Re: HP-33S is $59.99 ??????

*Message #46 Posted by **Eric Lundgren** on 5 Oct 2003, 2:01 a.m.,*
in response to message #34 by CME750

Yes, the 32sii is hard to find without an ebay fight. The looks of the 33s kbd layout seem to be the biggest fear of mine.

I still don`t know what the memory will be, but Ive gotten pretty used to the 364 of the 32sii. There are two aspects to the success of the 33s in my op.: assuming the calculator functions well, (click?) those taking PE exams might need a non graphing/infrared/usb..yadda... machine. For them the 33s may be a savior. But the old school of big enter keys and thoughtfully laid out kbds may twitch at the sight. I am one of the old school, but I will be giving it a chance, if it has potential, I'll add it to my seedling collection. Best of luck! el

HP-12C and HP-12CP RETROFIT service for MBA

*Message #47 Posted by **Norm** on 5 Oct 2003, 3:26 p.m.,*
in response to message #46 by Eric Lundgren

This has been a fun thread. I may have been too harsh on "marketeer mafia MBA enron business" types of people, but it was just due to shock of seeing the HP-33S in a photo:

http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=363&Sku=HP33S

To offer apologies and "bury the hatchet", as an electrical engineer, I now offer "retrofit services" for any marketeer, MBA, or businessman with an HP-12C or an HP-12CP. That's the prized 'classic' business calculator that has the obsolete orthogonal keyboard (yet was kept in production so that you can do your business calculations).

What you do is mail me your HP-12C or HP-12CP. I will carefuly retrofit your calculator to be just like the HP-33S.

I will carefully clamp your business HP-12C into my bench vise, and then I will bend the keyboard using a couple of pliers, until it has the SAME angle as the HP-33S (about 30 degrees) so that you business people can enjoy the same angle'd keyboard that you present to the engineers.

I will do this retrofit at no charge, and even pay return postage, just to show I am on your side about the new keyboard angle.

:o) I am serious. Start sending HP-12C and I will return them as promised, postage pre-paid, retrofitted to HP-33S style. Since you business types were just now very serious that you "like" the HP-33S, I expect some takers on my retrofit offer.

Re: HP-12C and HP-12CP RETROFIT service for MBA

*Message #48 Posted by **Luca** on 6 Oct 2003, 3:42 a.m.,*
in response to message #47 by Norm

Hi Norm,

I have again to disagree with you, but in a constructive way.

I am (unfortunately) a business type, but without MBA (I preferred to use my time for serious things like women, beer and work..) and I use my HP-12C and HP-41C daily.

I don't want my old calculators to be customized, but I suggest some features to be added to the 33S (besides cell phone and MP3 player, as you know):

1) Vibracall - it has several uses, including some for Carly ! 2) GPS 3) Pac-Man and Asteroids 4) Built-in Hitchhikers' Galactic Guide 5) Coffee machine 6) Another (spare) equal key instead of the old-fashioned ENTER key 7) DON'T PANIC ! key 8) Self-destruction key 9) Calculator-shaped condom

This will certainly increase the sales and I will (perhaps) buy one !

Best regards,

Luca (Switzerland)

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41C Shuts Off

*Message #1 Posted by **Bruce Butler** on 2 Oct 2003, 10:10 p.m.*

I dusted off my 41C after several years of non-use, only to find that it will shut itself off after being on 10 - 15 seconds.

New batteries are installed, tried master clear, still no luck.

Any ideas?

Re: 41C Shuts Off

*Message #2 Posted by **Randy Sloyer** on 2 Oct 2003, 11:53 p.m.,*
in response to message #1 by Bruce Butler

The dust bunnies have attacked. See this previous thread:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=41234

Edited: 2 Oct 2003, 11:53 p.m.

Re: 41C Shuts Off

*Message #3 Posted by **Matt Kernal (US)** on 3 Oct 2003, 6:25 p.m.,*
in response to message #2 by Randy Sloyer

Unfortunately, my 41 (the one you referenced in your link, Randy) didn't cure itself after cleaning w/ alcohol. The next step is to buy the MoHPC CD's/DVD to determine the capacitor (type, size, location) that needs replacing.

Thanks for your advice, Matt

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Luis Viera where are you?

*Message #1 Posted by **Charles L** on 2 Oct 2003, 6:44 p.m.*

Hi Luis,

I think a few months back you countered me with a shorter 32sii program for computing the cross product of two vectors. My original was VERY long and actually stored the results as variables (!!) hahaa. Well, I was fooling around and I realized a shorter, albeit harder for the user to input code would be:

LBL V INP A INP E X INP D INP B X - INP C RCL XD INP F RCL XA - RCL B RCL XF RCL E RCL XC - RTN

When executing, it prompts you for the components out of order, so you'd have to adhere to <A,B,C>x<D,E,F>. It's 17.4% on memory though (28.5 vs. 34.5) :)

Please, before tearing me apart, know that I am extremely amateur at programming, but it is very fun :) cl

I "heard" my name...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 3 Oct 2003, 1:02 a.m.,*
in response to message #1 by Charles L

Hello, Charles;

Thank you for asking; I'm "about" here...

I'm absolutely running out of time, I'm teaching more classes than I thought I'd be required to, and time is "slicking through my fingers..." I'm finding a way to handle it so far.

About your program:

```
V01 LBL V
V02 INP A
V03 INP E
V04 ×
V05 INP D
V06 INP B
V07 ×
V08 -
V09 INP C
V10 RCL ×D
V11 INP F
V12 RCL ×A
V13 -
V14 RCL B
V15 RCL ×F
V16 RCL E
V17 RCL ×C
V18 -
V19 RTN
```

I remember reading, but I am almost sure someone else wrote a shorter version for the HP32SII. I remember that many complex routines were suggested for a complex [ENTER], but I do not recall showing a shorter

cross-product solution. In any way, yours is a clever way to reduce memory requirements. I'd try a program where A, B and C are entered in sequence (A [ENTER] B [ENTER] C) prior to execute it; right after storing them, the program would stop again so you'd enter C, D and E the same way you entered A, B and C. Maybe this program would not use registers C, D and E, but it would be bigger in order to handle all data in a different way. Something like:

```
V01 LBL V
V02 STO C
V03 Rv (roll-down)
V04 STO B
V05 x<>y
V06 STO A
V07 STOP
V08 ...
```

It's easy to see it's gonna need more memory than yours. Also, as it would be necessary to press [ENTER] between entries, you'll just use [R/S] as well. As I mentioned, yours is a clever solution, I think. And if this program is, as you call it, an amateur's version, I wonder what will you be doing soon with your 32SII! "Keep on doing the good job", I'd say!

Thank you for your remind, but I am almost sure the shorter program from your first version was another contributor's contribution.

Best regards. (it's 2:00 A.M in Brazil right now... See yah later |^0 zzz...)

Luiz (Brazil)

Edited: 3 Oct 2003, 1:12 a.m.

Re: I "heard" my name...

*Message #3 Posted by **Iqbal** on 3 Oct 2003, 5:15 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hey luiz I was wondering where you were. Glad everything is OK.

Re: I "heard" my name...

*Message #4 Posted by **Charles L** on 3 Oct 2003, 2:50 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Great to see you on here again :)

Yes, your idea of calling the stack for the first 3 components had struck me shortly after I submitted my pgrm to the museum. That has my attention now, and I'm also thinking of merging two or three 'vector' type computation programs into one to reduce the need for repetitive memory wasted on 'input A...B..C'. It really is fun to try to squeeze a few extra bytes here and there :)

Good luck with the classes!

cl

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HP-48G II available in Switzerland

*Message #1 Posted by **Juergen (CH)** on 2 Oct 2003, 6:10 p.m.*

Anyone ordered (and already got) one? Review wanted!

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No RPN calcs. anymore??

*Message #1 Posted by **Arun** on 2 Oct 2003, 5:26 p.m.*

Hard to believe but does HP not make RPN scientific calculators anymore? I have a 15C, bought in 1984, and a 48G, bought in 2000. I'd love to get my hands on a 42S or 32SII, or equivalent, but they're priced so exorbitantly on sites like Ebay, etc.

I wonder if HP realized what they're missing by ending production of RPN scientific calculators.

Comments??

Re: Several are on the way . . .

*Message #2 Posted by **Paul Brogger** on 2 Oct 2003, 5:54 p.m.,*
in response to message #1 by Arun

It may be that the HP-12C/CP is the only pure RPN line left.

But H-P is going to make several new models which are optionally (user-selectable) RPN or AOS.

See The Samson Cables Catalog for more info . . .

I like RPN but...

*Message #3 Posted by **Mike** on 2 Oct 2003, 10:13 p.m.,*
in response to message #1 by Arun

I like RPN just as well as others but I don't understand the big deal with RPN vs Algebraic. Neither is really any better (really) than the other. It's simply personal preference.

Being that, the world is comprised of mostly algebraic people. From a business sense, it makes sense to drop the RPN. It is a much smaller market and really offers nothing that can't be done by the algebraic calculators.

It's like FORTH. Many like it but it's a tiny part of the computer segment.

Re: I like RPN but...

*Message #4 Posted by **tmstock** on 3 Oct 2003, 2:38 a.m.,*
in response to message #3 by Mike

I think algebraic mode makes great sense for music majors and Fortran programmers - they are well used to the extra punctuation necessary.

My dad also mentioned that there were bunches of guys at Cornell in the 50's that got along well with those cheapie printed metal slide rules instead of decent Versalogs and Decilons, etc.

I guess it's a matter of taste after all.

Re: I like RPN but...

*Message #5 Posted by **Chris(FLA)** on 3 Oct 2003, 10:44 a.m.,*
in response to message #3 by Mike

> Quote:
>
> I like RPN just as well as others but I don't understand the big deal with RPN vs Algebraic. Neither is really any better (really) than the other. It's simply personal preference.

Fewer keystrokes for a given problem. Wasn't that _one_ of the reasons HP decided to use RPN?

delete: 12345

Re: I like RPN but...

*Message #6 Posted by **Ron Ross** on 3 Oct 2003, 11:30 a.m.,*
in response to message #5 by Chris(FLA)

While that is Hp's advertised reason, the real reason was functions and features vs. adding AOS and giving up functions. The earlier machines (ie Hp35) had very limited memory to add features. RPN made the user keep track of operations, which made for fewer keystrokes as a bonus. This bonus of fewer keystrokes sounds better than, "We don't make algebraics because we can't offer Algebraic input and trig in the same pocket calculator (this applied to the Hp35)." That the Hp35 was so popular and RPN was so good kept RPN as the preferred OS for Hp calcs for the next two decades.

Re: I like RPN but...

*Message #7 Posted by **r. d. bärtschiger.** on 3 Oct 2003, 7:06 p.m.,*
in response to message #3 by Mike

In addition to numerous HP calculators, I also have a few other brands. Whenever I buy another type of calculator I always use the following equation, from page 106 of the HP-67 Owner's Handbook, to test the useability of the new calculator. Using an HP calculator usually takes about 45 seconds to get the correct answer. Using an algebraic calculator usually takes much longer, twenty minutes or more, if it in fact can solve the problem at all. This equation calculates the Mach number given pressure altitude and calibrated air speed. All the variables have been substituted into the equation, you need only calculate the answer.

M= sq. root of [5 [({[(1 + 0.2 [350/661.5]^2)^3.5 -1]

[1- (6.875^10-6) 25500]^-5.2656 } +1)^0.286 -1]]

Even trying to enter this equation into an HP-48GX or 49G+ equation writer is a difficult task.

If you really want to see how much easier RPN is, try to calculate the answer to this problem using an algebraic calculator. Post your answer and an honest estimation of how long it took you and I will then post the correct answer as given in the 67 handbook. I think you will agree the HP is easier.

rdb.

Re: I like RPN but...

*Message #8 Posted by **Ed Look... unless I messed it up** on 3 Oct 2003, 7:53 p.m.,*
in response to message #7 by r. d. bärtschiger.

I used the HP-48G strictly with RPN entry and I got 8.35049933621x10^-13 as the answer, though in about 2 and a half minutes, glancing at the 48G's clock display in the upper right hand corner.

As a note, I first tried my HP-32SII and it didn't work, as I got an "Invalid y^x error". Then I went to my favorite, though somewhat intermittent HP-34C, and got an "Error 0". I broke down and reached for the 48G.

After looking at R. D. Baertschiger's convoluted Mach equation, I WASN'T going to even try with the algebraic HP-20S (and definitely not with the Radio Shack algebraic scientific (cat. no. 65-1081) (double for the Sentry scientific).

Re: I like RPN but...

*Message #9 Posted by **r. d. bärtschiger.** on 3 Oct 2003, 8:05 p.m.,*
in response to message #8 by Ed Look... unless I messed it up

Sorry you thought the equation was convoluted. I tried to copy it as shown in the 67 handbook. The two lines should of course be all on one line. The square root is taken of the entire rest of the equation. As I said, just entering it into the message was a chore. As to your answer... Sorry, wrong answer. Please try again.

rdb.

Re: I like RPN but...

*Message #10 Posted by **Ed Look** on 4 Oct 2003, 11:49 a.m.,*
in response to message #9 by r. d. bärtschiger.

Mr. Baertschiger, this time I got 0.835724535179 (to include all the digits) again using the HP-48G, but it took one minute and a half, using Mr. Hardman's display of the equation.

Please allow me to point out that on your posting, you specified 6.875^10-6, which I did not understand properly (and I apologize!) when I expected 6.875x10^(-6).

Re: I like RPN but...

*Message #11 Posted by **r. d. bärtschiger.** on 4 Oct 2003, 12:24 p.m.,*
in response to message #10 by Ed Look

Yes! You are correct. I just realized this mistake myself a few minutes ago. I was about to post a correction. I guess it is a little late now for that. I think you will agree however, that rpn is much easier than any other method.

rdb.

Re: I like RPN but...

*Message #12 Posted by **Ed Look** on 4 Oct 2003, 2:31 p.m.,*
in response to message #11 by r. d. bärtschiger.

Hee hee hee... you are preaching to the converted! After my first taste of RPN, I was hooked. It was the 34C, by the way.

And since now I have the correct Mach equation, I'll try it again on the 34C (if I can get all the LEDs to light up) and on the 32SII. If you are interested, I'll let you know how I

did.

Re: I like RPN but...

*Message #13 Posted by **el** on 5 Oct 2003, 2:19 a.m.,*
in response to message #9 by r. d. bärtschiger.

Is the answer 6.9541e-1? I used my 32sii. I love rpn, but after 7.5 hrs of hw, and a bru-ski, well..you know.

el

Re: I like RPN but...

*Message #14 Posted by **Ed Look** on 5 Oct 2003, 2:46 a.m.,*
in response to message #13 by el

No. Check one of Mark Hardman's posts in the thread; he has a corrected version of the way the equation is laid out. I strongly suspect you may have calculated using an incorrect version of it.

Re: I like RPN but...

*Message #15 Posted by **r. d. bärtschiger.** on 3 Oct 2003, 8:37 p.m.,*
in response to message #8 by Ed Look... unless I messed it up

I just re-read your answer, remember we are looking for a mach number for an airplane in flight. Therefore the answer will be between ca. .25 & 1.

I have entered this equation into a word document where it looks as it should. However I have not been able to figure out how to paste the equation by itself into a message here on the museum.

rdb.

Mach No Formula = Re: I like RPN but...

*Message #16 Posted by **Mark Hardman** on 3 Oct 2003, 9:15 p.m.,*
in response to message #7 by r. d. bärtschiger.

How is this?

http://www.thfweb.com/mohpc/mach_no.gif

Edited: 3 Oct 2003, 9:16 p.m.

Re: Mach No Formula = Re: I like RPN but...

*Message #17 Posted by **r. d. bärtschiger.** on 3 Oct 2003, 9:23 p.m.,*
in response to message #16 by Mark Hardman

Yes. That is the equation exactly. May I be so bold as to inquire how you entered it here? Thank you.

rdb.

Re: Mach No Formula = Re: I like RPN but...

*Message #18 Posted by **Mark Hardman** on 3 Oct 2003, 9:34 p.m.,*
in response to message #17 by r. d. bärtschiger.

Nothing magical. I cut the image straight out of the HP-67 manual on the MoHPC DVD, saved it as a .gif and uploaded it to my web site.

By the way, I was able to crank through this in 10'13" using the low end HP-20S. I ran out of paren () levels well before the inner-most 350/661.5 term. I had to start over and use a storage register.

The answer is 0.8357.

It took me 2'43" to get the same result on a HP-41CX.

Mark Hardman

Re: Mach No Formula = Re: I like RPN but...

*Message #19 Posted by **r. d. bärtschiger.** on 3 Oct 2003, 9:45 p.m.,*
in response to message #18 by Mark Hardman

Mr. Hardman:

Your answer is correct, however I was hoping Mike would respond.

rdb.

Re: Mach No Formula = Re: I like RPN but...

*Message #20 Posted by **Eric Lundgren** on 5 Oct 2003, 2:35 a.m.,*
in response to message #19 by r. d. bärtschiger.

Whoo! Ok, I got it on my third try. 8.3472e-1 on my favorite machine as of now, the orange/blue printed 32sii! This is a great way to unwind after a stressy day! I'd love to see the ti kids fiddling with this one....'hang on my -89 says I'm missing a parenthesis...uh..hmmm..lemme start over....hey what'd you get?' Great fun. No hard feelings ti-sypathetics, I got through my first physics course with an 86.

el

for the records...

*Message #21 Posted by **R Lion (España)** on 4 Oct 2003, 10:53 a.m.,*
in response to message #16 by Mark Hardman

I got the correct answer at first attempt on my 15c and on my 48GX, but I needed three attempts on my algebraic Casio fx-4000p :-P
I love RPN

Raul

Edited: 4 Oct 2003, 10:55 a.m.

Re: I like RPN but...

*Message #22 Posted by **r. d. bärtschiger.** on 3 Oct 2003, 9:47 p.m.,*
in response to message #7 by r. d. bärtschiger.

The correct answer is: 0.835724535179

given in the 67 handbook as 0.84

The proper key stroke sequence is:

350 ENTER

661.5 /

X^2

.2 *

1 +

3.5 Y^X

1 -

1 ENTER

6.875 EEX CHS 6

ENTER

25500 *

-

5.2656 CHS Y^X

*

1 +

.286 Y^X

1 -

5 *

SQ. ROOT

rdb.

Re: I like RPN but... not rpn (71b version)

*Message #23 Posted by **Terry Ingram** on 4 Oct 2003, 1:10 a.m.,*
in response to message #22 by r. d. bärtschiger.

The same equation keyed into a 71b...

SQR(5*((((1+.2*(350/661.5)^2)^3.5-1)*(1-(6.875E-6)*25500)^(-5.2656)+1)^.286-1))

I'm a fan of RPN also.

Terry

Re: I like RPN but... any 48gx equation writer examples

*Message #24 Posted by **Terry Ingram** on 4 Oct 2003, 12:54 p.m.,*
in response to message #23 by Terry Ingram

Can a 48gx user please post a step-by-step procedure for solving the Mach problem posted by Mark Hardman, usign the equation writer of the 48gx?

I have a 48gx, but have only learned how to use the basic rpn operations. This would be a big help to see side-by-side examples/procedures.

If the equation writer is not the best way to solve this, are there another way, besides using the rpn keystrokes as listed in a previous post?

Thanks, Terry

Re: I like RPN but... any 48gx equation writer examples

*Message #25 Posted by **r. d. bärtschiger.** on 4 Oct 2003, 1:32 p.m.,*
in response to message #24 by Terry Ingram

The easiest way is is to use the rpn keystrokes as I listed them earlier. I have also tried to enter this equation into the equation writer of both a 48gx and a 49g+. It can be done, but is much more difficult because you can not see all of the equation at one time as it takes up more and more of the screen. Also making corrections is not very straight forward.

I will try to to make a list of the necessary keystrokes to enter it into the equation writer and post the list later.

rdb.

Re: I like RPN but... any 48gx equation writer examples

*Message #26 Posted by **r. d. bärtschiger.** on 4 Oct 2003, 3:19 p.m.,*
in response to message #25 by r. d. bärtschiger.

Here are the keystroke sequences for entering the equation into an HP-48GX or HP-49G+ calculator:

Procedure for HP-48gx:

left shift equation

square root

5

left shift parenthesis

left shift parenthesis

left shift parenthesis

left shift parenthesis

left shift parenthesis

1 + 0.2

left shift parenthesis

350 / 661.5

right arrow

right arrow

y^x

2

right arrow

right arrow

y^x

3.5

right arrow

- 1

right arrow

left shift parenthesis

1 -

left shift parenthesis

6.875 * 10 y^x chs 6

right arrow

right arrow

25500

right arrow

y^x

chs 5.2656

right arrow

right arrow

+ 1

right arrow

y^x 0.286

right arrow

- 1

right arrow

enter

You should now store the equation:

'machno' STO

If the equation was entered correctly, then pressing

'machno'

then 'eval' should return 0.84.

If not then check the equation as entered and edit it as necessary.

Procedure for HP-49G+, must be set to 'rpn' mode:

right shift eqw

square root

5

left shift parenthesis

left shift parenthesis

left shift parenthesis

left shift parenthesis

left shift parenthesis

1 + 0.2

left shift parenthesis

350 / 661.5

right arrow

right arrow

y^x

2

right arrow

right arrow

right arrow

right arrow

y^x

3.5

right arrow

- 1

right arrow

right arrow

right arrow

*

left shift parenthesis

1 -

left shift parenthesis

6.875 * 10 y^x chs 6

right arrow

right arrow

right arrow

right arrow

*

25500

right arrow

right arrow

right arrow

right arrow

y^x

chs 5.2656

right arrow

right arrow

right arrow

right arrow

+ 1

right arrow

right arrow

y^x 0.286

right arrow

- 1

enter

You should now store the equation:

'machno' STO

If the equation was entered correctly, then pressing

'machno'

then 'eval' should return 0.84.

If not then check the equation as entered and edit it as necessary.

rdb.

Re: I like RPN but... any 48gx equation writer examples

*Message #27 Posted by **Terry Ingram** on 4 Oct 2003, 3:42 p.m.,*
in response to message #26 by r. d. bärtschiger.

Thanks for this example. I'll give it a try...

Looks quite a bit more complicated than RPN. In fact, almost everything that I try to accomplish with the 48gx takes longer and is more difficult than the more simple RPN keystroke models.

I'm not trying to bash the 48gx, but only admitting that I don't fully understand how to operate the machine, but still want to continue trying to learn.

Your equation editor procedure will certainly help.

Can the 48gx also use parenthesis to solve the Mach formula without using the equation editor, similar to the 71b listing previously posted?

I use RPN (41cv, 32Sii)for a lot of calculations, but still find the 71b style of entry

easy for some formulas also.

Thanks again for your time, Terry

Re: I like RPN but... any 48gx equation writer examples

*Message #28 Posted by **r. d. bärtschiger.** on 4 Oct 2003, 4:10 p.m.,*
in response to message #27 by Terry Ingram

Can the 48gx also use parenthesis to solve the Mach formula without using the equation editor, similar to the 71b listing previously posted?

Yes. However you need to add a few more pairs of parenthesis at certain places, there are already enough of these, and then if you need to edit the equation, it will be loaded into the equation writer anyway. Why not just stick with 'rpn'? Much easier.

rdb.

Re: I like RPN but... any 48gx equation writer examples

*Message #29 Posted by **GE (France)** on 4 Oct 2003, 5:49 p.m.,*
in response to message #28 by r. d. bärtschiger.

Interesting test. When I tried it, two strange things happened : 1) I typed the equation in under 30 seconds on the algebraic machine that was available at the time (shame prevents me from saying what it was, but it's under the $50 tag) 2) The result displayed is 0.8279147828

Can this test be THAT simple and the result be THAT inaccurate ??

MetaKernel 48gx equation writer examples

*Message #30 Posted by **R Lion (España)** on 4 Oct 2003, 6:03 p.m.,*
in response to message #29 by GE (France)

With the MetaKernel, the equation writer is diferent and faster (very very faster)

Sq root
5
*
1
up
+
.2
*
350
up
/
661.5
right
yx (this means "raised")
2
right

right
right
yx
3.5
right
-
1
right
*
1
up
-
6.875
EEX
6 +/-
*
25500
right
right
yx
5.2656 +/-
right
right
+
1
right
yx
.286
right
-
1
enter

EVALuating this, you must get 0.835724535179

Edited: 4 Oct 2003, 6:08 p.m.

Re: I like RPN but... any 48gx equation writer examples

*Message #31 Posted by **r. d. bärtschiger.** on 4 Oct 2003, 6:58 p.m.,*
in response to message #29 by GE (France)

Hard to say why your answer is different. Perhaps you entered a number wrong or a function. The point is; Now that you see that a wrong answer could happen are you really ready to trust algebraic input? I am not, therefore I will continue to use rpn.

rdb.

Re: I like RPN but... any 48gx equation writer examples

*Message #32 Posted by **Mark Hardman** on 4 Oct 2003, 7:15 p.m.,*
in response to message #29 by GE (France)

You mis-keyed the 25,500 term. I get the same (wrong) answer if I use

25,000. This mistake likely was caused by your need to concentrate on the level of parens in use and not on the values being entered.

<grin>

Mark Hardman

Edited: 4 Oct 2003, 7:16 p.m.

Re: I like RPN but... you are right. RPN is easier

*Message #33 Posted by **Terry Ingram** on 4 Oct 2003, 9:10 p.m.,*
in response to message #28 by r. d. bärtschiger.

There's no argument here. I like RPN too.

I still like to use the 71b and probably would vote the 71b as my "must have" calculation device. I just wish the machine had RPN style entry. I sometimes use the RPNLEX file created by JR Baker with the 71b. This is really a great lex file, but the program is missing storage register ability.

Thanks again for the procedure listings, Terry,

Re: I like RPN but... any 48gx equation writer examples

*Message #34 Posted by **Rodger Rosenbaum** on 5 Oct 2003, 4:41 a.m.,*
in response to message #26 by r. d. bärtschiger.

A much easier way to get it into the Equation writer is to simply type in:
'Sqrt(5*(((((1+.2*(350/661.5)^2)^3.5-1)*(1-6.875E-6*25500)^-5.2656)+1)^.286-1))'
(type the square root symbol on the keyboard instead of Sqrt)
Then press the down arrow on the keyboard to begin editing in the Equation writer. You will see the expression in all its glory. Scroll back and forth with the left and right arrow keys.

Correct answer is...

*Message #35 Posted by **Tizedes Csaba** on 6 Oct 2003, 4:12 p.m.,*
in response to message #22 by r. d. bärtschiger.

> Quote:
>
> given in the 67 handbook as 0.84

I think, this is the correct answer. I don't know what's that formula (but I'll an mechanical engineer - specialised for fluid's mechanics).

That's seems to me like a empirical formula. And all of terms have got 4-5 significant digits. If we use this calculations, the result's significant digits no more than 2 or 3.

And what's this M really ;) ? (M=0.84 is enough, I think...)

Csaba

Re: No RPN calcs. anymore??

*Message #36 Posted by **Valentin Albillo** on 3 Oct 2003, 8:47 a.m.,*
in response to message #1 by Arun

Arun posted: *"I wonder if HP realized what they're missing by ending production of RPN scientific calculators."*

First, there's no "ending" at all, HP's releasing new scientific calculators with RPN and/or RPL modes right now.

Second, HP would miss *nothing* if they stopped dead production of RPN/RPL calculators altogether. Only a bunch of die-hards like us care at all about RPN, the 99.999% of people using a calculator couldn't care less about it, and it's not clear at all that they're "missing" anything and need to be "saved" from their error in not realizing just how superior RPN is, because to begin with, it actually isn't. The mere fact that you or me like it does not make it "superior" in the least.

That being so, HP is not a charity but a profit-driven organization, and if RPN calcs aren't economically profitable, which frankly they aren't, they're doing the right thing dropping them out of production. If it were your enterprise and your money, you'd do the same.

Anyway, you'll be able to sharpen your teeth with the new Kinpo ... erm, I mean HP, models. They'll calm your addiction for a while but think twice before introducing any children of yours to the joys of RPN: it's a crippling, blinding addiction for sure. Or would you prefer to be in the losing side of the Beta vs. VHS rage ? :-)

Best regards from V.

Re: No RPN calcs. anymore??

*Message #37 Posted by **Larry Corrado, USA (WI)** on 3 Oct 2003, 8:23 p.m.,*
in response to message #36 by Valentin Albillo

I think valentin's post makes the most sense of anything I've read in the Forum today.

LC

Re: No RPN calcs. anymore??

*Message #38 Posted by **Wayne Brown** on 4 Oct 2003, 10:16 a.m.,*
in response to message #37 by Larry Corrado, USA (WI)

> Quote:
>
> I think valentin's post makes the most sense of anything I've read in the Forum today.

It makes sense if you think of HP as just another moneygrubbing company trying to make a few bucks. I used to think HP was better than that...

Re: No RPN calcs. anymore??

*Message #39 Posted by **Euclid (Jack)** on 4 Oct 2003, 2:51 a.m.,*
in response to message #36 by Valentin Albillo

Valentin Albillo said, in response to No RPN calcs. anymore??, posted by Arun

They'll calm your addiction for a while but think twice before introducing any children of yours to the joys of RPN: it's a crippling, blinding addiction for sure. Or would you prefer to be in the losing side of the Beta vs. VHS rage ? :-)

******

Go ahead and introduce your kids to the joys of RPN. With computers decreasing in size and increasing in power and portibility, there will always be plenty of "software" RPN for the beautiful minds, even if HP does manage to kill the hardware version. RPN WILL LIVE ON!

It's too late for Beta though, Sorry.

Euclid www.livingsoftware.net

Re: No RPN calcs. anymore??

*Message #40 Posted by **Eric Lundgren** on 5 Oct 2003, 3:04 a.m.,*
in response to message #39 by Euclid (Jack)

Well, I'd rather be an RPN user forced to convert back to algebraic, that poses no difficulty. The only problem is being a little slower for a while. Now, learning rpn, and I mean REALLY learning rpn, is something that takes some effort.

I used to be a power house algebraic ti86-er, yeah I could evaluate expressions quickly, but after returning to the rpn platform, I appreciate the thought process that is involved with rpn. Consider this, using rpn takes some thought, algebraic does not really. I get some satisfaction from knowing that thought goes into my calculations, and that I'm not just a data-enterer. I understand that there are people out there committed to algebraics, and that is ok with me. I think that you will become fluent in any form of entry you practice. Let's all just enjoy what we have and appreciate that we have choices, :)

el

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HP Forum Archive 13

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HP 82162A repair drive belt

*Message #1 Posted by **Ron Gardner** on 2 Oct 2003, 1:55 p.m.*

I have read the post by Dave Mabry regarding the drive belt for the 82162A printer. I am having no luck finding the Projector-Recorder Belt Company(www.russellind.com) belt (SCX-2.4). Does anyone else have a suggestion where I might find an 'O' ring or .75" x .04" belt?

As Dave stated it appears that most standard 'O' rings are about .070" wide. Without this little 'O' ring / belt I'm afraid I'll never be able to revive my old thermal printer... HELP oops didn't mean to shout.

Re: HP 82162A repair drive belt

*Message #2 Posted by **Dave Mabry** on 3 Oct 2003, 11:37 a.m.,*
in response to message #1 by Ron Gardner

Shoot me a private e-mail with your snail mail address and I'll see if I have an extra. There was a minimum order that I had to buy when I needed one.

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HP Forum Archive 13

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The ENTER key, kbd density 49g+

*Message #1 Posted by **Charles L** on 2 Oct 2003, 1:14 p.m.*

I was reasoning about HP's insistance of the small enter key, and was staring at the 49g+ pics...its just my opinion, but look at the up/dwn/lft/rght toggle buttons, and the vast acreage surrounding them, could not a little compromise in size here have accomodated a big enter key?

I'm assuming that those u/d/l/r keys have some significant stuff going on under the key plate to warrant such isolation, what do you think?

Any thoughts?

cl

Re: The ENTER key, kbd density 49g+

*Message #2 Posted by **Dave** on 2 Oct 2003, 2:09 p.m.,*
in response to message #1 by Charles L

There is no reason to not have a large ENTER key except for marketing insistance that it would confuse customers that it is not in the same place as other calculator manufacturers or an indication that the calculator is too difficult to use.

Re: The ENTER key, kbd density 49g+

*Message #3 Posted by **Brandon Del Bel** on 2 Oct 2003, 4:29 p.m.,*
in response to message #1 by Charles L

I believe HP actually does know what people want, and when I say "people," I don't mean a few old guys who stubbornly hold on to HP tradition. Compare the layout of the 49 series to most of the TI graphers, and you will see a resemblance. A rediculously large enter key would very much discourage everyone who has been brought up on TI calculators since middle school. Secondly, the arrow keys of the 49Gs are separated for a reason (also owing to TI): you can find them a whole lot easier than those on the 48. Now please don't tell me that the new enter key is hard to find... I would be amazed if all the 8th grade algebra students can find it and you can't.

No hard feelings, it's all in good fun :)

Re: The ENTER key, kbd density 49g+

*Message #4 Posted by **Charles L** on 2 Oct 2003, 6:18 p.m.,*
in response to message #3 by Brandon Del Bel

Brandon,

I see the TI connection clearly, and am disheartened that HP has to cater to these demands, but my issue with the enter key is simply based on ergonomics of input. Without stepping on toes, my mind is wired

around the left side/ mid-kbd enter button. What strikes me even more is the position of the 33s enter position, not only did it move from center, it doesn't correlate to the new bottom right trend either, well...its RPN, thank you for that HP! :)

cl

Re: The ENTER key, kbd density 49g+

*Message #5 Posted by **Charles L** on 2 Oct 2003, 6:35 p.m.,*
in response to message #3 by Brandon Del Bel

Ok, you all have good points.

I'm withdrawing my complaints. The principle that I am defending is purely that of efficient entry, and, looking at the 49g and 49g+, I should factor in that they are dressed to be 'ti-slayers'. Ok, ok you all win! :)

Like the 'modal shift' mentioned in P.Brogger's response (he credited it to someone) and other counter arguments too, its clear that we can all offer personal ideals, or justifications to the product. Perhaps the screen itself could be the enter key, a whole display dedicated to that function like atm machines use, then no one could ever fuss over size again :)

I'll never lose the nostalgia for the great HPs' though. ;)

Re: The ENTER key, kbd density 49g+

*Message #6 Posted by **Paul Brogger** on 2 Oct 2003, 5:47 p.m.,*
in response to message #1 by Charles L

To buy the argument that a wide Enter key was prevented by keyboard density is to accept that *every single keyboard function* as implemented is *absolutely* essential -- that there was no way to combine a couple of menus under a single name, or move a couple of functions to the appropriate menus (where they're probably already available anyway).

Many of the choices for keyboard accessibility no doubt were made due to measured or perceived frequency of use, and higher priority on a large Enter key would have merely forced a few more moderately difficult choices.

So, keyboard density alone wasn't the reason for a small Enter. As mentioned by others, a desire to better fit market expectations was more likely the determining factor.

Hey, if it keeps H-P manufacturing decent calculators, it's a small price to pay.

By the way, during the Powell's lunch recently, Wlodek Mier-Jedrzejowicz suggested a "modal shift key" (I don't remember whether he used that exact terminology) might have been used, with one push offering, say left-shift, a second push offering right-shift, and a third push clearing the shift. Such an approach would have freed up one complete keyspace (its primary legend, alpha character and both shifted functions), for the expense of making every right-shifted function require an extra keypress.

Another approach would have been to squeeze the cursor control buttons to the left, and put a two-place vertical Enter above the backspace key.

But that's all moot, as far as the current models is concerned. Perhaps a future version (49G+IIxUltraClassic) could have a double-height Enter stuck somewhere . . .

Re: The ENTER key, kbd density 49g+

*Message #7 Posted by **Dave** on 3 Oct 2003, 10:06 a.m.,*
in response to message #6 by Paul Brogger

Back to silly ergonomics....

The issue is primarily one of where people have become accustomed to the location of the ENTER key. The convenience of any particular location depends on the last digits of the number entered. If the number has your hand moving towards the upper left then the upper left is closest for the ENTER, if the number has you hand moving towards the lower right then that is easiest. New users who do not have the bias built in from earlier designs should not be affected by the location....

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Monroe 1330/HP 46,81

*Message #1 Posted by **David Brunell** on 2 Oct 2003, 10:30 a.m.*

There is a Monroe 1330 on eBay for $6. It is my understanding that this calculator has the same Shinshu Seiki printer as the HP 46 and 81. Might be a good opportunity for someone to pick up some spare parts.

My apologies to any snipers out there who already knew this. :)

David

Edited: 2 Oct 2003, 10:34 a.m.

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regression - logarithmic curve fit

*Message #1 Posted by **pieropiero** on 2 Oct 2003, 9:37 a.m.*

From the HP-67 standard pack I have converted into qbasic language the linear, power, and exponention formulas as mentioned in pages 03-02 thru 03-04. They work alright but I am unable to make use of the logarithmic regression curve fit. This will not give the correct results. I do not need the qbasic program lines but I would like to get the correct logarithmic regression formula. Any help will be welcomed.

I have some spare HP items, such as HP-41 complete with card reader and printer. Anyone interested?

Re: regression - logarithmic curve fit

*Message #2 Posted by **Tizedes Csaba** on 3 Oct 2003, 7:25 a.m.,*
in response to message #1 by pieropiero

The form of the curve is:

```
y=a+b*ln(x)
```

, where

```
x>0
```

.

Csaba

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49G+ Equation Library

*Message #1 Posted by **Ed Look** on 1 Oct 2003, 10:23 p.m.*

Someone posted a little while ago asking whether HP threw in an equation library like they did in the 48G series.

I just saw something on the Singapore Educalc site that seems to say that there IS one in the 49G+, as well:

http://www.educalc.net/default.asp?tid=155481

Re: 49G+ Equation Library

*Message #2 Posted by **Joesph** on 1 Oct 2003, 11:41 p.m.,*
in response to message #1 by Ed Look

I have a 49G+. If there is an equation library, I cannot see it.

Re: 49G+ Equation Library

*Message #3 Posted by **r. d. bärtschiger.** on 1 Oct 2003, 11:45 p.m.,*
in response to message #2 by Joesph

If you enter 113.01 MENU a menu similar to that on the 48gx appears. However if you press the left most key, i.e. EQLIB, a blank menu is displayed. Perhaps they planned to include the equation library and forgot. Or perhaps it will be included in a later ROM update. Time may tell.

rdb.

Re: 49G+ Equation Library

*Message #4 Posted by **Ed Look** on 2 Oct 2003, 12:43 a.m.,*
in response to message #3 by r. d. bärtschiger.

Uh, this is sort of terrible... a website statement says there is one, then there is a blank table in the calculator itself under the heading of such a library!

Hopefully, it is not a flash update that one has to buy!

But I have two personal views on this and I hope not to offend anyone:

1. The 48G series equation library I understand is compatible and can be downloaded into a 49G/G+.

2. Do any of us really use (often enough, anyway) such a library? If it concerns your interests, you'd probably know it well enough not even to require a book for reference, and if it's something you'd use once in a while, it may not be too much trouble to key in the equation into the table yourself!

Comments?

Re: 49G+ Equation Library

*Message #5 Posted by **Ed Look** on 2 Oct 2003, 1:04 a.m.,*
in response to message #3 by r. d. bärtschiger.

As of early AM 10/2, Samson Cables' site says that there may be the POSSIBLE INCLUSION of an equation library!

Re: 49G+ Equation Library

*Message #6 Posted by **Mitch** on 7 Oct 2003, 10:52 p.m.,*
in response to message #5 by Ed Look

There is no Equation library included on the 49G+. However, as pointed out, you can download one. There are some very good offerings on hpcalc.org (better than the standard 48 offering).

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Module storage boxes

*Message #1 Posted by **Matthias Wehrli** on 1 Oct 2003, 4:37 p.m.*

Some month ago I found a very usefull sorage box for all my HP-41/71/75 modules. Is is white transparent and can be put into a file. It can hold 32 modules a "page" and is available in Germany by Conrad Electronic:

Holder for 32 modules: 419150 (Klarsicht-Sordiment mit 32-Fächern) Holder for 10 larger items: 419184 (Klarsicht-Sordiment mit 10-Fächern)

I hope I can help many collectors by this posting.. I had many asks for these numbers...

Re: Module storage boxes

*Message #2 Posted by **Mike (Stgt)** on 2 Oct 2003, 8:39 a.m.,*
in response to message #1 by Matthias Wehrli

I hoffe numm, Du gisch ke Dütsch: KLARSICHT-SORTIMENTS-MAGAZIN 50x schriibe!

grins.....Mike

Re: Module storage boxes

*Message #3 Posted by **Juergen (CH)** on 2 Oct 2003, 11:31 a.m.,*
in response to message #2 by Mike (Stgt)

Auf der conrad.ch Homepage: KLARSICHT-SORIMENT 10 FÄCHER

Keine Ahnung, was eine Soriment ist, da sagt mir Sordiment schon mehr ;-)

I do not have as many 41 modules as Matthias, but this seems to be a good solution for all those who like to have a tidy collection.

http://www1.conrad.de//IMS_Docs/0A/0A2B953E92075FB0E10000000A010251.JPG

Thanks, Matthias, for sharing this information.

Re: Module storage boxes

*Message #4 Posted by **Mike (Stgt)** on 2 Oct 2003, 1:19 p.m.,*
in response to message #3 by Juergen (CH)

Yes for sure, it is a very good solution if you have as many modules as Mattias. I saw his collection an I'm still impressed - and a bit envious.

Ciao.....Mike

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41 MCODE Question

*Message #1 Posted by **Ángel martin** on 1 Oct 2003, 5:42 a.m.*

Hello fellow MCoders, (you know who you are...)

This is really a very simple question. I just need to know the entry point for a subroutine in the 41 CX. It is part of the X-functions, but I don't have the VASM listings for it.

The routine is called "RSTKCA", and as such it should be listed in the VASMS.

I know where it's located in the X-Functions Rev. C module: at address "PA06" (P is the page number). Of course that's different from the CX, as HP moved the entry points when building the bank-switched CX-Xfunct.

Can you help?

Best, ÁM.

Re: 41 MCODE Question

*Message #2 Posted by **Mike (Stgt)** on 2 Oct 2003, 9:04 a.m.,*
in response to message #1 by Ángel martin

In XFunc 1C is at pA06 a call to "main frame" 0952.

```
FA06 149 *
FA07 024 NCXQ   0952 =ENCP00
```

ENCP00 is 'Enable chipset 0' if I remember correctly. Yes, look here:

```
0952 046 C=0    X
0953 3F0 PERSLCT
0954 270 RAMSLCT
0955 3E0 RTN
```

That disables peripherals as there is no peripheral 00, selects the 'first page' of RAM (stack, alpha, status) and returns.

What are you doing BTW???

Ciao.....Mike

Re: 41 MCODE Question

*Message #3 Posted by **Ángel Martin** on 2 Oct 2003, 4:28 p.m.,*
in response to message #2 by Mike (Stgt)

Yes, but later on there's code to reset the key assignement bits on the keyboard keys.

This is part of a "Reactivate Local assignments" routine, companion to a "Suspend Local assignments" one.

I got it working with CV and X-functions, but it flunks on the CX.

Now, do you know where (at which address) is that entry on the CX??

Is it possible that HP never made the CX VASM listings available??

Best, AM.

Re: 41 MCODE Question

*Message #4 Posted by **Chris Catotti (Florida)** on 3 Oct 2003, 5:23 p.m.,*
in response to message #3 by Ángel Martin

I could dissasemble any chunk of code you want.

I have not played with mcode much yet. If you can tell me what exactly tto look for, or if you want me to run a "ticker tape" printout I could.

I was contemplating connecting up the disassembler (HEPAX is my favorite, an HP-IL Module, an HP-IL Video Display, and the family VCR and see if I could make a useable video-tape dump of a module.

Let me know ...

Chris.

Re: 41 MCODE Question

*Message #5 Posted by **Ángel Martin** on 4 Oct 2003, 3:07 a.m.,*
in response to message #4 by Chris Catotti (Florida)

Chris, thanks for your offer.

I ended up copying the code stream from the x-functions module directly into my function. Now it works for both the CX and CV w/ X-fct. It took a bit more of space, but I had plenty left, so I'm happy.

Yeah, the HEPAX disassembler is also my favorite. In fact, I've always contended that the HEPAX module (device more properly) is the holy grail for the 41 system...

Hey, let me know if you want sponsors for your video! It sure sounds like a tremendous idea :-?).

Best, AM

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HP49G+

*Message #1 Posted by **Victor Carreon** on 30 Sept 2003, 11:52 p.m.*

I have a HP49G, and I have been looking some comments about a HP49G+, but I never heard about it, were this came from? Because I never see this model on the HP web site.

Re: HP49G+

*Message #2 Posted by **Brandon Del Bel** on 1 Oct 2003, 12:23 a.m.,*
in response to message #1 by Victor Carreon

HP website
It is scheduled to be released (in the US at least) between the third and the tenth.

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32sii - Should one be careful?

*Message #1 Posted by **John** on 30 Sept 2003, 10:03 p.m.*

This auction lists a new in open box 32sii but in the description it says,

"Please not that this is a multiple item auction; **you may receive a different, yet equivalent item** than pictured"

Then, way down at the bottom he has a disclaimer that says, "**Disclaimer:** This is either a MANUFACTURER or THIRD PARTY'S DESCRIPTION that may differ from the actual item. This in no way provides any guarantee from us for any and all of the item contents."

and if you check the feedback, you will see lots of negatives for substituted, switched and or broken items.

I think this might be one to be careful on.

Edited: 30 Sept 2003, 10:09 p.m.

Re: 32sii - Should one be careful?

*Message #2 Posted by **Ed Look** on 30 Sept 2003, 10:35 p.m.,*
in response to message #1 by John

If you click on the image of the calculator, it's a HP-20S, not a HP-32SII; they do have the same form factor, though.

And, the image of the back has a serial number of what appears to be "ID92001946".

Yeah, this might be one of those less than up front deals.

Re: 32sii - Should one be careful?

*Message #3 Posted by **Ernie Malaga** on 30 Sept 2003, 11:18 p.m.,*
in response to message #1 by John

Yes, stay away from that one. The seller has given himself so many "outs" that he could deliver a 6S (that has been run over by a truck) with almost impunity.

-Ernie

FYI - Email replies

*Message #4 Posted by **Mike** on 2 Oct 2003, 11:47 a.m.,*
in response to message #1 by John

I have sent several emails to this seller with some questions about his 32sii. He is very quick to reply and seems to have several 32sii, in the same condition.

The fact that he replies to all my emails with reasonable answers, seems to be to his credit.

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HP75 EPROM Buring

*Message #1 Posted by **andy** on 30 Sept 2003, 9:25 p.m.*

The hp75 utilizes a standard TI smj27c256 32K eprom. Burning to this eprom should be fairly straight-forward.

Does anyone have any information past this? How does one place hp75 files on the eprom? Do you need the hp75 plug-in rom simulator (PMS)?

Thanks,

Andy

Re: HP75 EPROM Buring

*Message #2 Posted by **Mark Ordal** on 2 Oct 2003, 2:30 p.m.,*
in response to message #1 by andy

I don't think you need the ROM Emulator---it was for testing that what you were going to burn would actually run from ROM. As a secondary intent, I think it was assumed that some users would send the ROM Emulator to a service bureau to have actual ROMs made for them.

I had the ROM Emulator but used it just to increase the data space available for my programs. By putting my programs in the ROM Emulator, I could have almost the whole 24k of RAM available for data. (I don't remember exactly how much of the 24k was available.) The ROM Emulator had two 8k "banks" if I remember correctly.

--Mark

Re: HP75 EPROM Buring

*Message #3 Posted by **andy** on 2 Oct 2003, 3:49 p.m.,*
in response to message #2 by Mark Ordal

From the manual, it seems like HP would have also allowed customer send them the rom image on either mag cards, tape, or diskette. The reason I think this is because the PMS manual directs the user to request a ROM i.d. from HP before sending them anything. Then you actually have to re-build your rom using the ROM i.d. HP assigns.

The rom image can be obtained with the command "copy 'all:romX' to 'filename'". This results in a file with a "rom" extention.

Incidentally, the contents of ANY rom can be copied in this manner as long as you have the PMS LEX file on your system. I've copied the contents of my i/o rom in this manner. It consists of 3, 8K lex files which can't be copied any other way (at least not in a straight-forward way).

The trouble is that this command results in a ROM file, not a LEX file. So in order to burn this to an eprom, one would have to somehow convert the ROM file back into its constiuent files.

I'll bet HP had a nice setup on a larger computer that would read in the ROM file, process it, and burn it to an eprom.

Maybe for kicks I could call hp and ask them for a ROM i.d. # for my PMS and where I should send the image to for processing!

BTW, do you still have your PMS? Would you like to sell it? If I had two, then I would have a total of 32K in rom space which would allow me to copy complete roms (like i/o or visicalc) and run them on 2 PMS's (my wife gets a kick out of that acronym).

Andy

Re: HP75 EPROM Buring

*Message #4 Posted by **Mark Ordal** on 2 Oct 2003, 5:43 p.m.,*
in response to message #3 by andy

My PMS is long gone! I sold everything HP75C related in 1986.

--Mark

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Tilt/click keys on new calcs

*Message #1 Posted by **Charles L** on 30 Sept 2003, 6:51 p.m.*

Is there news on the nature of the 33s keys being the hinge and click style like the 49g+?

cl

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hp 33s and memory

*Message #1 Posted by **Marcel Pelletier** on 30 Sept 2003, 6:49 p.m.*

The datasheet about the hp 33s on HPCALC.ORG tell us that this caculator will have 32 KB and 27-independent memory (A-Z,i). What's that? On hp 41 we use STO 00 - STO ???, so, this is more than 27 memory... only 27 memory for the hp 33s?

Re: hp 33s and memory

*Message #2 Posted by **CME750** on 30 Sept 2003, 7:58 p.m.,*
in response to message #1 by Marcel Pelletier

The new 17bII+ financial calculator has only 10 independent memories. But...you can also define any number of variables, using 10-character names, for use by the Equation Solver. Maybe the 33S will be similar ?

Re: hp 33s and memory

*Message #3 Posted by **Axel Bodemann** on 1 Oct 2003, 3:27 a.m.,*
in response to message #1 by Marcel Pelletier

The 33s is intended as a 32sii update, not a successor of the 41, 42s or whatever. So it has all the features and properties of the 32sii, plus bigger memory, 2-line display and can be switched to algebraic mode. Apart from the keyboard (doesn't look very user friendly...) these are all the features I always wanted for my 32sii.

Regards Axel

Re: hp 33s and memory

*Message #4 Posted by **Joshua Belsky** on 2 Oct 2003, 1:39 p.m.,*
in response to message #3 by Axel Bodemann

I imagine that another feature you would want would be better complex number handling. This is the major thing missing from the HP32SII, I feel. I imagine that the HP33S will work the same way, but at least with the two line display both parts will be visible at once.

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User keys of the 49G

*Message #1 Posted by **Charles L** on 30 Sept 2003, 6:48 p.m.*

I read about someone planning to swap the functions of two keys on their 49gplus, ...does this mean that the 'enter' key could be configured to take over a key located where the 48gx enter key was? Does this work on the 49G too?

Counting the days to go play at Fry's with the new toys..

Btw, is anyone still looking for 48gx? If so let me know, a store near here has a few new ones still.

cl

Re: User keys of the 49G

*Message #2 Posted by **Veli-Pekka Nousiainen** on 30 Sept 2003, 7:39 p.m.,*
in response to message #1 by Charles L

The User keys don't work in all the Environments (or paraterized-outer-loops) you will have little luck in ASsigNing the ENTER to - say - EEX, so that it works everywhere. Just get used to the new location...and new speed!

VPN

Re: User keys of the 49G

*Message #3 Posted by **dave** on 30 Sept 2003, 11:27 p.m.,*
in response to message #1 by Charles L

It is easy to assign an enter functionality to the X key that is in the center of the 49G. This keeps teh enter where you like it. Of course any key can be used but the X makes some sense to me with location and if you use the EEX key, you need to reassign that keys functionality (& remember its location).....

Re: Where you can still buy and HP 48GX

*Message #4 Posted by **Frank Travis** on 2 Oct 2003, 3:17 p.m.,*
in response to message #1 by Charles L

Calcpro website www.calcpro.com still has a few HP 48GX calculators (bundled with manuals, etc.) in stock. I bought a couple of them from its manager, Paul Nelson, in the last two years. They also stock plug-in cards for the HP 48GX, books, and accessories.

Re: Where you can still buy an HP 48GX

*Message #5 Posted by **Frank Travis** on 2 Oct 2003, 3:19 p.m.,*
in response to message #4 by Frank Travis

Sorry, I meant "an" instead of "and".

Re: Where you can still buy an HP 48GX

*Message #6 Posted by **r. d. bärtschiger.** on 2 Oct 2003, 9:03 p.m.,*
in response to message #5 by Frank Travis

Why?

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Which Glue?

*Message #1 Posted by **Arnaud Amiel** on 30 Sept 2003, 3:13 p.m.*

I am currently restauring a hp45 and I have a problem with the ON/OFF switch, its base is broken in two. I would like to glue it back together but I fear gluing it to the metal part on which it is sliding as well. I don't want to open the calc for that. Any idea which kind of glue would glue the plastic together but not the metal?

I would also like to know how to unweld the tabs in the battery pack. If possible. I have been trying to search the archives for hp45 but it does not seem to work.

Thank you,

Arnaud

Re: Which Glue?

*Message #2 Posted by **Paul Brogger** on 30 Sept 2003, 3:55 p.m.,*
in response to message #1 by Arnaud Amiel

See my caution below, and proceed at your own risk!

I think that methylene chloride might do the trick, though I've never tried it in a situation such as you describe. I found it (in the NW U.S.) as "Ambroid ProWeld" in a hobby shop. (I understand that what I have is not 100% methylene chloride, and that a stronger solution, if found, would be better.) I've used it for several things HP-related.

You need to hold the pieces to be glued together closely, and let the glue be drawn into the joint by capillary action. The pieces must be held in close approximation for some time. (At least an hour?) The methylene chloride (a highly volatile aromatic hydrocarbon, if I've got my chemistry straight) melts the plastic and fuses the pieces together. A few of the things on which I have used it (including an HP-97 battery compartment door, broken right in half) seem as strong as new. (But it hasn't worked on everything.)

I worry, however about applying it to anything attached to a calculator, and to anything that needs to move again someday. If at all possible, take the switch out of the calculator before using *any* glue.

Re: Which Glue?

*Message #3 Posted by **Ed Look** on 30 Sept 2003, 10:55 p.m.,*
in response to message #2 by Paul Brogger

Actually methylene chloride is a chlorinated hydrocarbon, aliphatic, not aromatic, even if it does have a powerful aroma, AND IS A SUSPECTED CARCINOGEN (okay, so what isn't?)!

As for other solvents as glues, if this works, then you need one of low polarity (not the battery or circuit kind) like gasoline or one of its components, though these are all less than friendly compounds, as far as our health is concerned. But I suppose you'd only need a little bit.

Oh! A flash(back)- old fashioned model glue! This stuff is toluene based, which is also a nonpolar substance, and should dissolve the same stuff methylene chloride does, but is not carcenogenic. But kids used to get high on this stuff. One other problem- this stuff is usually sold in rather viscous form as compared to the pure solvent and may leave some surface marring if you're not like an expert craftsman or model builder. Maybe a slightly beaten looking HP is better than a nonfunctioning one.

Re: Which Glue?

*Message #4 Posted by **David Brunell** on 30 Sept 2003, 10:48 p.m.,*
in response to message #1 by Arnaud Amiel

Regarding the battery terminals, what I do is slide a strong but thin knife under the material and pry up. Worst case, it will leave a little of the material behind exactly where the weld was. However, there is usually plenty of material left to solder to, particularly if the replacement nicads you're using have solder tabs.

Not-so-elegant-approach

*Message #5 Posted by **Michael L. Meyer** on 1 Oct 2003, 12:07 a.m.,*
in response to message #4 by David Brunell

I've rebuilt a lot of HP and TI packs. I guess I take a less precise approach.... I tear off the metal tabs by twisting into a circle using needle-nose pliars (hemostat), then straighten them, flatten, and grind. When tinned, they make a nice, strong, flat joint with the tinned end of the battery. (It also is a quick way to detach from leaking batteries without much handling.) Despite the warnings, with a really hot iron there seems to be no damage to the batteries from the brief heat. (Besides, modern NiCd's can get normally quite hot in use in a high-drain device. Many manuals have said to let them cool before charging.) But mostly: I don't have a spot-welder.

I take a more delicate approach to a lot of other things.... honest.

(sound of crashing and breaking), Michael

(deleted post)

*Message #6 Posted by **deleted** on 1 Oct 2003, 7:24 a.m.,*
in response to message #1 by Arnaud Amiel

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Which Glue?

*Message #7 Posted by **Arnaud Amiel** on 1 Oct 2003, 6:14 p.m.,*
in response to message #6 by deleted

Appart from the fact that it is just slightly older than me (1301), there is some sentimental value. This one was just given to me by my dad as a birthday present so like said in a post, I prefer an estheticaly challenged calc to a functionally challenged calc so I won't open this one. I have a couple of others as spares (one with the same switch problem) so I might explore one of these. As to cleaning the keyboard, I found that window cleaning liquid (windowlene here in the UK: mostly some kind of alcool or an other I believe) works wonders when used with coton buds.

Thanks all for your help.

Arnaud

Re: Which Glue?

*Message #8 Posted by **Arnaud Amiel** on 4 Oct 2003, 3:17 p.m.,*
in response to message #1 by Arnaud Amiel

After looking around I didn't find methylene chloride glue so I went to the model shop. I had to go anyway for chrome paint for the same calc, that works wonders if you have a steady hand. I asked for the most liquid glue and it worked. I just had to move the switch when the glue was getting dry to avoid getting the switch glued to the calc body. Thanks for all your help.

Arnaud

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To take apart a HP-01

*Message #1 Posted by **Erik Wahlin** on 30 Sept 2003, 1:20 p.m.*

Has anybody had any experience taking apart a HP-01 watch? From the drawing in the Hewlett Packard journal, it appears the two halves of the watch are held together by a ring with thread on the OD. I guesss you somehow unthread this ring?

Re: To take apart a HP-01

*Message #2 Posted by **David Smith** on 1 Oct 2003, 10:11 a.m.,*
in response to message #1 by Erik Wahlin

Hello Erik,

You guess right. I took one apart many years ago. I seem to remember that there are two of the retaining rings. One I seem to remember is a split ring. I also think one of them is reverse threaded. You need a fine pin spanner to manipulate them... but I used a screwdriver blade.

While on the subject of watches, Harbor Freight Tools sells a watch case opener tool (made in India). It has three removeable bits that can be adjusted in a triagular pattern to match various watch cases. It comes with several types of bits. Sells for $8, $4 on sale. I think you could use just two bits and use it as a pin spanner.

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(deleted post)

*Message #1 Posted by **deleted** on 30 Sept 2003, 8:47 a.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Tring to contact with Christoph Harper (no text)

*Message #2 Posted by **R Lion (España)** on 30 Sept 2003, 8:48 a.m.,*
in response to message #1 by deleted

.

Re: Tring to contact with Christoph Harper (no text)

*Message #3 Posted by **christof** on 30 Sept 2003, 2:15 p.m.,*
in response to message #2 by R Lion (España)

Heyo, raul. I'll send an email quick. I was out all weekend with family stuff.

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Favorite Calculator

*Message #1 Posted by **Mike** on 30 Sept 2003, 8:07 a.m.*

Just an update on the favorite calculator poll. This did not include every HP calculator but did most of the high power scientific.

http://www.msdsite.com/hpcalcs/fav-calc-poll.jpg

Re: Favorite Calculator

*Message #2 Posted by **Thibaut.be** on 30 Sept 2003, 10:00 a.m.,*
in response to message #1 by Mike

I did 2 years ago a similar poll. Results can be accessed http://membres.lycos.fr/hpcalc/hp_calc_poll.htm

Re: Favorite Calculator

*Message #3 Posted by **Erik Ehrling (Sweden)** on 30 Sept 2003, 1:03 p.m.,*
in response to message #2 by Thibaut.be

Looking at both polls definitely supports the theory that a new HP41/42S compatible calc could find its fans...

Re: Favorite Calculator

*Message #4 Posted by **GS Leong** on 30 Sept 2003, 6:19 p.m.,*
in response to message #3 by Erik Ehrling (Sweden)

If only Carly would listen!

Re: Favorite Calculator

*Message #5 Posted by **Ed Look** on 30 Sept 2003, 11:01 p.m.,*
in response to message #1 by Mike

Hey! I did not vote but the message with your chart says that I have already voted! Where can I go to vote anyway?

Re: Favorite Calculator

*Message #6 Posted by **quemazon** on 1 Oct 2003, 9:25 a.m.,*
in response to message #5 by Ed Look

I think this poll talks more about the demographics of the board more than the likeability of any particular calculator. I bet most people that chose the 41/42 series bought and used them in college when they were at the height of their popularity. Or maybe many "classic" users upgraded to them because they were like the classics, but provided many advantages.

I went to school with a 48 series and can't imagine how someone could want anything else. The equation library, powerful unit conversion, graphing capability, constants library, multi-level stack, and much more would be sorely missed if I had to switch to a 41. I doubt that many people who when through school with a 48 series calculator (and learned how to use it) would want anything else.

I think everyone simply likes what they feel comfortable with, which is usually a result of what they used in school or profession.

Re: Favorite Calculator

*Message #7 Posted by **R Lion (España)** on 1 Oct 2003, 9:59 a.m.,*
in response to message #6 by quemazon

The 48GX is the TOP!!

(and the 15c when a shirt pocket calc is needed)

That is why...

*Message #8 Posted by **Mike** on 1 Oct 2003, 11:22 a.m.,*
in response to message #6 by quemazon

I have another poll on the site that allows you to specify your age group. Then, it might be possible to see if age is a factor. If popularity is based on when you used them (as in college), it might show up in the age voting.

Re: That is why...

*Message #9 Posted by **Patrick** on 1 Oct 2003, 3:26 p.m.,*
in response to message #8 by Mike

However, it is difficult to correlate the two since the data is only indirectly linked. We don't even know how many of the same people voted in the two polls, for example.

While I pretty much agree with quemazon, I should point out that I voted for the 15C, having never owned one (or indeed any Voyager model) until earlier this year. I went to school with an SR-10 and then an HP-25 (there was no "C" at the time). In grad school I purchased an HP-41C. I owned no other HP models until my mid-life crisis kicked in this year and I was *forced* to start a collection of familiar and fascinating little gadgets from my youth.

It will come as no surprise, therefore, that I would never consider voting for the 48 series as my favourite calculator, not in a million years. That wonderful little HP-25 has forever biased my notion of what a calculator *ought* to be:

- It should be small.
- It should be keystroke programmable, and
- It should be quickly understandable (for example, by having at least the lion's share of its functions visible on the keyboard).

The 48's have all but three of these characteristics.

I do like the 41 and the 42S, but the size, amazing power, and intelligent keyboard of the 15C is very, very appealing. I wish I had discovered it decades ago when I had my head too deep into 41C synthetics.

Re: That is why...

*Message #10 Posted by **Juan J** on 1 Oct 2003, 6:40 p.m.,*
in response to message #9 by Patrick

I went to school with the 41 and shortly before graduating upgraded to the 48GX. Yes, it can do almost everything, yes, it is powerful, and if you went to school with it surely you wil want nothing else.

But the 41 is perhaps the finest calculator ever made by HP, and you can do many things with it (from how to nuke your neighbor to how to land the space shuttle to balancing your home buidget.) It can also be expanded and programmed in amazing ways and is deservedly regarded as a personal computing system long before PCs were available round the corner to anyone.

The above being said, going from one model to another is like a fighter pilot upgrading to a new fighter model. The new one can do anything and handle superbly, but the old one will always handle nicely and will retain features not exactly preserved or matched or improved in the newer model. (I wrote something like this in a post a few years ago here in the museum.)

I do like the 48s but will always regard with fondness the trusty 41. Probably other forum members feel the way I do about the 41 and other models.

HP-41C the best?

*Message #11 Posted by **Karl Schneider** on 2 Oct 2003, 12:45 a.m.,*
in response to message #10 by Juan J

(Note: Just a few editing improvments for clarity)

> Quote:
>
> But the 41 is perhaps the finest calculator ever made by HP...

Back in the very early '80s, I coveted the HP-41 and would occasionally visit retailers to experiment with it. On two separate occasions, I was "perusing the wares" in the calculator/electronics department at my univerity bookstore while another shopper was disparaging the 41 to the sales manager.

One was a wheelchair-bound man who basically said, "Oh, I don't like it; it's terrible." The second man, in his unfortunate, very nasal voice, said, "It's the *all-time bad calculator*".

After they had departed, the manager and I just shrugged our shoulders at each other. ("Oh well -- to each his own!")

I bought a 15C in late '83, which would be my only HP until I started revisiting my own youth last year, and started a collection with a 41CV and a 34C, which I had shunned in favor of the newer 15C.

Working with the 41CV, I began to really see what the two critics were talking about. On the 15C, powerful, practical functions were available right on the keyboard with no spelling or menus; however, on the 41CV, many basic functions had to be spelled out letter-by-letter, and some functions were not available without extra-cost Pacs. For those accustomed to the traditional non-alphanumeric HP's, the HP-41 must have seemed as convoluted as the RPL HP-28 and HP-48 models would seem, to an RPN-purist.

> Quote:
>
> ...and is deservedly regarded as a personal computing system long before PCs were available round the corner to anyone.

Bingo! That is the true hallmark of the 41C -- a complete, expandable system with its own family of peripheral devices. There was nothing else like it, and with PC's and other small computing devices, there never will be.

Edited: 2 Oct 2003, 1:16 a.m. after one or more responses were posted

Re: HP-41C the best?

*Message #12 Posted by **Ed Look** on 2 Oct 2003, 12:56 a.m.,*
in response to message #11 by Karl Schneider

Aside from the prohibitive cost to a student, one reason why I chose the 34C over the 41C series calculators was that it was explained to me similarly that one had to either spell out functions or program them in. Considering that I had other things to do for which I needed a rugged HP calculator, I figured that constant reliance on a 41C might have been too time costly. If I had already graduated and needed it on the job, that would have been a different story unless time again is an issue.

Anyhow, just nosy: what do you think of the 34C?

(Me? It's my favorite!... though my first HP; that may have something to do with it...)

34C impressions (Re: HP-41C the best?)

*Message #13 Posted by **Karl Schneider** on 2 Oct 2003, 1:34 a.m.,*
in response to message #12 by Ed Look

> Quote:
>
> Anyhow, just nosy: what do you think of the 34C?

Ed --

My impressions of the HP-34C:

1. Very good-looking; impressive pioneering capabilities.

2. Early models in particular had unacceptable poor quality, due to ill-advised cost-cutting. I own an old-style and a new-style, and they both need repairs.

3. Somewhat awkward to use because of programming-based functions taking many of the unshifted key positions. For example, all of the basic transcedentals (sin/cos/tan, exp/ln, 10^x/log, 1/x, y^x, sqrt, x^2) are shifted, while "GSB" and "GTO" are not.

4. LED display lacks informative annunciators, such as angular mode.

4. No longer having to deal with 1.2V rechargeable cells? Priceless!

Final verdict: As the nice young salesman finally convinced me in late 1983 when I compared them both side-by-side, the 15C was a big improvement over the 34C.

Edited: 2 Oct 2003, 1:41 a.m.

What about the 34C

*Message #14 Posted by **Patrick** on 2 Oct 2003, 3:11 a.m.,*
in response to message #12 by Ed Look

It was only a couple of weeks ago, actually, that I bought my first HP-34C. I had never even touched one before then.

Nevertheless, I have always had a certain attraction for this machine from a historical perspective. It is the first calculator, after all, that offered SOLVE and INTEGRATE type functions, AFAIK. I remember clearly reading those amazing articles by William H. Kahan in the HP Journal about these functions and wishing my (now considered lowly) HP-25 had them. Even the HP-41C I bought in 1980 didn't come equipped with them.

You have to admire the thought and pure engineering that went into these capabilities. It is terribly easy to write a pure secant or Newton's method routine to find roots. It is every bit as easy to lead a user totally astray with such an oversimplification of a very complex subject. HP went out of their way in two ways to mitigate against this. First, they paid a lot of attention to the tiny details of the algorithm itself, buttressing it with a slew of intelligent refinements designed by a numerical expert and implemented by expert coders. Second, they documented the functions extremely well, in particular warning the user quite properly not to expect nirvana, and explaining in detail why. It seems ludicrous that any company today would undertake such a seemingly low yield venture.

Unfortunately, I was put off by the hardware quality of the Spice series. I see a few of our regulars here have been using them for some decades, but statistically it seems they did much worse than many of their predecessors (Woodstocks) or their descendants (Voyagers).

On a purely practical note, my likes and dislikes of the 34C at this early stage are so far like this:

Like: Dedicated A and B buttons that don't try to double as other keys in some sort of User/Custom mode.

Like: The GSB key right next to the keys you hit next, like A and B (the 15C could have learned a lesson from the 34C here ... its GSB is too far away from A..E)

Like: Solve and Integrate.

Like: All functions are on the keyboard.

Like: LEDs are cool.

Like: Great manual.

Dislike: Power hungry. Boy, is it ever easy to get used to batteries that last 18 years. Power that lasts just a couple of hours completely colours the way you use a

machine. I think nothing of turning on one of my 15C's to just play around with a program. With the 34C it is like I'm watching the clock trying not to use too much juice. Purely psychological, but there you have it.

Dislike: Too much shifting for routine functions (e.g., RUP/RDN, SST, Sigma+).

Re: HP-41C the best?

*Message #15 Posted by **Ángel Martin** on 2 Oct 2003, 2:14 a.m.,*
in response to message #11 by Karl Schneider

If you think spelling the function names on the 41 is a hassle is because you've never used the 42S with its soft-alpha. That alone made the 42S an undesirable model to me when it came out, never mind its lack of I/O!

Well, I guess that I'm as well on the 41 unconditionals' side, used it in engineering school and post-grad years, tinkered with its seemingly endless expansion and device-control capabilities, and even now use daily.

And yes, I also started a collection last year right at the peak of the mid-life crisis! (I see a theme in here...)

Best, ÁM.

42S "soft alpha"

*Message #16 Posted by **Karl Schneider** on 3 Oct 2003, 2:03 a.m.,*
in response to message #15 by Ángel Martin

Angel stated:

> Quote:
>
> *If you think spelling the function names on the 41 is a hassle is because you've never used the 42S with its soft-alpha.*

Nope, I have a 41CV and and a 42S! True, the two-keystroke alpha entry on the 42S is cumbersome, but it can often be avoided. Any function can be simply chosen from the catalog or oftentimes, group menus.

When writing programs using an alphanumeric external label or variable, one trick is to pre-enter the label within a program, or variable outside the program. It will then available in the menus (STO, RCL, XEQ, GTO), eliminating the need to re-type its name when programming.

While the 41 requires function names to be spelled out (unless on the keyboard or assigned), the menus of the 42S eliminate much of this.

Regards,

Karl S.

Edited: 3 Oct 2003, 2:06 a.m.

Re: That is why...

*Message #17 Posted by **Jeff Barstow** on 4 Oct 2003, 1:19 a.m.,*
in response to message #10 by Juan J

When I entered Michigan Tech in the summer of 71' the first course that you took was the care and feeding of a slide rule. By the time I graduated in 77' most slip sticks were religated to the shelf in the closet. My first calc was a HP35. Before that calcs available just did not do trig so you still had to carry the rule. I have run the gammot of HP's... once you really learn RPN it becomes very difficult to revert to other calcs with "conventional?" notation. I still can't do more than add on one. I have owned in order: HP35, HP45, HP25, HP11C, HP41CV*, HP28C*, and an HP48G*. Calcs with a "*" I still own and they still work. My favorite of all is the HP28C. Being able to do vector algebra and the solver in a really rugged little case gives this calc my vote. I was initially inclined to agree with someone who said that the calculator you used in school was the one with the fondest memories but I wouldn't give up the ol 28 for a thousand times the price I paid...(traded a very ancient radio for it and later got the radio back also). HP calcs rule!

Re: That is why...

*Message #18 Posted by **Chris(FLA)** on 4 Oct 2003, 12:30 p.m.,*
in response to message #17 by Jeff Barstow

> Quote:
>
> *I have run the gammot of HP's... once you really learn RPN it becomes very difficult to revert to other calcs with "conventional?" notation. I still can't do more than add on one.*

I am the same way and so is the wife. I tought here RPN on my '80 41C. Soon I noticed my 41 was moving by itself or I couldn't find it. She had borrowed my 41 and didn't put it back were I left it.

I went out and got here an 11C and she used it alot for her work. I have asked here if she would give me here 11C and she says no way. :(I even offered to pay here for it. The answer is still NO! Her 11C is an '85 'A' model in MINT condition.

I get very frustrated with AOS calcs.

Chris

15C vs. 41C

*Message #19 Posted by **Karl Schneider** on 2 Oct 2003, 1:04 a.m.,*
in response to message #9 by Patrick

> Quote:
>
> In grad school I purchased an HP-41C. I owned no other HP models until my mid-life crisis kicked in this year and I was forced to start a collection of familiar and fascinating little gadgets from my youth.

Sounds like me. I coveted the 41C in 1980-81, bought the 15C in late 1983, and never felt the need to upgrade/replace it. Last year, I started collecting the ones I "missed out" on -- a 41CV among many others.

Quote:

I do like the 41 and the 42S, but the size, amazing power, and intelligent keyboard of the 15C is very, very appealing. I wish I had discovered it decades ago when I had my head too deep into 41C synthetics.

Well said. I believe that the HP-15C deserves a place in a personal-electronics "hall of fame" for engineering excellence. For what it is designed to be, the only reasonable improvement would be computational speed.

HP-15C Reasonable Improvements

*Message #20 Posted by **Valentin Albillo** on 2 Oct 2003, 4:35 a.m.,*
in response to message #19 by Karl Schneider

Karl posted: *"I believe that the HP-15C deserves a place in a personal-electronics "hall of fame" for engineering excellence. For what it is designed to be, the only reasonable improvement would be computational speed."*

Nope. There is more than one "reasonable improvement", (and I mean *reasonable*) namely:

- faster speed, as you mentioned

- larger RAM, say up to 999 steps (i.e: matrices up to 12x12). More would be desirable but 999 is reasonable.

- program steps displayed as alphanumerics, not keykodes, even if no further alpha capabilites (no alpha input, no commands to do alpha manipulations). I for once, would *not* desire alpha capabilities built-in, at all, save for the alpha display of keycodes.

- if the complex stack does exist (i.e.: we are in 'complex mode') then STO and RCL should deal with both components of a complex number at once, instead of forcing you to store and recall separately the real and imaginary parts. This would require an implicit redefinition of the registers' boundaries, but the HP-16C does it all the time when the word size changes, so it can be done. This feature alone would save tons of keystrokes and/or program steps, and it would make complex number handling that much more consistent.

and last but not least, one probably *unreasonable* improvement, which nonetheless it happens to be the one I would desire the most:

- a built-in card reader, *a la* HP-67, i.e. a small slit in the side, where you would enter a mag card to read/write your program/data. You would push the card slightly into the slit, a small motor would grab it and enter it into the machine proper, and a couple of seconds later it would be pushed back.

An HP-15 with the above mentioned feature would be indeed a dream come true, don't you agree ? :-)

Best regards from V.

Re: HP-15C Reasonable Improvements

*Message #21 Posted by **Vincent Weber** on 2 Oct 2003, 7:12 a.m.,*

in response to message #20 by Valentin Albillo

Hi Valentin :)

I totally agree with you - and do you know that this calculator actually exists ? If you look at Pocket15C on www.lyria.com... this is a 15C *Simulator*, not emulator, which is fast, with a lot of memory (999 steps + 64 registers per matrix), and will alpha display of key codes. But you need a PocketPC... An Ipaq 1910 will do the job (very small size), but it is expensive; and yes, we would need a way to download programs. Since I have a Palm, I stick to P41CX emulator with Advantage module - overall more complete.

Cheers, Vincent

Alpha keystrokes

*Message #22 Posted by **Thibaut.be** on 2 Oct 2003, 8:58 a.m.,*
in response to message #20 by Valentin Albillo

Valentin wrote :

- program steps displayed as alphanumerics, not keykodes, even if no further alpha capabilites (no alpha input, no commands to do alpha manipulations). I for once, would *not* desire alpha capabilities built-in, at all, save for the alpha display of keycodes.

Of course, this would be better. But once you're used with with the keystrokes code, this becomes a smaller issuer. I used to program my equations with a 11C and then with a 15C, and frankly speaking I could recognize an instruction with its keystroke code without looking at the keyboard. 32 was RDN, 42.21.11 -> f LBL A, 43 32 -> g RTN, 14 -> y^x, 43 11 -> g x², ... which are the functions you most often use when you key in equations.

But I won't deny that I found it easier when I switched to a 41C 2 years later...

Re: Alpha keystrokes

*Message #23 Posted by **Valentin Albillo** on 2 Oct 2003, 9:15 a.m.,*
in response to message #22 by Thibaut.be

Thibaut wrote: *"Of course, this would be better. But once you're used with with the keystrokes code, this becomes a smaller issuer"*

Yes, but if and only if you completely switch from one machine to another altogether. In my case, I am writing programs (and articles) for a number of machines on a regular basis, and having a collection of 5, 6, 7 or more different keycodes for something as simple as, say, GSB A, is a chore ! :-)

Also, many programs will run unchanged in an HP-34C, 11C and 15C, and if you're including them in an article, you would need either 3 separate versions of the article or else you would include 3 different sets of keycodes for the exact same instructions ! Same thing applies to the HP-67/97, HP-19C/29C pairs, among others. My usual approach is to *not* include keycodes at all, just the intructions themselves.

Nevertheless, I agree that if you're focused mainly on a single machine, say the HP-15C, it quickly becomes second nature and stops bothering. But else ...

Best regards from V.

Edited: 2 Oct 2003, 9:18 a.m.

Re: Alpha keystrokes

*Message #24 Posted by **Thibaut.be** on 2 Oct 2003, 10:24 a.m.,*
in response to message #23 by Valentin Albillo

Valentin wrote :

Also, many programs will run unchanged in an HP-34C, 11C and 15C, and if you're including them in an article, you would need either 3 separate versions of the article or else you would include 3 different sets of keycodes for the exact same instructions !

I totally agree with you in that sense. But since most user keep using the calculator for 20 years...

But, yes, of course, I agree, keystroke programming shown like in a calculator as "low" as the 32SII is even better.

Re: Alpha keystrokes

*Message #25 Posted by **bill platt** on 2 Oct 2003, 9:42 a.m.,*
in response to message #22 by Thibaut.be

Even after being away from the 11c for 7 years, when I got the 15c this year, I was astounded to discover that I remembered some of those codes, too! like 43 32 (g RTN).

Regards,

Bill

Re: Alpha keystrokes

*Message #26 Posted by **Paul Brogger** on 2 Oct 2003, 2:32 p.m.,*
in response to message #22 by Thibaut.be

Keep in mind that true alpha display requires something beyond the Voyagers' 7-segment character cells.

The 41c's alpha LCD was an early attempt at a general-purpose display and, while characteristic of that much-loved model, it doen't to my eye render characters or numbers very nicely at all.

The next generation (dot-matrix Pioneers) does a better job of rendering characters, but at the cost of dense, solid segments and crisp contrast.

Adding (many) alpha characters to the 15c display would (have) likely force(d) degredation of one of its chief attributes: that lovely, clear, high-contrast Voyager display.

Re: Alpha keystrokes

*Message #27 Posted by **Nelson M. Sicuro (Brazil)** on 2 Oct 2003, 2:47 p.m.,*
in response to message #26 by Paul Brogger

There is a way to show alpha characters on a 7-segment display (more or less readable, but understandable), I'm working on it (on LEDs yet) on a emulator. My goal is to replace the circuit board of my old HP-11C or 12C and put there a new CPU, mantaining the rest (including the display). And there is plenty of room to put a SD/MMC card inside it... Even a MP3 player!! (but no battery enough ;)

I just love my HP-15C for its functions and style. But I need a calculator that uses Base-N numbers and boolean logic, and some more RAM to use as program storage/matrix space (simplex method).

As I also like to build things using microcontrollers and I pretty near to get the ROM out of my Voyagers, I think that build a "HP-15S" is not impossible (but a good challenge!).

Regards,

Nelson

Re: 7-Segment Alpha

*Message #28 Posted by **Paul Brogger** on 2 Oct 2003, 3:01 p.m.,*
in response to message #27 by Nelson M. Sicuro (Brazil)

Ahh, yes -- the old 7-segment alpha-bet. I remember scrolling (Wall Street style) snide remarks about classmates across the lab's KIM-1 microcomputer training units . . .

In fact, I assume the HP-16C (and other early Base-N-capable calculators) displayed at least AbCdEF with seven segments. Careful choice of operations' names and mnemonics would avoid problem letters (like "K" and "X") and allow a more mnemonic display of program codes in a 7-segment format.

Sounds like a fun project!

Re: HP-15C Reasonable Improvements

*Message #29 Posted by **bill platt** on 2 Oct 2003, 9:38 a.m.,*
in response to message #20 by Valentin Albillo

Hi Valentin,

Your input is, as usual, excellent reading. Having been using the 15c a fair amount lately, and I totally agree about the alphanumerics for the prgram lines. I find the 32sii so much nicer in this respect, that I have been doing "throwaway" programming on the 15c, and "archival quality" on the 32sii, because I can see what is what better in the latter.

I also thing the 15-c manual is a must have--even if you have a 32sii--as it has a lot of info that is directly applicable, and more detailed, than the 32sii manual. I wonder if there is even more in the 34c manual?

But, I am this month trying to force myself to stop doing too much calculator stuff, and instead I am refreshing my mathematics knowledge. I recently needed to curve-fit some data, and realized I was not only rusty, but never really figured out how that FFT (fast Fourier transform) business worked. We'll see how far I get! Hopefully, in the end, I'll figure out how do do something useful with the calculator in this regard.

Regards,

Bill

Re: HP-15C Reasonable Improvements

*Message #30 Posted by **Valentin Albillo** on 2 Oct 2003, 10:50 a.m.,*
in response to message #29 by bill platt

Bill posted: *"Your input is, as usual, excellent reading".*

Thank you very much, you're too kind ! I must say I also enjoy your postings :-)

"I also thing the 15-c manual is a must have [...] I wonder if there is even more in the 34c manual?"

No. There's nothing in the HP-34C Owner's Handbook on the advanced functionality (i.e.: solve and integrate) that isn't already covered in the HP-15C Owner's Handbook. But even that absolutely pales in comparison to the ultra-excellent material provided in the HP-15C Advanced Functions manual, which is totally unique in its class, a real advanced course on numerical algorithms and accuracy. It should be mandatory text for any numerical algorithms class. If you don't have one, I urge you to get it ASAP. Trust me, you'll be delighted.

"I recently needed to curve-fit some data, and realized I was not only rusty, but never really figured out how that FFT (fast fourier transform) business worked."

The kinds of functions and algorithms to use in data-fitting are mostly dependent on the type of data (i.e: mathematically-obtained data, empirical data of limited precision, periodic data, aperiodic data, etc). The easiest algorithms to program are least-squares polynomial regression and the likes using functions and/or conversions other than polynomials, but IMHO, the best results are always obtained using mini-max approximations, which are guaranteed to minimize the absolute error, which is what one usually wants (not the *square* of the error !).

The price you pay for this is that computing a mini-max approximation is much, much harder to program than a simple least-squares one, but it's certainly worthwhile as you'll only compute the coefficients once. I did write an HP-71B program to compute the Nth-degree minimax polynomial fit to any set of data points (obtained from the keyboard, from a file, or even continuous data generated by some mathematical function or program), but it's unpublished as of yet (I was planning to submit it to Datafile for publication, but there's been some problems with my subscription).

As an example of fitting continuous data you might want to try your hand at, find a 3rd degree polynomial which will fit y=sin(x) over [0, Pi/2] minimizing the absolute error over that interval. My program produces the cubic polynomial:

```
y = -0.00136 + 1.02519 x - 0.07061 x^2 - 0.11253 x^3,
```

which has a maximum error of 0.00136 (approx.) over the whole interval, far better than what you can achieve by any other kind of 3rd-degree polynomial fitting.

Best regards from V.

Thanks, Valentin! (NT)

*Message #31 Posted by **bill platt** on 2 Oct 2003, 1:17 p.m.,*
in response to message #30 by Valentin Albillo

:<}

A polite "rebuttal" to Valentin's HP-15C Reasonable Improvements

*Message #32 Posted by **Karl Schneider** on 3 Oct 2003, 1:59 p.m.,*
in response to message #20 by Valentin Albillo

First, some emphsasis: By, "*For what it is designed to be*", I intended a fairly restrictive definition of the product within the technology of the era: its form factor, display type, features, and design objectives/constraints.

I agree that Valentin's suggestions are not unreasonable, and would certainly make the HP-15C more capable, but several are a bit "out of bounds", in my opinion.

Valentin stated:

> Quote:
>
> *- faster speed, as you mentioned*

No disagreement here...

Certainly HP had the capability at the time to make LCD machines faster than the Voyagers; the antedated 41C* is about twice as fast. However, I'm not sure if the Voyagers' early '80s CMOS technology permitted faster operation. The hardware experts could explain how Voyager technolgy differed from 41 technology. It would be a shame if the Voyagers could have been faster, but were "held back" by a desire for non-competition with the 41C*.

> Quote:
>
> *- larger RAM, say up to 999 steps (i.e: matrices up to 12x12). More would be desirable but 999 is reasonable.*

Well, 1 kB (1024 bytes) allocatable RAM would give the 999 lines or 12x12 matrix. Maybe that would be the "reasonable" upper limit. The 67x7 = 469 bytes was more than the base 41C, and more than twice as much as the 11C/16C and 34C had.

Certainly, more RAM always offers more flexibility, but, given the limitations (no I/O, alphanumerics or external labels for programming, slow processing), I think that most users would find it difficult to put very much more RAM to practical use. And, how expensive was this constant memory at the time?

It seems that the 64x7 = 448 bytes of allocatable RAM was a conscious decision by HP.

It was just enough for an 8x8 matrix and solution of a 4-variable complex-valued system with some special techniques, as described in the manual. Would you really want to generate or enter larger ones? The calc is slow, and storing or recalling each element takes two keystrokes (unless a looping program is written). Forget about electronic data exchange...

999 lines of programming, shown in keycodes with no modularization with external labels, cataloguing, or alpha messages? Perish the thought. The 15C is not well-suited for permanent libraries of programs.

I would be nice, however, to have more memory to allow storage of large amounts of data while still being able to access INTEG and other features.

> Quote:
>
> *- program steps displayed as alphanumerics, not keykodes, even if no further alpha capabilites (no alpha input, no commands to do alpha manipulations).*

How would this be done well with the 7-segment LCD characters? This was discussed extensively in the thread.

However, here's an idea: Represent the rows of the keycodes spreadsheet-cell style, using A, b, C, and d, rather than 1-4. That way, multi-digit numbers could be merged onto one line, as on the alphanumeric 41C*, 42S, and 32S/Sii.

> Quote:
>
> *- if the complex stack does exist (i.e.: we are in 'complex mode') then STO and RCL should deal with both components of a complex number at once, instead of forcing you to store and recall separately the real and imaginary parts. This would require an implicit redefinition of the registers' boundaries, but the HP-16C does it all the time when the word size changes, so it can be done.*

This certainly would make some things easier, but I don't think it's a very sound idea. The 42S allows explicit redefinition of the numbered storage registers to allow them to accommodate complex-valued inputs, but you're talking about automatic changes. This is fraught with problems:

If the space allocated to numbered registers were to be automatically doubled each time complex mode was set, the expansion might constrain the pool (even at 1 kB). If there was inadequate pool space for the expansion, complex mode could not even be set. Also, the imaginary parts of complex numbers in numbered registers would be lost each time complex mode was un-set if redefinition were automatic.

If matrix-data allocation remained real-valued in complex mode, then storing the contents of any complex-valued data in numerical registers into matrices would not work the same way as in real mode -- the imaginary portion would fall into the "bit bucket".

BTW, the 16C will cut either the precision of data or number of registers each time the word size is changed, which may cause a loss of user data.

No, until there is Fortran-style data typing, these things should be avoided.

Re: A polite "rebuttal" to Valentin's HP-15C Reasonable Improvements

*Message #33 Posted by **Ed Look** on 3 Oct 2003, 4:58 p.m.,*
in response to message #32 by Karl Schneider

Oooooiiiiyyyyy! (Sorry, I know, this is not so polite!)

FORTRAN?! I loved my HP-34C because it often kept me from having to write FORTRAN code! I used to have to make MANY repetitive calculations; instead of having to write cumbersome program lines, I just keystroke programmed by 34C and ran it. Okay, so both methods required "debugging", but I could be home in my pajamas to solve the equations! Perish the thought, putting FORTRAN style programming formats into calculators! (Although, this might allow one, along with PCs to do FORTRAN in the kitchen in your jammies!)

Data typing

*Message #34 Posted by **Karl Schneider** on 3 Oct 2003, 9:16 p.m.,*
in response to message #33 by Ed Look

Ed --

I didn't really intend to convey that programming requirements of Fortran (or any other language) be introduced within handheld calculators; that would defeat the very purpose and principle of simplicity.

My real point there was that explicit data typing was a better approach to implement what was suggested, rather than automatically changing the size of numbered storage registers in order to accommodate different types of data.

All high-level languages include explicit data typing, and Fortran is one of the few that intrinsically support complex-valued data.

Edited: 3 Oct 2003, 9:18 p.m.

Re: HP-15C Reasonable Improvements

*Message #35 Posted by **Richard Garner** on 3 Oct 2003, 7:13 p.m.,*
in response to message #20 by Valentin Albillo

Here is a thought, why not install a 1 and a 1/2 inch CD-RW that could hold about 100MB and could be removed and placed into a normal CD-RW and read or written to? There are 2 inch drive being used in cameras now, why not calculators?

Re: HP-15C Reasonable Improvements

*Message #36 Posted by **Ed Look** on 3 Oct 2003, 7:57 p.m.,*
in response to message #35 by Richard Garner

Yeah, but now we're getting into being "sorta like PCs". The use of an inbuilt slot for SD cards (and they come nowadays up to, what, about 1GB?) is a much more elegant solution, I think.

Re: 15C vs. 32Sii

*Message #37 Posted by **Britt** on 2 Oct 2003, 12:37 p.m.,*
in response to message #19 by Karl Schneider

I'm curious what other 15C fans think of the 32Sii. I have a 15C, 16C, 32Sii, 41CV, 42S, 48G, etc and find the 32Sii to be the most all around useful. I like the 15C layout and keyboard but the 32Sii seems better for keystroke programming plus it is much faster and does number base conversions which I frequently need. I prefer the 32Sii to the 42S mainly because the display is much more readable and it doesn't have those annoying menus.

-- Britt

Re: 15C vs. 32Sii

*Message #38 Posted by **bill platt** on 2 Oct 2003, 1:16 p.m.,*
in response to message #37 by Britt

Hi Britt

I have similar: 45, 11C, 15C, 32Sii, 41CV, 48GX

And I agree: for day to day general anything goes computing, and fast, easy keystroke programming, the 32sii is the best. BUT there is so little memory so more of my stuff has been migrating. And, I have written a few very useful tiny little programs in the 48 that take advantage of lists, so that machine is sure enough becoming indispensible.

But I am sure that if I needed to do more matrix or complex number work, then I would be a 48 user or 15 maybe?

But I really like the 15C; it is nifty!

-Bill

15C vs. 32Sii vs. 42S Ramblings

*Message #39 Posted by **Patrick** on 2 Oct 2003, 2:32 p.m.,*
in response to message #37 by Britt

I prefer the 15C to the 32SII for totally personal reasons. The 32SII is clearly a much more capable calculator in many respects. If I had to choose, though, between the 32SII and the 42S, there is no contest. I would pick the 42S every time. I point out that the 32SII does have menus of its own, although I readily admit they are not nearly as pervasive.

In my mind, the two main complaints about the 42S are dealt with this way:

1 - Awful alpha entry

So, don't use it. Yes, you must use it for some things, like program names, but if you limit yourself to doing the absolute minimum, you are no worse off than in using a 32SII or a 15C. Besides, I don't think alpha entry is all that bad. I'm getting pretty good at my two thumb technique.

2 - No I/O.

Same answer as above. If you don't use gobs of memory for programs, it is not an issue to have to re-key programs. Again, you are no worse off than in using one of the other models. It is still useful to have all that room even if you only use it as space for program generated data.

My philosophy is that the 42S provides many advantages over the 15C (such as alpha program codes) even if you choose not to use it to its fullest. Of course it would be wonderful if there was true I/O capability and if the alpha entry capabilities were better ergonomically, but I still like the little guy.

Returning to Valentin's 15C enhancement remarks, I must say that I like many of his suggestions. I disagree with the card reader suggestion, though. The trauma that it would bring to the device's architecture aside (i.e., increased bulk), there are much better solutions in modern technologies for transfer and storage of calculator programs and data. I have said before that a Bluetooth connection would be, for me, absolutely ideal. Imagine being able to hotsync your 15C just by bringing it within a few feet of your PC and pushing the hotsync key? Coupled with an emulator on the PC upon which you could do software development, that would be oh so very, very nice. And no fiddly and destruction/loss prone little cards to deal with. Backup is via your PC disks, floppy, flash disk, or whatever other storage medium is invented for a PC.

Too bad that lygea emulator for the 15C doesn't run on Palm OS. Since you can get a Palm emulator for a PC, you could imagine running your 15C emulator inside your Palm emulator inside your PC! It would probably still run a couple of orders of magnitudes faster than the 15C!! Anyone know if there is a PPC emulator for PC? I really don't want to buy a PPC device. I mean, I *really* don't want to buy one.

Edited: 2 Oct 2003, 2:33 p.m.

Re: 15C vs. 32Sii vs. 42S Ramblings

*Message #40 Posted by **Britt** on 2 Oct 2003, 5:00 p.m.,*
in response to message #39 by Patrick

I appreciate your comments. The only thing that really disappoints me about the 42S is the poor display contrast.

On my Palm M500 I run the MathU Pro RPN calculator (http://www.creativecreek.com/) which has a semi-Voyager style virtual keyboard with either a one or two line display. It has a good selection of functions including TVM and logic. I like it a lot. It will also run on the Palm emulator on a PC or Mac.

-- Britt

Built-in card readere vs. PC link

*Message #41 Posted by **Valentin Albillo** on 3 Oct 2003, 5:14 a.m.,*
in response to message #39 by Patrick

Patrick wrote: *"I disagree with the card reader suggestion, though. The trauma that it would bring to the device's architecture aside (i.e., increased bulk), there are much better solutions in modern technologies for transfer and storage of calculator programs and data."*

Your remarks about "trauma" and "increased bulk" are debatable and I don't agree at

all with them. I've seen extremely thin, light, magnetic-stripe readers which could probably be fitted inside the body of a 15C. Micro-mechanical technology has advanced a lot in these last 20+ years and modern card readers have nothing to do with the somewhat bulky designs we are accustomed to, like the HP-41C card reader. May I remind you that even back then, the HP-67 *internal* card reader was indeed *much* smaller than the bulky HP-41C *external* one, right ?

" I have said before that a Bluetooth connection would be, for me, absolutely ideal. Imagine being able to hotsync your 15C just by bringing it within a few feet of your PC and pushing the hotsync key? Coupled with an emulator on the PC upon which you could do software development, that would be oh so very, very nice. And no fiddly and destruction/loss prone little cards to deal with. Backup is via your PC disks, floppy, flash disk, or whatever other storage medium is invented for a PC."

For me, that's exactly the point !! I *do not* want to rely on, depend on, or even be forced to own or carry a PC, portable or not, for such a simple thing as loading and saving programs and data to and from my *pocket calculator*. I relish those wonderful days when you just carried your HP-67 in your pocket, together with a 40-card holder, and you would have all your important programs instantly available, anywhere, be it in the classroom or in a mountain's peek or a crowded subway. Why on earth would anyone want to depend on owning and having a PC available somewhere just to download a particular needed program ? Is that portability ? Is that convenient ?

That may be fine for such bloated "calculators" as the HP-48/49 series and things like that, with their large memories. But for a pure, real, keystroke-programmable pocket calculator (NOT do-it-all, 8000-functions "handheld computer", etc) like the HP-15C, having to depend on a connection to a PC to download programs borders on the utterly ridiculous. Give me my built-in card reader and a 40-card holder and you can take all your PCs, Blueteeth, or whatever your heart desires, thank you. :-)

Best regards from V.

Re: Built-in card readere vs. PC link

*Message #42 Posted by **Nelson M. Sicuro (Brazil)** on 3 Oct 2003, 7:57 a.m.,*
in response to message #41 by Valentin Albillo

I think that the best option to store information in a calculator of the size of the HP-15C is SD/MMC cards. They are small and simple to handle, and fit perfectly inside the body of the 15C (and runs on low voltage, 2.7~3.3V).

Regards,

Nelson

Re: Built-in card readere vs. PC link

*Message #43 Posted by **Ed Look** on 3 Oct 2003, 5:09 p.m.,*
in response to message #42 by Nelson M. Sicuro (Brazil)

This may not exactly fit you guys' discussion exactly, but the new member of those "bloated calculators", the HP-49G+ DOES use SD cards for expansion memory. I'll agree these beasties are not exactly pocket calculators; rather, they hearken back to the days of what, the 45s? 67s? Even so, I just wanted

to mention that the use of such small and (marginally) affordable technology is a step in the right direction, even if form factor is not.

SD cards vs. Wireless Connection

*Message #44 Posted by **Patrick** on 4 Oct 2003, 7:54 p.m.,*
in response to message #42 by Nelson M. Sicuro (Brazil)

I like SD card technology. I own a Tungsten|T which uses them and find them very convenient and stable. If you could get an SD drive into the body of a 15C that would be great, but for me this is not essential if there is the wireless PC connection that I wished for.

I rarely find myself far from a PC anymore, either in business or personal life, so I don't share Valentin's desire to be independent of the PC. Having SD cards (or whatever) would be fine, provided it did not unduly increase the machine's bulk. I like devices which are small and light. A wireless Bluetooth connection capability would require very little extra space, from what I understand of the technology. I see that HP has gone to SD for some of its new models, but none of the new models are small, and certainly not the ones with SD technology.

Re: SD cards vs. Wireless Connection

*Message #45 Posted by **Nelson M. Sicuro (Brazil)** on 4 Oct 2003, 8:04 p.m.,*
in response to message #44 by Patrick

I think that the advantage of the SD/MMC card is that they are very simple to implement (serial I/O) and most of the new microcontrollers have this serial I/O already implemented. The wireless communication is more complicated (hardware & software) and to a small project like mine is a very difficult task. Maybe in the near future a new single-chip with wireless capability come up and make it simple to develop.

Regards,

Nelson

Re: SD cards vs. Wireless Connection

*Message #46 Posted by **Ed Look** on 5 Oct 2003, 1:00 a.m.,*
in response to message #45 by Nelson M. Sicuro (Brazil)

Wireless is good, too! I have a homemade 48G to PC cable; the PC end is a serial connector and very nice. The 48G end is the connector I bought separately when Samson Cables still carried them and while it fits perfectly, it falls off if I just frown at it. (Yes, yes, I could have BOUGHT a very nice fitting cable, but I wanted to recapture my youth when the people I worked for wouldn't buy the cables we needed and we had to make them; some of them had about 20 pins on each end! I think I did a better job back then!!)

But I have one serious poor man's concern- the power drain increase if wireless technologies were built onto the "motherboard" of the

calculator. Right now, even the mighty HP-48G's use only three AAA batteries, even the cheapest C-Zn types! I'd hate to see these marvels require a few of the more expensive dry cells, though if rechargeable, Ni-metal-H cells these days are a far cry from the easily depleted and worn out Ni-Cds.

Re: 15C vs. 32Sii

*Message #47 Posted by **Tizedes Csaba** on 2 Oct 2003, 5:22 p.m.,*
in response to message #37 by Britt

I've got this calcs too, and I use usally the 32SII. But I think the 32's got a big deficiency: On this calc haven't got 'GTO i' command.

Many weeks ago I wrote to this forum (the title was 'Nested loops'). I wrote an algorithm, about how I maked nested loops on 15C. I wanted other solutions to this problem, but nobody was answered.

This nesting-method can't adaptable to 32SII, because on this calc haven't got 'GTO i'.

Csaba

PS.: Hmm... Sometimes I think that is no difference between 'GTO i' and 'GTO (i)', but it's not really true...!

Re: 15C vs. 32Sii

*Message #48 Posted by **Karl Schneider** on 3 Oct 2003, 2:44 a.m.,*
in response to message #37 by Britt

Britt stated:

> Quote:
>
> *I'm curious what other 15C fans think of the 32Sii. I have a 15C, 16C, 32Sii, 41CV, 42S, 48G, etc and find the 32Sii to be the most all around useful.*

Sounds familiar! I have all those RPN scientific models, plus the 49G and 34C, as well as business and AOS models.

> Quote:
>
> *I like the 15C layout and keyboard but the 32Sii seems better for keystroke programming plus it is much faster and does number base conversions which I frequently need.*

I agree completely -- the 15C layout is a marvel of thorough planning, while the 32Sii's is a bit helter-skelter in places.

The 32Sii is better for programming because of alphanumeric display, cataloguing and deleteion of program blocks, prompted input, equations, etc. The 4x speed is also a boon for execution of programs.

I use the 32Sii at work, where I have a PC with Matlab on my desk for any matrix or

complex-valued calculations. Also, I can sit away from the desk and use the 32Sii as a handheld.

However, if I were told that I could keep and use only one or the other, it would be the 15C, because of the important functionality for matrices and complete complex-domain functionality that the 32S/Sii lacks.

I've read that the 32S was marketed as a replacement/upgrade for the 11C, and the 42S was the replacement/upgrade for the 15C. I can accept this, although I belive that the 11C/15C are much closer to each other than the 32S/42S are. I don't believe that the 11C has anything that the 32S/Sii doesn't; the 32S/Sii has plenty that the 11C doesn't.

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HP 42S - How to program?

*Message #1 Posted by **Dave** on 30 Sept 2003, 7:38 a.m.*

I have a HP 42S. Using "PRGM" I have programmed one program but I do not know how to establish other programs as every time I click on "PRGM", the initial program appears. Can anyone tell me (I don't have a manual!!) to procedure of entering in new programs.

Cheers Dave

Re: HP 42S - How to program?

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 30 Sept 2003, 7:42 a.m.,*
in response to message #1 by Dave

Just press GTO . . (twice the dot) and place a label (with more than one alpha char) in the beginning to identify the program later.

Good Luck!

Nelson

Re: HP 42S - How to program?

*Message #3 Posted by **Dave** on 30 Sept 2003, 7:47 a.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Nelson - you are a legend!!! Thank you.

Re: HP 42S - How to program?

*Message #4 Posted by **Gordon Dyer** on 30 Sept 2003, 2:20 p.m.,*
in response to message #1 by Dave

It is well worth buying the Museum CD for the manual!

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HP41C Story

*Message #1 Posted by **CME750** on 30 Sept 2003, 1:12 a.m.*

Now here's an unusual "calculator memories" story. I stumbled across it by accident and thought it was worth passing on. The toe switches are rather novel.

http://www.hamfon.com/blackjack/blackjack.htm

Apologies if you've seen it already

Re: HP41C Story

*Message #2 Posted by **Bob** on 30 Sept 2003, 9:07 a.m.,*
in response to message #1 by CME750

What's the use of toe switches ? When I put my 48GX down there, I can't even make out the numbers, much less do it while playing cards ! (Besides, I always end up hitting 2 or 3 keys at once)

Seriously, interesting application of the 41 series.

(12345 to delete)

Re: HP41C Story

*Message #3 Posted by **Charlie O.** on 30 Sept 2003, 9:35 a.m.,*
in response to message #2 by Bob

The toe switches were used to input the cards and the output on the watch told whether to hit, etc.

Re: HP41C Story

*Message #4 Posted by **Charlie O.** on 30 Sept 2003, 9:29 a.m.,*
in response to message #1 by CME750

I worked with one of the group while living in Denver during the 80's. He showed me how it worked and told me how the group would fly to Vegas for the weekend and come back with extra money. They stopped after the penalties became too severe to make it worth the risk.

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Sharp Elsi Mate EL-5001 worth anything?

*Message #1 Posted by **chris** on 29 Sept 2003, 9:49 p.m.*

Here I go again,off hp topic but...I found this at the same thrift store(as my other post) and was wondering if it has any value?

http://imagehost.vendio.com/preview/ju/junk250/.mids/sharpDscf0003.jpg

Edited: 29 Sept 2003, 10:36 p.m.

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #2 Posted by **D4Days** on 30 Sept 2003, 12:31 a.m.,*
in response to message #1 by chris

Calculators are only worth what someone will pay for them.

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #3 Posted by **chris** on 30 Sept 2003, 12:34 a.m.,*
in response to message #2 by D4Days

Thank's for the insight....what's it worth?

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #4 Posted by **D4Days** on 30 Sept 2003, 4:56 p.m.,*
in response to message #3 by chris

It's only worth what you're willing to pay for it. Period! (don't be an ass)

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #5 Posted by **chris** on 30 Sept 2003, 11:33 p.m.,*
in response to message #4 by D4Days

D4days,Didn't mean to be an ass,but what I would pay for it has nothing to do with it's value.I dont collect calculators...but many people do!The value is what someone else would pay for it,that was my question.With a little more research,looks like a rare/unusual one,but havn't found a list price(what someone else would pay).Thanks just the same.

Edited: 1 Oct 2003, 12:06 a.m.

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #6 Posted by **D4Days** on 2 Oct 2003, 7:30 p.m.,*
in response to message #5 by chris

Sorry...

Collectors pay whatever they have to sometimes to get what they want.

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #7 Posted by **chris** on 2 Oct 2003, 10:45 p.m.,*
in response to message #6 by D4Days

Yea,I searhed the web looking for a value and saw a pic of one,but none for sale.

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #8 Posted by **Katie** on 30 Sept 2003, 12:39 a.m.,*
in response to message #1 by chris

The EL-5001 is fairly rare and sought after due to its unique barrel function selector switch. It's the only calculator that I've seen with this feature that let's you select which functions the top 4 keys will perform by using a rotating 6-position switch.

My guess is that you'll get $50-$100 for it on ebay. I've only seen a couple of them go by and they both went for around $75.

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #9 Posted by **chris** on 30 Sept 2003, 12:42 a.m.,*
in response to message #8 by Katie

Cha-Ching....got it for .60 cents.

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #10 Posted by **chris** on 1 Oct 2003, 12:20 a.m.,*
in response to message #9 by chris

Here is an interesting link I found with some specifics.All is over my head,I never mastered higher math,wish I had this calculator in algebra 101...might of passed!I charged the battery and seems to work good.

http://www.rskey.org/el5001.htm

Edited: 1 Oct 2003, 12:38 a.m.

Re: Sharp Elsi Mate EL-5001 worth anything?

*Message #11 Posted by **chris** on 1 Oct 2003, 2:07 a.m.,*
in response to message #10 by chris

here's a link to a similar model

http://www.rskey.org/detail.asp?manufacturer=Sharp&model=PC-1201]

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Sharp Elsi Mate EL-5001 worth anything?

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Architectural data corp./Data Dimensioner Calculator

*Message #1 Posted by **chris** on 29 Sept 2003, 9:34 p.m.*

I don't mean to crash the HP calculator forum but...today I found this calculator and searched the web and can't find any reference to this maker.I would appreciate any input!Architectural Data corporation(Louisville Ky)-Data Dimensioner,dated 1984.Serial # space is blank so maybe a prototype?Has a plug on the side for an external printer by same mfg. (wasn't with it too bad).I'll try to include links to photo's below.

http://imagehost.vendio.com/preview/ju/junk250/datanewDscf0001.jpg

http://imagehost.vendio.com/preview/ju/junk250/.mids/data2Dscf0001.jpg

http://imagehost.vendio.com/preview/ju/junk250/.mids/data3Dscf0001.jpg

Edited: 29 Sept 2003, 10:48 p.m.

Re: Architectural data corp./Data Dimensioner Calculator

*Message #2 Posted by **Victor Koechli** on 30 Sept 2003, 2:26 a.m.,*
in response to message #1 by chris

The form of the case and the keyboard sure enough look like it's based on a TI 58/59...

Cheers, Victor

Re: Architectural data corp./Data Dimensioner Calculator

*Message #3 Posted by **chris** on 30 Sept 2003, 11:38 p.m.,*
in response to message #2 by Victor Koechli

A little more info from the instruction booklet,four function/four dimentional modes.Mixed dimentions such as feet,inches,fractions,converting feet or inches to their decimal or metric equivalents.Thanks everybody!

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Interesting quote about old (calculator) times at HP

*Message #1 Posted by **Andrés C. Rodríguez (Argentina)** on 29 Sept 2003, 6:56 p.m.*

The following is a quote from an article titled "Semantic Services" by Robert E. Filman (IEEE Internet Computing magazine Editor in Chief).

... "The other [story] was from a friend who had worked at Hewlett Packard on the first handheld {scientific} calculator. When he asked the information system accounting folks how much profit HP had made on that invention, they responded with a list of 43 questions to clarify what he meant by "profit." (For example, "How should earnings and losses on foreign currency futures transactions be treated?")" ...

The article has (otherwise) nothing to do with calculators, and appeared in the IEEE Internet Computing magazine, July-August 2003, pages 4 to 6. It can be found in the IEEE Computer Society Digital Library (there is no charge for this particular article), the URL is:

http://csdl.computer.org/comp/mags/ic/2003/04/w4004.pdf

It seems that, while those were glorious times at HP, the seeds of certain situations that we regret today were already planted...

Edited: 29 Sept 2003, 10:08 p.m.

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IBM CE Terminal vs. HP-41 !

*Message #1 Posted by **Gordon Dyer** on 29 Sept 2003, 3:33 p.m.*

Have you ever seen such a close similarity?
But it isnt a 41C.
http://www.hknebel.org/Museum/Museum/Rechner/Taschenrechner/IBM_CE_Terminal/ibm_ce_terminal.htm

Re: IBM CE Terminal vs. HP-41 !

*Message #2 Posted by **Wayne Brown** on 29 Sept 2003, 5:13 p.m.,*
in response to message #1 by Gordon Dyer

There certainly is a strong resemblance... I wonder who copied whom?

Re: IBM CE Terminal vs. HP-41 !

*Message #3 Posted by **Fred** on 29 Sept 2003, 9:16 p.m.,*
in response to message #1 by Gordon Dyer

What similarities other than black with gold trim???

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hp49g+ manual - I can't believe it!

*Message #1 Posted by **Frank B. (Germany)** on 29 Sept 2003, 3:16 p.m.*

Hi,

got my new HP49g+ calculator last week. There have been lot's of discussions about keyboard, speed etc. at comp.sys.hp48, so I don't want to comment on these. But I do want to comment on the manuals.

In addition to a quickstart manual one gets english, spanish and german versions of the user's guide as pdf-files. The translation of the user's guide to german is horrible!!! I couldn't believe it when I first saw it.

Example: On page 12.43 (english) resp. 12.50 (german) parametric surface plots are discussed. At one point, "parametric surface plot" is translated into "photoreceptor surface plot". Ok. Funny. Same line: "x(X,Y) = X sin Y", "y(X,Y) = x cos Y" is translated into "x(X,Y) = X Sünde Y", "y(X,Y) = x Lattich Y". "Sünde" is the religious meaning of "sin", and "Lattich" means "lettuce".

This is ridiculous!!! They are selling a calculator, but don't even know what "sin" and "cos" mean??? To me this entire manual sounds like a babelfish translation. Thanks HP!

Frank.

Re: hp49g+ manual - I can't believe it!

*Message #2 Posted by **Ed Look** on 29 Sept 2003, 3:33 p.m.,*
in response to message #1 by Frank B. (Germany)

Well, kids have been telling me a long time, at least here in America, that math is evil.

Re: hp49g+ manual - I can't believe it!

*Message #3 Posted by **Ed Look** on 29 Sept 2003, 3:39 p.m.,*
in response to message #1 by Frank B. (Germany)

Frank, sorry about the flip post.

I understand how you feel; whenever I buy something that comes with a useless or poorly translated (usually from Japanese) manual, it's enough to make me scream (sometimes I actually do!).

In fact, I was about to complain about the poor print quality of my 32SII and 48G manuals, even if the content was excellent. My 34C manual was both very useful and a joy to look at.

***

Most American kids think English and history are evil, too; only recess is good.

Re: hp49g+ manual - I can't believe it!

*Message #4 Posted by **Ernie Malaga** on 29 Sept 2003, 4:27 p.m.,*
in response to message #1 by Frank B. (Germany)

The Italians have it right: "Traduttore, traditore."

That aside, it looks like a botched computer-processed translation without supervision or editing. The kind of translation that would result in "The spirit is willing, but the flesh is weak" into "The booze is good, but the meat is rotten."

There are no excuses for this sort of fiasco.

-Ernie

Edited: 29 Sept 2003, 9:33 p.m.

Re: hp49g+ manual - I can't believe it!

*Message #5 Posted by **Karl Schneider** on 30 Sept 2003, 2:16 a.m.,*
in response to message #1 by Frank B. (Germany)

Contrast that "effort" with the documentation work performed for the HP-15C -- a top-notch 293-page small-font(!) manual in English, meticulously translated into German and other languages. Also, a 219-page Advanced Functions Handbook.

This took place in the early '80s, before NAFTA and the opening of mainland China, when engineers called the shots, got the budgets and support, and the products cost enough to justify it all.

"Ya don't get what ya don't pay for" is the real meaning of the expression.

-- Karl

Re: hp49g+ manual - I can't believe it!

*Message #6 Posted by **Daniel Diggelmann** on 30 Sept 2003, 2:39 a.m.,*
in response to message #5 by Karl Schneider

Hi, as always I avoid reading too much in the manuals ;) But I had to look up how the function %T exactly works. The examples are wrong and don't mach the results of the HP-49G+. Actually the calc does it right :) These kind of things are wrong in both the english and german manual. Normally I still use the HP-48 Advanced User's Reference as well as the two Urroz books for the HP-49G. Another very weak point about the new calcs. This certainly doesn't help to gain more new users on the market. As with the HP-49G this calc is only useful for longtime HP freaks.

Cheers Daniel

Re: hp49g+ manual - I can't believe it!

*Message #7 Posted by **Tom (UK)** on 30 Sept 2003, 12:56 p.m.,*
in response to message #1 by Frank B. (Germany)

This is quite clearly unaceptable. If HP claim in their adverts to have a German manual for the HP49G+ then they should provide one. In the UK this area is known as false advertising and the company can be fined and/or stopped from making false claims.

Have you complained to HP? If Germany has the same kind of rules as the UK then you could say you will refer them to the advertising body.

You sound fortunate in this case as you seem able to read / write good english, think of all those people who can't.

I'm only saying the above because HP will only change their ways if it hurts them, at the moment HP will only notice if they are fined or taken to court because then the share holders get upset.

PS What hope have we got for the HP33S?

Re: hp49g+ manual - I can't believe it!

*Message #8 Posted by **gewinner@fbalzer.de** on 30 Sept 2003, 5:07 p.m.,*
in response to message #7 by Tom (UK)

Hi there,

> Have you complained to HP? If Germany has the same kind > of rules as the UK then you could say you will refer them > to the advertising body.

yes, I have sent an email to HP Germany, although they dont't even have a website dealing with calculators. So I don't expect an answer. But somebody from HP has responded to my posting at comp.sys.hp48, so maybe there's hope!

>You sound fortunate in this case as you seem able to > read / write good english,

no, not to write ...

> think of all those people who > can't.

Yeah, I think this is the point! If I would not be able to read english, this entire calculator would be completely useless. And I'm only talking about the translation. I'm a complete novice in using a HP49. If the manual has a lot of textual errors too (as mentioned above), I'll be lost. How can I try to persuade my students of using the superiority of RPN if the top calculator from HP has such a crappy manual???

> I'm only saying the above because HP will only change > their ways if it hurts them, at the moment HP will only > notice if they are fined or taken to court because then > the share holders get upset.

> PS What hope have we got for the HP33S?

Reading a lot of posts at comp.sys.hp48, I think HP is on the right track back to their famous calculators from pre 1995. I've already preordered a HP33s, and I'm really looking forward using it. But: HP, please don't use the users as beta testers for both hard- and software!

Frank.

Edited: 30 Sept 2003, 5:07 p.m.

Re: hp49g+ manual - I can't believe it!

*Message #9 Posted by **Raymond Del Tondo** on 30 Sept 2003, 5:48 p.m.,*
in response to message #8 by gewinner@fbalzer.de

Hi Frank,

>But: HP, please don't use the users as beta testers for both hard- and software! > That may be a holy wish. They did it for the last nearly half a decade;-)

Regards,

Raymond

Re: hp49g+ manual - I can't believe it!

*Message #10 Posted by **Victor Koechli** on 30 Sept 2003, 6:03 p.m.,*
in response to message #1 by Frank B. (Germany)

Ouahaha... This had me laughing out loud for minutes! It simply cannot be true, you're making this up, Frank. Admit it!

As I always say in such moments: If I'd see this in a movie, I'd think 'Oh well, they're exaggerating again, this would never happen in real life'. But reality always makes the best jokes...

It reminds me of how we had fun using babelfish to translate a sentence from German to English, then to French, then back to English, and finally to German again. You got about four times the original number of words, but they did no longer mean anything. Big fun, really!

Cheers, Victor

12345 to delete

Re: hp49g+ manual - I can't believe it!

*Message #11 Posted by **Veli-Pekka Nousiainen** on 30 Sept 2003, 7:34 p.m.,*
in response to message #10 by Victor Koechli

I just checked the Table of Contents im Deutch and there they are: "Laplace Wandelt Um" Seite TOC-15, (aber: "Laplace-Transformationen" Seite M-9) UND "Schlüssel" Seite TOC-18 (keine "Schlüssel" im der M, nur nich im Anhang B)

Möglich ist est nur - sorry: probably it's just an automated translation of the index? I'm so slow in reading Germany that I can't possibly read all the thousand pages...VPN

Re: hp49g+ manual - I can't believe it!

*Message #12 Posted by **Ariadna Castillo González** on 1 Oct 2003, 1:45 p.m.,*
in response to message #1 by Frank B. (Germany)

Dear Frank,

I don’t know if you are familiar with the translation business but as a professional translator and owner of a small translation agency, which participated in the translation into Dutch of another calculator manual for HP, I can explain you the reason of such bad quality translations. Not long ago, some of the translations for the HP manuals (if not all) were handled by a top-quality translation agency in Australia (of which I guess I cannot say the name even though they really deserve to be mentioned on grounds of their professional attitude). They carefully selected the appropriate translators based on their backgrounds and linguistic knowledge. They fully supported their translation team and offered them honorable rates. All this, of course, has a price. Unfortunately, HP decided to go the wrong way (a general trend lately). Money seems to be more important than quality and they often forget that a manual is a very important part of any product to be sold. The translations of the manuals are now handled by an agency in Asia (I saw myself their advertisement and the rates they offered, in two words “insulting rates”). They pay their translators less than 2/3 of what translators were getting before. That, of course, translates into poor-quality results (with all my respects to those professionals who have no other option than to accept these rates). My motto is “pay peanuts and you’ll get

monkeys". I honestly feel sorry for the people who need to use such manuals but, on the other hand, I'm having a good laugh here because their stupid decision is paying back. I really hope many more complaints like yours are made public for everybody to realize that translation is not a game but a profession, which not everybody is qualified to perform.

Kind regards, Ariadna Castillo

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Corrosion in HP67 battery compartment

*Message #1 Posted by **Neil Strickland** on 29 Sept 2003, 6:09 a.m.*

My HP67 has bluish corrosion around the battery terminals from a leaking battery. What is the best way to remove this? I suspect the gold coating on the terminals is ruined too. Can the terminals be replaced? Are they still procurable? - Thanks.

Sure, they can be cleaned

*Message #2 Posted by **Mike** on 29 Sept 2003, 1:00 p.m.,*
in response to message #1 by Neil Strickland

They can be easily cleaned and they can be replaced. But to replace them requires peeling the label on the back. Since the terminal corrosion when cleaned, is simply a cosmetic condition and can't be seen from the outside, I wouldn't replace them unless there is a connection problem.

Be careful in cleaining them that you don't break them. Corrosion gets on the underside of the contacts as well.

The best source of new contacts is from non-working and trashed 45 or such.

Re: Sure, they can be cleaned

*Message #3 Posted by **Michael L. Meyer** on 30 Sept 2003, 12:15 a.m.,*
in response to message #2 by Mike

I agree. Does the calc work?

I've never seen one with even some corrosion that didn't have internal corrosion as well.

Others can help me out here, but I think that even minor corrosion should be removed, if possible, so as not to let moisture and time produce more corrosion.

Michael

Re: Sure, they can be cleaned

*Message #4 Posted by **Neil Strickland** on 30 Sept 2003, 6:40 a.m.,*
in response to message #3 by Michael L. Meyer

No, the calculator is dead. The LEDs don't even flicker anymore. I am only keeping it for sentimental value at this stage.

With what should I clean it, dear Henry, dear Henry?

*Message #5 Posted by **Neil Strickland** on 1 Oct 2003, 11:53 p.m.,*
in response to message #4 by Neil Strickland

Can anyone recommend what I should use to remove the corrosion? Preferably something that won't damage the rest of the calculator. Thanks.

Re: With what should I clean it, dear Henry, dear Henry?

*Message #6 Posted by **Ed Look** on 2 Oct 2003, 12:50 a.m.,*
in response to message #5 by Neil Strickland

Personally, I'd not recommend any chemical agents; I believe that'd cause more problems later.

The best bet might be to gently scrape or gently scour it off with something small, if it is a small area. But I would use a bit of plain water, perhaps on a cotton swab or tiny wad of paper towel to wash off any leaked corrosives. Most of the inorganic salts that form or leaked acids or bases should be fairly easily removed by water. After being sure to rinse thoroughly to forestall any further corrosion, be sure also to DRY THROUGHLY, for the same reason.

I recently had a close call with my old HP-34C: a replacement pack of NiCd cells began to leak and slightly damaged the contacts, but a bit of wiping removed the small amount of leaked and corroded material. Of course, toss the leaked cells. The contents of batteries are toxic and corrosive.

Re: Sure, they can be cleaned

*Message #7 Posted by **Katie Wasserman** on 2 Oct 2003, 2:10 a.m.,*
in response to message #3 by Michael L. Meyer

I agree that scrapping away corrosion is the way to go. I found a great tool to do this with, a fiberglass brush. The brush can work though any amount of corrosion and sort of disintegrates as it's removing the corrosion so you need to buy refills for it.

Here's the brush:

http://mcm.newark.com/NewarkWebCommerce/mcm/en_US/support/catalog/productDetail.jsp?id=SABU10191

and the refills:

http://mcm.newark.com/NewarkWebCommerce/mcm/en_US/support/catalog/productDetail.jsp?id=SABU1019210

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What I'll suggest for my father?

*Message #1 Posted by **Joe Panico** on 28 Sept 2003, 10:53 p.m.*

To all, This isn't a debate over the merits of old HP's, new HP's or future HP's (right), the subject has plenty coverage already. My father used the calculators for thirty years, mostly while teaching statistics at college. He FINALLY did a big project using an HP-28C I bought for him when it was first introduced. He loves it, possibly more than his long retired 67. But now he wants more and ask me what he could get. I own a 48GX down to a 10B, plus the usual collection of in-beweens.

I'll divide HP's into two catagories - big ENTER keys and the current, almost missing, ENTER keys.

So, all things considered, when you see my posting in the Classified ad's, it's for my father. I figure another 28, an S version, because he likes it and a 48GX because I use it and have all sorts of stuff to go with it - manuals, hacker junk, experience. And ---- big ENTER key!

Joe

PS: This first one we ever owned (and still do) is a 45, purchased a few months after it's introduction. It was hot. Some guy got it from a friend and had more use for $50 than all the advanced engineering, scientific, slide-rule features. That's one rationalization I've yet to see for past, present & future HP's debated at this site: greater demand in the black market!

Re: What I'll suggest for my father?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 29 Sept 2003, 5:07 a.m.,*
in response to message #1 by Joe Panico

The HP 49G+ is fast in plotting graphs and every operation is snappy. Because it is new the support should go long long time to the future (it uses ARM9 emulating Saturn). The modern connections like standard Irda and USB at 115,200 speed gives 12*speed compared to a 48G in connecting to a PC. You will never go back when you try that! Plus there is that SD card for another means of data exhange or for further storage expansion if the internal 768KB Flash is not enough. The main RAM is 256KB, which gives plenty of room to operate on big things. The screen is 131*80 pixels. The status line is on all the time, while it gives you the maximum stack at the same time.

The ENTER key is small because that gives the change to make the cursor keys to work in the alpha mode, too! The new 49G+ has a tactile keyboard (the HP click) and a possibility to use "beep" on every key press to help a new use to adjust to the key press. The green and red shift keys give a good contrast on that beautiful light golden face plate.

It has both RPN and Algebraic operations and if you set it to the Approx. mode, it will be compatible with all the old HP 48 user programs. Except that it runs them much faster, like, say 4 times as fast. "Slow" operations: Inverting a large numerical matrix is "only" down to 50% time or 2*speed. Native operations (ARM9 at 75MHz) like Garbage Collection or binaries like #1 #1000 FOR k NEXT loop, are 7*speed. Plotting a truth plot is 3*speed. The new Parisse's MSLV for solving multiple variables problems is 3.5*speed. BUT again I feel that the connection to a PC at 12*speed is the most remarkable speed increase. VPN

Re: What I'll suggest for my father?

*Message #3 Posted by **Joesph** on 29 Sept 2003, 7:21 a.m.,*
in response to message #2 by Veli-Pekka Nousiainen

I second that!

The screen is much better for old eyes.

Re: What I'll suggest for my father?

*Message #4 Posted by **Raymond Del Tondo** on 29 Sept 2003, 8:55 a.m.,*
in response to message #3 by Joesph

The screen quality difference gets much smaller if you compare the 49G+ with the latest 'black/white' high contrast screens in the HP-48GX's

I played with some 49G+'s at the Aschwil meeting, and I must say it's a really nice machine. Daniel Diggelmann showed me the keyboard issues, they are reproducable, maybe the next batch of machines will be better.

However, the 49G+ could be the real succesor of the HP-48. At this point there are 'only' three known flaws: Keyboard reliability, ENTER key position & size, and HP-48 software compatiblity. Keyboard reliability could be fixed (as written above), but a major drawback (for me) is the keyboard layout. Seems I have to build my own REAL HP-48GX+ at some time...

Raymond

Re: What I'll suggest for my father?

*Message #5 Posted by **Ron Ross** on 29 Sept 2003, 9:40 a.m.,*
in response to message #1 by Joe Panico

I think you are correct to consider the Hp28s or Hp48G series and pass on the newer calculators. At his age (and even mine) he will not appreciate the finer elements of these machines if he has to look for that DAMN tiny enter key that MOVED! The newer 49G+ doesn't have the HUGE library available to it yet that the 48G series has available to it NOW! And I suspect he probably has no use for the CAS or other extras (and if he does, the 48G series isn't that bad with the right downloads).

He may not even like the 48G series, if he is used to a 28c. Then the 28s would be an even more attractive solution. And best of all, these Hp's are actually affordable (especially after the exam bans have been announced).

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The folly of dual data-entry modes

*Message #1 Posted by **DanO** on 28 Sept 2003, 10:44 p.m.*

Most people prefer a single data-entry mode (RPN or ALG). Why would any individual customer want a calculator that has both modes available?

This dual entry mode approach is nothing but a bad compromise on HP's part to try and appeal to all users and keep manufacturing and distribution costs low. Unfortunately, this approach is going to annoy HP's customers and create additional costs.

Imagine this: You are working on a complicated problem and you reach for your new HP dual data-entry calculator. You turn it on. Can you get to work immediately on your problem? No, because there is something you must do first. You must mentally set aside your work, however briefly, and check to make sure the calculator is in your preferred data-entry mode. This may not sound like much but it has to be done each and every time you turn on your calculator; day after day, month after month, year after year.

I predict failure for HP's dual data-entry mode approach. I would compare using one of these calculators regularly to going on a long walk with a permanent pebble in your shoe.

The additional costs will come when an ALG mode user inadvertently sets RPN mode and then contacts HP customer service because his calculator has gone haywire and doesn't work anymore. Does HP really want to deal with this?

The CORRECT approach for HP is to offer each calculator in its line-up in two versions: Permanent RPN mode and permanent ALG mode. For example, offer an HP-12CP RPN and a separate HP-12CP ALG and let the customer choose.

Re: The folly of dual data-entry modes

*Message #2 Posted by **Veli-Pekka Nousiainen** on 29 Sept 2003, 5:19 a.m.,*
in response to message #1 by DanO

You obviously have NEVER used a HP with both RPN/Alberaic entry. You set the mode once when you get the calculator out of the box and it stays that way.

If you need to soft-reset the calc, [ON]&[F3 C], the mode reverts to Algebraic (and some other flags will be reset to default, too), BUT, you can have a STARTUP program at Home: << myflags STOF >>, which will set them back (as long as you have done RCLF 'myflags' STO). Naturally you can put more stuff on that STARTUP.

In case you loose *all* your RAM, you can RESTORE you latest ARCHIVE from the User Flash "RAM". After that you boot and the STARTUP will kick in restoring your flags. So there you go!

NOW: Do you have other issues that worry you? Regards, VPN

Re: The folly of dual data-entry modes

*Message #3 Posted by **r. d. bärtschiger.** on 29 Sept 2003, 1:21 p.m.,*
in response to message #2 by Veli-Pekka Nousiainen

I just tested an 'ON-C' warm boot on my HP-49G+ and it does not revert to algebraic mode. However I did notice one other undesired effect, it seems to detach any libraries attached to the HOME directory. This is something which the previous models, i.e. HP-48GX & HP-49G, did not do. Can someone confirm this behavior?

rdb.

After further testing, an 'ON-C' does detach libraries attached to the HOME directory but not any attached to a sub-directory, which is the same as on the earlier HP-49G. Neither calculator reverts to algebraic mode.

rdb.

Edited: 29 Sept 2003, 5:59 p.m.

Re: The folly of dual data-entry modes

*Message #4 Posted by **Todd Stock** on 29 Sept 2003, 9:36 a.m.,*
in response to message #1 by DanO

I agree in general; however, as covered in another note, the NCEES seems to be moving toward providing one type of calc for their exams, with this calc capable of either logic (pretty much narrows the field to those itty-bitty-Enter machines).

Given an announcement down the road that NCEES will only use a dual logic Calc X from Bad Calc Corp for exams, how many engineering students would opt for something else?

As I noted earlier, maybe HP's new approach is designed to allow their calcs to be used both in current programs with algebraic-only text book chapters, as well as in the NCEES-type environments.

Re: The folly of dual data-entry modes

*Message #5 Posted by **Mike (Stgt)** on 29 Sept 2003, 10:43 a.m.,*
in response to message #1 by DanO

I am not convinced.

Imagine, there exists an HP-nnGX2plus(RPN) _and_ an HP-nnGX2plus(ALG), you drive downtown to get one, drive back home to see you got inadvertently the HP-nnGX2plus(ALG) but wanted the HP-nnGX2plus(RPN). You can't change that by phone call.

To realy lower costs (on both sides) how about this vision: There is only **one** basic calculator (pocket sized, one-thumb operatable even by a one-armed salesman, like the HP-21 and homologous) and the functionality of your choice you choose from internet, test it in a emulator on your PC and transfer it by USB to the real device. You could even "build" a RPN scientific with TVM capability <G>.

Ciao.....Mike

Re: The folly of dual data-entry modes

*Message #6 Posted by **Steve** on 29 Sept 2003, 3:15 p.m.,*
in response to message #1 by DanO

I agree with your assessment of the dual mode of the HP-49. I used to be a great fan of the HP-48 and often recommended it to my students and offered help sessions on the calculator. But with the advent of the dual mode and the temporary disappearance of HP from the calculator scene, I gave up on them. It was just too much to ask when a student shows up for help to try to take into account their mode preference. Seems to me a solution would be to make two OS available via a flash memory installation, one for us RPN fans, and another for the rest.

Re: The folly of dual data-entry modes

*Message #7 Posted by **Victor Koechli** on 30 Sept 2003, 2:42 a.m.,*
in response to message #6 by Steve

I do not agree. Not at all. In fact, I can't see the problem here. Why should it be bad to allow the user to make his / her choice on the device of his / her preference?

Not to mention that, once you'd want to sell your calc, you could only find buyers for the logic your device has. Silly.

As for myself, I'll never use algebraic mode, of course, but then again, I couldn't care less about the calc being able to to it. My HP 49, BTW, does not revert to Alg on a machine reset (ON + C), only if you coldstart it.

Cheers, Victor

Re: The folly of dual data-entry modes

*Message #8 Posted by **Karl Schneider** on 30 Sept 2003, 3:11 a.m.,*
in response to message #1 by DanO

I have an HP-17Bii and 49G, and neither is difficult to toggle between modes, which stay set until they are changed.

Of course, dual mode will cause some unshifted key positions to be unused (e.g., "(", ")", "RDN").

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screen reolution

*Message #1 Posted by **joe** on 28 Sept 2003, 8:48 p.m.*

Hi! I have a HP Pavillion 503w with 128 mb of ram, 40 gig hard drive, an intel celeron 1.7, and windows xp. I reinstalled windows on my computer now it won't let me change the screen resolution or the color. It is stuck in medium 16bit color and a 640 by 480 screen resolution. Also, when I go to device manager it has a section that says "other devices". In there it says video controller (VGA Compatible) and that has a little yellow thing on it. And I don't know what kind of video card installed. Can anyone help me???

Re: screen reolution

*Message #2 Posted by **David Ramsey** on 28 Sept 2003, 9:07 p.m.,*
in response to message #1 by joe

First, you should be aware that this is a forum for HP _calculators_. Your Pavilion is not a calculator.

Second, the reason you can't set higher resolutions is that you need to install an additional driver for your video card. Without this driver, Windows is limited to the 16 color, 640 by 480 pixel screen you have.

You can get the drivers from the web site of your video card's manufacturer. If you don't know what kind of video card you have, there are several options:

1. Look in the documentation and on the CDs that came with your computer.

2. Open the computer up, remove the video card, and look.

3. The video card's guts are probably made by either nVidia or ATI. Download drivers from both companies and try to install them-- they won't install unless you have the right card, so it's pretty safe.

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32sii Memory upgrade

*Message #1 Posted by **charles** on 28 Sept 2003, 8:23 p.m.*

Hi all,

Have any of you attempted to upgrade the memory of the 32sii? Maybe 128k? I am new to circuitry so don't laugh if this is an obvious impossibility, but any thoughts would be nice.

Re: 32sii Memory upgrade

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 28 Sept 2003, 8:39 p.m.,*
in response to message #1 by charles

I understand it is not possible to do so, but even if you manage to connect such memory to the calculator electronics, the software which runs the HP 32 Sii would not look for such memory, nor "see" it; and hence the memory will not be of any use.

Any expandable machine needs to be designed and programmed with expansion in mind to become so.

HP 41, 42 and 48 models are able to recognize memory beyond their original capacity, but (AFAIK) other models are not.

Re: 32sii Memory upgrade

*Message #3 Posted by **Tizedes Csaba** on 29 Sept 2003, 2:19 a.m.,*
in response to message #1 by charles

I'm not a 'nibble-man', but I think the hardware can't to attach more program area: This calculator have got 384 bytes of memory and one operation take 1.5 bytes. So, (384 bytes)/(1.5 bytes/step)=256 steps. The program-counter maybe sized only 1 byte...

Csaba

32Sii 3-nibble instructions

*Message #4 Posted by **Victor Koechli** on 29 Sept 2003, 8:14 a.m.,*
in response to message #3 by Tizedes Csaba

This is interesting! Are you sure there are only 3-nibble instructions in the 32Sii's program space? You would think that the limited number of programmable commands would allow for most instructions to be only 2 nibbles (1 Byte)...

Cheers, Victor

Re: 32Sii 3-nibble instructions

*Message #5 Posted by **Christoph Giesselink** on 29 Sept 2003, 12:20 p.m.,*

in response to message #4 by Victor Koechli

>Are you sure there are only 3-nibble instructions in the 32Sii's program space?

No there aren't. There's one exception, most (not all) real numbers have a three nibble prolog (#000) followed by a 16 nibble BCD floating point number.

Christoph

Re: 32Sii 3-nibble instructions

*Message #6 Posted by **Tizedes Csaba** on 29 Sept 2003, 3:57 p.m.,*
in response to message #4 by Victor Koechli

The 32SII haven't got 1 byte long instruction, only 1.5 bytes long. The integers from 0 to 254 use 1.5 bytes, all other numbers uses 9.5 bytes (from the B-2 page of manual).

Csaba

Re: "Meta-calc"

*Message #7 Posted by **Paul Brogger** on 29 Sept 2003, 9:17 a.m.,*
in response to message #1 by charles

I suspect that it would be possible to insert a new layer of logic an memory *between* the original 32SII chip and its I/O (keyboard and LCD).

Some currently unrecognized keystroke combination would bring the new environment to the fore, disconnecting the original chip temporarily. The new layer would replicate the 32sII program editor, but enhance it with named program storage and (perhaps) named register arrays.

New commands would cause the loading of a named program into the actual 32sII's program memory by keystroke simulations. Likewise, resulting data (the 27 registers) could be copied out to the new memory as an array of values, perhaps to be reloaded later.

The new electronics could include fast stream I/O capabilites and could be supported by PC links and software. The physical ciruit board might be installed in place of the original, with the 32sII board then attached as a daughter board to the new one.

Taking it a step further, one might replace 32sII electronics and logic entirely, with a new, more capable implementation.

Buutttt . . .

H-P appears ready to solve at least *some* of the 32sII's problems with the 33s (albeit, while introducing others!), so it would seem to make sense to wait and see just how that unit behaves before embarking on an elaborate upgrade for a discontinued model. Another approach might be to get one of the other new models (48GII or 49G+) and obtain or develop a four-level stack emulation for that environment.

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Networking Drivers

*Message #1 Posted by **qim** on 28 Sept 2003, 5:58 p.m.*

98SE connected to HP Deskjet 6122 and to router router connected to cable XP connected to router

I access the printer from the XP but it makes Word2002 very slow

I would like to know what are the correct drivers for my setup - for each computer, and where to get them

thank you for your help

qim

SF Flags

*Message #2 Posted by **Thibaut** on 29 Sept 2003, 4:42 a.m.,*
in response to message #1 by qim

Try [gold shift key] SF 15

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Is the IR printer Still in production

*Message #1 Posted by **Andy** on 28 Sept 2003, 4:16 p.m.*

If the HP 49G+ as IR ports, and the 17BII+ as the printer capability, then HP should launch again the IR printer. It is the printer still in production?. Does anyone know if is still in the USA, (because there are some in Spain and Germany.)

Andy

Re: Is the IR printer Still in production

*Message #2 Posted by **Tom Scott** on 28 Sept 2003, 8:02 p.m.,*
in response to message #1 by Andy

I bought an HP 82240B (new) a couple of months ago at:

http://www.holmans.com/eStore/Model_2_new.asp?ModelID=39&prodline=154

Tom Scott Lander, WY

A reason to keep the IR printer in production:

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 28 Sept 2003, 8:16 p.m.,*
in response to message #2 by Tom Scott

... it is not RPN (sigh)

Re: Is the IR printer Still in production

*Message #4 Posted by **James M. Prange** on 29 Sept 2003, 5:31 a.m.,*
in response to message #1 by Andy

As far as I can tell, the 82240B is out of production, but you may well be able to find some still available. Note that they frequently show up on eBay. Note that for the 48 and 49 series calculators, you'll want an 82240B instead of an 82240A, to get the ECMA 94 character set.

I don't have a 49G+ (yet), but I've read that the 49G+ can still print to the HP 82240 printers.

Does anyone know whether the 49G+ can print by IrDA as well as the "Red Eye" protocol used for the HP 82240 printers?

Martel Instruments has some nice printers that look to me as if they should work HP calculators. See http://www.martelinstruments.com/8800.html. Perhaps HP will re-badge one of these, or have Martel Instruments make a customized version for HP. If the 49G+ can print by IrDA, I wonder whether the "IrDA physical layer" would suffice, or would the "IrDA stack" be needed.

Some of the Martel printers also have RS-232 available, so should work with the "old" 49G, although I expect

that a special application on the calculator would be needed for printing graphics.

Re: Is the IR printer Still in production

*Message #5 Posted by **Veli-Pekka Nousiainen** on 29 Sept 2003, 5:48 a.m.,*
in response to message #4 by James M. Prange

hp 49g+ has a "real" IrDa at 115,200. I have not tested it yet. Not on an old printer, not with an IrDA compatible printer, not even connected to a laptop. I use solely the USB at 115,200 to connect to a PC. The amazing 12*speed has prevented me to reverting back to any old HP with only 9600 baud serial connection. I don't use my HP 48GX anymore...)-`:

Re: Is the IR printer Still in production

*Message #6 Posted by **James M. Prange** on 29 Sept 2003, 6:07 a.m.,*
in response to message #5 by Veli-Pekka Nousiainen

Hi Veli-Pekka,

I don't have anything that can use IrDA yet, so if and when you experiment more with IrDA on the 49G+, any information that you can give us would be appreciated.

Regards,
James

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HP Journal in The Museum

*Message #1 Posted by **jose goncalves (brasil)** on 28 Sept 2003, 9:59 a.m.*

As I was checking which HPJ articles were available in The Museum, I noticed that they are present in 3 different places and I had to organize the table below to help me. Now I want to share this with friends in this unbelievably rich repository of knowledge.

Hope you find it helpful.

Jose

HP Journal in The HP Museum

Yr/mo Theme disk 3 disk 6 site 6809 HP 9100 x 7010 HP 9100 memory x 7212 HP 9800 x 7206 HP 35 x 7305 HP 80 x 7404 HP 9830 x 7405 HP 65 reader x 7405 HP 65 x x 7511 HP 21, 22, 25 x 7606 HP 9815, 9825 x 7611 HP 67, 97, 91 x 7712 HP 01 x 7705 algorithms 1 x 7706 algorithms 2 x 7710 HP 92 x x 7711 algorithms 3 x 7804 algorithms 4 x 7804 HP 9845 x 7912 HP 34 x 8003 HP 41C x 8007 HP 85 x 8008 HP 34 x 8008 HP 85 x 8101 barcode x 8212 HP 41 plotter x 8301 HP-IL x 8302 digital multimeter x 8305 HP 15C x 8305 HP 16C x 8305 HP 41 cassete drive x 8306 HP 75 x 8407 HP 71B x 8708 HP 28C x 8710 IR printer x 9106 HP 48SX x 9408 HP 48GX x

Re: HP Journal in The Museum

*Message #2 Posted by **jose goncalves (brasil)** on 28 Sept 2003, 10:01 a.m.,*
in response to message #1 by jose goncalves (brasil)

OK, I'll have to format it again. Just give me some time.

Jose

Here it is

*Message #3 Posted by **Jim L** on 28 Sept 2003, 1:27 p.m.,*
in response to message #2 by jose goncalves (brasil)

I pressed the Edit button on your top post, copied your text into my reply and then just put [pre] and [/pre] around your list.

As I was checking which HPJ articles were available in The Museum, I noticed that they are present in 3 different places and I had to organize the table below to help me. Now I want to share this with friends in this unbelievably rich repository of knowledge.

Hope you find it helpful.

Jose

HP Journal in The HP Museum

Yr/mo	Theme	disk 3	disk 6	site
6809	HP 9100			x
7010	HP 9100 memory			x
7212	HP 9800			x
7206	HP 35		x	
7305	HP 80	x		
7404	HP 9830	x		
7405	HP 65 reader			x
7405	HP 65	x		x
7511	HP 21, 22, 25			x
7606	HP 9815, 9825	x		
7611	HP 67, 97, 91	x		
7712	HP 01			x
7705	algorithms 1		x	
7706	algorithms 2		x	
7710	HP 92	x	x	
7711	algorithms 3		x	
7804	algorithms 4		x	
7804	HP 9845	x		
7912	HP 34	x		
8003	HP 41C			x
8007	HP 85	x		
8008	HP 34	x		
8008	HP 85	x		
8101	barcode	x		
8212	HP 41 plotter		x	
8301	HP-IL	x		
8302	digital multimeter			x
8305	HP 15C	x		
8305	HP 16C	x		
8305	HP 41 cassete drive		x	
8306	HP 75	x		
8407	HP 71B			x
8708	HP 28C	x		
8710	IR printer		x	
9106	HP 48SX		x	
9408	HP 48GX		x	

Re: Here it is, HP Journal at The Museum

*Message #4 Posted by **jose goncalves (brasil)** on 28 Sept 2003, 3:58 p.m.,*
in response to message #3 by Jim L

Perfect, perfect.

Thank you very much, Jim. Now lots of people including myself can more easily find the HPJ issue they are looking for.

Jose

HP Journal at The Museum: A suggestion

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 28 Sept 2003, 8:13 p.m.,*
in response to message #4 by jose goncalves (brasil)

Would you upload it as an article to the Articles forum, so it will not "dissapear" in the daily threads?

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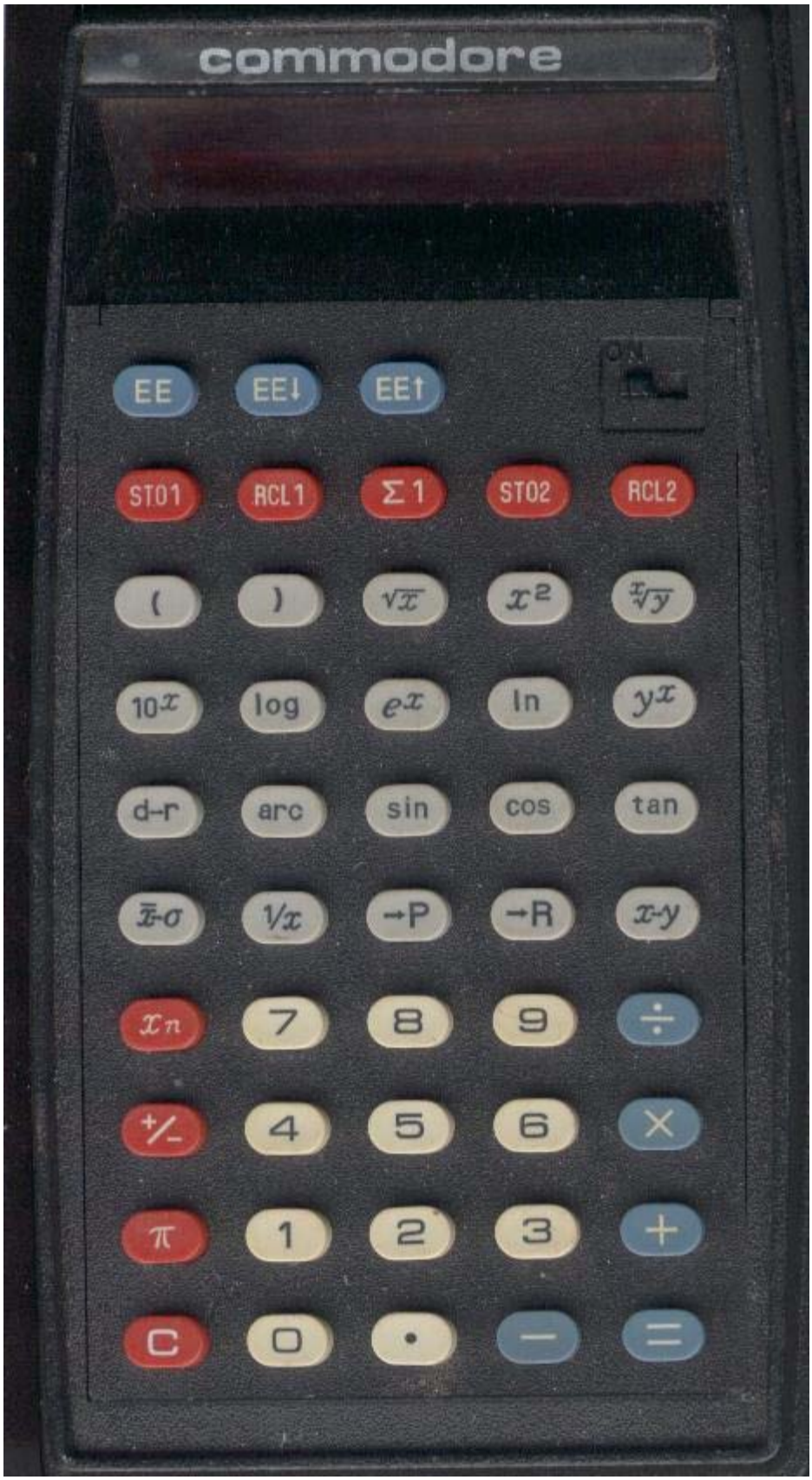
Commodore & Sharp calculators

*Message #1 Posted by **Thibaut.be** on 28 Sept 2003, 9:40 a.m.*

I came around to these calculators :

Commodore SR4148



Could anybody give me some details about it ? Does anyone know to what voltage I should plug in an adapter ?

This one is more for Valentin.

I remember a schoolmate had one of these, actually this calc is a programmable calc where you could store formulae pretty much in Hp style.

All comments welcome !

Re: Commodore & Sharp calculators

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 28 Sept 2003, 12:49 p.m.,*
in response to message #1 by Thibaut.be

I have the SR4190 (Dismac HF-37PR, brazilian clone) and SR9190. The SR4148 isn't much different, I guess.

Mine SR4190 uses a DC 6V non-regulated input (positive center), and their NiCD batteries are internal (non-removable). I think that they won't work without the batteries.

Regards,

Nelson

Re: Commodore & Sharp calculators

*Message #3 Posted by **Douglas Rohm** on 28 Sept 2003, 5:32 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Wow, brings back memories. I used to have the Sharp EL-512 way way back in the day. It was a great calculator and served me well. I went from that to my 48-SX and never went back to algebraic calc's. Wish I kept this model. Nice pic's.

Doug

Re: Commodore & Sharp calculators

*Message #4 Posted by **thibaut.be** on 28 Sept 2003, 5:38 p.m.,*
in response to message #3 by Douglas Rohm

The pictures are just a scan of the calcs themselves... This is the easy way to do so. Main disadvantage is that it makes look the item far worse than it is actually...

Re: Commodore & Sharp calculators

*Message #5 Posted by **hugh** on 28 Sept 2003, 6:44 p.m.,*
in response to message #1 by Thibaut.be

my take,

```
http://www.voidware.com/calcs/el512.htm
http://www.voidware.com/calcs/sr4148r.htm
```

be careful with commodore units that have internal cells. they normally have 3AA nicads. these leak and burn the circuit board. you should remove the old ones asap.

you have two choices (1) rebuld the internal batteries. to do this you will need to obtain tagged cells and even then they might not fit. the cavity inside the case is tight. i have tried to build a *very* slim holder for batteries so i can put in regular cells or regular chargable cells without them being soldered in. this plan has failed. my thinnest holder is too fat.

(2) remove the cells and run the unit from external power. do *not* power it from the correct mains adapter!! the correct adapter will put out something like 9v and damage the unit (the internal cells act as a load). i have found the unit powers happily if given the equivalent 4.5v from external power.

good luck,

Re: Commodore & Sharp calculators

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 28 Sept 2003, 8:55 p.m.,*
in response to message #5 by hugh

I rebuilted my SR4190 battery pack with one from wireless telephones batteries such as Panasonic KX-

A36A (NiCD, 3 cells, 300mA/H) or another with more mA/H (NiMH ones). They fit perfectly inside and are sealed.

Regards,

Nelson

Congratulations !

*Message #7 Posted by **Valentin Albillo** on 28 Sept 2003, 6:54 p.m.,*
in response to message #1 by Thibaut.be

Thibaut posted: *"This one is more for Valentin."*

Congratulations on your lucky acquisitions/findings ! Regrettably I'm no expert in this marvelous Sharp EL-512 model, as my respectable Sharp collection includes only BASIC-programmable models except for a couple Sharp EL-5101 algebraic-expression calculators (most beautiful machines indeed) and one quite peculiar Sharp EL-8029 pen-like vintage calculator (very nice readable display).

Glad to see there's another serious & dedicated HP lover who does also appreciate outstanding models from other manufacturers. Keep on going ! :-)

Best regards from V.

Edited: 28 Sept 2003, 7:01 p.m.

This is my favorite

*Message #8 Posted by **Mike** on 28 Sept 2003, 7:13 p.m.,*
in response to message #1 by Thibaut.be

I liked the longer slide-rule like style. Got one of these when they first came out. It had a nice hard case that would hold the calculator. Also had interface for printer.

http://www.msdsite.com/vcalc/sharp/1211-700.jpg

Edited: 28 Sept 2003, 7:15 p.m.

Rightly so !

*Message #9 Posted by **Valentin Albillo** on 28 Sept 2003, 8:15 p.m.,*
in response to message #8 by Mike

Congratulations for your fine-looking Sharp PC-1211 !

This was (and still is) an extremely fine, revolutionary machine, contemporary of the original 41C no less. It was less than half the price, yet it included such revolutionary characteristics as a 24-character alphanumeric dot-matrix display (the 41C was doing its best with a meager 12-char, segmented display), I/O to inexpensive magnetic tape and printer, 1680+ bytes of memory (equivalent to a 41C plus 3 RAM modules), redefinable keys, and high-level BASIC programming (instead of low-level, assembler-like RPN).

You could key-in expressions just as written, with such byte-saving niceties as implied multiplication (i.e: 5AB instead of 5*A*B), parenthesis supression (i.e: SIN X instead of SIN(X)), automatic parenthesis-balancing at the end of an expression (i.e: 5+SIN(2+3*(5-X with no need to include the two closing parenthesis), abbreviated entry (i.e: I. instead of INPUT), keyword tokenization (i.e: INPUT took a single

byte to store, not five), multiple expressions per line (i.e: X=2+3, Y=3-7, Z=2*SIN(X+Y)), and further you could recall the *whole* expression to the display after evaluation, for further editing and reevaluation (instead of LASTx in the 41C). Also, in case of errors, the expression would be recalled automatically with the flashing cursor pinpointing the exact location of the error.

All in all, a wonderful, revolutionary machine. You could do wonders with it, I wrote 100+ programs for it at the time, and most would do in just a few simple lines what you'd need hundreds of steps to accomplish on a 41C, say.

This was the machine that made me reevaluate my fixation for HP products and start my collection of Sharp machines. A true revelation. BTW, I've got 3 of them, plus two TRS-80 PC-1 models which are exactly the same machine, only this time manufactured for Tandy Radio Shack.

Best regards from V.

Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #10 Posted by **Andrés C. Rodríguez (Argentina)** on 28 Sept 2003, 8:33 p.m.,*
in response to message #9 by Valentin Albillo

Valentín:

You have accurately described some of the nice features of the PC 1211, also marketed by Radio Shack (IIRC as TRS80 Pocket Computer).

I followed those models at the time, but political and economical circumstances in my conutry made us "disconnect" from such advances after 1982. I needed about 10 years after buying my HP 41C to be able to buy my next calc (HP 42S). The 75C and 71B were skipped, as the Voyagers did.

(OK, I also get married and become a happy father during these years, so HP calculators had to wait for a while...)

To the point: How would you compare the PC 1211 against the HP 75C/D and the HP 71B?

I assume these HP models were more expensive than the Sharp unit, but perhaps are more comparable to it than the HP 41.

Edited: 28 Sept 2003, 8:43 p.m.

Re: Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #11 Posted by **Valentin Albillo** on 28 Sept 2003, 9:31 p.m.,*
in response to message #10 by Andrés C. Rodríguez (Argentina)

Andres wrote: *"To the point: How would you compare the PC 1211 against the HP 75C/D and the HP 71B?. I assume these HP models were more expensive than the Sharp unit, but perhaps are more comparable to it than the HP 41."*

Well, yes and no. "Yes" because all are BASIC "pocket computers", and "No" because it would be an outrageously unfair comparison.

Why ? Because the Sharp PC-1211 model is a pioneer-like machine, the very first handheld to feature BASIC as its programming language, released circa 1980, and designed to compete against 41C-class machines, thus its characteristics and, most importantly, price, are targeted to that segment.

On the other hand, the 75C and 71B (released circa 1982-1984) are *much* more expensive machines, 25 times and 10 times costlier, respectively, and are targeted to the business and engineering markets, not the casual home user. They are more like instruments or advanced tools than mere calculators/pocket computers. The 75C was squarely aimed to business users at first, what with its large alpha keyboard, appointment applications and Visicalc. The 71B was similarly aimed at engineering professionals, intended to be the controller of a number of advanced, specialized digital-capable instruments, via HP-IL and a number of interfaces.

This being so, comparing any of them to the Sharp PC-1211 is an utterly preposterous mismatch, and should not be done, IMHO. It would be like comparing the 41C-class machines to, say, the HP-25.

Anyway, they share a number of important characteristics in common, namely:

- large, dot-matrix alphanumeric display

- I/O capabilities, including printing and mass storage

- BASIC language

- ability to evaluate algebraic expressions directly, while being able to recover the whole expression after evaluation

- instant-mode calculations without programming

- redefinable keyboard

but the differences in speed and features are overwhelming. Nevertheless, the Sharp PC-1211 is a pleasure to use, and has a larger display than the 71B, and for casual programming and use as a powerful, programmable pocket calculator/computer, it does more than deliver.

Further, though its BASIC interpreter is way simpler than 71B's, it *does* include some capabilities that the latter doesn't such as computed GOTO/GOSUB (i.e: GOSUB 200*X+100*((Y>5)+(Y<8))+200*Z or GOTO B$), and you can save hundreds of programs on inexpensive cassette tape instead of quite expensive mag cards or digital tape drive.

Best regards from V.

Edited: 29 Sept 2003, 5:47 a.m. after one or more responses were posted

Re: Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #12 Posted by **Veli-Pekka Nousiainen** on 29 Sept 2003, 5:43 a.m.,*
in response to message #11 by Valentin Albillo

The HP-75 is a direct CMOS copy of the HP-85 PC (8-bit CPU), which was "current" at that time. The cost was very justifiable for the users of the bigger brother. The Visicalc module was the key sales factor and other expansions, including then popular HP-IL, gave versatility. Using a Video adapter you would not even need that heavy HP-85, at least not if you were traveling around.

The HP-71 was the only BASIC computer to follow the IEEE standards in math. There is no comparison for it's math features! Expansion for HP-IL (cassette or disc drive, etc), RAM, MATH, Curve Fit, Finance, FORTH/Assenbler (including a HP 41C emulator) gave it versatility.

What can I say? They were expansive, but worth it. I had them *AND* I re-bought them lately!!!

I also still have two Sharp calculators: PC-1500 (with expansion cradle and a plotter) and PC-1261. The Casio FX-702P that I also own, is much harder to use than any Sharp or HP due to limitations in editing and BASIC language.

Re: Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #13 Posted by **Valentin Albillo** on 29 Sept 2003, 7:31 a.m.,*
in response to message #12 by Veli-Pekka Nousiainen

VPN wrote: *"What can I say? They were expansive, but worth it."*

Only if you could afford them, which was extremely unlikely if you were a student at the time, as I was. The HP-75 was some US$ 2,500 (1982's dollars), and the HP-71B was US$ 750 (1984's dollars) and there was no way I could get that much money then, let alone forking it our for a 'calculator'. The Sharp PC-1211, on the other hand, was just a mere US$ 120 (1981's dollars), which was a reasonable price I could actually afford and I did get one.

"I also still have two Sharp calculators: PC-1500 (with expansion cradle and a plotter) and PC-1261."

You'd do well to try and get a Sharp PC-1350 (or 1360). You'll find it's much more lighter, smaller and stylish than the 'brick-like' PC-1500, and after getting used to its wonderful 4-line, 96-character graphics display I'll bet that you'll find the HP-71B's 1-line, 22-character display next to unusable for program editing and results output, as it actually happened to me, after many years using and programming the HP-71B.

Now the Sharp PC-1350 (together with the HP-15C) is my usual, everyday pocket computer for quick programming and manual computations while the HP-71B (all 3 of them) are comfortably stored in their drawer. After being spoiled by the four lines available to key in the longest of expressions in full view, without reordering anything, without ever getting lost, I just can't stand the ultra-cramped, always-scrolling HP-71B's display anymore.

Best regards from V.

Re: Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #14 Posted by **hugh** on 29 Sept 2003, 11:39 a.m.,*
in response to message #13 by Valentin Albillo

im with valentin on this one. the pc-1350/1360 is top kit. i used one for years and found it highly versatile. you can set up key abbreviations to your liking, the 4 line display is lux and programing is a doddle.

very well made units too.

Re: Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #15 Posted by **GE (France)** on 29 Sept 2003, 4:34 p.m.,*
in response to message #14 by hugh

Just note that the PC1211 has 1424 steps (bytes) available to the user. If you want one of those excellent 4-line Sharp machines, you'd rather turn to the PC1600 for

absolute top of the line. Alas, it's hard to find, and has the 'brick' style of the 1500. Another possibility is the PCE-500 which has all what the 1350/1360 has, and more. Expandable to 512K, and still available brand new in Germany, as the updated 'S' version.

HP should have made multiple-lines Basic machines, but maybe it would have been too 'fun' ? Also, prices were maybe justified, but out of reach. This probably leaded them to -erroneously I believe- give these the axe. Too bad.

Palmtops with BASIC

*Message #16 Posted by **Andrés C. Rodríguez (Argentina)** on 29 Sept 2003, 6:25 p.m.,*
in response to message #15 by GE (France)

Well, trying to be positive with HP, a 95/100/200 LX with MS-DOS 5.0 and QuickBasic is a nice "HP palmtop with BASIC and multiline display"...

And it also has a very nice calculator application with 4-level stack RPN and Algebraic modes, a good scientific and financial functions repertoire, graphing, etc... running in a 8086-class machine. (Emulator fans, please note!!!)

Re: Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #17 Posted by **Valentin Albillo** on 30 Sept 2003, 4:50 a.m.,*
in response to message #15 by GE (France)

GE posted:

"Just note that the PC1211 has 1424 steps (bytes) available to the user."

Nope. It has 1424 bytes available for programs *plus* 26 fixed variables A-Z, plus 48 bytes for key definitions, which makes a total of 1424 + 26*8 + 48 = 1680 bytes available to the user. I'm not counting internally reserved memory, such as 80 bytes for the command-line input buffer, the stack for operators and operands, etc.

" If you want one of those excellent 4-line Sharp machines, you'd rather turn to the PC1600 for absolute top of the line. Alas, it's hard to find, and has the 'brick' style of the 1500."

Exactly, it's "brick-like", i.e: large, heavy, and bulky, and eats batteries pretty fast. I still stand for my recommendation to get instead a Sharp PC-1350/1360, which is far lighter and smaller, its batteries last many months, and has a lot of memory, 4x24 char graphic display, and tons of advanced functionality. The PC-1600 is *not* a good choice at all for an everyday-use machine, and it's also quite rare and thus very expensive, while a 1350 can be had for as few as US$ 25-50.

" Another possibility is the PCE-500 which has all what the 1350/1360 has, and more. Expandable to 512K, and still available brand new in Germany, as the updated 'S' version."

The PCE-500 is far larger than the HP-1350/1360, much less 'attractive-looking' (i.e: uglier), and has a plastic body instead of metallic. Its screen is also much

darker and much less easier on the eyes than the luminous, clear screen of the 1350. But the biggest problem is it's very bulky, it certainly fits no pocket whatsoever, and takes a fairly amount of space in your briefcase. Not in the same league as the slim 1350. It also eats batteries very fast.

As someone else posted recently, remember this proverb: "The best is the enemy of the good". Don't strive to get 'maximum functionality' at the expense of convenience, else you may find yourself with an HP-49 in your hands.

Best regards from V.

Where did you get these numbers

*Message #18 Posted by **Mike** on 29 Sept 2003, 10:08 p.m.,*
in response to message #13 by Valentin Albillo

You say: "The HP-75 was some US$ 2,500 "

Where did you get that number. I bought one when they first came out and didn't pay half that.

Re: Where did you get these numbers

*Message #19 Posted by **Mark Hardman** on 29 Sept 2003, 11:17 p.m.,*
in response to message #18 by Mike

I agree that $2,500 is way too much. I bought my HP-75C in 1982 at the BYU bookstore for $995 less 10% discount (end-of-semester sale) and another 10% off for my parents' staff discount.

It came to less than $850 with tax. It was the first thing I did with that year's student loan.

Mark Hardman

Edited: 29 Sept 2003, 11:20 p.m.

Re: Where did you get these numbers

*Message #20 Posted by **Valentin Albillo** on 30 Sept 2003, 4:32 a.m.,*
in response to message #18 by Mike

Mike wrote: *"You say: "The HP-75 was some US$ 2,500. Where did you get that number."*

From my HP sales representative in Madrid (Spain, Europe) circa 1982. They were sold at those outrageous prices abroad. If I recall correctly, Wlodek says in his "Guide ..." that the HP-71B was sold at something like 700-800 sterling pounds in UK, which is also a truly awful lot of money for something that at the time essentially seemed like a calculator.

As far as I know, HP Spain sold extremely few HP-75 units in Spain ... if any ...

Best regards from V.

Re: Where did you get these numbers

*Message #21 Posted by **Ángel Martin** on 30 Sept 2003, 8:03 a.m.,*
in response to message #20 by Valentin Albillo

Valentín,

You're right. I actually bought one (Spain, 1983) and yes, paid such an outrageous sum of money for it. (Remember SIMO'83?)

Interestingly enough I sold it 6 months later for about the same price... who knows, maybe it was the only one HP sold in Spain that was circulating amongst users :-)

Best, ÁM.

Odd

*Message #22 Posted by **Mike** on 30 Sept 2003, 10:33 a.m.,*
in response to message #20 by Valentin Albillo

Thanks,

It's odd that they would charge more than double for the 75C but about the same for the 71B. Strange marketing.

Re: Odd

*Message #23 Posted by **Angel Martin** on 30 Sept 2003, 3:22 p.m.,*
in response to message #22 by Mike

HP was once well known for its crappy marketing.Examples abound, one of them being HP-NewWave (but that's another story).

In fact, this is the company that had they been in the sushi market, they would have advertize it as "deal, cold fish"...

Best, AM

Re: Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #24 Posted by **Andrés C. Rodríguez (Argentina)** on 29 Sept 2003, 6:20 p.m.,*
in response to message #11 by Valentin Albillo

V:

Thank you very much, this is just the kind of opinion that I was wxpecting to clarify the issue for me.

Re: Sharp PC 1211 vs. HP 75C? (or 71B?)

*Message #25 Posted by **Pierre Brial** on 28 Sept 2003, 11:31 p.m.,*
in response to message #10 by Andrés C. Rodríguez (Argentina)

Hello Andrès,

As pointed by Valentin, the PC 1211 is the first of his kind and could not be compared with HP 75.

I suppose that the more advanced PC 1500 or PC 1600 are better candidate. But as I don't have an HP 75 or 71 I can't do the review myself. The PC 1211 could not even be compared to the HP 41, as they are very different machines with different philosophy. To make things short the HP 41 has more built-in function and more interface possibilities, but the Sharp is far easier and faster to program when dealing with large formulas. The connecting possibilities of the Sharps pocket computers to nearly every kind of tape recorder is a great advantage also. Then specially to Valentin : I sometime post in two new forum dedicated mainly to Sharp machines : http://www.aldweb.com/forum.php?lng=fr&cat=70 http://pocket.free.fr/forum/list.php?f=1 There is still few contributions and we lack good pens. So we wait for you Valentin !

All the best

Pierre Brial

Another favorite

*Message #26 Posted by **Mike** on 1 Oct 2003, 11:24 a.m.,*
in response to message #9 by Valentin Albillo

Although I'm not a big TI fan, I do like this particular model.

http://www.msdsite.com/vcomp/ti/ti74/ti74-700.jpg

Wish I had a manual for this.

Edited: 1 Oct 2003, 11:43 a.m.

Very pretty! Regards. [NT]

*Message #27 Posted by **Valentin Albillo** on 1 Oct 2003, 12:36 p.m.,*
in response to message #26 by Mike

Best regards from V.

Re: Commodore & Sharp calculators

*Message #28 Posted by **Chris Randle (UK)** on 29 Sept 2003, 5:58 p.m.,*
in response to message #1 by Thibaut.be

Wow, that picture of the SR4148R brought some memories flooding back.

It must have been about 1975 when I got mine. I was ten years old. At school we were free to choose whatever calculator we liked as long it had certain functions that we needed for the maths lessons. There was surprisingly little duplication.

The machine you chose said a lot about you. I was very proud of my Commodore and thought it easily the best calculator in the class! Today, I still remember some boys just because of the calculator they had. There were one or two with HPs. One with a TI. Mostly Casios though. There was one other boy out of about 25 with another 4148.

Something that makes me smile every time I think about it was the lessons we had where we did our calculations from log books even though we all had calculators. This was because, as our teacher explained, we'd always be able to find a log book but we couldn't always guarantee that there'd be one of these new-fangled calculators to hand.

Re: Commodore & Sharp calculators

*Message #29 Posted by **Ed Look** on 29 Sept 2003, 8:39 p.m.,*
in response to message #28 by Chris Randle (UK)

Your story made me laugh. A young lady once came into a lab class without a calculator (this is less than ten years ago). She wanted to be excused without penalties on this basis. A technician silently and promptly disappeared into his lab and reappeared with log tables. The young woman stared in a confused way at them and exclaimed, "I need a calculator and you bring me sheets of paper?!"

The tech and I, well, we bemoaned the reality (nowadays) that you can almost always get a calculator but almost no one even knows what those charts of antiquity even mean.

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HP 41cx mem and math module

*Message #1 Posted by **Phil Jonker** on 28 Sept 2003, 4:30 a.m.*

Hello, Can someone explain what difference a quad memory and math module will make to an HP 41CX please. Kind Regards Phil

Re: HP 41cx mem and math module

*Message #2 Posted by **Juergen (CH)** on 28 Sept 2003, 6:08 a.m.,*
in response to message #1 by Phil Jonker

Quad memory module is useless for an 41CX/CV. It's for an 41C and adds 4 x 63 storage registers; same as four "normal" memory modules 82106A, but uses only one slot. Math module adds some enhanced mathematical routines to your 41C/CV/CX. I have one and can give you a list of the routines if you are interested.

Regards, Juergen

Re: HP 41cx mem and math module

*Message #3 Posted by **Ion Abraham (New Mexico USA)** on 28 Sept 2003, 11:27 a.m.,*
in response to message #2 by Juergen (CH)

Also, the math module was eventually combined with the statistics module. Then, later, the math/stat module was reworked into a version called the advantage module. I personally prefer the math/stat version.

As far as memory, the only memory enhancement that can be made to the CX is the extended memory module.

Regards,

Ion Abraham Albuquerque, New Mexico

Re: HP 41cx mem and math module

*Message #4 Posted by **Valentin Albillo** on 28 Sept 2003, 7:54 p.m.,*
in response to message #1 by Phil Jonker

The quad memory module does *not* work with an HP-41CX so there's no use at all in plugging it in, at worst you could lock the machine.

As for the math rom, you can use it with your 41CX if you've got one, but you'd be better advised to try and get the Advantage ROM instead, as it is far more powerful and convenient (for instance: extensive matrix functions, numerical solve, numerical integrate all implemented as machine-language keywords, instead of user-code RPN programs, thus 10+ times faster and no user resources required; plus basic financial functions, complex-number handling, vector computations, differential equations, etc).

Best regards from V.

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HP-30S Discontinued?

*Message #1 Posted by **Tom** on 27 Sept 2003, 7:17 p.m.*

Does anyone know if the HP-30S has been discontinued? There was a notice in the local STAPLES store that HP-30S was on sale for about $5.00 as a Discontinued Item. Does anyone know what the replacement will be if it is discontinued?

Re: HP-30S Discontinued?

*Message #2 Posted by **Raymond Del Tondo** on 27 Sept 2003, 7:56 p.m.,*
in response to message #1 by Tom

The suitable replacement could be the NULL device...

Look at the 9G, 9S, and maybe 33S ;-)

Raymond

Re: HP-30S Discontinued?

*Message #3 Posted by **ned** on 28 Sept 2003, 3:39 p.m.,*
in response to message #1 by Tom

just picked up one for $6 at staples, just for kicks. it's worth that much due to the quadratic root solver and linear intersect solver, but the lcd is impossible to see because of the curved glossy plastic finish. the calc won't stay put on a table without being slid into the cover. keys are plastic but don't have good feel. yadda yadda yadda. i'd rather have a 20s. -ned

Re: HP-30S Discontinued?

*Message #4 Posted by **hugh** on 28 Sept 2003, 6:36 p.m.,*
in response to message #3 by ned

a real shame is the quadratic solver could be a lot more accurate than it actually is. the 30s (and others like 9g) work internally to 24 digits.

the 30s suppresses add & subtract relative result to 10^-9. eg 2+1e-9-2 = 0 on a 30s (this is wrong). this has been fixed on the 9g which gets 10^-9 correctly. it however supresses at 10^-13 to emulate 13 digits.

the suppression means it wont be any more accurate than a ten digit calculator for any calculation involving add & subtract :-)

Re: HP-30S Discontinued?

*Message #5 Posted by **Bob** on 30 Sept 2003, 9:15 a.m.,*
in response to message #4 by hugh

I guess I just like all calculators. I picked up one yesterday for $5.50 just to look at it. I wouldn't spend the $16 dollars it cost before, but for $5.50 I think I will buy a couple and just play with them. It seems to be just as good as the TI that I bought for a briefcase beater-calc, and this one says "hp" on it. My daughter will like the teal faceplate. I'm using the black one.

The shape will also come in handy if I decide to level my table with one by placing it under the leg.

(12345 to delete)

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Sparcom´s Drive95

*Message #1 Posted by **Thomas Otterbein** on 27 Sept 2003, 5:59 p.m.*

Hi!

Anybody use Sparcoms´s Drive95 with the HP49GX?

If yes, which drivers and connection cables are needed?

Thanks for help! Bye... Thomas

Re: Sparcom´s Drive95

*Message #2 Posted by **Raymond Del Tondo** on 27 Sept 2003, 7:54 p.m.,*
in response to message #1 by Thomas Otterbein

Hi,

I don't use a 49GX, I think you mean the 49G+ ;-)

However, the Drive95 acts as a KERMIT server, so if your 49Ganything has KERMIT, it'll work. Just use the appriorate KERMIT commands.

Please note that the Filer library from the Drive95 diskette won't work in any 49G machine. That filer from James Donnelly is exclusively for the real HP-48 series. For DOS based machines, like the LX series, a driver is supplied on the disk, too.

The HP-48 series and the 49G have a 'normal' serial port, the 49G+ has a mini USB, maybe a usb-to-serial adapter could do, but that should be in the manual;-)

BTW: Watch the NiCd cells!

Raymond

Re: Sparcom´s Drive95

*Message #3 Posted by **Thomas Otterbein** on 27 Sept 2003, 8:43 p.m.,*
in response to message #2 by Raymond Del Tondo

Hi Raymond....

I don´t mean the 49G+, I mean the 48GX.

Thank you for your information.....

Bye.. Thomas Germany

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HP-33S

*Message #1 Posted by **George Rose** on 27 Sept 2003, 4:36 p.m.*

I have been seaching for information on the new 33S. From what I have read it will have 32K of memory. While this is only a small memory by todays standards, it is a lot to enter by hand more than once. It doesn't look like the 33S will have a main power supply and a battery back-up for program memory. So you could end up re-entering the programs after changing batteries. Has anyone read something I have missed? I am interested in putting my surveying programs into the 33S and reselling them if it had input/output capabilities.

Re: HP-33S

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 27 Sept 2003, 4:49 p.m.,*
in response to message #1 by George Rose

I understand it will have no I/O. Memory should withstand a prompt battery change, even without a backup battery, but I agree that the risk of losing contents is more than acceptable for such models and memory amount.

Please note I have no special information on this model, this is just from what I have read about it.

Re: HP-33S

*Message #3 Posted by **CME750** on 27 Sept 2003, 5:34 p.m.,*
in response to message #1 by George Rose

You can safely assume that the 33S *won't* have IR capability. All calcs with IR, including every HP48 model and the 49G+, were recently banned by NCEES for use on the professional engineering and surveying exams. But NCEES has also announced that the 33S has their "seal of approval". That can only mean that it lacks IR.

It probably won't have a serial or USB port either. The 33S looks like a modified 32SII, and the 32SII didn't have them. The most detailed prerelease info about the 33S, at http://www.hpcalc.org/images/datasheet33s.pdf, makes no mention of any I/O ports.

I wouldn't expect memory loss during battery changes, as long as this is done reasonably quickly. I've never had a problem with other HP calcs in this respect.

Re: HP-33S

*Message #4 Posted by **Ed Look** on 27 Sept 2003, 6:31 p.m.,*
in response to message #3 by CME750

Well, with my FIRST HP, the 34C, I believe we were told in the manual (if anyone likes, I'll go look it up) that we had about a minute or two before programs and values stored in memory began to be lost or corrupted. I do recall that times I was able to swap battery packs efficiently, my programs were not lost, but when I was slow, there was the dreaded "Pr Error" message staring at me in glowing red.

I have not yet had to change (the disposable) batteries in my Pioneer series or Charlemagne series models

yet, so for those, I have no idea.

Re: HP-33S

*Message #5 Posted by **Richard Garner** on 28 Sept 2003, 2:51 a.m.,*
in response to message #4 by Ed Look

I just checked my manual for the 42S. It states that the batteries must be replace within 1 minute of there removal to prevent memory loss.

Re: HP-33S

*Message #6 Posted by **CME750** on 29 Sept 2003, 12:17 p.m.,*
in response to message #4 by Ed Look

For the record, the 32SII and 48G Series manuals give you 2 minutes to swap batteries without memory loss.

The 11C manual states that the memory is preserved without batteries for a "short time". This interval, though unspecified, supposedly allows "ample time" for battery replacement. Memory may be lost if the batteries are out for an "extended period".

Edited: 29 Sept 2003, 3:50 p.m.

Changing batteries

*Message #7 Posted by **Valentin Albillo** on 27 Sept 2003, 6:43 p.m.,*
in response to message #3 by CME750

"I wouldn't expect memory loss during battery changes, as long as this is done reasonably quickly. I've never had a problem with other HP calcs in this respect. "

Just you try an HP-28C/HP-28S. You'll discover a new definition of hair-pulling ! Worst design ever for a battery door/battery compartment ...

Best regards from V.

Re: HP-33S

*Message #8 Posted by **George Rose** on 27 Sept 2003, 9:00 p.m.,*
in response to message #3 by CME750

I don't use the IR communications of my 48GX very often. But I use the wire communications port very regular. It would be great if the 33S would get a USB port to enable upload and download capability. This should allow the 33S to obtain the "seal of approval" from NCEES.

Re: HP-33S -- may have only 4k BYTES of memory . . .

*Message #9 Posted by **Paul Brogger** on 29 Sept 2003, 3:36 p.m.,*
in response to message #1 by George Rose

Some observant lurker noticed that the product sheet for the 33s' microprocessor (as announced, the "SPLB31A") notes 32K *BITS* of RAM, which translates to 4K *bytes*. Given the rough-cut nature of those early PDF product summaries, it wouldn't be surprising at all that the 33s has only 4k bytes of memory. For my part, I've been assuming the 33s has 4K, and will be pleasantly surprised if it has more than that.

Now, maybe that's enough for surveying applications, maybe not. It's still a whole lot of one-finger typing!

Re: HP-33S -- may have only 4k BYTES of memory . . .

*Message #10 Posted by **Ed Look** on 29 Sept 2003, 3:42 p.m.,*
in response to message #9 by Paul Brogger

Yipes. And here I was thinking that the 32Kbytes of the 48G was confining.

Re: HP-33S memory -- the links

*Message #11 Posted by **Paul Brogger** on 29 Sept 2003, 4:10 p.m.,*
in response to message #9 by Paul Brogger

The original message with the 4k warning has URLs for the SPLB31A datasheet.

(Now I'll go see if the work . . .)

Re: HP-33S -- may have only 4k BYTES of memory . . .

*Message #12 Posted by **CME750** on 29 Sept 2003, 4:31 p.m.,*
in response to message #9 by Paul Brogger

There is a pre-release PDF product summary for the 17bii+, dated May 30, 2003, at:
http://www.davik.plus.com/17bii+.pdf

According to this sheet, the 17bii+ has the "SPLB31A" CPU, and "32K bytes" of memory. Seems suspiciously similar to the 33S.

The 17bii+ is now available, and it has 28KB of memory. So the 33S may be similar.

By the way, the 17bii+ sheet also indicates that this model offers "Currency conversations". Apparently money talks.

Re: HP-17BII+ memory capacity

*Message #13 Posted by **Paul Brogger** on 29 Sept 2003, 6:28 p.m.,*
in response to message #12 by CME750

Well, that's interesting. This from a datasheet that says (and I quote): "Memory Capacity -- Unlimited within available memory". I suspect they're using the same translation program for these datasheets that they used for the 49G+ manual.

Anyway, following the SPLB31A "confirmation sheet" link (see also earlier post), it doesn't exactly say "32K Bits", but does specifically say 4096 Bytes of data RAM (and 192 bytes of "zero page RAM", plus 256 Kb ROM). Well, maybe they added a memory chip, or somehow got parts with upgraded specs?

If it's got tens of thousands of bytes available, I'll be the last to complain! The 384 bytes (or whatever) in the 32s/sII was those models' major drawback, as far as I'm concerned. (Especially inasmuch as that limited space was needed for both programs *and* registers.)

However, even if it's got something like 32K of program space, it will be crippled if it's still only got the 32s/sII's 27 registers for data memory . . .

Hey! I'm ever-hopeful. I've pre-ordered a 33s from Samson Cables, and am blindly optimistic that the

thing will act more rationally than it looks!

Re: HP-17BII+ memory capacity

*Message #14 Posted by **CME750** on 29 Sept 2003, 7:38 p.m.,*
in response to message #13 by Paul Brogger

The available prerelease info indicates that the 33S will only have 27 storage registers, like the 32SII.

But look again at the 17bII+. I don't have one, but the manual is online; follow the "product manual" link from: http://www.hp.com/calculators/financial/17bIIplus/

At first glance, the 17bII+ seems even worse: it only has 10 storage registers. But if I understand the manual correctly,up to 28KB of equations and variables can be defined for use by the Equation Solver. The variables can have names up to 10 characters long. The values within the variables can be stored and reused by different equations.

If the 33S has a similar Solver, and if programs can invoke the Solver (as they do in the 32SII), then it may be possible to use Equation variables for data storage.

So, what would you pay to have programs entered into your 33s or 42s?

*Message #15 Posted by **Paul Brogger** on 29 Sept 2003, 3:46 p.m.,*
in response to message #1 by George Rose

Survey:

If someone were to offer a service whereby *your programming*, obtained as, say, a .txt file, was accurately entered into *your calculator* (mailed, I presume, to a post office box somewhere -- and returned promptly afterward), how much might you be willing to pay each time you needed it?

Re: So, what would you pay to have programs entered into your 33s or 42s?

*Message #16 Posted by **Ron Ross** on 29 Sept 2003, 4:35 p.m.,*
in response to message #15 by Paul Brogger

Nothing, because who could trust another finger pusher. Unless you develop a quick downloading method, you probably won't get any customers (even though they realize your effort is worth $$$$). Just no one can trust to pay you up front and you could not trust to be paid after the fact. Therefore It won't be worth your while.

And you could get an ocassional reset or memory loss from the customer (or he could inadvertainly delete) and want you to rekey.

Only way it works is if you develop a download technique that is fast and sure. Then maybe market that.

Re: So, what would you pay to have programs entered into your 33s or 42s?

*Message #17 Posted by **GE (France)** on 29 Sept 2003, 4:39 p.m.,*
in response to message #16 by Ron Ross

No, typing is much time-consuming than *checking*, so a suspiscious customer could fast-scan the program for correctness. So this service has value. However, from experience I think not a lot of people would put say $10 for service around a $70 calculator. Just a problem of perceived value.

Re: So, what would you pay to have programs entered into your 33s or 42s?

*Message #18 Posted by **Ron Ross** on 29 Sept 2003, 4:55 p.m.,*
in response to message #17 by GE (France)

And while checking, screw up your work, and expect you to again correct. May happen in 1 out of 20 cases (many people are much dumber than can be imagined, even an occasional RPN user). 8o) (BUT NOT ME!!!! well sometimes)

But when it does, and the person doesn't realize he is the one at fault, he will cause you 20 times the grief of your fee. Therefore you will break even and be stress out. Doesn't sound attractive to me. But if you can develop a fast download method, you could overcome this shortcoming.

Re: . . . Assume the accuracy question is solved . . .

*Message #19 Posted by **Paul Brogger** on 30 Sept 2003, 12:57 a.m.,*
in response to message #16 by Ron Ross

(I'm not planning to have my high schooler type in calculator programs to earn his milk money!)

For the sake of this question, assume there's no accuracy issue. (The 42s' contents could be fully and automatically verified against the input by comparing an IR-output listing to the original .TXT file -- the 33s would have to have the MEM sizes of the programs checked manually against predicted values.)

Assume no physical changes to the calculator, except perhaps an optional 32K upgrade to the 42s, and/or a capacitor replacement to insure retention of memory during battery changes. Would it be worth sending it away to get its memory "refreshed"?

What if there were a library of useful programs available as well? (What if making *your* programming available to others helped defray any costs to you?)

The tone of the other responses is negative, though most of those objections relate to the accuracy question. I wonder if the value of these compact and otherwise powerful units would be enhanced enough to make a viable service of overcoming their external storage and bulk-input problems . . .

Program Entry Service --> Automation

*Message #20 Posted by **Katie** on 30 Sept 2003, 1:16 a.m.,*
in response to message #15 by Paul Brogger

Recently, I was thinking about designing a machine to enter programs into calculators that don't have external input interfaces. What would be needed is an movable X-Y table and a spring loaded solenoid. The X-Y positioning system could be low-precision since it would only need .1" (or worse) accuracy and would only need to travel a few inches. There might well be some surplus robotics stuff out there that is perfect for such an application and that already has a PC interface. Much of the work would be in writing the program to position the right calculator key under the solenoid, working out the solenoid stroke to avoid key bounce and translating the PC-stored calculator program into the right keystrokes.

This would allow for long programs to be loaded with much less chance of error than a person entering them. But you'd still need some sort of verification to make sure that it loaded correctly. The 20S, 21S and 32S/II provides a checksum for this purpose, but I don't know of any other HP calculators that do. Alternatively, calculators with IR printer output could be matched against the PC-stored program for error checking.

Has anyone tried to make such a machine? (Should I head down to the patent office right away or will they just cart me away when I get there? :)

Re: Program Entry Service --> Automation

*Message #21 Posted by **Dave Shaffer** on 30 Sept 2003, 1:44 a.m.,*
in response to message #20 by Katie

re: "Has anyone tried to make such a machine?"

I'm not sure about _making_ one, but a while ago (perhaps two-ish years) there was a fair discussion of such a robot button pusher - specifically to overcome the lack of I/O capability for certain of our favorite toys.

Somebody more familiar than me with searching the archives out to be able to find it.

Re: Program Entry Service --> Automation

*Message #22 Posted by **glynn** on 30 Sept 2003, 4:44 a.m.,*
in response to message #21 by Dave Shaffer

I much prefer an actual add-on, which permanently "enhances" the function of the calculator.

In a 33c, for instance, one could imagine a postage-stamp sized circuit board designed to hide in the internal cavity of the calc. Tagged to the matrix lines of the keyboard, so that it takes on the keyboard entry function electronically. Paralleled, in effect, with the real keyboard. If it is to synchronize with cpu signals on those pins, it might well be able to derive timing for its function from there.

It would communicate with the outside (probably a pc serial port) via the power-port. Your wall-charger would be a modified version of the regular one, but have a serial input port, and the incoming keypress data would modulate the power in a way that could be interpreted by the keypress circuit.

So your 33c would look the same in every way, yet a user could send a file of keypress data into it when needed. In every other circumstance, the extra circuit card would be dormant, benignly silent *(maybe the presence/absence of a modulating signal on the power line would wake/sleep the circuit)*.

I have no idea of the internal workings of a 33c, yet I think this sort of thing SHOULD be in the realm of the possible. Anyone know whether this could or could not be done, and why?

Would darn sure be convenient to have a "library" of programs that might be downloaded rather than "prodded" into the machine.

:-)

Re: Program Entry - Answers to Katie and Glynn

*Message #23 Posted by **Andrés C. Rodríguez (Argentina)** on 30 Sept 2003, 8:45 a.m.,*
in response to message #20 by Katie

Katie:

If you can find an HP Digest issue (perhaps from 1979, I'm just trying to recall back from 25 year old

memories), you'll see a black and white photo of an HP Button Pusher "robot", used to simultaneously exercise two or three Woodstock-class machines. I think it was sort of a quality control device, to test serviced units (HP considered calculators as not discardable items at the time).

Glynn:

The discussion about a "paralell keyboard" could be found in the MoHPC archives. Paul Brogger, Tony Duell, others, and I discussed how to arrange a couple of CMOS multiplexers (chip type is CD4052) and some optocouplers to create an electronically driven switch matrix which serves as a program input device for a HP42S. While I was not willing to risk my mint HP42 in the project, Tony Duell actually built and successfully test the circuit. What was left undone (as far as I know) was the PC interface. My idea was to use the printer/paralell port, but I also noticed there were drivers issues to be solved for a Windows environment. Since Tony is a Linux user, he could avoid such limitations...

For everyone else:

If the shipping issues could be solved (I don't think so), I can say (with pity and shame) that in my country you can find many, many unemployed, or almost unemployed, very qualified people (even medical doctors, engineers, PhD, etc.) who would program your calculators for a few dollars and with their degrees as a quality warranty.

Re: Program Entry - Answers to Katie and Glynn

*Message #24 Posted by **katie** on 30 Sept 2003, 11:05 a.m.,*
in response to message #23 by Andrés C. Rodríguez (Argentina)

Andrés-

I don't know about sending our calcs to Argentina to be programmed, supposedly the US is outsourcing too much high-tech labor already! :)

It's horrible that you have so many well-qualified people that are un/under employed. We complain about the situation here but I think that it's nowhere near as bad as it is in many other countries.

-Katie

Re: Program Entry - Answers to Katie and Glynn

*Message #25 Posted by **Andrés C. Rodríguez (Argentina)** on 30 Sept 2003, 3:24 p.m.,*
in response to message #24 by katie

Katie:

Thank you for your kind comments; as far as outsourcing technology, certainly is not here where it is being done :)

And as far as how the situation goes, while there are many problems generated outside Argentina, I admit that we (as a whole, not individually) are very good in making things worse by ourselves.

I hope you can find some materials related to the HP Button Pusher, supposedly deployed at Corvallis in the '70s.

Location of 'Button pusher' article.

*Message #26 Posted by **r. d. bärtschiger.** on 30 Sept 2003, 6:57 p.m.,*
in response to message #23 by Andrés C. Rodríguez (Argentina)

The article about the HP button pusher is in HP Digest Vol. One, 1976 on page 25. This issue is on one of the museum's cd roms in the directory 'Digests'.

rdb.

Re: Location of 'Button pusher' article.

*Message #27 Posted by **Andrés C. Rodríguez (Argentina)** on 1 Oct 2003, 5:39 p.m.,*
in response to message #26 by r. d. bärtschiger.

That's it!! Thank you.

Re: Program Entry Service --> Automation

*Message #28 Posted by **David Smith** on 30 Sept 2003, 12:44 p.m.,*
in response to message #20 by Katie

I built one once out of a cheap X-Y plotter. By taking off the plotter surface, the calculator could be put down into the machine case. Pen DOWN/UP commands pushed the buttons. Took about an hour to get everything working.

Backwards from the checksum

*Message #29 Posted by **Tizedes Csaba** on 30 Sept 2003, 12:58 p.m.,*
in response to message #20 by Katie

If the checksum is the 'exclusively' identifier, why not remakeable the program from it?

The programming: CK=? [type it...] HOW LONG? [type it, if it's necessary...]

Csaba

Re: Backwards from the checksum

*Message #30 Posted by **Paul Brogger** on 30 Sept 2003, 3:05 p.m.,*
in response to message #29 by Tizedes Csaba

Depending upon the checksum algorithm employed, the checksum will typically have enough information to indicate *whether* one or two mistakes have been made, but won't tell you *where* the mistake(s) is (are), and it (almost) certainly won't have enough information to completely rebuild the program.

Two *very* different programs may have the same checksum value. The idea is that two programs which differ, say, by only one line, will have different checksums. A wrong checksum indicates that the programmer must look more closely to find what is missing, or has been inserted, or may have been misspelled.

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HP 42S'es on EBay?

*Message #1 Posted by **CaptainMorgan** on 27 Sept 2003, 10:20 a.m.*

Is it just me or does it seem like 42S'es have really gone up in value on EBay?

Re: HP 42S'es on EBay?

*Message #2 Posted by **Richard Garner** on 27 Sept 2003, 11:41 a.m.,*
in response to message #1 by CaptainMorgan

It's not just you, I have seen the prices jump about $150 in the last 2 to 3 weeks. One of the replacement 42S that HP sold as surplus a couple of years ago, a number of people bought to scalp, sold for about $500 last week.

Re: HP 42S'es on EBay?

*Message #3 Posted by **Patrick** on 27 Sept 2003, 12:20 p.m.,*
in response to message #2 by Richard Garner

I don't think it is limited to 42S's, either. Here is an HP-11C which sold for $265. Another one, described as used only a couple of times, sold for $405. This model usually sells in the mid to high $100's, with nice models breaking the $200 plateau.

Not sure what is happening.

Re: HP 42S'es on EBay?

*Message #4 Posted by **CME750** on 27 Sept 2003, 12:23 p.m.,*
in response to message #2 by Richard Garner

Any recent increase in 42S prices could be related to the new NCEES policy for calculators on professional engineering and surveying exams, which was announced without warning in late August. NCEES has banned all models in the HP48 and 49 series. There are *no* RPN scientific calculators in current production that are acceptable under the new NCEES criteria.

This situation has created a scramble for older, NCEES-compliant RPN calculators, like the HP11C, 15C, 32SII, and 42S. The 42S is particularly desirable, as it has a relatively large memory and handles complex numbers nicely.

When I learned about the new policy, I put down my 48GX and ran (not walked) to the local community college bookstore, where I found one last 32SII in their inventory.

Perhaps 42S prices may ease when the 33S becomes available.

Re: HP 42S'es on EBay?

*Message #5 Posted by **Valentin Albillo** on 27 Sept 2003, 6:48 p.m.,*

in response to message #4 by CME750

"The 42S is particularly desirable, as it has a relatively large memory and handles complex numbers nicely."

I don't think so. The 42S has both a relatively large memory AND text-input/storing capabilities. So it's probably not allowed as well.

The one-and-only most desirable model under the current restrictions is the HP-15C hands down. I've got four, Patrick's got six (IIRC), ..., it would be wise getting at least one before prices go skyrocketing even more.

Best regards from V.

Re: HP 42S'es on EBay?

*Message #6 Posted by **Ed Look** on 27 Sept 2003, 8:19 p.m.,*
in response to message #5 by Valentin Albillo

;)

Were you the guys who first drove the prices up?

Re: HP 42S'es on EBay?

*Message #7 Posted by **Bert K** on 28 Sept 2003, 4:58 a.m.,*
in response to message #6 by Ed Look

LOL, you've got a point there Ed. I must confess I'm guilty too, perhaps we are all responsable for sky rocketing prices on 42S'es and 32SII's. People start snooping up backup calcs, when demand is high and availability is low prices go up.

Re: HP 42S'es on EBay?

*Message #8 Posted by **CME750** on 28 Sept 2003, 1:28 a.m.,*
in response to message #5 by Valentin Albillo

The NCEES rules do not explicitly address the HP42S: it has neither been banned nor approved. As I understand it, the 42S has some text handling capabilities, but they are primitive compared to those of banned graphing calculators. Thus, there should not be same level of concern regarding exam security. Furthermore, the 42S has no alpha characters on the keyboard, and is unlikely to be perceived as a potential problem by exam proctors. In the absence of an explicit ban, you can assume that some people will be using the 42S on NCEES exams.

The 15C is a fine calculator, and it may be the best choice for electrical engineers. But only about 10% of professional engineering candidates take the electrical exam. The vast majority (around 75-80%) take the civil exam (in California anyway). For civil candidates, the greater programmability of the 42S is more valuable than the higher math functions offered by the 15C.

Land surveyors are also affected by the NCEES rules, and they are another solid market for the 42S. The 42S was widely used by surveyors before the introduction of the 48GX, and a lot of surveying programs were written for it. Since the 48 has been banned on the surveying exams, the old 42S may be the best available alternative.

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Classics calculators working with charger

*Message #1 Posted by **Jon** on 27 Sept 2003, 3:58 a.m.*

I have never used any classic calculator with the charger without any battery pack inside. Reading the manuals, in same models it is said you can´t do it. Can the calculator be damaged if it is done?.

Re: Classics calculators working with charger

*Message #2 Posted by **Emmanuel, France** on 27 Sept 2003, 8:33 a.m.,*
in response to message #1 by Jon

```
Take care!
Some such HP-25,... could be damaged.
However for instance my HP-71B worked with HP-82066B & without any battery inside.
Yours.
```

Re: Classics calculators working with charger

*Message #3 Posted by **Randy Sloyer** on 27 Sept 2003, 9:15 a.m.,*
in response to message #1 by Jon

Classics were designed to run from the charger without the need for batteries in place. Perfectly safe.

Classic models (65,67) with card readers will need batteries in place for the reader to work as the wall wart alone cannot supply enough current.

The 20 series continuous memory machines will most certainly be toasted to death by operation with the wall charger with a bad battery or no battery present. The non-C models don't handle it as well, they just take a little longer for the smoke to come out.

Re: Classics calculators working with charger

*Message #4 Posted by **Jon** on 27 Sept 2003, 11:48 a.m.,*
in response to message #3 by Randy Sloyer

When I say classics I mean HP-35, HP-45, HP-55, HP-65 and HP-67.

Re: Classics calculators working with charger

*Message #5 Posted by **David Smith** on 27 Sept 2003, 2:05 p.m.,*
in response to message #4 by Jon

The classic charger has two supplies built in, one regulated for running the electronics, the other is low current, unregulated for charging the battery.

That gold strap in the charge plug port is actally a switch that connects to battery to the electronics when the charger is unplugged. When the charger is plugged in, the electronics run only off of the regulated charger and the battery is connected only to the unregulated charge voltage.

The 35/45/55/70/80 are fine for use on AC alone. The 65 and 67 have a connection of the card reader chip directly to the battery. Without the pack installed, the charge voltage can be fairly high and theoretically could damage the reader chip. Since dead reader chips are rather rare, I suspect that this is not too big a problem... certainly not like dead ACT chips in the woodstock machines.

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Connectivity

*Message #1 Posted by **Neil Strickland** on 27 Sept 2003, 2:02 a.m.*

Does anyone know if it is possible to connect a HP 49G to a HP 38G with the cable supplied with the 49? The cable is a F1633-66050 and, whereas the 49 has a 'key' in the plug socket, the 38 has no such key.

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External charging cradle for 41/97

*Message #1 Posted by **dbrunell** on 26 Sept 2003, 11:39 p.m.*

I recently acquired an external charging cradle for the sub-C pack used in the 97 and 41 printer. It is the same color as the 97 and has a translucent lid. When I place a battery pack into it and close the lid, the lid does not latch. Thus, the battery does not always make contact properly, and I have to put a rubber band around the unit to hold the lid closed.

Is this normal? Is the lid supposed to latch?

Thanks,

Dave

Re: External charging cradle for 41/97

*Message #2 Posted by **Vassilis Prevelakis** on 27 Sept 2003, 12:44 a.m.,*
in response to message #1 by dbrunell

No the lid does not latch, the weight of the battery pack is supposed to keep it in place so that the lid can close.

**vp

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Classic calculator´s repair

*Message #1 Posted by **Jon** on 26 Sept 2003, 6:33 p.m.*

Hi everybody:

I have several classics with the tipical wear in the silver paint near the on/off switch. Which is the best option to repair it? new silver or aluminium paint?.

Thanks in advance

Jon

Re: Classic calculator´s repair

*Message #2 Posted by **David Smith** on 26 Sept 2003, 7:25 p.m.,*
in response to message #1 by Jon

Most people use the Testors silver paint marker pen available at hobby shops. I have also found that if you are careful, the marker pen paint can be removed with white gas (camping fuel) without removing the original paint.

Re: Classic calculator´s repair

*Message #3 Posted by **David Smith** on 26 Sept 2003, 7:26 p.m.,*
in response to message #2 by David Smith

Should have mentioned that the silver on the HP65 and HP67 is vacuum deposited (not paint). You can't touch it up and have it look good.

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32SII Programming (General?) Question

*Message #1 Posted by **Ed Look** on 26 Sept 2003, 2:10 p.m.*

Actually, because of the length of time I have owned and used it, I am much more familiar with programming a 34C than the 32SII. I find the 32SII very similar except I don't see an "i" or "I" register (used for indirect addressing in the 34C). What is the equivalent or the work around in the 32SII?

Thanks in advance to anyone who has any ideas. (I know, I ought to look in the manual, but as of right now, even though it is by my elbow, I'm in the middle of something else [so what am I doing here, right?].)

Re: 32SII Programming (General?) Question

*Message #2 Posted by **Paul Brogger** on 26 Sept 2003, 2:36 p.m.,*
in response to message #1 by Ed Look

It should be the same as my 32s: There's a lowercase "i" on the "." key, and one in parentheses "(i)" on the "R/S" key. Use the former to STO & RCL to/from the register itself, use the latter to STO & RCL indirectly.

Re: 32SII Programming (General?) Question

*Message #3 Posted by **Ed Look** on 26 Sept 2003, 2:55 p.m.,*
in response to message #2 by Paul Brogger

Holy smoke!!

It must be more than simple blindness! I can't believe I didn't see it (all these years)! I have been avoiding writing routines that would have required the indirection.

Maybe I just still love my very worn out 34C way too much. I am hoping that the 49G+ will blow me away so I can begin to look at my bab... uh, 34C as you guys do, a virtual museum piece, or as Norm Hill put it, "an heirloom" (like my GameBoy oriented kids would want a RPN machine; I fear when they get old enough, and that's soon, their teachers will indoctrinate them with TIism, though admittedly as a parent, they are more affordable [so to speak; my 34C is now with me for close to thirty years, essentially very usable all that time!] and if the little tykes break one, I [emphasis on me] won't feel so bad.) Sorry for the rant.

49g+

*Message #4 Posted by **bill platt** on 26 Sept 2003, 3:03 p.m.,*
in response to message #3 by Ed Look

Hi Ed,

If the 48GX did not blow you away, and the 49G did not either, then I daresay the 49G+ won't. Maybe the 33s will?;-0

Regards,

Bill

Re: 49g+

*Message #5 Posted by **Ed Look** on 26 Sept 2003, 5:25 p.m.,*
in response to message #4 by bill platt

Well, I actually have the 48G (no +, no X), and the major irritation there was that, here I have this incredibly powerful calculator and no memory to run it on! It's like having some hulking, nasty battleship that has to stay in port because it guzzles too much diesel (or, tanks too low).

So, I'm guessing that I would have had a much more positive experience if I had a GX. I never got the 49G. I only have an emulator that I downloaded right before the real unit was released, the emulator that came in connection with some contest HP had back then to publicize the 49G. And an emulator is not a hard piece of plastic studded with cool buttons.

Re: 49g+

*Message #6 Posted by **Paul Brogger** on 26 Sept 2003, 5:50 p.m.,*
in response to message #5 by Ed Look

If you're handy with a drill and a soldering iron, it's EASY to upgrade to 128K (basically, a 48g+), and only somewhat more difficult to go to 256K. Theoretically, I guess, it's possible to go to something like 1-and-a-half Mb, but that's with an extra board and several decoding chips.

There are a number of links on the Web describing this process.

I did a couple 48g's to 256K, but backed 'em down to 128k when some of the solder joints didn't hold. (You have to piggy-back two 128K memory chips, and I didn't do something right, as the pins didn't stay soldered together very well.) But the 128K versions seem to be fine.

FYI . . .

Re: 49g+

*Message #7 Posted by **Ed Look** on 26 Sept 2003, 6:13 p.m.,*
in response to message #6 by Paul Brogger

I'm not too bad with the ol' soldering iron; it's the drilling part that spooks me. I don't own a Dremel or any such thing. Even so, if I were to do it manually with some small tool bit or screwdriver or some such implement, I'd fear damaging the surrounding plastic around the rivets; neither do I believe I can find a chunk of time to concentrate so delicate a surgery- kids, etc. I think I'll entrust the upgrade to Randy Sloyer.

But as to soldering on two RAM chips piggybacked, would there be the slightest risk of excessive heat during operation if it did work? And as to the actual connecting- were the pins long enough for this sort of thing or could you connect them using some fine wire and do sort of an early Spice-type clamp down of the unsoldered chip to the soldered one? Anyhow, just daydreaming out loud.

Re: 48g(+)

*Message #8 Posted by **Paul Brogger** on 26 Sept 2003, 6:38 p.m.,*
in response to message #7 by Ed Look

I must say, both of my units had some slight scratches on the face from separating the case halves. (The drilling went fine, and doesn't show -- it was the act of pushing some internal spring tabs aside to separate the front from the back that I didn't handle as well as I might have . . .) I believe that, with the right tool and a unit to practice on, all cosmetic damage can be avoided. But my two 48G's *were* my "practice units".

On the piggybacking of memory chips, the plan was to bend the upper chip's surface-mount tabs straight down, and then solder almost all of them to the leads of the chip below. In fact, there was something like a ~.5 mm gap between the ends of the upper pins and the tops of the lower, and I bridged that with solder. Apparently, some of those bridges broke loose over time. (The units worked fine for several weeks, then started exhibiting intermittent failure.)

I suppose some sort of tie-up with thin copper wire would work. I envision a loop or figure-eight around each pair of pins to be connected, and temporary connections across the top to the next pair of pins to be joined. After soldering, all the superfluous connections would be cut away.

But before I got to that point, I realized that I don't really fill up my 48's with programs -- I just wanted to upgrade 'em *because it could be done* ... I resisted the urge to make it work, and satisfied myself with 128K.

Re: 48g(+)

*Message #9 Posted by **Ed Look** on 26 Sept 2003, 8:58 p.m.,*
in response to message #8 by Paul Brogger

I understand the feeling. It's nice to be able to reach up and pull up another level higher... but usually this costs, in terms of sweat (and sometimes tears).

But I really need the extra memory, though I suppose 128K is sufficient... <fingers crossed>.

Re: 32SII Programming (General?) Question

*Message #10 Posted by **Paul Brogger** on 26 Sept 2003, 3:21 p.m.,*
in response to message #3 by Ed Look

There's something to be said about using a trusted model with a red LED display! I'm not surprised you subconscously found a way to justify it.

I wouldn't count the 48Gii/49G+ out just yet. It looks as if many of the 49G's problems have been addressed, and if "early production quirks" does indeed explain the few keyboard problems we've heard about, it should be even better than the 48's.

Re: 32SII Programming (General?) Question

*Message #11 Posted by **Iqbal** on 26 Sept 2003, 5:27 p.m.,*
in response to message #10 by Paul Brogger

I especially like the display resolution and the lightning speed of downloading to the 49G+. Programs that took upwards 5 mins to download on the GX takes only less than 5 seconds on my G+. The only thing I can really say I dislike on the G+ apart from the loud keyboard [try typing when the wife is trying to sleep], is the fact that you must watch everything you type, cause you

might miss a character.

Re: 32SII Programming (General?) Question

*Message #12 Posted by **Ed Look** on 26 Sept 2003, 5:38 p.m.,*
in response to message #11 by Iqbal

You don't say! 5 seconds?! I don't think my PC moves files to a Zip drive or jump drive that fast! Well, that too is something to look forward to. Hmmm... maybe HP is angling to regain some sort of dominance in calculators.

Re: 32SII Programming (General?) Question

*Message #13 Posted by **Ed Look** on 26 Sept 2003, 5:33 p.m.,*
in response to message #10 by Paul Brogger

Well, my 48G FEELS as solid as a brick, as solid as my Old Spice ;) ... and actually, the 32SII feels rather solid, too, but you know, and here's where I show my real geeky side, the 34C is like TOS Star Trek, you know, Captain Kirk's ship with all the buttons sticking out from all the consoles, etc., and did the job well. The 32SII is like the Next Generation Trek: slicker, streamlined, rounder corners, and LCDs instead of LEDs, but still does the job well (even better, really, if I'd admit to it), but somehow feels a little less substantial nevertheless.

I preordered a 49G+ and am sort expecting it to blow me away! (You know, allows use of SD chips, and like that... that one feature impresses me the most, that HP would allow the user to do that rather than buying some prohibitively expensive memory plug ins proprietary to HP!)

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Programming Equations

*Message #1 Posted by **TMC** on 26 Sept 2003, 10:06 a.m.*

Is there a way to program or save several frequently used (and complex) formulas to be used later in the Solver application of a HP48GX, instead of having to reenter the entire equation every time?

I'm feeling rather stupid that I haven't been able to figure this out.

Any help is appreciated.

Re: Programming Equations

*Message #2 Posted by **dbrunell** on 26 Sept 2003, 10:21 a.m.,*
in response to message #1 by TMC

Sure, just enter the equation on the stack, enter a variable name, then hit STO. Set up different directories as necessary to keep things organized. When you're in the solver, hit CAT to bring up a list of equations.

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HP-95LX Palmtop Maintenance Kit

*Message #1 Posted by **Johnny Bjoern Rasmussen** on 26 Sept 2003, 6:40 a.m.*

Hey out there...

Can anyone tell me where I buy a "Palmtop Maintenance Kit", HP Part Number F1216-60998.

I'm living in Europe.

Thank you Johnny

Re: HP-95LX Palmtop Maintenance Kit

*Message #2 Posted by **katie** on 26 Sept 2003, 8:52 a.m.,*
in response to message #1 by Johnny Bjoern Rasmussen

I don't think that you can buy these any longer. HP stopped selling them a couple of years ago. Your best bet for replacement parts (battery door, rubber feet, etc.) is to buy a used 95LX on ebay. The 95 is not in demand and you can usually get these for $30- $40 or even less.

You can also join the HP-LX LISTSERV group and post a request for spare parts there:
http://www.lsoft.com/scripts/wl.exe?SL1=HPLX-L&H=UCONNVM.UCONN.EDU

Re: HP-95LX Palmtop Maintenance Kit

*Message #3 Posted by **Mike (Stgt)** on 26 Sept 2003, 10:40 a.m.,*
in response to message #1 by Johnny Bjoern Rasmussen

Look here: http://www.rundel.net/palmtop.

Ciao.....Mike

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HP67 magnetic-cardreader

*Message #1 Posted by **Harry** on 26 Sept 2003, 4:00 a.m.*

Hi, My Cardreader of my 67 is defect. Where can I buy a new reader-section or in special the cardreader driving axle. thanks for info.

Re: HP67 magnetic-cardreader

*Message #2 Posted by **Larry M.** on 26 Sept 2003, 7:04 a.m.,*
in response to message #1 by Harry

Hello:

New card readers are unavailable at any price. If the card reader is simply failing to pull the card through the slot, then go to:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=179

Larry

Re: HP67 magnetic-cardreader

*Message #3 Posted by **Harry** on 27 Sept 2003, 12:25 p.m.,*
in response to message #2 by Larry M.

Hi Larry thanks for this perfect link ! harry

Re: HP67 magnetic-cardreader

*Message #4 Posted by **David Smith** on 27 Sept 2003, 2:09 p.m.,*
in response to message #3 by Harry

There is another common reader problem that you may have. The worm gear is press fit onto the motor shaft via a nylon bushing. This friction fit may wear loose or the bushing may be crumbled. If this happens the motor will spin, but the gears will not.

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HP82973A INT54 driver and HP3421A

*Message #1 Posted by **Ellis Easley** on 25 Sept 2003, 11:49 a.m.*

The INT54 document in the Museum FTP site (ftp://hpmuseum.org/lif/hplink/int54h.doc) has an example program which controls the 3421A. I haven't tried it yet but I studied it and I think it has a couple of errors that could cause problems. First, after the "enter" subroutine has read the voltage reading from the 3421A into the location "buffer", it appends terminator characters to the text using 8086 string move instructions, first "CR/LF" using a word length store string (stosw), and then the "$" terminator required by the DOS call using a byte length instruction (stosb). Because the program does two string move instructions, it is depending on the state of the "direction" flag to be set to "increment" to make sure DI is bumped up two by the stosw so the destination of the stosb will be correct, but the program has not done a "cld" (I remember it as "clear decrement") to make sure this is the case. (If anybody can show me where DOS requires the direction flag to always be set to increment, I would appreciate knowing about it. I had a run-in with this situation a few years ago.) Second, the program allows 32 bytes to be transferred in the "enter" subroutine (I don't think the 3421A would ever send this many bytes) but the space reserved for the location "buffer" is only 32 bytes, so if the program was adapted to an application where more than 29 bytes were transferred, there wouldn't be room for the three terminator characters. Since "buffer" is at the end of the program, you would probably get away with it in an old machine running MSDOS, which would be likely since the board needs a slow ISA bus, but if you were running in virtual mode, this might cause a fault.

Also, there was a discussion about the protocol used by the 3421A to communicate with its option boards. There is a pretty good description in the 3421A Operating, Programming, and Configuration Manual, section II (Option Assembly Installation and Configuration), chapter 9 (44464A Breadboard Option). It says the prototyping Breadboard is logically the same as the 8 bit I/O option board (44465A) but without the isolated receivers and drivers. Data is sent and received from the mainframe serially and the 44464A and 44465A have an 8 bit parallel/serial shift register plus a separate 8 bit latch to implement a an 8 bit I/O port. I haven't seen a description of the logic of the 44462A 10 channel mux option board, but I imagine it is similar with a 10 bit shift register. One interesting item is that the 3421A borrows "red" and "wrt" from the HPL language to use as commands for controlling the 44464A and 44465A.

Re: HP82973A INT54 driver and HP3421A

*Message #2 Posted by **Philip** on 25 Sept 2003, 2:55 p.m.,*
in response to message #1 by Ellis Easley

A quick review of the DOS technical manual doesn't seem to indicate a default status of the Direction Flag which implies to me you should not assume the state of the flag and you must explicitly set or clear the Direction Flag based on your need.

Also, thanks for the pointer the INT54 Doc. I'm working on writing a program to control either the 3421 or 3468 using the 82973A (just for fun) using the example in the doc you mentioned.

Re: HP82973A INT54 driver and HP3421A

*Message #3 Posted by **Ellis Easley** on 25 Sept 2003, 5:13 p.m.,*
in response to message #2 by Philip

I'm glad I could help! I downloaded that file and printed it out some time ago but I never read the whole thing till now.

Years ago, I worked for Tandy when they built their first AT compatible. I had written a disk drive diagnostic that ran fine on a real AT but hung up every time I ran it on our prototype (which worked fine otherwise, including running DOS). We traced the problem to the fact that the BIOS that Tandy licensed from Phoenix (also at an early revision level) used a series of string moves without clearing the direction flag, and my diagnostic happened to set the flag in a display routine. Somebody tried to argue that maybe DOS expected the flag to be cleared at all times. But they couldn't produce any documentation, and besides we could see where the IBM BIOS used a similar series of string moves and did establish the state of the direction flag first, so Phoenix added it. Presumably, Phoenix used a "cleanroom" system: one group of software engineers studied the IBM BIOS source code (which IBM published) and wrote a specification which was then designed and coded by another group of programmers.

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Pictures taken during Wlodek's visit to Powell's

*Message #1 Posted by **Paul Brogger** on 24 Sept 2003, 7:53 p.m.*

In case anyone is interested, here are a couple of images snapped at Powell's Books during Wlodek's visit to Portland on 9/23/2003;

The group around the table (L-to-R: Wlodek M-J, Paul Brogger, Matt Kernal, Dan Roloff, Dave Hicks and Karl Schneider -- taken by Sharyn Brogger) and

sort of the same group (this time including Sharyn, and taken by Karl Schneider).

[Please forgive and correct me if I've gotten any of the names wrong ...]

Thanks to Dave and Wlodek for making themselves available. I believe I speak for all when I say we had a *great* time!

Edited: 25 Sept 2003, 1:52 p.m. after one or more responses were posted

Re: Pictures taken during Wlodek's visit to Powell's

*Message #2 Posted by **katie** on 24 Sept 2003, 8:27 p.m.,*
in response to message #1 by Paul Brogger

Thanks for the pictures Paul, I would have liked to have met you all. I've been to Powell's several times (Portland's a great city; and Powell's the best bookstore!), but couldn't fly in on short notice (I'm in NY).

-Katie

Re: Pictures taken during Wlodek's visit to Powell's

*Message #3 Posted by **Bill Smith** on 24 Sept 2003, 10:40 p.m.,*
in response to message #1 by Paul Brogger

as (bad) luck would have it , i flew into Portland monday night, but left to get home in time for work on tuesday morning. would have stayed if i'd known in advance...maybe next time?

/bs

Re: Katie & Bill (& others): We missed you!

*Message #4 Posted by **Paul Brogger** on 26 Sept 2003, 10:13 a.m.,*
in response to message #3 by Bill Smith

Folks:

It is indeed too bad you and others couldn't make it, but I suppose any location and/or time would prove inconvenient for most of us.

Bill: I felt a similar chagrin over hearing too late about the HHC conference in Newport Beach, CA last weekend, but apparently I'd missed or disregarded the earlier announcements. (Perhaps this meeting was mentioned too late for you to make changes in your reservations?)

FWIW, there was some swapping of calculator stories (making, buying, selling & using) and sharing of hardware: Dave brought an HP-94 and a 41 with an Air Force keyboard overlay and a 4x (?) speedup circuit; Matt had his 49G, 11c and a dusty 41 with four modules installed, found at the thrift store for a dollar(!); Karl brought his 34C, 15C and 42S; and I had my Frankenstein's monster 32K-upgraded 42s-in-17B-clothing. Wlodek was also selling and autographing a couple of his latest books: an updated-edition survey of HP programmables and "RCL 20", an informal history of the UK's PPC chapter, the HPCC.

I hope you who are interested may be offered similar opportunities some day (and hope to be involved myself in one or two of those).

Re: Pictures taken during Wlodek's visit to Powell's

*Message #5 Posted by **Karl Schneider** on 25 Sept 2003, 10:53 p.m.,*
in response to message #1 by Paul Brogger

Paul, et al. --

It was very good to meet you all! Thanks, Paul, for bringing the digital camera (and Mrs. Brogger as the photog!) I was glad to reciprocate.

-- Karl

Where were ya, Norm?

*Message #6 Posted by **Karl Schneider** on 25 Sept 2003, 11:08 p.m.,*
in response to message #1 by Paul Brogger

Norm Hill --

I was a wee bit disappointed that you didn't attend the gathering at Powell's. Your having mentioned visiting the Fry's in Wilsonville, Oregon led me to believe that you were in the area.

I brought my recently-purchased *1982 soldered-chip* HP-34C (visible in the pictures) along with the HP-15C I bought in November 1983 after comparing both models side-by-side.

I'd planned to show you how the 15C was a vast improvement over the 34C I'd planned to purchase back then. It took some convincing by the young salesman at the university bookstore, but he ultimately succeeded at "showing me the light".

-- Karl

Preferred models and future meeting location

*Message #7 Posted by **Andrés C. Rodríguez (Argentina)** on 27 Sept 2003, 3:42 p.m.,*
in response to message #6 by Karl Schneider

I am afraid that, if some of us plan to convince any others about "best" models (34 vs 15, 41 vs 42, 41 vs 48, etc.), we should choose a Far West saloon for the next meeting, instead of Powell's, Fry's or Borders!

Of course, I'm just joking; or perhaps a little bit envyous for not being at the meeting.

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Improvement on HP-45.

*Message #1 Posted by **r. d. bärtschiger.** on 24 Sept 2003, 7:06 p.m.*

Something just occured to me and in case no one else has thought of this, I thought I would post this and see if there are any responses. On page 7 of the HP-45 owner's Handbook there is an example of what a child prodigy can do. In this case calculate 365365365365365 squared. It was stated that he was able to do this calculation in just under one minute. Well, I just tried this on my HP-49G+ in exact mode and in about one second it returned the answer, and it is the same as the one given in the book.

rdb.

Re: Improvement on HP-45.

*Message #2 Posted by **Valentin Albillo** on 25 Sept 2003, 5:39 a.m.,*
in response to message #1 by r. d. bärtschiger.

Perhaps this particular problem is not that difficult for a math-type prodigy, because of its 'regularity'. I would proceed like this:

```
365365365365365^2


  =  (365 * 1001001001001001)^2
  =  365^2 * 1002003004005006005004003002001
```

Now, 365^2 can be computed 'in the head' very fast using the well´known trick for squaring numbers ending in 5, namely:

```
 [N]5 ^ 2 = [N^2+N]25  (e.g.: 45^2 = [4^2+4]25 = [16+4]25 = 2025)
```

so 365^2 is computed like this:

```
    [36^2+36]25 = [1296+36]25 = 133225
```

at once, requiring only the trivial addition of 36 to the memorized value of 36 squared (any math prodigy worth his/her salt has all squares up to 100^2 perfectly memorized, at the very least).

This being accomplished in a second or so, the prodigy must now compute:

```
    133225 *  1002003004005006005004003002001
```

but this is much easier to do than it seems, because 133225 is such a small, 6-digit value, and the other factor has only 6 different non-zero digits, arranged in such a regular fashion. The prodigy just needs to form the following 6 partial products:

```
  133225 * 1, 133225 * 2, ... , 133225 * 6
```

but they are trivially formed by simply starting with 133225, then keep on adding 133225 to the previous result five times:

```
       133225, 266450, ... , 799350.
```

Thus, all six of them can be computed mentally in a few seconds at most. Now, it's just simply a matter of arranging them properly for the sum, like this:

```
                                  133225
                              266450
                          .....
        .....
     266450
  133225
 -----------------------------------
  133491850208566925016658299941583225
```

and that's it. It's actually much easier (for even a mild prodigy) than it seems at first, and most readers of this forum would be able to accomplish it rather easily with a little training. As you have seen, it has little to do with actual complicated computation but with arranging things properly and doing a few sums of small, 6-digit numbers. Only the final result is really multi-digit.

Best regards from V.

Re: Improvement on HP-45.

*Message #3 Posted by **Patrick** on 25 Sept 2003, 4:10 p.m.,*
in response to message #2 by Valentin Albillo

So, Valentin, why is it that you collect calculators again?

;-)

Re: Improvement on HP-45.

*Message #4 Posted by **Valentin Albillo** on 26 Sept 2003, 4:36 a.m.,*
in response to message #3 by Patrick

Patrick wrote: *"So, Valentin, why is it that you collect calculators again?"*

Well, you know, they are essentially "toys" for me. I don't have real-life uses for them, save occasional trivial arithmetic, but I find it challenging to explore their programming capabilities and overcome their limitations. I specially like writing unusual programs and composing 'challenges', then write an article or two about it all to share with other likeminded people, such as yourself.

But one thing I don't do is "HP chauvinism". If some calculator is good, then it's good, be it HP, Sharp, Casio, TI, whatever. The 'fundamentalistic' approach of "If it's an HP then it's good (regardless of whether it obviously stinks) and if it isn't an HP then it's junk (regardless of it being a far superior machine)" just doesn't cut it here.

Best regards from V.

Programming fun

*Message #5 Posted by **Patrick** on 26 Sept 2003, 4:17 p.m.,*
in response to message #4 by Valentin Albillo

Yes, Valentin, I applaud your attitude, even if I sometimes have trouble in exercising it myself. My first HP, that wonderful little HP-25 I bought way back in 1977, permanently polluted my view on life. That machine was so amazing for its day, so well engineered, so comfortable to use, and so challenging to use to its limits, that HP made something of a devoted little kitten out of me. Oh, the shame of it.

I share your love of exploring the programmatics of these machines. In fact, it is the real reason I became a collector. I have very few non-programmable machines in my collection (of course, HP made relatively few of them if you look back in history).

Right now, for instance, I'm working on a version of the SOLVE function for the HP-11C (only, what... 20 years too late?!). I am trying to be as faithful as I can to the original algorithm described by William H. Kahan in his December 1979 article in the HP Journal. Obviously, it is a challenge to fit such a sophisticated algorithm into the rather limited resources of an 11C, but for me that is the fun of it. I have a working version that implements most, but not all, of the secant method refinements described in the article. However, I am not yet happy with. It currently leaves only 39 program steps for the definition of the function to SOLVE, and is somewhat arcane in its implementation (a result of trying to squeeze the code, I think). Perhaps once I'm more happy with it, I'll follow your lead and submit an article to HPCC.

Best regards, Patrick

Re: Improvement on HP-45.

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 27 Sept 2003, 3:45 p.m.,*
in response to message #2 by Valentin Albillo

Valentín, I would certainly attend any math course taught by you. Thank you for an interesting and insightful posting!

[OT] Re: Improvement on HP-45.

*Message #7 Posted by **Valentin Albillo** on 28 Sept 2003, 7:12 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

You're welcome, Andres, thanks for your kind words and best regards from V.

Re: "Exact Mode"

*Message #8 Posted by **Paul Brogger** on 25 Sept 2003, 5:31 p.m.,*
in response to message #1 by r. d. bärtschiger.

I've heard much about this "exact mode" recently -- mostly in connection with HP-49G/G+ and the TI-89/V-200.

Would someone offer a quick explanation of it, its limits on those calculators (if indeed those all do make it available), and whether any other calculators offer it?

Thanks.

Re: "Exact Mode"

*Message #9 Posted by **R Lion** on 25 Sept 2003, 5:57 p.m.,*
in response to message #8 by Paul Brogger

2 ENTER 4 / gives 0.5 in aprox. mode but 1/2 in exact mode.
48 with Erable, 49G and 49G+ offer these two ways. (I don't know about the 39&40)

Raul

Re: "Exact Mode"

*Message #10 Posted by **Paul Brogger** on 25 Sept 2003, 6:27 p.m.,*
in response to message #9 by R Lion

I'm interested in playing with prime factorizations of lllllllllaaaaaaaaarrrrgggggeeeee numbers, and it would appear that "exact mode" supports manipulation of quite long integers. Does any one know *how* long?

I'll look into the Erable documentation -- thanks for that!

Re: "Exact Mode"

*Message #11 Posted by **Giiiii** on 25 Sept 2003, 6:35 p.m.,*
in response to message #10 by Paul Brogger

Exact mode works like said before, 1/2 instead of 0.5, 1/3 instead of 0.333333333... But it can work with incredibly long integers (its sort of different with floats. For example, 100!*100! can be calculated VERY quickly. I guess that the size of the integer nmbers you can work with are limited only by memory and time. (Just a guess)

Re: "Exact Mode"

*Message #12 Posted by **Werner Huysegoms** on 26 Sept 2003, 2:13 a.m.,*
in response to message #10 by Paul Brogger

'Long integers' are limited by available memory only. Whether you're in exact mode or approx makes no difference: arithmetic with long integers returns exact answers. When you're in approx mode, you can't enter an integer directly, it will always be entered as a real (with a decimal point following).

Werner

Re: "Exact Mode"

*Message #13 Posted by **Julián Miranda (Spain)** on 29 Sept 2003, 4:06 a.m.,*
in response to message #9 by R Lion

The HP40G will work in "Exact Mode" if you're using the CAS. You can calculate 1000!, for example, it takes around a minute but you have all its digits.

Re: "Exact Mode"

*Message #14 Posted by **dbrunell** on 25 Sept 2003, 6:45 p.m.,*
in response to message #8 by Paul Brogger

On the TI-89/92/200, the limit for exact mode is a little over 600 digits. However, if you have an expression like 1000!, it will carry it around as an unevaluated (but exact) factorial.

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HP-67 Display: Big Trouble -> HELP!

*Message #1 Posted by **Albert** on 24 Sept 2003, 5:29 p.m.*

Hi

I've a big trouble with my HP-67 display: two days ago it began to light on several segments as a "shadow". I mean, for instance: 0.00 is shown as 8.88, but not on all segments with the same brightness. It happens on the 'almost' every 15 digits (sign digits shows "-" dull).

The machine works fine (programming, calculating and storing run OK).

Would anyone bring me the two ICs display drivers pin out? May be the three current drivers were out at the same time? Is a bastard drain resistor guilty, or a dead capacitor? Perhaps the problem is there ... I don't know, really. What can I do?

Thanks in advance,

Albert

Re: HP-67 Display: Big Trouble -> HELP!

*Message #2 Posted by **David Smith** on 25 Sept 2003, 3:09 p.m.,*
in response to message #1 by Albert

The middle segment of the HP67 display is a very weird thing. It is driven differently than the other segments because of the way the sign and exponent sign are decoded. Most of those discrete transistors on the keyboard circuit board are for doing that segment.

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HP-49G+ update Problems, HELP!

*Message #1 Posted by **r. d. bärtschiger.** on 24 Sept 2003, 5:03 p.m.*

Has anyone tried to update the ROM on a new HP-49G+? Were you successful? I just received my new 49g+ and have been trying for the last hour or so to update the ROM. Each time it appears as though the image is downloaded correctly, but then after pressing the reset button the display says 'FLASH NEED UPDATE.' I have tried using both the USB connection to a computer and placing the files on an SD card and using that. Same results both ways. Is there some sort of trick? Thanks for any hints or other information you may be able to suggest.

rdb.

Edited: 24 Sept 2003, 5:20 p.m.

Re: HP-49G+ update Problems, HELP!

*Message #2 Posted by **Raymond Del Tondo** on 24 Sept 2003, 5:41 p.m.,*
in response to message #1 by r. d. bärtschiger.

Dunno about the USB update, but are you sure you gave the update file the correct name as instructed, and placed it in the root of the card?

Raymond

Re: HP-49G+ update Problems, HELP!

*Message #3 Posted by **r. d. bärtschiger.** on 24 Sept 2003, 6:36 p.m.,*
in response to message #2 by Raymond Del Tondo

Hello Raymond:

Yes. All the file names were correct and placed in the root of the sd card, which I re-formatted just to be sure. Thank you for your response.

I think I found the reason. See my next message.

rdb.

Edited: 24 Sept 2003, 11:05 p.m.

Re: HP-49G+ update Problems, HELP!

*Message #4 Posted by **r. d. bärtschiger.** on 24 Sept 2003, 6:40 p.m.,*
in response to message #1 by r. d. bärtschiger.

I think I solved this problem, however I need to do some more detective work before I can be sure. At any rate the new ROM is now installed. In case anyone may be interested, I will relate what I did. When I bought my HP-49G in 1999 one of the first things I noticed was that the date was now given with the month spelled out

instead of a number, i.e. SEP instead of 09. Although this was an improvement, in my opinion the fact that the month was in all capitals was a mistake and not very professional. So I used a disk editor to change the names of all the months to capitalized lower case, i.e. JAN to Jan etc. After making this change I downloaded the ROM image to the calculator. Although a crc error was returned, this didn't seem to have any real affect. After downloading the new ROM for the 49G+, I did the same thing, and this may be the reason why the installation failed, for as soon as I used the original image the updating of the ROM procedded correctly.

rdb.

Re: HP-49G+ update Problems, HELP!

*Message #5 Posted by **Andy** on 24 Sept 2003, 6:46 p.m.,*
in response to message #1 by r. d. bärtschiger.

Have you tryed to Upgrade over the same Rom?. Example: _ You upgrade to the first rom, and got the message, right. After that you tryed to upgrade for the same version that you install a while ago, right.

I don't see how can you the rom itself can send a message for auto-upgrade. That cannot be possible, because the rom don't recognice itself as a lower OS, but as the highest OS.

Try to flash the first rom. After that go for the last version of the rom. If that doesn't work send me an e-mail at: suffer002a@yahoo.com

I hope this can help you.

Andy

Re: HP-49G+ update Problems, HELP!

*Message #6 Posted by **r. d. bärtschiger.** on 24 Sept 2003, 11:08 p.m.,*
in response to message #5 by Andy

Thank you for your response. However I don't understand what you are trying to say. At any rate I was finally able to get the new ROM image installed.

rdb.

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NCEES Calc Policy and Foxy Ole' HP

*Message #1 Posted by **Todd Stock** on 24 Sept 2003, 9:35 a.m.*

After writing a lengthy note to the good folks at NCEES re: their recently announced policy, I was invited to spend an hour or so discussing the matter with one of the NCEES staff. I'll summarize the discussion, along with why I'm beginning to reevaluate HP's marketing choices. This discussion is applicable to an HP list - cut to the chase if you want the executive summary.

1. The NCEES policy is evolutionary (more on this later), and based on three factors:

a. The observed ease of removing question numbers and possibly correct answers from Eastern time zone test sites to benefit HI and AK examinees (opinion: not very valid in my opinion - care to guess the number of examinees in either state? Just shifting the exam start time can address the issue)

b. The ease of modifying almost any calc for either longer range IR or RF communications (opinion: this is substantive - there are way too many talented engineers with time on their hands these days...)

c. The perception on the part of some at the NCEES that current engineering grads are more skilled at data entry than in understanding and applying basic engineering principles, and cannot reliably do the calculations necessary without Matrix Editors, Solvers, Equation Libraries, or other automation (opinion: NCEES has to convince a few hundred thousand educators that going back to pen, paper, and basic calc/slide rule is the way to go here - like it or not, no one does FEA or 40 x 40 matrices by hand these days, and few engineers open a table of integrals when MathCad or similar is available...).

2. Long range IR link mods were said to be available for the HP-48, and in at least one other exam setting (not NCEES-administered), RF-capable TI calcs were observed, allowing communications between rooms.

3. NCEES proctors have observed one or more examinees using a set of calcs to record answers for removal from the test setting (e.g., '1D2A3B4A').

4. Computer based testing is not an option under serious consideration, given the security concerns and limitations on just how many variants of the FE and PE exam can be produced that are identical for grading purposes (see PPI's FE/PE FAQ for why this is so). The NCEES rep confirmed what I have suggested in previous notes - video technology and RF links have resulted in at least one licensing activity moving to administer all exams simultaneously (e.g. 2 PM start in NY, 11 AM start in LA, and 6 AM start in Honolulu).

5. Re: video/digital still cameras, NCEES stated that other testing agencies have banned watches, jewelry, head wear/scarves, etc. from test sites (I assume it's in the works for NCEES as well).

Now for my take on things:

The direction that the NCEES is going is toward a nothing-in/nothing-out exam site - nothing else will prevent removal of question numbers and assumed correct responses. In other words, the NCEES would publish a list of calcs available at the exam site, and it would be the responsibility of the examinee to become familiar with the operation of those models.

Summary:

My assessment is that the NCEES will settle on one non-graphing, scientific calc which can operate in either algebraic or RPN logic modes, thus, ensuring that examinees do the lion's share of number crunching - this will become the provided calc (brush up on doing matrix operations and SLEQ by hand, or practice speed programming).

Given that only HP currently offers a calculator with both RPN and algebraic modes, as well as full support for the math functions that NCEES judges necessary for the FE and PE exams, I think chances are good that TI will have to respond with a serious algebraic/RPN scientific calc similar to the HP-33S or risk seeing the engineering market firmly back in HP's court. Although it will take TI a little time to respond, I can easily see a 2006 exam year where no calcs are taken into or from the site.

Sort of makes you think that HP had a game plan all along for the new dual mode calcs, despite the knuckleheads responsible for the 33S case and keyboard design. FYI - NCEES was told that HP would have the 33S out by Dec, hence it's inclusion in the list of authorized calcs. Does anyone else see the writing on the wall?

My question to the group is that should NCEES announce that they would change policy to a single algebraic/rpn platform for all exams, how long would it take for engineering schools, GRE-Engineering, etc. to follow suit?

DISCLAIMER: This note summarizes an informal conversation with one NCEES rep, and certainly does not represent the stated position of that organization. The opinions expressed here are my own, and do not represent my employer's, my wife's, or my dog's view of the world.

Re: NCEES Calc Policy and Foxy Ole' HP

*Message #2 Posted by **Paul Brogger** on 24 Sept 2003, 10:20 a.m.,*
in response to message #1 by Todd Stock

At the risk of adding to someone's paranoia surrounding this, wouldn't a calculator with multiple registers (or array capabilities) enable the kind of answer encoding alluded to under **3** (above)?

In fact, my little SPECTRA SSC-200 has 27 memories, and if it is/were allowed, I could store as many as 10x27 answers using a positional encoding with decimal digits. Using Octal, I should be able to encode even more (if, that is, I could get its Base-n functions to actually *work?!?!?*).

Of course, this assumes I know the *correct* answers.

So, even without an alpha capability, any calculator with multiple registers may be used to carry at least some answers out of the test site.

(How many questions are there typically on these tests?)

Re: NCEES Calc Policy and Foxy Ole' HP

*Message #3 Posted by **Dave Shaffer** on 24 Sept 2003, 11:18 a.m.,*
in response to message #1 by Todd Stock

A few comments (aimed at NCEES, I guess):

re: "3. NCEES proctors have observed one or more examinees using a set of calcs to record answers for removal from the test setting (e.g., '1D2A3B4A')"

This looks like a case of an overly technical approach to a VERY simple problem: if somebody is going to export answers (let alone the questions), why not WRITE THEM DOWN SOMEWHERE??!!?? I am not an engineer, and am unfamiliar with the entire testing protocol, but from the discussions herein, it seems that you can bring in whatever printed matter (books) you want. All you have to do is write down the answers

somewhere in one of your books. Presumably all material is subject to inspection at exit, but with enough books and a simple encoding scheme, you could write down anything and there is little likelihood they'd find it anyway amongst the 1000's of pages.

If the system switches to providing its own calculators, then there is no reason (other than the expense of providing the calcs) not to have ANY kind available. They could offer a variety of your favorite HP and TI (and anything else), on-site. You might have to request your favorite in advance. To prevent various on-site cheating installation, they could a) glue shut all access ports; b) cover all IR ports; c) even wrap the whole thing in aluminum foil (to prevent RF transmission (although (a) should pretty well negate attempts at this)).

Re: NCEES Calc Policy and Foxy Ole' HP

*Message #4 Posted by **Todd Stock** on 24 Sept 2003, 11:44 a.m.,*
in response to message #3 by Dave Shaffer

Your arguments are mine - it's pretty much impossible to prevent some types of cheating without providing the calc, closely proctoring the exams, and timing start/finish to avoid the issues with East Coast versus AK/HI.

Personally, I think the states should make it a felony rap to cheat, make examples out of those few individuals that do cheat (and are caught), and put the main effort int addressing the other 99.99% of the folks being tested who just want to punch the ticket.

The interesting part of the discussion for me was the potential impact on calcs in engineering programs - the rest of this is pretty academic for those not sitting for an exam anytime soon. I'm not certain how much NCEES policy drives engineering program decisions, but if I were a first year civil/mechanical and knew that only certain calcs were allowed on my licensing exam, I'm not certain that I'd have a good reason to acquire "banned" machines.

Re: NCEES Calc Policy and Foxy Ole' HP

*Message #5 Posted by **CME750** on 24 Sept 2003, 1:37 p.m.,*
in response to message #4 by Todd Stock

I don't see the new NCEES policy as a win for HP. It's true that the new policy may drive up sales of the forthcoming 33S. Even people with no previous interest in HP calculators are looking hard at the 33S, because it is currently the only algebraic programmable with an explicit "seal of approval" from NCEES.

Unfortunately, the NCEES policy is going to *cripple* sales of the much more expensive 48GXII and the 49G+. Like it or not, the calculator has long since been supplanted in the engineering workplace by the PC. But the proficient "calculator power user" still had a significant advantage in one situation: the NCEES licensing exams. Now even that advantage has evaporated.

Many people (including me) bought the 48GX or the 49G specifically for use on the EIT or PE exams. That market has just disappeared. My 48GX is great, and it certainly helped me through the EIT exam -- but I no longer use it for PE exam preparation, since the 48GX will be banned when I take the exam next year.

I may very well buy a 33S to supplement my 32SII. But much as I like my 48GX, I would not buy any 48 or 49 series calculator if I was starting the NCEES exam process today.

Re: NCEES Calc Policy and Foxy Ole' HP

*Message #6 Posted by **CME750** on 24 Sept 2003, 2:19 p.m.,*

in response to message #3 by Dave Shaffer

NCEES has policies which are supposed to prevent people from copying down the exam questions or answers:

(1) The EIT/LSIT exams are *not* open-book. Once you are in the exam room, you are issued a reference manual and an exam booklet, but you have to return them (with all the pages intact) when you leave. You are not allowed to write on anything else. If there is an extra sheet of paper on your desk, you can be disqualified.

(2) For the PE/PLS exams, you are allowed to bring books in and out. But any notes that you write in your books prior to the exam *must* be in ink. You are not allowed to bring any writing implements into the exam room. Once you are in, you are issued a mechanical pencil, which can only be used on the exam booklet. You can be disqualified if (a) you are caught writing with the pencil in your books, or (b) anything written in pencil is found in your books.

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HP 28S ROM image

*Message #1 Posted by **Neil Strickland** on 24 Sept 2003, 9:29 a.m.*

Can anyone tell me how to get a ROM image to use with a 28c/S emulator? Thanks.

Re: HP 28S ROM image

*Message #2 Posted by **Raymond Del Tondo** on 24 Sept 2003, 10:32 a.m.,*
in response to message #1 by Neil Strickland

Just scan the forum archives, and maybe the articles archive. There were threads about this topic.

Raymond

Re: HP 28S ROM image

*Message #3 Posted by **Mike (Stgt)** on 25 Sept 2003, 12:56 p.m.,*
in response to message #1 by Neil Strickland

Hi Neil!

There is a cookbook for the HP28C-ROM at http://privat.swol.de/ChristophGiesselink/Emu28/romdmp.txt

Hope this helps

Ciao.....Mike

Re: HP 28S ROM image

*Message #4 Posted by **Neil Strickland** on 27 Sept 2003, 1:57 a.m.,*
in response to message #3 by Mike (Stgt)

Thanks. The emulator at "http://privat.swol.de/ChristophGiesselink" seems to exclude the ROM image. Is it possble to get this or is there a copyright issue?

Re: HP 28S ROM image

*Message #5 Posted by **Neil Strickland** on 27 Sept 2003, 2:08 a.m.,*
in response to message #4 by Neil Strickland

OK. It seems you have to own or have access to a 28 in order to upload the image to PC. Thanks.

Re: HP 28S ROM image

*Message #6 Posted by **Mike (Stgt)** on 29 Sept 2003, 2:58 a.m.,*
in response to message #5 by Neil Strickland

Yes, correct.

Ciao.....Mike

BTW: If anything else fails read instructions. <G>

Re: HP 28S ROM image

*Message #7 Posted by **Neil Strickland** on 29 Sept 2003, 5:34 a.m.,*
in response to message #6 by Mike (Stgt)

Reading; the bain marie of my life.

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33C <clear button> repair

*Message #1 Posted by **DG** on 24 Sept 2003, 6:50 a.m.*

I have a trusty old 33C circa 1981 that I still use at work. It has deveoped a problem with the <clear> CLx button, the CLx button feels the same as the other functioning buttons, but appears to have lost contact sensitivity. Is there a way to remove the back panel and effect some type of repair to the button contact? I understand that the buttons are over some form of "bubble" pad, and not actually a mechanical type switch. True? If so does anyone know how the this contact can be improved, or is it toast?

First things first though, I tried to remove the back cover (two scews in battery compartment -top), but the attachement at the bottom of the two panels is solid/tight and I am afraid it will just bust apart if I try to pry it open like a clam shell. Is there a special method of doing this? I really want to keep the old 33C working. Any help or suggestions for repair to improve the button contact would be appreciated.

Darryl B.C. Canada Enter >=

Re: 33C <clear button> repair

*Message #2 Posted by **Jeff** on 24 Sept 2003, 7:49 a.m.,*
in response to message #1 by DG

This has been much discussed in the past here, a thorough search of the Forum Archives should yield some information. There are several methods for opening Spice series calculators. The most basic and brute force method (as noted in your post in the Articles Forum) is to just pry the case halves apart. To answer your question, it opens like a clamshell. It takes a lot of force, and when the case finally separates, it does so with a loud "crack" that is quite disconcerting. Therefore, others have developed alternate techniques. One is to "squeeze" the cases apart. I could not find the post where this was described in detail, but it involves putting your thumb on the lower edge of the front of the case, your fingers in the battery compartment, and squeezing. Another technique involves the use of dental floss, described here:
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=22660
Regarding your button contact question, there are two versions of Spice internals. One type implements the keyboard contacts via plastic domes, the other has metal domes. See David's post below for cleaning instructions for the metal domes. I believe that the sheet with the plastic domes of the other version is also accessible, so it should be possible to clean the contact surfaces.
Good luck with your repair.

Edited: 30 Sept 2003, 12:30 p.m. after one or more responses were posted

Re: 33C <clear button> repair

*Message #3 Posted by **DG** on 24 Sept 2003, 5:21 p.m.,*
in response to message #2 by Jeff

Hey Jeff, Thanks alot for your response. The methods for opening the 33C are especially helpful. I've had that unit for over 23 years, hate to kill the old dog needlessly. I have to admit the tightness of the attachment is a little daunting.

I guess the button contact design will reveal itself once opened. I'll have to do a search on the archives for button/contact repair. If it is the plastic bubble type, I assumed that the lost contact was due to a 'stretched" out bubble dome, and then not likely repairable. However, this is a great site, a lot of expertise here, so I am sure someone has devised a solution or have some useful ideas.

I was surprised to learn from this site three things; 1) that all these old HP calculators have such a strong following and retain an "antique" value; 2) that people still use their old HP's everyday and I am not the only one; and 3) that HP has fallen so far behind or forgotten about the hand held computer market.

I was going to buy a new scientific HP calculator at my local "Staples" store, but the unit did not even have RPN! I checked the HP website and found they only have around 2 scientific models to choose from. I guess I have not stayed tuned to the calculator market for quite a few years, since I've alway been using my 33C, but I just assumed that with the advancment of digital electronics over the last 23 YEARS, that HP would have had made a quantum leap by now in this market. Must not be a market with a huge return on investment, but you would have thought that just for the purpose of SELF RESPECT as a company, HP would have thrown a few $ at maintaining their lead in the hand held market, if only as a marketing tool for the rest of their computer electronics line, ..or even if it was just for nostalgia purposes.

Darryl

Re: 33C <clear button> repair

*Message #4 Posted by **Dave Shaffer** on 25 Sept 2003, 12:24 a.m.,*
in response to message #3 by DG

Darryl,

Your last paragraph will resonate at the 99.9% level with most of the inhabitants of this site.

We all, too, use our beloved HP calculators daily and can't understand why HP has pretty much abandoned us. There is some hope for a couple of new calcs, but we're all stuck in the heyday of the 20-year old models!

Re: 33C <clear button> repair

*Message #5 Posted by **Ed Look** on 25 Sept 2003, 3:00 a.m.,*
in response to message #4 by Dave Shaffer

Yes, and I count myself as one of that majority, but the economy and manufacturing realities have changed, though I suppose that could just be an excuse for the obvious shift in "philosophy" which came in with the change in the leadership of the company.

Re: 33C <clear button> repair

*Message #6 Posted by **David Smith** on 25 Sept 2003, 3:15 p.m.,*
in response to message #2 by Jeff

The spice series never used the strip switches. They were either the plastic bubble keyboard type (compression machines) or the dome switch type (soldered machines) like used on the woodstock or HP41 machines.

The dome keys are easily cleaned. There is a feedthough hold under each key. You clean the key by making a tiny wire brush out of three wire brush bristles in a pin vise holder. Place a drop of alcohol on the hole, dip the wire brush in more alcohol, and then gently scritch around in the key hole with the wire brush. The problem with the spice keyboard may be that several of the key holes are blocked by the

soldered down 40 pin chip.

Re: 33C <clear button> repair

*Message #7 Posted by **DG** on 25 Sept 2003, 8:38 p.m.,*
in response to message #6 by David Smith

Tried to pry the back cover off my 33C. NO WAY is it coming off. The bottom attachment of the two halves is secured like it is SCREWED down. It will snap off for sure if I try to open it up like a clam. Tried pushing it together to unsnap a hook, tried twisting the two halves gainst each other, nada. Not willing to risk ruining the calculator. I guess I will just have to turn my calc on and off every time I want to clear the stack..

Thanks for all your help anyways guys.

Darryl

Re: 33C <clear button> repair

*Message #8 Posted by **dbrunell** on 25 Sept 2003, 9:41 p.m.,*
in response to message #7 by DG

Darryl,

It is actually possible to finesse the back off of a Spice calculator. After you've done it once, it gets easier. However, with just the back screws loose, you should be able to peek in there and see which type of unit it is and whether or not it is worth proceeding. The solderless ones have a beefy plastic backbone. There should be pictures somewhere on this site showing the differences.

Dave

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49G+ PC EMULATOR

*Message #1 Posted by **Luis Fernando Suarez** on 23 Sept 2003, 7:50 p.m.*

Hi somebody can send me a direction of i can download a emulator for PC of 49G+ thanks an sorry for my bad english

Re: 49G+ PC EMULATOR

*Message #2 Posted by **Fred** on 24 Sept 2003, 9:55 a.m.,*
in response to message #1 by Luis Fernando Suarez

Why not just use 49G? There certainly is not much different in functions performed....

Re: 49G+ PC EMULATOR

*Message #3 Posted by **Brandon Del Bel** on 24 Sept 2003, 2:22 p.m.,*
in response to message #1 by Luis Fernando Suarez

This probably won't help much, but here is the rom:

http://h20015.www2.hp.com/en/softwareDownloadIndex.jhtml?reg=&cc=us&softitem=ca-14639-2&prodId=hp49ggraph351775&lc=en&sw_lang=en&pagetype=software:

Re: 49G+ PC EMULATOR

*Message #4 Posted by **Andy** on 24 Sept 2003, 6:35 p.m.,*
in response to message #1 by Luis Fernando Suarez

hablas espanol. Puedes encontrar un emulador en HPCALC.ORG si sabes suficiente ingles, lo podras encontrar. Si no escribeme a : suffer002@yahoo.com

espero que esto the ayude. Perdon por mi baja diccion en Espanol. Sorry about my bad (low diction) Spanish

Re: 49G+ PC EMULATOR

*Message #5 Posted by **Wiiiiiiiii** on 24 Sept 2003, 9:24 p.m.,*
in response to message #4 by Andy

He asked for a 49g+ emulator, currently n/a, even in hpcalc.org

Re: 49G+ PC EMULATOR

*Message #6 Posted by **Mike (Stgt)** on 25 Sept 2003, 1:06 p.m.,*
in response to message #5 by Wiiiiiiiii

As the 49G+ uses an ARM CPU (same as in PDAs?) you have to emulate that. May be you need the WinCE-SDK from M$ (300MB) as for the Xpander <VBG>. No - I don't know realy.

For shure you are better off with the EMU48 to emulate the HP49G. Then take a photo of the 49G+ as 'faceplate' and adjust the KML.

Ciao.....Mike

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Hp 38S II vs. 48GX

*Message #1 Posted by **Cora Stewart** on 23 Sept 2003, 6:38 p.m.*

We have used the 38SII for years at work. We use it because of the programming features: Label, input, etc. How can I convert these types of programs to the 48GX. I am no calculator guru and I don't have days to sit and try to figure this one out! Any help would be appreciated.

Re: Hp 38S II vs. 48GX

*Message #2 Posted by **David Ramsey** on 23 Sept 2003, 7:56 p.m.,*
in response to message #1 by Cora Stewart

I assume you mean "32SII" since there's no such thing as a "38SII".

The quick answer to your question is "You don't convert the programs." The 32SII is a classic HP "keystroke programmable" calculator that records sequences of keystrokes. The 48GX takes an entirely different approach; you write programs using a small built-in text editor and the syntax and operation of the system is totally different.

Basically, you'd have to figure out exactly what the programs on the 32SII do and rewrite them from scratch for the 48GX.

Re: Hp 38S II vs. 48GX

*Message #3 Posted by **Ed Look** on 23 Sept 2003, 10:01 p.m.,*
in response to message #2 by David Ramsey

Well, I suppose this is a bit time consuming, but you could sort of "translate" the function of the particular keystroke of a 32SII program to some command in the (what, RPL?) language of the 48GX, or set of commands that would accomplish the same task or action. Unfortunately, this would require that programming the 48GX is mastered to some degree in addition to knowing how to program a 32SII.

Incidentally, I am currently (and very slowly, mind you) trying to do that for programs I had already erased on my 32SII onto a 48G. Unfortunately, this last beastie has very little RAM (32K).

Re: Hp 38S II vs. 48GX

*Message #4 Posted by **CME750** on 23 Sept 2003, 11:48 p.m.,*
in response to message #1 by Cora Stewart

You probably mean the 32SII, which has has been discontinued by HP. There is no simple way to port 32SII programs to the 48GX. The programs would have to be rewritten.

HP is supposed to introduce a new model, the 33S, in October or November 2003. It appears that this new model will resemble the old 32SII, but with much more memory; it is possible that it may be able to run 32SII programs. But the 33S is not yet available, so no guarantees.

Re: Hp 38S II vs. 48GX

*Message #5 Posted by **Ron Ross** on 24 Sept 2003, 8:45 a.m.,*
in response to message #1 by Cora Stewart

Or you could mean the 38G. Either way, the 48G series is totally different. I suspect you do mean the 32sII. The Hp48G series has a lot of programs that are FREE and available at hpcalc.org . You could just download your program if it is available there (which it probably is). This site makes the 48/49 series worth twice their price. It is a tremendous contribution to Hp calculators (as is this site also).

Re: Hp 32S II vs. 48GX

*Message #6 Posted by **Andy Agui** on 24 Sept 2003, 6:59 p.m.,*
in response to message #5 by Ron Ross

There is no way to port programs to a 48Gx if the program was originally written for the 32SII or the 38G. Both of those calc have " lower class" porgraming languages, compared to the User RPL, the programmability is quite simple. You should write the propurse of the program,it specific features and resolts. And after that program your 48GX. Probably the program that you wrote,is a built in command in the 48GX. So scan the 48Gx and then go for the programs.

Regards

Andy

Re: Hp 38S II vs. 48GX

*Message #7 Posted by **Ed Look** on 24 Sept 2003, 11:57 p.m.,*
in response to message #1 by Cora Stewart

I should have been working, but I was surf... ahem, reading, and I came across this. I didn't follow up on it, but the site has links and you just might find what I think you may be after regarding "translating" 32SII programs to the 48GX:

http://pub8.ezboard.com/fhpcccalculatorclubgeneral.showMessage?topicID=6.topic

I hope this is useful.

Re: Hp 38S II vs. 48GX

*Message #8 Posted by **bill platt** on 25 Sept 2003, 10:43 a.m.,*
in response to message #1 by Cora Stewart

Hi Cora,

Well, here is another approach: you can run an emulator of the hp41c (or cv or cx) on your 48gx. I have been doing this for about 2 weeks, and it is really pretty neat. The 41 series is closer to the 32sii--it uses GTO and is RPN not RPL. For the "Input" command, you insted use the PROMPT command followed by STO xx where xx is a storage register. The registers are numbered instead of lettered, though the first 10 registers are implicitly lettered. I like the "Input" command of the 32sii though, as it is such a fast streamlined way to go, but if you put PROMPT on a user key on the 41c, you can code an input pretty fast (less typing).

If however you happen to use equations within your programs on the 32sii, that does not translate well to the 41c--you have to put the equation into a subroutine in RPN (using horner's method or other if need be).

The long of the short of it is that there is no easy way!

But some RPN programs translate very easily to RPL--skipping hte 41c emulator approach. I'll post some of the ones I have done, in a later post.

Regards,

Bill

Bill, please

*Message #9 Posted by **R Lion** on 25 Sept 2003, 3:07 p.m.,*
in response to message #8 by bill platt

Do you know a free 41 emu for the 48?

Thanks

Raul L

Re: Bill, please

*Message #10 Posted by **bill platt** on 25 Sept 2003, 3:40 p.m.,*
in response to message #9 by R Lion

Hi Raul!

Yes, from HPcalc.org:

http://www.hpcalc.org/hp48/apps/misc/hp41e48.zip

If you cannot get it to download for some reason, I'll send it to you.

Let me know how iy goes!

BTW, I tried it out first on the emu48---all you have to do is drag the file over on top of emu48 and there it is on the stack!

I uploaded it to the real HP48gx with no problems, either, and saved it to both port and system memory without any trouble. I also made up a keyboardd template (do you know where to get more of them for the HP48?!)

Best regards,

Bill

Re: Bill, please

*Message #11 Posted by **R Lion** on 25 Sept 2003, 3:48 p.m.,*
in response to message #10 by bill platt

When I read your first post I quickly looked for it in hpcalc... without success. So thanks for the link, Bill. About Emu48, yes it's a blessing. I always have a backup of my real calc in Emu and the new programs, are tested on it. Sorry about the templates... I saw some of them once in ebay...but I don't have more info.

Thanks again and best regards

Raul L

Re: Bill, please

*Message #12 Posted by **gilbert** on 26 Sept 2003, 12:08 a.m.,*
in response to message #10 by bill platt

There is much advanced version of emu 41 for HP-48GX and HP-49G on http://hrastprogrammer.tripod.com/HP41X. It is called HP-41X but I think it comes from the same author. Alse, an HP-42S emulator exists on http://hrastprogrammer.tripod.com/HP41X which is more close to the HP-32SII than HP-41 emulator. Sadly, these emulators are not free :-(

Re: Bill, please

*Message #13 Posted by **Nelson M. Sicuro (Brazil)** on 26 Sept 2003, 12:41 a.m.,*
in response to message #12 by gilbert

Neither available! I was there several times, but there is no more support/download there. Any other place to download?

Regards,

Nelson

Re: Bill, please

*Message #14 Posted by **Nelson M. Sicuro (Brazil)** on 26 Sept 2003, 12:43 a.m.,*
in response to message #13 by Nelson M. Sicuro (Brazil)

Hmmm... Never mind.... I was wrong. I think that he re-activated it...

Nelson

Thanks!

*Message #15 Posted by **bill platt** on 26 Sept 2003, 9:45 a.m.,*
in response to message #12 by gilbert

I had forgotten where that souped-up version was! I wonder if he is going to develop a new version for the 49G+ (or maybe it won't be necessary).

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Has the HP12C improved in chip speed over the years?

*Message #1 Posted by **dave brown** on 23 Sept 2003, 2:16 p.m.*

My finance prof said this in class but I wonder if it's really true? Is an HP12C bought today faster than 1 made, say, 15 years ago?

(This would be reason to buy newer ones)

Thx if u know

Re: Has the HP12C improved in chip speed over the years?

*Message #2 Posted by **David Ramsey** on 23 Sept 2003, 5:43 p.m.,*
in response to message #1 by dave brown

No. A 12C bought today is no faster than the very first one off the production line.

Now, the 12C Platinum, a new version, uses a different processor and is faster for most things. However, a number of bugs have been discovered in the Platinum version and most HP fanatics prefer the original.

Re: Has the HP12C improved in chip speed over the years?

*Message #3 Posted by **hugh** on 23 Sept 2003, 6:26 p.m.,*
in response to message #2 by David Ramsey

over the years, the 12c internals have undergone several cost reduction changes. down to 1 chip now, i think.

shrinking the chip: does that mean it could be run faster at the same power consumption as before? and if so, why didnt they because "running" looks awfully antique these days.

Re: Has the HP12C improved in chip speed over the years?

*Message #4 Posted by **Joshua Belsky** on 23 Sept 2003, 7:36 p.m.,*
in response to message #3 by hugh

It is my understanding that they increased the speed, but the businesspeople to whom they showed it did not trust the quicker answers. So they slowed it back down.

This could be legend, though.

-Joshua Belsky

Re: Has the HP12C improved in chip speed over the years?

*Message #5 Posted by **dbrunell** on 24 Sept 2003, 12:16 a.m.,*
in response to message #1 by dave brown

Can anyone tell me when they switched the 12C from double-shot molded keys to painted-on legends? I have in front of me a 1995 Singapore model with painted keys.

Re: Has the HP12C improved in chip speed over the years?

*Message #6 Posted by **Mike Sebastian (Texas)** on 24 Sept 2003, 6:18 p.m.,*
in response to message #5 by dbrunell

Cost (i.e. to increase profits).

Also, for some strange reason, HP would paint over double-injection molded keys. See http://www.hpmuseum.org/collect.htm#variations and scroll down to "10C Series Versions."

Edited: 24 Sept 2003, 7:00 p.m.

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Questions about 32SII and 18C variations

*Message #1 Posted by **Thomas Radtke** on 23 Sept 2003, 7:08 a.m.*

Hi *,

I have two questions about variations of the 32SII and 18C:

(i) my old 32SII (serial 3136S05168, bought in '92 in Germany w/ a dutch manual) has this 'fixed denominator bug'. I'm interested to hear whether this has been corrected in later versions. Btw., what is this thing about prices of $300 and more for a calculator that has been about 70DM (35EUR) before. As soon as I saw this strange prices I was forced to pick up one of these ultracheap 48G's just to not have to touch this device anymore:(.

(ii) my 18C (serial 2744A01171) has 'shifted key' labels on its alphanumeric keyboard. I haven't seen this on any picture I found and the manual states that they shouldn't be there. I got this calculator from an ebay auction (18EUR, seems to be not too beloved:) and thus I don't know if its original or a replacement part from a 19BII. Any infos about a keyboard design change with the 18C?

Thanks,

Thomas

Re: Questions about 32SII and 18C variations

*Message #2 Posted by **Bert K** on 23 Sept 2003, 11:30 a.m.,*
in response to message #1 by Thomas Radtke

About 32SII prices, since its discontinuation 32SII prices have gone through the roof. I saw a site (samsoncables.com) asking $399 for a new silver or a brown bezel. A refurbished brown bezel was $299.

The good news however is that good deals can still be found. I bought a like new 32SII silver bezel for 35 EURO last month...

I don't now about the 'fixed denominator bug', I'd have to check both my 32SII's. I have an old brown bezel and the newer silver bezel.

Re: Questions about 32SII and 18C variations

*Message #3 Posted by **Thomas Radtke** on 23 Sept 2003, 2:10 p.m.,*
in response to message #2 by Bert K

Hi Bert,

I don't know any details of this bug as I never tried this feature (setting flag 9, that is). There was simply an 'update' notice added to the manual that warns about that bug.

I too think that you can still make a bargain on ebay if you're patient enough:). When it comes to hp calcs in particular, one could make a life buying in Germany and selling in the US. There's always a reasonable

arbitrage:). Anyway, I still wonder who is paying this prices. The 32SII is a nice machine, no doubt, but it's still more or less low end. Electronic devices are no good speculative objects either as they tend to die quickly compared to oil paintings or similar objects.

Thomas

Re: Questions about 32SII and 18C variations

*Message #4 Posted by **Juan J** on 23 Sept 2003, 2:35 p.m.,*
in response to message #3 by Thomas Radtke

While I cannot say much about the 32SII, the 18C has shifted characters on its alphanumeric keyboard. They are not exactly listed on the manual and somebody made overlays for them. They include relational operators, question marks and other things (I might be wrong on this,) some of them useful for printing messages with the 82240 printe. For you it might take a little trial and error to figure them all, but it's woth it.

I got my 18C from the estate of an insurance broker (who had recently passed away) with the overlay, which turned to be quite handy.

fixed denominator bug, was Questions about 32SII

*Message #5 Posted by **Bert K** on 25 Sept 2003, 2:55 p.m.,*
in response to message #1 by Thomas Radtke

I checked both my 32SII's. They both do not suffer from the fixed denominator bug (see here: http://www.finseth.com/~fin/hpdata/hp32sii.html). The brown bezel is an Indonesian ID8290xxxx and the silver bezel is an Indonedian ID1110xxxx.

Re: fixed denominator bug, was Questions about 32SII

*Message #6 Posted by **Thomas Radtke** on 25 Sept 2003, 3:21 p.m.,*
in response to message #5 by Bert K

Checked mine too, it has the bug(s). It is an early Singapore model. I can live with that since I never seriously used the fraction mode--but anyway, all these bugs in hp calcs are really annoying.

Thomas

Re: fixed denominator bug, was Questions about 32SII

*Message #7 Posted by **Ed Look** on 26 Sept 2003, 2:04 a.m.,*
in response to message #6 by Thomas Radtke

Gentlemen, I have been following your thread with a bit of interest, as I own a 32SII also. But I bought mine back in March of 2001 and according to the serial number decoding scheme found elsewhere on this site, it was manufactured in Indonesia in 1999, presumably in late April.

I tested my unit according to the fractional display tests found on Craig Finseth's site, but mine tests correctly! I suppose HP must have built into later units updated ROMS with the correct programming.

Incidentally, does anyone know about when they started to sell the silver bezel version (the one with the blue and white shift keys)?

Re: fixed denominator bug, was Questions about 32SII

*Message #8 Posted by **Bert K** on 26 Sept 2003, 6:34 a.m.,*
in response to message #7 by Ed Look

According to Viktor Toth the silver bezel was made from 1999 until the discontinuation of the 32SII in 2002.

http://www.rskey.org/detail.asp?manufacturer=Hewlett-Packard&model=HP-32SII+Silver

Re: 32SII prices

*Message #9 Posted by **Paul Brogger** on 26 Sept 2003, 9:40 a.m.,*
in response to message #1 by Thomas Radtke

I suspect that 32SII prices should fall somewhat as the 33S becomes available, though it's unlikely that we'll again routinely find examples as low as ~$70.00 .

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48G display flicker

*Message #1 Posted by **Ed Look** on 23 Sept 2003, 1:44 a.m.*

For the first time ever, I was using my 48G in my car parked near a sodium vapor streetlamp. At many angles of view, the 48g's display flickers (not unlike an older or cheap CRT monitor on some older or cheap PC) under the illumination of the streetlamp. What's the primary line of Na? 5880 angstroms or something like that? Although, it must the the frequency of the lamp that's doing it, not the frequency of the light (what COULD that have to do with anything here?). It was annoying enough I had to move my head or the calculator so as not to see the flicker!

What's the refresh rate, if such a concept applies, of the 48G's screen??

Re: 48G display flicker

*Message #2 Posted by **Randy Sloyer** on 23 Sept 2003, 7:17 a.m.,*
in response to message #1 by Ed Look

I don't know the exact scan rate but would suggest it is time to change your batteries. I have found most G's will flicker in 60hz light when batteries are low, this is well before the battery low light comes on. The effect is much more prononuced when the temperature approches freezing.

Re: 48G display flicker

*Message #3 Posted by **David Smith** on 23 Sept 2003, 10:31 p.m.,*
in response to message #1 by Ed Look

The LCD display on the calculator is a scanned display. The sodium vapor lighting flickers at 60Hz. This acts like a strobe light that produces a beat frequency with the scanned LCD display. Flourescent lights may show a similar display, but the phosphor in their tubes has a longer decay time than the sodium vapor lights, so the effect is not as noticeable.

Re: 48G display flicker

*Message #4 Posted by **Ed Look** on 23 Sept 2003, 10:50 p.m.,*
in response to message #3 by David Smith

No wonder this is not normally observable. The decay tail! I didn't realize that fluorescent lights' phosphors had such a long decay time. Well, here's a good use for slow switching!

Re: 48G display flicker

*Message #5 Posted by **David Smith** on 25 Sept 2003, 3:17 p.m.,*
in response to message #4 by Ed Look

FLourescent lights have gotten better over the years. You only need 1/60 of a second hold time. Some gas discharge bulbs (usually metal halides) have a phosphor coating also.

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HP-41CX Pricing

*Message #1 Posted by **Garrett Moore** on 22 Sept 2003, 9:50 p.m.*

The Museum of HP Calculators indicates that the HP-41CX was introduced in 1983 at a retail price of $325, and ended production in 1990. Does anyone know the HP-41CX retail price at the end of production in 1990?

Re: HP-41CX Pricing

*Message #2 Posted by **Richard Garner** on 22 Sept 2003, 11:04 p.m.,*
in response to message #1 by Garrett Moore

I bought my first 41CX in 1984 and it was about $225.00. I bought my second 41CX in 1988 and it was about $185.00. Both were bought from a mail order electronics store known as Elek-Tek out of Lincoln IL. In the early 1990's it changed its name to PC Electronics and as for as I can tell went out of business shortly there after.

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Opinion request

*Message #1 Posted by **Stan** on 22 Sept 2003, 6:14 p.m.*

I have a new, in original factory box, with manual still in shrinkwrap, never used, with blank warranty card, and leather case, HP 75C. Is this a rarity with any significant value?

Re: Opinion request

*Message #2 Posted by **Brandon Del Bel** on 22 Sept 2003, 7:15 p.m.,*
in response to message #1 by Stan

> Quote:
>
> HP-75C and D prices have been depressed by recent large-scale sales by several companies and government agencies. (The $3 price required the purchase of at least 25 units. Quantity 1 pricing usually starts at $20.) The high-priced samples were described as "new in the box". An eBay dealer has a large quantity of these but is auctioning them slowly to keep the prices up. Five months ago his top bids were about 3 times as high as they are now.

http://www.hpmuseum.org/collect.htm#n5

Re: Opinion request

*Message #3 Posted by **Christof** on 23 Sept 2003, 7:43 p.m.,*
in response to message #2 by Brandon Del Bel

how old is this?

I haven't been finding any NIB or even used with carry case 75 machines- pretty much at all (mike's wonderfully preserved wares excepted)

I'd be interested in finding some. I like the 75- and even at $50 NIB I'd be ecstatic.

Re: Opinion request

*Message #4 Posted by **David Smith** on 23 Sept 2003, 10:33 p.m.,*
in response to message #1 by Stan

I saw one sell for $150, NIB.

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Reminder of Portland Meeting

*Message #1 Posted by **Dave Hicks** on 22 Sept 2003, 4:51 p.m.*

Wlodek Mier-Jedrzejowicz and I will be at the Portland Powell's bookstore at 3PM tomorrow (Tuesday the 23rd.) We'll grab a table in the coffee shop and generally look mathematical so you can spot us ;-) (We'll try to have some calculators in sight.)

We hope to see you there!

Re: Reminder of Portland Meeting

*Message #2 Posted by **Matthias** on 22 Sept 2003, 5:13 p.m.,*
in response to message #1 by Dave Hicks

Sorry, but Switzerland is a little bit to far from you. We also had a nice meeting last Saturday (christoph Klug and me will make a report). So, enjoy cour community.. abd best greetings to you and Wlodek..

Matthias

Re: Reminder of Portland Meeting

*Message #3 Posted by **Paul Brogger** on 22 Sept 2003, 6:11 p.m.,*
in response to message #1 by Dave Hicks

I'll be there.

Are there any reports yet from last weekend's HP Handhelds Conference?

Re: Reminder of Portland Meeting

*Message #4 Posted by **Stanley Kurzet** on 22 Sept 2003, 6:19 p.m.,*
in response to message #1 by Dave Hicks

Would Wlodek please contact me off list at skurzet@msn.com

Re: Reminder of Portland Meeting

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 22 Sept 2003, 7:50 p.m.,*
in response to message #1 by Dave Hicks

Only to say how much I regret being so far from Portland...

Maybe in a future meeting (if economy, schedules and so are more favorable)... and also if we can plan with a couple of months advance notice...

I hope you enjoy a fun and warm meeting, as a more than deserved recognition reward. Have my best wishes for all attending!

(Please disregard idiomatic mistakes if the wording is not the most proper)

Everything looks proper from here.

*Message #6 Posted by **Matt Kernal (US)** on 23 Sept 2003, 11:25 a.m.,*
in response to message #5 by Andrés C. Rodríguez (Argentina)

Andrés> (Please disregard idiomatic mistakes if the wording is not the most proper).

Are you joking Andrés? Your messages are *always* proper! You have better English writing skills (sentence structure, grammar, spelling, etc..) than many Americans, myself included. Your messages are informative, helpful, and always polite and kind. Don't apologize for anything, friend.

Matt

P.S. FWIW, I do plan on being at Powell's this afternoon. (Please disregard idiomatic mistakes if the wording (FWIW: For What Its Worth) is not the most proper ;-).

Re: Everything looks proper from here.

*Message #7 Posted by **Andrés C. Rodríguez (Argentina)** on 23 Sept 2003, 7:46 p.m.,*
in response to message #6 by Matt Kernal (US)

Thank you, Matt, your encouragement is very welcome indeed.

Many times, after reading some responses, I had the feeling such as "I didn't find the right way to say it".

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10BII

*Message #1 Posted by **Thibaut.be** on 22 Sept 2003, 3:42 p.m.*

I just acquired a 10BII from a sell-off of a shop.

Actually I like this calculator. It would just be great if it were also RPN. I like the display, the voyager-like keys, the smooth edges, anf the sliver bezel. The keys are easy to read.

I've read a lot of flaming about recent HP's, and even if I definitely regret the 42S and the voyager series, I have to say that the recent ones are not that bad.

The 33S seems to be great, the 49G is a hell of a machine though the keyboard is just crap (let's wait for the 49G+ or whatever it is).

Let's be positive and encourage HP going further in the right direction, who knows, maybe there is a HP guy of the calculators department who will realize our dreams...

Re: 10BII

*Message #2 Posted by **GE (France)** on 22 Sept 2003, 4:10 p.m.,*
in response to message #1 by Thibaut.be

You're right, this machine looks very nice. Now, just type on it...

Re: 10BII

*Message #3 Posted by **Paul Brogger** on 22 Sept 2003, 5:53 p.m.,*
in response to message #2 by GE (France)

I have one, bought "as is" at Office Despot (Ahhh say, that there's a *joke*, son!) Its keyboard is firm and responsive. It doesn't convey the feeling of "mass" that older HP keys offer, but it's waaaaaay better than those of the 6s & 30s examples I've tried.

If the newer H-P's offer keyboards as good as this (and if they last a while), I'd say it'll be a step in the right direction.

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hp42s defect beeeeep

*Message #1 Posted by **Michael** on 22 Sept 2003, 4:12 a.m.*

who can help? my hp42s doesen't work with new batteries it only beeps permanently after power on.

Re: hp42s defect beeeeep

*Message #2 Posted by **christof** on 22 Sept 2003, 10:38 a.m.,*
in response to message #1 by Michael

Sounds like you need to remove the batteries, short the terminals with a piece of wire (steel paperclip is good enough) and put the batteries back in.

That's how I've done it in the past for pioneers.

Some people recomment shorting with a reversed battery, but I've never seen that mentioned outside of the voyager series.

Re: hp42s defect beeeeep

*Message #3 Posted by **David Smith** on 22 Sept 2003, 3:48 p.m.,*
in response to message #2 by christof

The HP42 manual says to short across the battery terminals for one second WITH THE BATTERIES INSTALLED. This will not damage the batteries and will protect the machine from static problems.

The 42 beeeeps when the batts are almost dead

*Message #4 Posted by **Menno** on 23 Sept 2003, 1:40 a.m.,*
in response to message #3 by David Smith

The 42 has the strange feature that when the batteries are allmost empty it will start to beeeep continously. This has happened to me twice, both times in the middle of the night. That little bastard has a mind of it's own.....

So I think that you try to install batts that are almost empty. Measure the voltage of your batt; it will be less than 1 volt.

have fun

Menno

Re: hp42s defect beeeeep

*Message #5 Posted by **christof (NoVA USA)** on 23 Sept 2003, 3:07 p.m.,*
in response to message #3 by David Smith

"The HP42 manual says to short across the battery terminals for one second WITH THE BATTERIES INSTALLED. This will not damage the batteries and will protect the machine from static problems. "

NO IT DOES NOT.

I have the museum pdf, my old spiral bound paper copy, and a photocopy all three in front of me and they ALL say:

"Now turn the calculator back on. If it does not function, you might have taken too long to change the batteries or inadvertently turned the calculator on while the batteries were out. Remove the batteries again and lightly press a coin against both battery contacts in the calculator for a few seconds...."

I've been through this a few times now, and each time I go back and check, and each time, my manuals say to REMOVE the batteries.

Not saying that you will certainly cause damage to the 42S by leaving the batteries in, but the manual is really very clear.

-Christof

Re: hp42s defect beeeeep

*Message #6 Posted by **David Smith** on 26 Sept 2003, 7:30 p.m.,*
in response to message #5 by christof (NoVA USA)

I checked my manuals and the HP11/12/15 manuals all say to short the batteries.

My only 42S manual is a late version that says to remove the cells. I think the earliest 42S manual wanted the batteries in (I was fixing a balky 42S when I first read about shorting the batteries), but I no longer have that manual. I have used the technique on a couple of 42S machines and it worked just fine.

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41cx US Govt sticker on back

*Message #1 Posted by **Paul** on 21 Sept 2003, 9:31 p.m.*

Greetings. I picked up a 41CX on eBay that has a small bar code sticker on the back that says "SVAD U.S. GOVT Authorized Removal Only." Anyone have an idea where this 41 came from? Maybe Bill Clinton used it to pick up chicks and then sold it on eBay before Hillary found it? Regards, Paul.

Re: 41cx US Govt sticker on back

*Message #2 Posted by **Mark Hardman** on 21 Sept 2003, 10:26 p.m.,*
in response to message #1 by Paul

No, that would be the HP-41SEX.

It looks like this would be an inventory tag for the SaVanna Army Depot. It **also** looks like this is an EPA site.

http://www.epa.gov/fedrgstr/EPA-IMPACT/1997/February/Day-05/i2803.htm

The calculator is very likely contaminated. You really ought to dispose of it by sending it to the:

LED HP-41CX Superfund Disposal Corp
13819 River Keg Dr
Houston, TX 77083

Mark Hardman

Edited: 21 Sept 2003, 10:57 p.m.

Re: 41cx US Govt sticker on back

*Message #3 Posted by **Sean** on 22 Sept 2003, 12:18 a.m.,*
in response to message #2 by Mark Hardman

;)

Re: 41cx US Govt sticker on back

*Message #4 Posted by **Charlie O.** on 22 Sept 2003, 3:05 p.m.,*
in response to message #1 by Paul

Savanna Army Depot, Savanna, IL

Got a 55 passenger bus driver license there by driving around huge empty lot without hitting anything.

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41cx US Govt sticker on back

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HP seems to have lost its Way

*Message #1 Posted by **DanO** on 21 Sept 2003, 8:40 p.m.*

Why would a company deliberately throw away its competitive advantage?

Customers used to choose an HP calculator over the competition for two main reasons:

1) RPN

2) Ease of use coupled with good key feel and high-quality durable construction.

Any calculator from HP that does not rely on these strengths is doomed. The very successful HP-12C is perfectly aligned with HP's competitive edge. Compare this to the recently discontinued HP-6S (algebraic entry, poor construction, lousy key feel).

HP must either exit the calculator business entirely or else HP must rely on these two competitive strengths and try to return to greatness. There is no middle ground here. It is either one or the other for HP.

Re: HP seems to have lost its Way

*Message #2 Posted by **Pierre Brial** on 22 Sept 2003, 5:32 a.m.,*
in response to message #1 by DanO

Dan, The fact is that there is no longer a large market for good quality programmable calculator. During the 70-80's desktop computer were too much expensive so people bought calculator instead. Nowadays most calculator users don't bother to program themselves. Nevertheless, there is still a small demand for portable and powerfull calculating devices, mainly amongst engineers. And the adequate tools no longer exists. There never have been a large market for oscilloscopes, surveying equipment and so on, but they still exists. These devices are expensive but people who need them buy them. I wonder why HP didn't maintain a high quality line of calculators, even at higher prices in order not to lose money. When you see the prices of used HP-67, 41, 15C, 42S, you can guess that HP could sold high quality & high priced calculators.

All the best, and sorry for my poor english

Pierre

Re: HP seems to have lost its Way

*Message #3 Posted by **Namir** on 22 Sept 2003, 11:52 a.m.,*
in response to message #2 by Pierre Brial

I agree with you Pierre. I started working for a French water treatment company here in Virginia in 1980. I used my HP41C to do a lot calculations and statiustical anaylysis for data. PC were very expensive and NOT portable at that time. I was able to travel all over the USA with my 41C as I did technical demonstrations of water treatment equipments to existing and potential clients. The advent of faster and cheaper PC overshadowed calculators that had previously enjoyed the status of being "personal computing devices" between mid 70s and the early 80s. PC also had very efficient mass storage and RAM

specifications. Even today, while my HP49G and TI-200 can do cool numerical analysis calculations, I find my C++, VB, and C# programs able to run circles around the calculators (provided that I program these applications on the PC). I look at the high end HP and TI calculators as specialized handheld micros.

I guess it was Moliere (correct me if I am wrong) who said "The better is the enemy of the good".

Namir

Re: HP seems to have lost its Way

*Message #4 Posted by **Juan J** on 23 Sept 2003, 2:23 p.m.,*
in response to message #3 by Namir

Calculators had their finest hour when PCs were big, clumsy and expensive, that is true. But there are always problems you can handle with a calculator more efficiently than you would on a PC, even a portable one.

From my experience, for field work a well-programmed calculator (for instance, a 28, 41, 42 or 48) can beat a laptop PC or a PDA and endure much more abuse under harsh work conditions. And there will always be a need for such applications (and devices.) On the other hand, PC-based job design can quickly be confirmed with a calculator; a parameter that those nice software applications of today does not include on its results but is needed can be calculated on the way with a calculator.

Unfortunately HP has apparently shifted its interests from those little machines we use and love so much, but that is another story.

And correct me if I am (quite possibly) wrong, but Admiral Sergey Gorshkov liked to say that "better is the enemy of good enough."

Re: HP seems to have lost its Way

*Message #5 Posted by **James Stephens** on 25 Sept 2003, 5:30 p.m.,*
in response to message #4 by Juan J

>And correct me if I am (quite possibly) wrong, but Admiral >Sergey Gorshkov liked to say that "better is the enemy of >good enough."

You are correct, I learned this in (the United States) Navy.

Re: HP seems to have lost its Way

*Message #6 Posted by **F. Casanellas** on 25 Sept 2003, 5:34 a.m.,*
in response to message #3 by Namir

Absolutely agree. Just compare the HP48G series with the HP49G, this one has: - a rubbishy keyword - a cover that first slides to hard, later too smoothly - a "garbage collector" that stops the calculator very often for several seconds.

I had to say in favor of HP (in Spain) that I was very annoyed for the pausing problem. They explain to me that there was no solution and accepted my calculator back returning me the money I had payed to the distributor.

When I returned back to the HP48G with the soft keyword and no appreciable pausing, it was a sort of relax.

Re: HP seems to have lost its Way

*Message #7 Posted by **Valentin Albillo** on 25 Sept 2003, 5:52 a.m.,*
in response to message #6 by F. Casanellas

F.Casanellas wrote:

"this one has: - a rubbishy keyword - a cover that first slides to hard, later too smoothly - a "garbage collector" that stops the calculator very often for several seconds."

It seems the "garbage collector" isn't recursive. Else it would have garbage-collected itself. Anyway you did very properly indeed, returning your "garbage" item and "collecting" your money back.

And, BTW, it's "keyBOARD", not "keyWORD" :-)

Best regards from V.

Re: HP seems to have lost its Way

*Message #8 Posted by **Ángel Martin** on 26 Sept 2003, 9:27 a.m.,*
in response to message #7 by Valentin Albillo

Valentin,

Thank goodness it isn't "KeyBOAR", those things have tusks!

Tricky language English, idn't?

Greetings from an expatriate.

ÁM

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49G+ manuals

*Message #1 Posted by **Brandon Del Bel** on 21 Sept 2003, 6:02 p.m.*

I don't recall anyone posting the link to the 49G+ manuals so here it is:
http://h20015.www2.hp.com/en/manualCategory.jhtml?reg=&cc=us&pagetype=manual&prodId=hp49ggraph351775&lc=en&sw_lang=en&docparent=manual&cat=manual
If it was posted, I apologize.

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-41CV fading display

*Message #1 Posted by **Jim** on 21 Sept 2003, 5:28 p.m.*

The display on my -41CV is fading. I've never had this happen to a -41. What's usually the problem and what's the probable fix? Thanks.

Re: -41CV fading display

*Message #2 Posted by **Thibaut.be** on 22 Sept 2003, 6:04 a.m.,*
in response to message #1 by Jim

I konw its sounds silly, but have you tryed fresh batteries ? Are your battery contacts clean ?

Re: -41CV fading display

*Message #3 Posted by **Jim** on 22 Sept 2003, 10:44 a.m.,*
in response to message #2 by Thibaut.be

Oh, yes, I tried fresh bateries, but I've never known a fading display in 41 associated with weak batteries. Plus, I had the unit serviced earlier this year and the battery contacts were fine then. I bought the unit from a friend of mine who didn't take care of it so that's probably part of the problem now.

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HP-34C, spice calc's, what about "2 disease"

*Message #1 Posted by **Norm** on 21 Sept 2003, 5:17 p.m.*

Greetings: Haven't posted here in awhile. For those who don't know, I am the #1 proponent of 34C and its cousins ... when working properly I think the 34C in particular is superb, both cosmetically and operationally.

Was just noting, with another 34C owner, a unit that has contracted "2 disease". This is a condition that still allows the unit to function, but the display does not blank properly, causing annoyance by flashing more than necessary.

A unit with full "2 disease" will show flashing while it computes sin(x) for example. And it blinks with each press of "2" (i.e. enter 2.2222222).

What are we gonna do about this? I remain convinced that it is an irreversible damage to the silicon chips (probably ESD or overvoltage) and is triggered either by servicing the units (like servicing without fullest ESD precautions) or it is caused by running the units when they have intermittent internal connections.

The problem is, with solderless circuit boards, the unit gets an intermittent, then the user runs it anyway, then it gets "2 disease" ??

What are we gonna do about this ?

Re: HP-34C, spice calc's, what about "2 disease"

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 21 Sept 2003, 8:05 p.m.,*
in response to message #1 by Norm

Hi! I cleaned the contacts of my HP-32E (not soldered also) with pencil eraser (soft white rubber) until the entire board gets a bright and clean aspect (not too much, and not much harder to not damage it). Mine was missing digits and segments of the display, now is good as new.

Regards,

Nelson

Re: HP-34C, spice calc's, what about "2 disease"

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 21 Sept 2003, 8:30 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Be careful with both eraser debris and with static caused by friction between the eraser and the board (just in case there are electronic components still connected to the board, apart from the solderless chips)

Re: HP-34C, spice calc's, what about "2 disease"

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 21 Sept 2003, 10:50 p.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

At least in the case of the HP-32E, you can disassemble it entirely, leaving only the flex board and the metal/foam base (no electronic components at all). Yes, you must clean all the debris with a brush or anything like that. You must take care to not touch the IC's pins, they are ESD sensible.

As I said, mine is now fully functional.

Regards,

Nelson

Re: HP-34C, spice calc's, what about "2 disease"

*Message #5 Posted by **Jon** on 22 Sept 2003, 4:44 p.m.,*
in response to message #1 by Norm

I think nothing can be done. Just take care when repairing these units. I also recomend charging the cells outside with a battery pack charger (just in case).

Re: HP-34C, spice calc's, what about "2 disease"

*Message #6 Posted by **Paul Brogger** on 22 Sept 2003, 5:41 p.m.,*
in response to message #1 by Norm

Has anyone compared the "bus behaviors" of two units side-by-side -- one with the "2 disease", one without? Has it been decided what electrical characteristic results in the flickering? (E.g., are common cathodes or anodes not held low or high during use of other shared lines for internal ROM accesses, etc.?)

If the actual breakdown could be elicited, I wonder whether then it *might* be possible to beef up a pin or two through the use of an external resistor or something like that?

One has to wonder whether anything *can* be done . . .

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1E-100 and HP-16C

*Message #1 Posted by **HL** on 21 Sept 2003, 6:04 a.m.*

This might have appeared in the forum before. But it is new to me so I thought I want to share.

Just got my HP-16C and after playing around with it for a while I found that it is possible to enter 1E-100 into the calculator (using BCD then switch to FLOAT) and do floating point operations with it. Is this some sort of a bug?

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9114 drives

*Message #1 Posted by **christof** on 21 Sept 2003, 3:15 a.m.*

So, having failed to find another drive unit for my 9114, and haivng failed to find anyone to fix it, I'm looking at another option-

I have a few HP-9121 units, and I'm willing to cannibalize some of the parts. From what I can tell, the drives *may* be usable in a 9114B if a cable adaptor can be made. Maybe.

So, I'm looking for pinouts for both drives so that I can try this out.... (and if it works, i have spare drives at last)

Re: 9114 drives

*Message #2 Posted by **Vassilis Prevelakis** on 22 Sept 2003, 1:51 p.m.,*
in response to message #1 by christof

```
christof wrote:

>I have a few HP-9121 units, [...]
```

If you are thinking of replacing a drive from the 9121 with that in the 9114, it won't work. The pinouts may or may not be the same (9114A drives have the same pinouts, 9114B have the newer single connector that carries both data and power), however, the **drives are different**.

The 9121 have single sided drives, while the 9114 are double sided.

You may be able to use drives from 9122 devices.

Alternatively you may try to use parts from the drives inside the 9121 but that depends on what is wrong with the drive in the 9114B.

**vp

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Infrared interface for 42s

*Message #1 Posted by **andrew** on 21 Sept 2003, 1:48 a.m.*

Does anyone know if the infrared output from the HP42s has been cracked and some method devised for capturing the print flow to a computer.

Re: Infrared interface for 42s

*Message #2 Posted by **Juergen (CH)** on 21 Sept 2003, 6:36 a.m.,*
in response to message #1 by andrew

I'm also highly interested in this matter. Somewhere I've read that the IrDA port available on many laptops is not suitable to receive 42S infrared signals.

Infrared interface for 42s - Info on MoHPC Forum Archives

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 21 Sept 2003, 8:34 p.m.,*
in response to message #2 by Juergen (CH)

Look in the MoHPC Archives around 2000 or 2001, there were many discussions about this, including a very detailed article from Steve (Australia) about connecting a phototransistor to the Audio In connector on a PC Sound board to successfully decode the HP42 IR stream.

Re: Infrared interface for 42s

*Message #4 Posted by **Nelson M. Sicuro** on 21 Sept 2003, 7:26 a.m.,*
in response to message #1 by andrew

I think that such device exists, please take a look at

http://pub21.bravenet.com/classified/show.php?usernum=1803468352

Regards,

Nelson

PDF docs for 82240

*Message #5 Posted by **Randy Sloyer** on 21 Sept 2003, 8:57 a.m.,*
in response to message #1 by andrew

No cracking necessary.

HP placed this information in the public domain so that other OEMs could use the 82240. The technical specs exist as a PDF document:

http://www.hpcalc.org/details.php?id=4742

IIRC, the 42S does an initial preamble that is not documented in the spec. It seems to be 3/4 of a word, ~90us on/~550us off, 16 reps. I think it must be used to clear the input buffer of the 82240.

Edited: 21 Sept 2003, 9:06 a.m.

Re: Infrared interface for 42s

*Message #6 Posted by **Emmanuel, France** on 21 Sept 2003, 2:47 p.m.,*
in response to message #1 by andrew

```
You could use the following interface:
Hook-µP by Rush Systems
It works with HP-28, HP-41 and HP-42
Good luck!
```

Re: Infrared interface for 42s

*Message #7 Posted by **Tom Cox** on 21 Sept 2003, 4:12 p.m.,*
in response to message #6 by Emmanuel, France

I have an HP-42S and the Hook-up device from Rush Systems, but long ago lost the software for it. Does anyone know where I might get a copy of software? Thanks.

Re: Infrared interface for 42s

*Message #8 Posted by **Emmanuel, France** on 23 Sept 2003, 12:55 p.m.,*
in response to message #7 by Tom Cox

Done... ;o)

Re: Infrared interface for 42s

*Message #9 Posted by **Juergen (CH)** on 21 Sept 2003, 4:32 p.m.,*
in response to message #6 by Emmanuel, France

Anybody out there who has a Hook-µP interface for sale?

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Voyager series

*Message #1 Posted by **Joao Santos-Silva** on 20 Sept 2003, 4:23 p.m.*

I know this is a silly question, but your opinions may help to settle a domestic dispute...

I have a small collection of voyagers (the hp-10c is still eluding me) but my family and I cannot agree on their colours. Are they black, brown or green? What do you think?

Many thanks in advance!

Joao

Re: Voyager series

*Message #2 Posted by **Valentin Albillo** on 20 Sept 2003, 8:39 p.m.,*
in response to message #1 by Joao Santos-Silva

According to Wlodek's "A Guide to HP Handheld Calculator and Computers" they are a "very dark green-brown color".

Best regards from V.

Re: Voyager series

*Message #3 Posted by **Patrick** on 20 Sept 2003, 9:31 p.m.,*
in response to message #2 by Valentin Albillo

Based on what I've paid for mine, I'd say they were more like gold and platinum.

Re: Voyager series

*Message #4 Posted by **M Currie** on 20 Sept 2003, 11:15 p.m.,*
in response to message #3 by Patrick

Maybe it varies with age. I have an 11C, and it's a very dark brown. If you weren't looking very hard, I think it would count as black. It certainly isn't green. I got mine for a buck at a yard sale. Maybe it was discounted for being off-color.

Re: Voyager series

*Message #5 Posted by **Joao Santos-Silva** on 21 Sept 2003, 5:11 p.m.,*
in response to message #1 by Joao Santos-Silva

Many thanks for all the replies...

Joao

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HP82973A HPIL PC Card

*Message #1 Posted by **Philip** on 20 Sept 2003, 4:15 p.m.*

Can the 82973A HPIL card that can be installed into a PC be used to control or communicate with other IL devices besides printer, disk, plotter and display devices? For instance, I'd like to control the 3421A Data Acquisition device or 3468A Voltmeter. I know the HPIL.SYS driver turns the PC into a controller but I'm not sure if it can control all devices and if so, how?

Thanks

Re: HP82973A HPIL PC Card

*Message #2 Posted by **Holger Veit** on 22 Sept 2003, 4:11 a.m.,*
in response to message #1 by Philip

>Can the 82973A HPIL card that can be installed into a PC be >used to control or communicate with other IL devices besides >printer, disk, plotter and display devices? For instance, >I'd like to control the 3421A Data Acquisition device or >3468A Voltmeter. I know the HPIL.SYS driver turns the PC >into a controller but I'm not sure if it can control all >devices and if so, how?

Effectively, this controller "speaks" HP-IL, and this means it can send and receive any HPIL command that is possible. The HP-IL module in the HP-41 and in the HP-IL converter uses exactly the same chip.

So the answer is "yes, that's all possible".

The "how to" is the problem, because you have to understand the HP-IL command language, and have to know what instructions the target devices actually accept. This should be documented in the particular documentation for the device (for the 82161 mag tape and the 82162 printer, this is IIRC unfortunately not described in detail, but can be obtained from VASM listings of IL module and other second sources.

A must IMHO is to read the Kane&Ushijima bible on HPIL to comprehend what is really going on at all on the bus.

Holger

Re: Use EMU41

*Message #3 Posted by **Christoph Klug** on 22 Sept 2003, 5:54 a.m.,*
in response to message #2 by Holger Veit

Dear Philip,

your application, control the HP3421 or HP3468 or other IL-devices by PC is easy possible by using the new full version of EMU41 from Jean-Francois Garnier. Addidional you get much more advanced features. Please refer to the HP-Museum article forum item 311 "HP41-PC gateway and emulator".

Best wishes from Germany - Christoph Klug

Re: HP82973A HPIL PC Card

*Message #4 Posted by **Philip** on 22 Sept 2003, 5:24 p.m.,*
in response to message #1 by Philip

Thanks for the input. I determined that the HPIL.SYS driver installs a software Interrupt (INT 54) that handles the communication to the IL through the PC Board. I may be able to determine what functions are available. For example, I know that Function Int 54, Function 0 is Config Loop and Function 1 is Find Device. If I find out more I'll try to document this in the Articles forum.

Re: HP82973A HPIL PC Card

*Message #5 Posted by **Ellis Easley** on 23 Sept 2003, 11:43 a.m.,*
in response to message #4 by Philip

There is a document in the museum FTP site that describes the INT54 driver:

ftp://hpmuseum.org/lif/hplink/int54h.doc

There are two directories related to the 82973A in the FTP site, lif/hplink and lif/hpillink. I think they represent two different releases of the software that came with the board.

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Dead HP31E

*Message #1 Posted by **Peter Martin** on 20 Sept 2003, 3:36 p.m.*

I have an HP31E calculator which appears to have died (... or possibly to have been murdered by me!). When powered up the calculator displays all 8s with the '-' sign showing very brightly. After a while the calculator gradually displays all 9s. Can any one diagnose the problem?

Yours, Peter Martin.

Re: Dead HP31E

*Message #2 Posted by **Renato** on 20 Sept 2003, 3:46 p.m.,*
in response to message #1 by Peter Martin

Are you using a good battery pack ? If the pack is dead or missing, and you are using the AC adapter, you may damage the calculator, and you will get erratic operation.

Re: Dead HP31E

*Message #3 Posted by **Peter Martin** on 20 Sept 2003, 4:59 p.m.,*
in response to message #2 by Renato

The reason I said that I may have murdered the calculator is because I made the battery pack out of 2 NiCad AA batteries and think that I may have inserted it backwards once. The calculator did work perfectly well with this pack and the fix I did to the contacts. I suspect I may have fried a chip with either dodgy contacts to the battery pack and hence a direct connection to the power supply or the incorrect insertion of the power pack. I've charged the batteries several times and swapped the AA cells but to no avail. The calculator abruply stopped working after a house move. Whether this is significant I don't know; but vibration may have played a part.

Vibration

*Message #4 Posted by **Renato** on 20 Sept 2003, 11:42 p.m.,*
in response to message #3 by Peter Martin

Might be the cause, if this is a non-soldered version. Have you tried to squeze the calculator on the sides, and see if behavior changes ?

If you take a look at the pages about the 31E technology, you´ll see the reason for the suggestion.

Renato

Re: Vibration

*Message #5 Posted by **Peter Martin** on 21 Sept 2003, 3:12 a.m.,*
in response to message #4 by Renato

I've dismantled the calculator and even though its serial number is 1830A17943, indicating a 1978 build date, it is a soldered version.

Re: Dead HP31E

*Message #6 Posted by **db(martinez,california)** on 20 Sept 2003, 6:35 p.m.,*
in response to message #1 by Peter Martin

re: the -8,888,888,888 changing to -9,999,999,999 problem. every time this happens; add 1,111,111,111.

Seriously; running on any kind of battery other than the hp battery pack IS a very good idea, as long as you don't reverse the polarity. In addition to what Renato said about the charger; if the batteries are not making good contact when you are using the charger then you can fry the calc. That means to never let them go completely dead, so you know that you have a good battery connection before you plug in the charger.

It's sad that hp made such a bad recharging system. As a collector i want to have a charger for each calc but as a calculator user i don't want to plug the charger in.

Re: Dead HP31E

*Message #7 Posted by **Peter Martin** on 21 Sept 2003, 3:32 a.m.,*
in response to message #6 by db(martinez,california)

This would make sense. After the move, by the time I got to the calculator the NiCad batteries would have self discharged. I would probably have charged them in the calculator.

Re: Dead HP31E

*Message #8 Posted by **David Smith** on 21 Sept 2003, 3:19 p.m.,*
in response to message #1 by Peter Martin

Reverse polarity (at least for brief periods) does not seem to hurt these machines. I have seen numerous cases of this without damage. Done it a few times myself... beer helps.

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41CX with dead extended memory

*Message #1 Posted by **dbrunell** on 20 Sept 2003, 2:18 a.m.*

I have a 41CX with what appears to be inoperable extended memory. I can try to create a text file with CRFLAS, and no error is reported. Yet nothing shows up under CAT 4. If I try to call the file up by name, I get a "FL NOT FOUND" error. Same result when I try to save/get a program.

Is this a common problem? Is it fixable? I've tried clearing out memory. Everything else on the calculator works fine. Halfnuts aren't very repairable, are they?

Thanks,

Dave

Re: 41CX with dead extended memory

*Message #2 Posted by **christof** on 20 Sept 2003, 11:25 a.m.,*
in response to message #1 by dbrunell

when you do cat 4 you get 'DIR EMTPY' ?

and what is reported in the X register after that?

assuming >0, what happens when you enter a simple program with label and end (say, something with 30 lines, like LBL FOO 2 enter enter enter enter + + + + + ...)

when you SAVEP after putting FOO in the alpha register, do you get a catalog 4 entry for the program? what number is left in the X register then?

have your tried a reset (memory lost, something synthetic might have messed you up, you may even have to do the old batteries out reset)

Re: 41CX with dead extended memory

*Message #3 Posted by **dbrunell** on 20 Sept 2003, 8:25 p.m.,*
in response to message #2 by christof

Thanks for your reply. Yes, CAT 4 gives DIR EMPTY and 124 in the X register. So it's like the machine thinks it's got a full memory there. When I try to save a program with SAVEP, no errors are generated. It must do a write without verify because if I immediately do a CAT 4 I get DIR EMPTY and 124.

When I got the unit, the batteries had been out of it for over a week, so it had time to do a hard, cold reset. I've had the batteries out several times since and did numerous <-/ON clearing operations.

I'm guessing that the extended memory (and clock) are on that little board soldered piggyback to the main board. I haven't pulled it off yet, but it doesn't look like there is much that can be serviced on it, save for maybe a shorted capacitor. I'd further guess that the actual rom functions are on the main board, since it has

no trouble finding and executing them. Surprisingly, the clock works just fine.

Dave

Re: 41CX with dead extended memory

*Message #4 Posted by **Tony Duell (UK)** on 20 Sept 2003, 8:49 p.m.,*
in response to message #3 by dbrunell

That little daughter board (the 'enhancement assembly') was about the only part of a halfnut you were supposed to replace. It contains 3 chips directly bonded to the PCB -- the timer chip, the ROM with the extran 41 CX functions (12K words, but note the main ROM on the display driver is different between the CV and CX, so you can't turn the former into the latter just by adding this board), and the extended RAM. It's quite possible for the RAM to fail, but the rest of the board to keep on working.

Re: 41CX with dead extended memory

*Message #5 Posted by **dbrunell** on 21 Sept 2003, 1:10 a.m.,*
in response to message #4 by Tony Duell (UK)

Tony, thanks for the explanation of the enhancement assembly. There must indeed be some sort of internal problem with the RAM chip. The only other components on that board are a crystal and a resistor. It probably wouldn't help to plug in an extended RAM module since the calculator would still try to fill the internal memory first.

I'm beginning to get a very negative view of HP these days. I have a number of old TI and HP calcs, and the TIs have proven to be the least troublesome. I've got an 18C with a broken battery door, a 32E where the power switch quit working, a 45 with a broken keyboard, a 12C with a bad LCD, an 82240A printer that doesn't advance the paper properly when a full roll is present, and now a 41CX with bad extended memory. Plus, my HP laptop (not a Compaq design) locks up all the time.

Where is this "HP quality" that people speak of? I think I've spent my last dollar on HP products.

Re: 41CX with dead extended memory

*Message #6 Posted by **David Smith** on 21 Sept 2003, 3:22 p.m.,*
in response to message #5 by dbrunell

Actually, depending upon the failure mode, an external RAM module may even work. If the onboard RAM chip has a bad interface that does not respond and lock up the bus, an external RAM could be OK. I seem to remember a case of a 41CV that had a bad RAM. The guy that had it removed the extra RAM chips and used a quad memory module.

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Gorilla Glue

*Message #1 Posted by **gifron** on 19 Sept 2003, 2:47 p.m.*

Has anyone ever tried a little Gorilla Glue on a toothpick under the edge of a peeled up face plate? The label says it works on metals and most plastics. I've tried it on other stuff, and it works great in general. But after it dries, it is hard to remove, so I don't want to use it if it's only going to stick to one surface. Please post if you have any experience with this. I'm hoping to repair my 32SII that's in excellent condition, other than the fact that the face plate is coming loose at the corner.

Re: Gorilla Glue

*Message #2 Posted by **bill platt** on 19 Sept 2003, 3:19 p.m.,*
in response to message #1 by gifron

Hi Gifron,

Well, I just fixed my 15c, which had a peeling back plate.

See http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=42223

But before I fixed it for real, I tried gluing it down, and it did not work. It is impossible to properly prepaire the surface for adhesive when you are just shooting glue underneath, and also, the plate acts as a spring--and if you calculate the force required to hold that spring down, you will discover that the stress at the edge of the glue joint is very high.

Also, the adhesive that is still under the plate is going to interfere with the gorilla glue.

Regards,

Bill

Re: Gorilla Glue

*Message #3 Posted by **David Smith** on 19 Sept 2003, 7:59 p.m.,*
in response to message #1 by gifron

I fixed a rather beat to a pulp 32Sii faceplate that had a bent/lifted display bezel with IC2000 tire cement. It is a black rubberized superglue sold a hobby shops to glue tires to the rims of radio controlled race cars. The faceplate has been firmly in place for a year now.

Glues for aluminum bezels

*Message #4 Posted by **Randy Sloyer** on 19 Sept 2003, 9:36 p.m.,*
in response to message #3 by David Smith

I have tried super glues and found them to be dangerous with the white blush they release upon curing. It's very hard to get off the plastic case. I would not use Gorilla Glue as it too would be impossible to remove should something go wrong.

I have been using Goop Household contact adhesive from my local Ace hardware. It also shows up in craft shops. It's clear, dries fast and can be rubbed off metal and plastic when cured. It's similar to a very strong rubber cement. You don't have to be super careful, just get enough under the corner to do the job, press down to spread, let it up to dry for a second then back down. I use a small plastic jawed spring clamp to hold it down for about an hour. Pop off the clamp and rub off the exposed glue. You can clean out the grove between the bezel and case with a toothpick.

for reference:
http://www.drugstore.com/qxp81910_333181_sespider/goop/household_goop_contact_adhesive_and_sealant.htm

If you're gluing near keys, be careful to use small amounts. If you use too much and squeeze it into the keys, you'll have weird key action if they work at all. You can recover from this by waiting for it to cure, peel the bezel back up and picking it out of the key hinge bit by bit with tweezers :-(

Edited: 19 Sept 2003, 9:37 p.m.

Thanks Randy

*Message #5 Posted by **Patrick** on 19 Sept 2003, 10:30 p.m.,*
in response to message #4 by Randy Sloyer

I have a couple of 42S's with loose bezels that I've just decided to try your Goop on.

Thanks for sharing your experience here, Randy. I'm sure you've saved a vintage machine or two from a horrible fate.

Re: Glues for aluminum bezels

*Message #6 Posted by **dbrunell** on 20 Sept 2003, 2:23 a.m.,*
in response to message #4 by Randy Sloyer

I've had good luck using Armor All to remove the white blush left by super glue.

Re: Glues for aluminum bezels

*Message #7 Posted by **David Smith** on 20 Sept 2003, 12:32 p.m.,*
in response to message #4 by Randy Sloyer

Yes, I tried a similar product to tack down my bezel corner, but it did not hold. The IC2000 did. I inserted it under the bezel with a piece of piano wire and pressed it in place until it set.

I really like contact adhesives for sticking down the corners of classic calculator rear labels that have been lifted for servicing. I never install the screws under the labels so that any future servicing will not risk more damage to the label.

Re: Gorilla Glue

*Message #8 Posted by **Todd Stock** on 20 Sept 2003, 12:14 p.m.,*
in response to message #3 by David Smith

Gorilla Glue and other polyurethanes foam as they cure - not what you'll want to be cleaning out of a calculator.

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...and the winner is.... (about 48's screen colours)

*Message #1 Posted by **R Lion (España)** on 19 Sept 2003, 1:42 p.m.*

A month ago I bought a spare 48GX. As it is new, it has black screen. Then I posted something like "the new screen is slightly better, not much better...".
Well, after four weeks of testing, I have decided to use the new black screen unit, and keep my old blue unit in home as a backup...
Now, when I look to the old blue one, I can see it clearly: the new screen is definitly better.

Regards Raul

Re: ...and the winner is.... (about 48's screen colours)

*Message #2 Posted by **Bill (Smithville, NJ)** on 19 Sept 2003, 2:31 p.m.,*
in response to message #1 by R Lion (España)

I agree. I have both units and only use the newer black screen one. It definetly has better contrast. Very important since as I get older, I find I really need the extra contrast.

Re: ...and the winner is.... (about 48's screen colours)

*Message #3 Posted by **Chan Tran** on 19 Sept 2003, 3:31 p.m.,*
in response to message #2 by Bill (Smithville, NJ)

I found that my 48SX version C is very difficult to read the screen.

Re: ...and the winner is.... (about 48's screen colours)

*Message #4 Posted by **Michel Beaulieu** on 19 Sept 2003, 4:23 p.m.,*
in response to message #1 by R Lion (España)

I jsut get my first HP-48S and if i take my 48GX side by side, i can see they are blue . But when i tried to adjust the contrast of my 48S, the background also get darker and the result is not so clear. On my 48G, the contrast adjustement is good, even if it's blue : the background stay clear (until high contract at least). Is it normal for a 48S blue LCD vs a 48G blue LCD too?

Thanks! Michel

Edited: 19 Sept 2003, 5:30 p.m.

Re: ...and the winner is.... (about 48's screen colours)

*Message #5 Posted by **Chan Tran** on 19 Sept 2003, 7:23 p.m.,*
in response to message #4 by Michel Beaulieu

Both my 48SX and 48GX have a blue LCD display. Like you have noticed the GX is much better than the SX.

Re: ...and the winner is.... (about 48's screen colours)

*Message #6 Posted by **Thomas Otterbein** on 21 Sept 2003, 12:46 p.m.,*
in response to message #1 by R Lion (España)

Anybody know, when HP changed the blue sceen to the black one at the 48GX ?

Bye.... Thomas, Germany

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HP48GX, missing alarm beep

*Message #1 Posted by **Thomas Otterbein** on 19 Sept 2003, 9:46 a.m.*

Hi..

I own a new HP48GX. All is working fine, except the alarm beep. During a alarm there is now beep. The alarm flags are set, but nevertheless, no beep is to hear.

When I do wrong inputs, the HP48 beeps. Also the beep comand with time and frequencies is working, except the alarm beep :-(

What I´m doing wrong?

B.t.w. the calculator has the newes ROM-Version ´R´.

Thanks for helping..

Thomas, Germany

Re: HP48GX, missing alarm beep

*Message #2 Posted by **Wayne Brown** on 19 Sept 2003, 5:52 p.m.,*
in response to message #1 by Thomas Otterbein

If flag -57 is set then the alarm beep is disabled. Clear it with **-57 CF** and I'll bet your alarm beep starts working.

Re: HP48GX, missing alarm beep

*Message #3 Posted by **Thomas Otterbein** on 20 Sept 2003, 4:46 a.m.,*
in response to message #2 by Wayne Brown

Hi... you loose :-(

I set the flag, that the alarm beep is on. But it didn´t help. The beep is still missing during the alarm. I will continue playing. With other commands and with wrong inputs, the beep works. Only with the alarm it didn´t. Strange..isn´t it?

Bye.. Thomas, Germany

Re: HP48GX, missing alarm beep

*Message #4 Posted by **James M. Prange** on 20 Sept 2003, 5:53 a.m.,*
in response to message #3 by Thomas Otterbein

Well, maybe if you clear flag -57...

Regards,
James

Re: HP48GX, missing alarm beep

*Message #5 Posted by **Michel Beaulieu** on 20 Sept 2003, 8:08 p.m.,*
in response to message #4 by James M. Prange

Use the reset hole under a rubber feet if you don'T worry about loosing memory...

Re: HP48GX, missing alarm beep

*Message #6 Posted by **Thomas Otterbein** on 21 Sept 2003, 8:12 a.m.,*
in response to message #4 by James M. Prange

Hi all, thank´s for all the hints.

Either I´m to stupid for this calculator or somthing is wrong.

I tried in the meantime: - Reset (by switch under the rubber foot - Set and canceled the flag 57 - set the alarm direct after the calculator reset - and so on.....

The result, the alarm didn´t beep. I think I have to live with it :-)

Bye.. Thomas, Germany

Re: HP48GX, missing alarm beep

*Message #7 Posted by **Wayne Brown** on 21 Sept 2003, 10:40 a.m.,*
in response to message #6 by Thomas Otterbein

Make sure it's flag **-57** and not **57** that you're clearing -- the **minus sign** is required. Negative flags are system flags, whereas positive flags are user flags. The alarm beep is controlled by a system flag.

Re: HP48GX, missing alarm beep

*Message #8 Posted by **Thomas Otterbein** on 21 Sept 2003, 11:46 a.m.,*
in response to message #7 by Wayne Brown

Hi.. it works...

I know now why it didn´t work before. When I set a alarm and insert a alarm message, the beep is missing. Without a message...the beep comes during a alarm.

I think it´s mentioned in the manual.

How I can handle the 48 when I even understand the beep funktions, I should stay at may good old HP41CX with card reader :-))

It´s realy nice, that you stay in contact with such guys as me :-)).....

Have a nice day!!!

Bye.. Thomas, Germany

Re: HP48GX, missing alarm beep

*Message #9 Posted by **James M. Prange** on 22 Sept 2003, 3:55 a.m.,*
in response to message #8 by Thomas Otterbein

Appointment alarms cause the alarm beep. For the alarm to be an appointment alarm, the "alarm message" has to be a character string; that is, text enclosed by double-quotation marks, as in: "HELLO". If you leave the message field in the input form empty, then an empty character string, "", is entered for you, so that causes it to be an appointment alarm.

Any other type of alarm object causes the alarm to be treated as an execution alarm, which doesn't cause an alarm beep. For example, if you enter: HELLO (without quotation marks) into the message field, it will be treated as an execution alarm. Execution alarm objects are usually programs or global variable names for programs.

You could use a program object which explicitly executes the BEEP command as the alarm object. Of course, for the BEEP command to be effective, the standard beep has to be turned on; that is, flag -56 must be clear.

Regards,
James

Edited: 22 Sept 2003, 5:47 a.m.

Re: HP48GX, missing alarm beep

*Message #10 Posted by **Thomas Otterbein** on 23 Sept 2003, 2:59 a.m.,*
in response to message #1 by Thomas Otterbein

Thank you all for your kind help !

Bye.. Thomas, GERMANY

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HP49G+ vs. HP49G, pausing

*Message #1 Posted by **F. Casanellas** on 19 Sept 2003, 8:54 a.m.*

The HP49G had two annoying defaults (I returned it and keep using the HP48G): the keyboard was very hard and very often it stoped working for a few seconds.

The first problem seems somewhat solved. I would like to know if the HP49G+ does not stop any more.

Edited: 19 Sept 2003, 8:54 a.m.

Re: HP49G+ vs. HP49G, pausing

*Message #2 Posted by **John Cadick** on 19 Sept 2003, 9:48 a.m.,*
in response to message #1 by F. Casanellas

The pausing of the 49G was caused by its periodic "garbage collection." This problem was fixed in the 49G some time ago with one of the ROM upgrades. Since it was fixed in the 49G, I suspect it is not a problem in the 49G+.

I am at the HHC2003 this weekend and will get to see (I hope) a 49G+. If no one else answers your question more specifically, I'll get back to you.

Re: HP49G+ vs. HP49G, pausing

*Message #3 Posted by **Veli-Pekka Nousiainen** on 19 Sept 2003, 9:38 a.m.,*
in response to message #1 by F. Casanellas

About the pausing = Garbage Collection:

"Jean-Yves Avenard" <me@privacy.net> wrote in message news:BB76747A.12B42%me@privacy.net...<VPN snipped>

*<< 1 500 FOR I I NEXT 500 ->LIST LIST-> MEM >>: 7.98s (HP49G: 45.81s) (This test the GARBAGE collector and SysRPL kernel)

==========

TO measure just the CG, I changed this to << MEM DROP # 0d # 999d FOR k k NEXT 1000 ->LIST LIST-> >> EVAL {MEM} HEAD TEVAL and it takes only around 15% of the "old" time to do CG now.

"Jean-Yves Avenard" <me@privacy.net> wrote in message news:20030915085021446+1000@news.cis.dfn.de...<VPN snipped>

> Must be a fair bit of native code in there otherwise you wouldn't see > such a speed gain.

The CG routine could be ARM native to gain ~ 6*speed increase or time decrease.

Just buy the HP 49G+ !!! - VPN

Re: HP49G+ vs. HP49G, pausing

*Message #4 Posted by **Francesc Casanellas** on 29 Sept 2003, 3:01 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

I have loaded the ROM beta version 19.6 and it seems to have solved the garbage collector problem.

Regarding the J.Y. Avenard test, reported by Veli-Pekka Nousiainen: "TO measure just the CG, I changed this to << MEM DROP # 0d # 999d FOR k k NEXT 1000 ->LIST LIST-> >> EVAL {MEM} HEAD TEVAL and it takes only around 15% of the "old" time to do CG now."

I would like to know how long does it take it in the HP49G+. In the updated HP49G it takes 0.44 s.

Unfortunately I did not make the test with the 18.1 version.

Edited: 29 Sept 2003, 3:19 p.m.

Re: HP49G+ vs. HP49G, pausing

*Message #5 Posted by **Veli-Pekka Nousiainen** on 29 Sept 2003, 4:42 p.m.,*
in response to message #4 by Francesc Casanellas

49G (1.19-6): 324.6 seconds

49G+ (1.22): 53.4 seconds

Note: I did not check the flag settings & only one run

VPN

Re: HP49G+ vs. HP49G, pausing

*Message #6 Posted by **Iqbal** on 20 Sept 2003, 4:54 p.m.,*
in response to message #1 by F. Casanellas

Yes this appears to have been stopped. I just got my 49G+ and it's really a very nice calculator. Looks very 'rich' with it's colour and leather case. The only complaint so far is the fact that two buttons the Q and R needs to de depressed a little harder to register. I have seen this complaint before on other forums also. But I would really receoment buying the 49G+ because it is a trememdous improvement over the 49G.

Re: HP49G+ vs. HP49G, pausing

*Message #7 Posted by **Ed Look** on 20 Sept 2003, 11:35 p.m.,*
in response to message #6 by Iqbal

Iqbal, may I ask what you paid for it? I preordered one (I am in the US) for about $160 USD before shipping.

So, your opinion has made me feel better about the expenditure!

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[OT] BIG VERY BIG virus attack

*Message #1 Posted by **R Lion (España)** on 19 Sept 2003, 8:46 a.m.*

I have received more than 100 mails infected with virus in the last 24hours in my yahoo account...

Re: [OT] BIG VERY BIG virus attack

*Message #2 Posted by **Valentin Albillo** on 19 Sept 2003, 9:58 a.m.,*
in response to message #1 by R Lion (España)

It serves you well for making that e-mail address of yours publicly available ... :-)

Now seriously, don't worry, it's the usual "MS Corporation Technical Support" fake bs, you just don't open the virus-ridden "patch" and that's all, there are one or two like this each and every week, though I admit that receiving 100's at a time is somewhat unusual.

So much for yahoo's "advanced anti-spam technology" :-)

Best regards from V.

They are all coming from .RU (NT)

*Message #3 Posted by **bill platt** on 19 Sept 2003, 10:20 a.m.,*
in response to message #2 by Valentin Albillo

e

Re: [OT] BIG VERY BIG virus attack

*Message #4 Posted by **R Lion (España)** on 19 Sept 2003, 11:15 a.m.,*
in response to message #2 by Valentin Albillo

Most of them are those famous "Security patches" that we all receive. Also I receive from "Mail system administrator"... but now I'm receiving more than 10 per hour!! Now I'm trying to create good "Rules" with Outlook for deleting the undesired messages from yahoo before download them.

Re: [OT] BIG VERY BIG virus attack

*Message #5 Posted by **Tom Scott** on 19 Sept 2003, 2:05 p.m.,*
in response to message #4 by R Lion (España)

Yes, I'm also getting around 10 per hour (even during the night).

Tom Scott

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Wow. Old BIG commodore desktop programmable on ebay

*Message #1 Posted by **Gene** on 19 Sept 2003, 7:55 a.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3048109465&category=3294

How old is this thing? The guy is touting it as the first programmable desk calculator...but I don't think that's correct. :-)

Re: Any suggestions for an affordable Nixie tube device?

*Message #2 Posted by **Paul Brogger** on 19 Sept 2003, 11:29 a.m.,*
in response to message #1 by Gene

Anybody have suggestions as to what may be the most economical device available with a Nixie tube display?

One of my minor goals is to have a working Nixie device some day . . .

Re: Any suggestions for an affordable Nixie tube device?

*Message #3 Posted by **dbrunell** on 19 Sept 2003, 11:41 a.m.,*
in response to message #2 by Paul Brogger

There was a pawn shop that put up a collection of 3 old calculators on Ebay a few weeks ago. One of them was a Sharp Compet nixie device. Starting bid was $20. No takers.

Re: Any suggestions for an affordable Nixie tube device?

*Message #4 Posted by **Chan Tran** on 19 Sept 2003, 12:16 p.m.,*
in response to message #3 by dbrunell

I once had a Monroe desktop calculator with nixie tubes. I traded it with Bruce Lamm for a copy of his book on calculator.

Re: Any suggestions for an affordable Nixie tube device?

*Message #5 Posted by **Dave Shaffer** on 19 Sept 2003, 12:31 p.m.,*
in response to message #2 by Paul Brogger

Does your "device" have to be a calculator?

HP (and others) made all kinds of test equipment with nixie tube displays back in the 60's. I suspect these can be had for just about free if you can find them. Look for a frequency counter or a DVM.

Re: Thanks to All!

*Message #6 Posted by **Paul Brogger** on 19 Sept 2003, 1:26 p.m.,*
in response to message #5 by Dave Shaffer

All very good suggestions. In particular, the non-calculator idea appears to be a fruitful avenue of inquiry -- an eBay search for "nixie" (in titles and descriptions) yielded several apparently usable multimeters, for example.

Thanks again!

Re: Thanks to All!

*Message #7 Posted by **christof** on 19 Sept 2003, 6:16 p.m.,*
in response to message #6 by Paul Brogger

does my old freiden count? :)

Re: Any suggestions for an affordable Nixie tube device?

*Message #8 Posted by **Alan Thomas** on 19 Sept 2003, 1:10 p.m.,*
in response to message #2 by Paul Brogger

I've picked up some nixie tube calculators for $2-20 at the office liquidators around town. They're usually marked $20 but it's usually not hard to talk them down. I mean, come on! It's a really old calculator! I could buy a new one for $5! :-)

Re: Any suggestions for an affordable Nixie tube device?

*Message #9 Posted by **Trent Moseley** on 19 Sept 2003, 5:25 p.m.,*
in response to message #2 by Paul Brogger

Paul

Your post reminded me of an old calc of mine that was somewhere in one of the closets that hadn't been seen in years. Found it! It was a Heathkit put together around 1972 (model IC-2008-A). I thought it used nixie tubes but these don't seem to look like them. Any ideas?

tm

Re: Any suggestions for an affordable Nixie tube device?

*Message #10 Posted by **Gordon Dyer** on 20 Sept 2003, 5:20 a.m.,*
in response to message #9 by Trent Moseley

You can buy a manual from here:
http://www.surplussales.com/Manuals/man_heath.html

Re: Any suggestions for an affordable Nixie tube device?

*Message #11 Posted by **Nelson M. Sicuro (Brazil)** on 19 Sept 2003, 5:44 p.m.,*
in response to message #2 by Paul Brogger

Here is a nice site for nixie lovers:

http://www.electricstuff.co.uk/count.html

Regards,

Nelson

Re: Any suggestions for an affordable Nixie tube device?

*Message #12 Posted by **Andrés C. Rodríguez (Argentina)** on 20 Sept 2003, 9:56 a.m.,*
in response to message #2 by Paul Brogger

Paul: a Google search for 'nixie tube' will offer many good places to look at. I specially liked www.nixieclocks.de, www.cathodecorner.com, and www.sphere.bc.ca

Yes, I have been bitten by the nixie bug, and plan to design and build "something" nixie-based...

Re: Wow. Old BIG commodore desktop programmable on ebay

*Message #13 Posted by **Andreas** on 19 Sept 2003, 1:44 p.m.,*
in response to message #1 by Gene

It's actually a Casio, see this very informative page on it: http://www.oldcalculatormuseum.com/commal-1000.html Hmm... a $1200 buy it now price... Someone is optimistic!

I'm also a big fan of Nixie - finally got my hands on my first Nixie calc (a beautiful 16 digit Sharp) a few weeks ago.

Granted, the calculator I desire most has a CRT :-)

Oh, I don't know

*Message #14 Posted by **Mike** on 19 Sept 2003, 6:39 p.m.,*
in response to message #13 by Andreas

It's already at $900.

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HP49G PC link

*Message #1 Posted by **Neil Strickland** on 19 Sept 2003, 7:48 a.m.*

I received a cable with what looks like a serial adapter with my 49G calculator. Does anyone know if this can be used to connect my 49G to my PC or will I fry my calculator? Thanks.

Re: HP49G PC link

*Message #2 Posted by **Randy Sloyer** on 19 Sept 2003, 8:32 a.m.,*
in response to message #1 by Neil Strickland

It should be the std PC connection cable. If you can find a number molded on a connector somewhere, consult the cable list of lists:

http://holyjoe.org/hp/cable.htm

You'll also want the latest PC Comm program from HP:

ftp://hp.com/pub/calculators/software/hpcomm.zip

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HP 49g+

*Message #1 Posted by **Ben Salinas** on 18 Sept 2003, 6:54 p.m.*

Well, I got my 49g+ this morning, and opened it up. I haven't had much time to learn how to do everything, and won't have time until saturday, but one of the things I was wondering about is the speed in comparison to the TI-89. I am planning on having a full test completed this weekend (HP 49g+, TI-89, HP-48gx (belongs to a friend), HP 32sII (just for kicks)) This morning, I quickly tried doing some factorials on this calculator to test the speed. I decided to use 252! since that is just about the highes number the 32sii can give you. The 49g+ takes about 1.5 seconds to calculate this (giving you all the digits) The TI-89, to do the same thing takes 10 seconds. No joke! Furthermore, on teh 49g+, multiplying or doing common operations with this 498 (or so) digit number occur instantaneous (just like if u were adding 1 and 1). On the TI-89, about 13 seconds to multiply 252! by 270. The 49g+ takes less than 1 second!

I am personally amazed by the speed of the 49g+

As far as the keyboard, it is great. I havent had any problems with it yes.

I have a "Phase three- marketing sample, not for resale (dated) 03/07/30)" Serial Number: CN33103042 It came with a USB cable, the leather case, a small manual (only a few hundred pages), and a CD with the conectivity software and the PDF manual. It is easy to tell that this is a pre-release version of the calculator because the CD is a burnt CD with the title written in sharpie:).

As far as news on the other calculators. I talked to Tony Jones (whom some of you all will be seeing at the HP calculator conference this weekend) and he said that the reason they did not give me a 33s is because they do not have a marketable version yet. I dont know what that means.

He really didnt talk as much about the new calculators as I hoped.

Well, that's it for now... I will keep you posted -ben

Re: HP 49g+

*Message #2 Posted by **Douglas Rohm** on 18 Sept 2003, 8:30 p.m.,*
in response to message #1 by Ben Salinas

Congratulations on your new 49G+!

Doug

Re: HP 49g+

*Message #3 Posted by **Joe Edwards** on 18 Sept 2003, 8:55 p.m.,*
in response to message #1 by Ben Salinas

WHERE did you purchase your HP 49g+ from? I haven't been able to purchase one here in the states, unless I am looking in the wrong location.

Joe

Re: HP 49g+

*Message #4 Posted by **Ben Salinas** on 18 Sept 2003, 9:33 p.m.,*
in response to message #3 by Joe Edwards

I actually won it in the HP Create a Calculator Contest. It is not up for purchase in the US right now. I believe they will be released here on October 6th. -ben

Re: HP 49g+

*Message #5 Posted by **Ed Look** on 19 Sept 2003, 12:51 a.m.,*
in response to message #4 by Ben Salinas

I saw it for preorder at $160, minus shipping, at Samson Cables' website (I preordered!).

Oh, how did my beloved 32SII do in the factorial contest?

Re: HP 49g+

*Message #6 Posted by **Veli-Pekka Nousiainen** on 19 Sept 2003, 8:46 a.m.,*
in response to message #4 by Ben Salinas

Hi, Ben! Can you send your contribution to the contest to my e-mail, please?

vDOpNOTnSPAM@welho.com, remove DO NOT SPAM, VPN

Ben's HP 51S (link)

*Message #7 Posted by **Matt Kernal (US)** on 19 Sept 2003, 12:42 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

see Ben's 51S

33S Delayed? (Was: HP 49g+)

*Message #8 Posted by **Erik Ehrling (Sweden)** on 19 Sept 2003, 1:13 a.m.,*
in response to message #1 by Ben Salinas

> As far as news on the other calculators. I talked to Tony Jones (whom some of you all will be seeing at the HP calculator conference this weekend) and he said that the reason they did not give me a 33s is because they do not have a marketable version yet. I dont know what that means.

It might sound a little bit strange but, personally, I find the news of a delayed HP-33S good news indeeed! Maybe, after all, HP are listening to our user reactions and are taking it back to the drawing board making it into what it really should be:

-Backwards compatible with the HP-42S
-RPN only (large ENTER key in the classical position)
-Equipped with serial I/O

Anything else would, in my opinion, be a mistake.

Regards,
Erik Ehrling (Sweden)

Homepage:http://w1.322.telia.com/~u32220482/index.html

Re: 33S Delayed? (Was: HP 49g+)

*Message #9 Posted by **DougT** on 19 Sept 2003, 6:48 a.m.,*
in response to message #8 by Erik Ehrling (Sweden)

I have to agree with Erik - the 33S as it appears now it is UGLY, with a capital UG. And what's the deal with that weird chevron keyboard? Overall, the calculator looks like something Ultraman would have used back in the '60s! I When I first heard about the 33S, I had high hopes of nabbing one to take the wear and tear off my trusty 32SII. I reckon I'll keep waiting...

Re: 33S Delayed? (Was: HP 49g+)

*Message #10 Posted by **Bert K** on 19 Sept 2003, 2:49 p.m.,*
in response to message #9 by DougT

Why don't you try to get hold of another 32SII? I managed to grab one for 35 euros (less than US $35) a month ago. It is a silver bezel with some "sticky keys" but now I can put my brown bezel into storage.

Spare 32SII

*Message #11 Posted by **DougT** on 20 Sept 2003, 11:25 a.m.,*
in response to message #10 by Bert K

Good idea, Bert, and it's one I'm pursuing. A "lightly used" silver-bezel unit would be perfect for my desk drawer at work.

Re: 33S Delayed? (Was: HP 49g+)

*Message #12 Posted by **Tom Scott** on 19 Sept 2003, 1:57 p.m.,*
in response to message #8 by Erik Ehrling (Sweden)

They're probably taking more time just to find ways to make it cheaper and increase the profit margin. They seem to think that by making it look like a cell-phone that it will be more marketable.

Tom Scott

Re: 33S Delayed? (Was: HP 49g+)

*Message #13 Posted by **CME750** on 19 Sept 2003, 5:36 p.m.,*
in response to message #8 by Erik Ehrling (Sweden)

There's growing interest in the HP33S, even among people who have never owned an HP calculator before, because of the recently-announced calculator restrictions imposed by the National Council of Examiners for Engineering and Surveyoring (NCEES). NCCES prepares professional licensing examinations which are used throughout the U.S. for engineers and surveyors.

Starting in 2004, NCEES has banned all calculators with text-editing capability, including (but not limited to) the HP48, HP49, TI83, and TI89. It looks like all currently available graphing calculators may be unacceptable under their definitions.

Programmable calculators are OK, as long as they are not graphing calculators. Unfortunately, it seems that nobody makes programmable non-graphing calculators anymore. The HP32SII may have been the last one.

NCEES says that the 32SII is acceptable, but it has several drawbacks. Since it's been discontinued, it's expensive and hard to find. It has a relatively small memory. And it's RPN only (obviously this is not a problem for everyone). The same drawbacks apply to older HP calcs.

If the 33S appears as scheduled in October, then it should resolve these issues. The 33S should be relatively inexpensive, will offer 32K of memory, and the choice of algebraic or RPN mode. Too bad it's so ugly. But there's still a lot of people who are prepared to buy one, because they need something that is both (a) programmable and (b) legal for use on professional engineering or surveying exams. The 33S may have this market to itself; I don't think TI, Casio, or Sharp offer any models that qualify.

This is still not a big win for HP, though. The new NCEES calculator policy may increase sales of the 33S, but it will also cripple the sales of the more expensive 48GXII and 49G+.

Re: 33S Delayed? (Was: HP 49g+)

*Message #14 Posted by **christof (NoVA, USA)** on 20 Sept 2003, 1:01 a.m.,*
in response to message #13 by CME750

(and yes, we have power.... well, at work, anyway. At home it's all laptop)

I think that the last non graphing programmable HP was producing was actually the 20S.

There are some other programmables out there, I just haen't been able to get any of them in the US. I think 2 or maybe 3 of the citizen models have programming capability of some sort.

I think that trying to force the 33S to be a replacement for the 41CX is a losing battle- serial IO, 42S/41C code compatibility, and all.

The calculator seems obviously to be a follow on to the- here's where the detective work comes in- 32Sii. As such, it seems great. Well, aside from the freaked out keyboard.

Not every calculator *must* be another rebadged 41/48. There really is a place for a smaller, simpler, solid programmable.

I'm as much addicted to serial IO as anyone- and I desperately want it for my 42. But *not* for my 32. Even with practically endless RAM. It's just not the same machine.

Re: 33S Delayed? (Was: HP 49g+)

*Message #15 Posted by **Ed Look** on 20 Sept 2003, 11:28 p.m.,*
in response to message #14 by christof (NoVA, USA)

Christof,

You don't think a 32SII or 34C type machine could use a little non-keyboard I/O? Back when my 34C was my only calculator, I dreamt of having the ability to do stuff on it and then upload it to a PC or minicomp, and vice versa. These "low end" (not in my opinion, though, I think they're totally great) calculators are great for most things, small programs, a bit of statistics, and repetitious calculations not requiring humongous equations, which is, in my opinion, what the bulk of calculator work for many of us is.

If I could retrofit my 34C or 32SII with serial I/O... what is it that the kids say nowadays, "Woot?"

Re: 33S Delayed? (Was: HP 49g+)

*Message #16 Posted by **Christof** on 21 Sept 2003, 1:56 a.m.,*
in response to message #15 by Ed Look

Nahhhh,

I desperately want a pioneer with serial IO. I admit it. but it has to be the 42S. (even better in my mind would be a 42 ROM with IO in a clamshell, but.....)

I just don't think the 32S is one of those- nor any upgrades. There are reasons- there will always be a testing environment where the serial IO disqualifies the calc. There will always be a price difference.

there's a place for more than one hp rpn scientific programmable, that's all :)

Re: 33S Delayed? (Was: HP 49g+)

*Message #17 Posted by **Ed Look** on 21 Sept 2003, 10:23 p.m.,*
in response to message #16 by Christof

I'll agree with that! There DOES need to be more than one HP rpn programmable.

I read somewhere in this forum that it would so sweet if they reissued the 15C or 16C or 32S or 32SII or 42S. I hope HP monitors the stuff on this forum... nahhhh.

Re: 33S Delayed? (Was: HP 49g+)

*Message #18 Posted by **Erik Ehrling (Sweden)** on 22 Sept 2003, 11:44 a.m.,*
in response to message #17 by Ed Look

Yes, I would happily see A HP-15C Platinum alongside a HP-42S Platinum (with serial I/O). But if I had to choose I would pick the latter...

Best regards, Erik Ehrling

Re: 33S Delayed? (Was: HP 49g+)

*Message #19 Posted by **Robert** on 26 Sept 2003, 9:55 p.m.,*
in response to message #13 by CME750

The 33s on the Samson Cables website. ETA is 10/10. It will be interesting to see what it is like.

That would be a major revamp

*Message #20 Posted by **Patrick** on 19 Sept 2003, 6:39 p.m.,*
in response to message #8 by Erik Ehrling (Sweden)

While I cannot deny the brilliance of your suggested changes, Erik, it is exceedingly unlikely that HP would do this based just on the reaction of the people who have seen the leaked 33S information.

What you suggest would be a major revamp, requiring significant new engineering and test. I'm not in the manufacturing business, but I would reckon the changes you asked for would take a minimum of 6 months to engineer, not to mention test.

More likely is that they've found bugs through beta testing and need to produce a new ROM image.

Re: Given their 12cPlat experiences . . .

*Message #21 Posted by **Paul Brogger** on 19 Sept 2003, 7:15 p.m.,*
in response to message #20 by Patrick

... it's not surprising (indeed, it's to be hoped!) that they'll be a bit more careful in testing before committing to production.

Sure it's ugly, but if it's got the features advertised, significant *usable* program memory and decent keyboard action, I'll no doubt find a way to overlook the keyboard's layout . . .

(My youngest thought it looked like a remote control -- I countered with a cell phone comparison, and he said he'd rather have a cell phone than a calculator . . .)

Re: That would be a major revamp

*Message #22 Posted by **Erik Ehrling (Sweden)** on 20 Sept 2003, 4:59 p.m.,*
in response to message #20 by Patrick

Yes! Surely it would be a major revamp, however much of the work has already been pursued in the making of the new HP49G+: The Saturn emulation on the ARM architecture is already there and the ROM of the HP-42S has been with us for a very long time. OK, it would be naive of me to say that these changes are either small or of a kind that could be implemented in a very short time. But many of the improvements of the HP49G+ over the HP49G seem to indicate that HP are actually listening to what the consumers care about - and a very large proportion of the user community are spelling out the same "mantra": Keystroke programmable, HP-42S compatible, I/O... (over and over again).

Best regards, Erik Ehrling (Sweden)

Waiting till the next "next"

*Message #23 Posted by **Andrés C. Rodríguez (Argentina)** on 20 Sept 2003, 9:01 p.m.,*
in response to message #22 by Erik Ehrling (Sweden)

If the 33S becomes an acceptable replacement for the 32S and 32Sii (despite keyboard layout),

If the "Saturn emulation on ARM..."is so real, and ROM images are surely available to HP...

Then, shouldn't many of us wait and hope and prey and ask for a 43S?

(But we should not expect the 33S to replace the 42S; it may be fine if it just covers the 32S model spot)

Re: That would be a major revamp

*Message #24 Posted by **Patrick** on 20 Sept 2003, 9:41 p.m.,*
in response to message #22 by Erik Ehrling (Sweden)

I think you make an unfortunate error in assuming the existence and availability of the 42S ROM helps very much in the building of a new calculator.

Based on the nature of the bugs found in the 12C Platinum, I would venture that it's ROM is a brand new implementation, not a modification/extension of the one in the 12C Classic.

HP has apparently lost the corporate knowledge that would make the 12C's ROM reusable -- perhaps because of all the corporate shuffle with ACO and the Compaq merger -- who knows?

I suspect the same is true of the other older calculator technologies, like the 42S. The ROM listing itself would be a good start, but you'd need to have the pre-compiled listing (commented!), at least, to make it feasible to re-use it.

Re: That would be a major revamp

*Message #25 Posted by **Andrés C. Rodríguez (Argentina)** on 21 Sept 2003, 8:51 p.m.,*
in response to message #24 by Patrick

I was just quoting the previous post, which states:

"The Saturn emulation on the ARM architecture is already there and the ROM of the HP-42S has been with us for a very long time."

I was just trying to suggest that,

IF these conditions were true (which I cannot prove or deny)

, THEN a newer 42S style machine COULD be POSSIBLE

BUT I think the 33S is not such machine.

Now, IF a Saturn emulation is available on ARM (the 12Plat failures are not proof on the contrary, because the 12Plat is not ARM based, as the 49G+ is supposed to be), the ROM images may be enough, even without all the knowledge.

I think this has nothing to do with the Compaq merger. Time and life of both products and people are enough to cause knowledge loss.

Examples as eV41, HP41X, HP42X, which some people successfully developed to emulate HP calculators on other platforms show that ROM images are quite useful to this end.

Just my $ 0.01, these are just some ideas as I have no access to HP internal information, or to 33S or 49G+ units. The use of IF and THEN should indicate the conditioned and conditional nature of these thoughts.

And sorry for my "unfortunate error", but I consider that elaborating upon someone else ideas is not the same than assuming them as proven; which I certainly tried to avoid most of the time.

Re: That would be a major revamp

*Message #26 Posted by **Erik Ehrling (Sweden)** on 22 Sept 2003, 11:56 a.m.,*
in response to message #25 by Andrés C. Rodríguez (Argentina)

I totally agree with you Andrés, and my personal hope is that the reason why HP has not yet released the HP-42S ROMs in the Public Domain is that they have not yet ruled out such an option...

In effect, building a HP-42S Platinum around the ARM-based emulation from the HP-49G+ should theoretically even be cheaper than designing the HP-33S from scratch.

Best regards, Erik Ehrling

Re: That would be a major revamp

*Message #27 Posted by **Andrés C. Rodríguez (Argentina)** on 22 Sept 2003, 7:43 p.m.,*
in response to message #26 by Erik Ehrling (Sweden)

Thank you, Erik, for your comments. Let's keep a little hope on the "43S" idea...

Re: That would be a major revamp

*Message #28 Posted by **Patrick** on 23 Sept 2003, 10:42 p.m.,*
in response to message #25 by Andrés C. Rodríguez (Argentina)

I seemed to have given offence. My apologies, Andres. That was certainly not my intent.

By using the word "unfortunate" what I meant was that it is unfortunate that HP has lost this corporate knowledge. It would generally be a reasonable assumption that technical knowledge gained in producing one product could be used advantageously in the development of a new, similar one. My point is that, in my opinion, HP no longer has sufficient corporate knowledge to leverage past successes. I use the nature of the HP-12CP as my rationale.

Again, sorry if I offended you.

Re: That would be a major revamp

*Message #29 Posted by **Andrés C. Rodríguez (Argentina)** on 24 Sept 2003, 2:56 p.m.,*
in response to message #28 by Patrick

Patrick:

Of course, there was no offense. Sometimes I feel I was unable (perhaps due to language issues) to state clearly my ideas. That was the case with my first posting. Let me apologize if my intent of clarification suggested that I was offended, and let us not enter in an endless apologies loop.

Thank you again, and best regards.

Re: 33S Delayed? (Was: HP 49g+)

*Message #30 Posted by **Alex Paramonoff** on 21 Sept 2003, 5:20 p.m.,*
in response to message #8 by Erik Ehrling (Sweden)

Hi Erik,

I am an engineer in the consumer electronics industry, and unfortunately it is very unlikely that they can make radical changes to this design this late in the game (unfortunately).

Probably they are frantically pressuring their supplier to "dial-in" the production of new 49 and 48, particularly the keyboard. It takes time to get a new supplier to understand your needs and hold them to your standards. Also, it's good marketing to introduce the expensive models first.

Luckily this means that the problens we are seeing on the 49G+ are likely to be tweaked by the time the 33S rolls out.

Here's my hope: if they are still in production with the 12C, why not use the tooling to do a run of 15C's? Every engineer on the planet who graduated before 1990 would buy one.

Best regards,

Alex P

Speed of factorial calculations

*Message #31 Posted by **Karl Schneider** on 19 Sept 2003, 2:57 a.m.,*
in response to message #1 by Ben Salinas

The 42S calculates 252! in about 1.5 sec, also. For even more impressive speed, try gamma(253.000000001) on the 42S or x! of 252.000000001 on the 32Sii and compare the answers.

Something must be wrong with the TI-89 to take 13 sec for that operation. I'll check with a co-worker on that one...

Re: Speed of factorial calculations

*Message #32 Posted by **Werner Huysegoms** on 19 Sept 2003, 3:22 a.m.,*
in response to message #31 by Karl Schneider

He was talking about the full 498-digit answer (vs the 12-digit floating-point approximation of the 42S).

Werner

Re: Speed of factorial calculations on TI-89

*Message #33 Posted by **Jonas Lööf** on 19 Sept 2003, 3:37 a.m.,*
in response to message #31 by Karl Schneider

Something indeed is wrong with the TI-89... It has about the slowest display of large integers found anywere! Sombody (i dont remember the reference) did a disassembly, and it was not impressive reading...

Re: Speed of factorial calculations

*Message #34 Posted by **dbrunell** on 19 Sept 2003, 11:53 a.m.,*
in response to message #31 by Karl Schneider

My TI-92 Plus takes about 1 sec to calculate 253! in approximate mode and 6 seconds in exact mode. It takes about a minute to scroll through all of the digits in the exact mode answer. :)

Re: Speed of factorial calculations

*Message #35 Posted by **Mark Ordal** on 19 Sept 2003, 1:21 p.m.,*
in response to message #34 by dbrunell

My timings for 253! on my TI Voyage200 are similar to the reported timings for the TI-92+, namely:

about 1 second in approximate mode.

about 7 seconds in exact mode.

about 50 seconds to scroll horizontally through all the digits of the exact answer.

--Mark

Re: Speed of factorial calculations

*Message #36 Posted by **Ben Salinas** on 19 Sept 2003, 3:54 p.m.,*
in response to message #35 by Mark Ordal

Yes, the time I provided for the 49g+ (1.5 seconds) was for exact mode. Some more times HP-49g+ 252! in exact mode: 1.5 seconds 252! in scientific notation:the closest I could get with a stopwatch was .37 seconds, but it is considerabley less than that... pretty much instantaneous To scroll through all the digits: 40 seconds

HP-32sII 252! in scientific notation: 1.5 seconds

Now the question is, can you really test the speed of a calculator using the x! function, or does that simply test the speed of the algorithm? -Ben

Re: Speed of factorial calculations

*Message #37 Posted by **Veli-Pekka Nousiainen** on 19 Sept 2003, 6:08 p.m.,*
in response to message #35 by Mark Ordal

It used to take a minute to calculate 1000! on the old 49G, the new plus does it (Exact, no LASTARG/Stack) in 26 seconds (2568 digits). So the speed is almost exactly four fold in this case. The smaller 252! takes only 1 second (498 digits). How about V200 with 1000! or whatever is the largest it can do? My code was 1000{!}HEAD MEM;TEVAL - VPN

Re: Speed of factorial calculations

*Message #38 Posted by **Ben Salinas** on 19 Sept 2003, 6:13 p.m.,*
in response to message #37 by Veli-Pekka Nousiainen

Wow.... 26 seconds... that's a long time. The TI-89 does the same calculation instantaneous... of course its answer is 1000!:) -ben

Re: Speed of factorial calculations

*Message #39 Posted by **Veli-Pekka Nousiainen** on 19 Sept 2003, 6:17 p.m.,*
in response to message #38 by Ben Salinas

Don't fool around Ben! (: how much is Ben! ?) What is the largest it can do? 999! ? - VPN

Re: HP 49g+

*Message #40 Posted by **Michel Beaulieu** on 19 Sept 2003, 5:30 p.m.,*
in response to message #1 by Ben Salinas

Hey wait a minute! with the HP-48S it also took half a second to do 252! but you only have 13 significants numbers and the EE. With the TI-89, you have all the 497 numbers calculated insted of 13!!!

I don't know if the HP-49G+ calculate ALL the digit of 252! or only the usual 13 numbers and the exponent. If yes, that's an explanation of the apparent big difference of speed between the calculators...

O.K., Ben -- Please report on your new HP 49g+!

*Message #41 Posted by **Paul Brogger** on 22 Sept 2003, 8:55 p.m.,*
in response to message #1 by Ben Salinas

Did you get a chance to play with it? Whaddya think?

Congrats, by the way!

Re: O.K., Ben -- Please report on your new HP 49g+!(long)

*Message #42 Posted by **Ben Salinas** on 28 Sept 2003, 9:51 p.m.,*
in response to message #41 by Paul Brogger

Sorry it took so long for me to reply, but here we go. I have been using my free time to figure out all of the basic features. FYI, this is the first graphing calculator that I really have learned to use, so some of my observations might be flawed. Most of what I am comparing it to is my 32sii (well, my school's) and my ti-89 (also my school's)

The first thing that i noticed is the speed in graphing functions. This is in comparison to the TI-89 (which is the one function I used on the 89). It graphs them 3-4 times faster, and many times faster than my friend's 48gx.

The feel of the keyboard is also great. It has that "click back" so to speak.

One worry is of the LCD screen. It seems to not have enough padding around it, so that when you press in the back, or front you will turn the pixels on (i dont know how else to say it) Also, today I was using the calculator, and suddenly 1/4 of the screen on the right side went permanently on. I quickly reset the calculator (using on and f3) but that had no effect. I pressed a few buttons at random and the screen was back to normal. I think this might be a design flaw. Afterwards, i ran a test on the LCD screen and there werent any broken pixels

As for battery life, I have had it for almost 2 weeks, and the batteries that it came with are still running fine. Of course this is with less than an hour of use each day. I will alert you when the batteries do die.

As for cosmetic appearance, it looks extremely classy (who knows waht people will think about it in a few years) The gold gives it an extremely elegant look (and I know that is why I buy a calculator, for what it looks like :))

I dont have a SD card to test it out with, and havent copied any files to the calculator yet, although it connected to the computer with no problems. As soon as i figure out how to copy files, i will give a speed test on that.

The quick start manual is excellent, although it is a bit redundant and complicated in places due to having to explain stuff in RPN and Algebraic mode. My one regret is it doesnt have an index. I have hardly used the manual on the computer, as it is cumbersome to have to go to my computer, open the pdf, and then do a search for what I want to know. Most of the pdf is pictures, so you can't search, and the pdf has no bookmarks, so if you want to go to page 13-2 you have to scroll down till you see it. I would much perfer a printed manual.

I personally perfer the interface of scientific calculators over that of graphing calculators, because it is so much easier to input data in scientific. That being said, the 49g+ is by far the best graphing calculator that I have ever touched for doing basic math (my experience includes using friends ti-83's, a casio color graphing one, the ti-89, and a few other) It might be because it is RPN, but the keyboard is laid out very well. As for the keyboard layout, my one gripe is that the space key is at the bottom next to the enter key, considering i have used the space key all of twice, i think it should be an alpha function. And actually, having the enter key down at the bottom is not nearly as nice as the wide, mid keyboard enter key, but it is not as bad as people make it out to be.

Overall, this calculator is a great graphing calculator (especially because of teh speed), and a decent scientific calculator replacement. Personally, for most of my school work, I will stick to my 32sii (even for calculus), because I am fast with it, and it fits so much better in my hands, but if i ever am lazy and need

to grpah something, or solve a complex equation, or my 32sii is far away, i will reach for the 49g+ over the ti-89.

(oh and the leather case is great. I have dropped it a few times, and it just bounces to a soft fall)

So, in conclusion, if you like powerful graphing calculators, then this is most definitely the calculator for you. It is most definitely worth the extra 50-60 bucks in comparison to the ti-89 (and really and truly, it competes, and wins with the ti-92, plus the 49g+ is much smaller than the ti-92)

If you want a scientific calculator, find a nice old HP, or get this one, and get used to the weird enter key.

-ben

Re: O.K., Ben -- Please report on your new HP 49g+!(long)

*Message #43 Posted by **Ed Look** on 29 Sept 2003, 1:03 a.m.,*
in response to message #42 by Ben Salinas

Nice to see you having a great impression of the HP-49G+ and gave us such a detailed report!

But even though you don't have a SD card, could you tell us from the quick start manual or CD manual what is the maximum (or minimum) card memory capacity (e.g., 64 MB or 128MB, etc.) is acceptable to the calculator?

Incidentally, I don't mean to step on toes and as an old guy, I once lusted after (and still don't have) one of those shining 41C series machines. But having the ability to use (RELATIVELY) cheap SD chips is a major plus over the 41CX or even 48GX, all other considerations aside.

Re: O.K., Ben -- Please report on your new HP 49g+!(long)

*Message #44 Posted by **Veli-Pekka Nousiainen** on 29 Sept 2003, 4:40 a.m.,*
in response to message #43 by Ed Look

Tested MMC 8MB from Nokia Communicator 9110i and a fresh 64MB SD card (Sandisk). Using *standard* DOS FAT16 gives a 2GB max card size/32KB clusters. Formatting the clusters bigger, might give a bigger card size, like 4GB/64K. That I tested on a PC HD drive, because the maximum SD on shops is currently 512MB. One may order 1GB.

How much do you need for a calculator? The 8MB MMC, limited by some Nokia programs, has enough room for all the programs that I have used intensively during past 4 years in my old 49G. So you may buy the least expensive one. If you use the card for something else, too, like in a camera, consider buying the largest possible. If you need Nokia compatibility then the best choice would be a 64MB MMC card. That's what I'm going to buy next! * VPN #

Re: O.K., Ben -- Please report on your new HP 49g+!(long)

*Message #45 Posted by **Ed Look** on 29 Sept 2003, 3:56 p.m.,*
in response to message #44 by Veli-Pekka Nousiainen

Wait a minute... the 49G+ can FORMAT a SD chip?? Or, do you do that first on a PC? Now, my ignorance will show- I thought that if you formatted using larger cluster sizes, you get effectively a smaller drive.

Anyway, I agree that a calculator should require gigabytes of memory, but I was more worried that there might be some minimum size requirement. Heck, the cheapest one it is! I'll be looking

for a SanDisk/Lexar/etc. sale in local stores. 64MB should be more than enough until someone invents really bloated programs or starts to stuff high definition images and such on a calculator!

Re: O.K., Ben -- Thanks for the report! (short)

*Message #46 Posted by **Paul Brogger** on 29 Sept 2003, 4:15 p.m.,*
in response to message #42 by Ben Salinas

I appreciate your response. Enjoy your new toy!

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HP 9100B, what´s it worth?

*Message #1 Posted by **Matti Övermark** on 18 Sept 2003, 9:28 a.m.*

Hello!

My boss has a mint HP9100B. He doesn´t know if it´s worth anything (sic!) but as we know it is. But how much, if its working?

BR Matti Sweden

Re: HP 9100B, what´s it worth?

*Message #2 Posted by **Jim L** on 18 Sept 2003, 10:22 a.m.,*
in response to message #1 by Matti Övermark

The collectors corner shows prices of $750, $800, $1225, $1700.

Much higher

*Message #3 Posted by **Mike** on 18 Sept 2003, 6:36 p.m.,*
in response to message #2 by Jim L

if it works and depending on what it has.

9100A then?

*Message #4 Posted by **Gene** on 18 Sept 2003, 8:39 p.m.,*
in response to message #3 by Mike

What do those bring?

Re: 9100A then?

*Message #5 Posted by **Alan Thomas** on 18 Sept 2003, 8:50 p.m.,*
in response to message #4 by Gene

I paid $120 for mine. That was last year though.

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Rechargable batts for a HP25C, but how?

*Message #1 Posted by **Matti Övermark** on 18 Sept 2003, 9:26 a.m.*

Hello fellow enthusiasts.

I am aquiring an usable (he said) HP25C with a broken rechargable battery. How is that fixed? BR Matti Sweden

Re: Rechargable batts for a HP25C, but how?

*Message #2 Posted by **Dave** on 18 Sept 2003, 11:23 a.m.,*
in response to message #1 by Matti Övermark

Replacing the cells is quite easy. Just make a cut in the end of the plastic strip that runs between the cells and remove the old cells. You can replace the cells with any NiCad, Alkaline, Li-ion, NiMH cell you want (AA size). There are occasional size variations that can make some cells work better than others, but all can be made to work. Make sure you get the polarity right- easy to check by noting polarity of cells removed, or info is available on this site. Of course alkaline batteries can not be recharged. It is not a good idea to recharge your batteries in these calculators due to potential damage to circuitry. Of course the original charger circuit was not designed for Li-ion or NiMH, but this is not an issue if you do not recharge them in the calc, and I am not sure if it is an issue in any case. Again - please do not recharge in the unit as poor contact with the battery can destroy the calc circuits....

Re: Rechargable batts for a HP25C, but how?

*Message #3 Posted by **Thibaut.be** on 18 Sept 2003, 11:23 a.m.,*
in response to message #1 by Matti Övermark

Very easily. - with the blade of a cutter, desolidarize the battery holder - remove the old batteries and clean up the compartment - buy 2 AA rechargeable batteries, the most common type you can find - put them into the holder, respecting the polarity + and - are written on the compartment - glue the part you deloidarized.

Put it into your calc and charge it.

Enjoy your calculator for the next 20 years, then repeat the operation

Re: Rechargable batts for a HP25C, but how?

*Message #4 Posted by **DougT** on 18 Sept 2003, 12:07 p.m.,*
in response to message #1 by Matti Övermark

If you'd like to retain the stock look, instead of cutting the thin plastic strip in the battery pack, it is possible to *carefully* pry the two halves apart with a strong, sharp knife. I've done this with several, and installed NiCad AA cells (see the "Replacement Nicads for HP Battery Packs" article elsewhere on the site). Make sure you have the polarity correct and the spring in place, and stick the halves back together with a few small drops of glue.

Re: Rechargable batts for a HP25C, but how?

*Message #5 Posted by **Matti Övermark** on 22 Sept 2003, 7:05 a.m.,*
in response to message #4 by DougT

OK folks,

Very much thank You all!!

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To buy calculator

*Message #1 Posted by **Alexandre** on 18 Sept 2003, 8:46 a.m.*

I want to buy a calculator model 27s and I will like to know itself is new or second-hand, and how I make to buy because I live in Brazil.I will like to know the price to sell and how is deed the send this product and itself I have to pay.

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Allschwil Meeting

*Message #1 Posted by **Meindert Kuipers** on 18 Sept 2003, 5:43 a.m.*

I wish all the attendees of the meeting loads of fun. I am really sorry that I cannot make it to Basel. If the meeting is a succes we should make it a tradition!

Meindert

Re: Allschwil Meeting

*Message #2 Posted by **Mike (Stgt)** on 18 Sept 2003, 5:29 p.m.,*
in response to message #1 by Meindert Kuipers

Those meetings have the tradition to happen when someone says "let's meet".

Ciao.....Mike

Re: Allschwil Meeting

*Message #3 Posted by **Erik Ehrling (Sweden)** on 18 Sept 2003, 5:36 p.m.,*
in response to message #1 by Meindert Kuipers

Same here - sending my greetings to all the attendants of the Allschwil Meeting!

/Erik Ehrling

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My HP-12c seems to be dead....

*Message #1 Posted by **Luca Passaggio (Switzerland)** on 18 Sept 2003, 5:33 a.m.*

Good morning everybody,

This morning my belowed HP-12c (Singapore 3347S04420) is not responding to the ON button. I took out the 3 batteries and put them in again, but it is still not working. Yesterday it was OK and the batteries are almost new. I know that it hasn't a great value and that it is still sold, but I love THIS ONE !

I kindly ask you suggestions....

Thanking you in advance,

Best regards,

Luca

Re: My HP-12c seems to be dead....

*Message #2 Posted by **GS Leong** on 18 Sept 2003, 6:01 a.m.,*
in response to message #1 by Luca Passaggio (Switzerland)

Take the batteries out and shunt the two connectors together with a paper clip. Then try reinstalling the batteries and hit the ON switch.

Sucess!

Re: My HP-12c seems to be dead....

*Message #3 Posted by **Luca** on 18 Sept 2003, 8:46 a.m.,*
in response to message #2 by GS Leong

Thank you for the reply !

I tried, but it didn't work.

Other suggestions ?

BTW, I immediately ordered a new HP-12C, and while waiting I will use my dear old HP-41C writing some financial programs in order to transform it in a financial calculator. At least I will do some exercise !

Best regards,

Luca

Re: My HP-12c seems to be dead....

*Message #4 Posted by **Renato** on 18 Sept 2003, 10:37 a.m.,*
in response to message #3 by Luca

Luca, HP manual suggests shorting battery terminals *while the batteries are in the calculator*.

Also, you may try exchanging batteries, even if the current ones are new. I would try that before buying a new 12c - China units are not as good as your Singapore unit.

There are some financial programs for 41 here:

http://www.hpmuseum.org/software/41td/fincalc.htm

Ciao

Renato

Re: My HP-12c seems to be dead....

*Message #5 Posted by **Luca** on 18 Sept 2003, 11:32 a.m.,*
in response to message #4 by Renato

Grazie mille, Massimo ! (Many thanks)

I have done what was written in the manual, now I will try new batteries as per your suggestion but anyway I want a spare unit (even a Chinese one).

I was in the middle of a financial meeting when the calculator died and I borroved a stupid algebric one from a collegue: now I know that I cannot work without RPN !

I am not an engineer but trust me that RPN works better also for marketing and financial people !

Thank you so much also for the link, it is very nice to see how kind and helpful is the people you find in this site !

Best regards,

Ciao

Luca

Sorry, I have written Massimo instead of Renato

*Message #6 Posted by **Luca** on 18 Sept 2003, 3:42 p.m.,*
in response to message #5 by Luca

I apologize....there are few with an Italian name and nevertheless I made a mistake..... I am suffering for my HP-12C.....

Luca

Not a problem...

*Message #7 Posted by **Renato** on 18 Sept 2003, 10:45 p.m.,*
in response to message #6 by Luca

Besides, may I suggest you buy a used 12C instead of a new chinese unit. There are

Singapore and Malaysia units around, and I bet they will last longer than most new chinese ones. You can even get lucky, and find a Brazilian or American one.

I´ve been in Italy in mid-90s, at Falconara Maritima, working on a telecom manufacturer. Nice country - Brazil has a large number of Italian origin people, and has inherited some features.

Ciao

Renato

Re: Not a problem...

*Message #8 Posted by **Luca** on 19 Sept 2003, 3:09 a.m.,*
in response to message #7 by Renato

Obrigado muito muito !

Ciao

Luca

Re: My HP-12c seems to be dead....

*Message #9 Posted by **Luca** on 30 Sept 2003, 12:20 p.m.,*
in response to message #4 by Renato

Many thanks, Renato !

I did as you suggested, also with new batteries, and it didn't work, but after cleaning the contacts and doing it again few days later, it is working again now !!!

I agree with you about the China made units, I bought one as a back-up but the feeling is not the same as my old one !

Thank you again,

Ciao

Luca

Re: My HP-12c seems to be dead....

*Message #10 Posted by **Renato** on 30 Sept 2003, 10:10 p.m.,*
in response to message #9 by Luca

Ciao Luca ! I´m happy you got your 12c working again. I was not surprised you succeded. There have been many horror stories - cars passing over, hypopotamus digestion, etc., and the 12c survived.

I also have seen some cases where a battery change turns up to a non-working calculator. I´ve seen this on 11c, 42S, 32SII and 41CV. Patience, some knowledge and persistance makes a necessary and effective solution.

My HP-12c seems to be dead....

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HP 48GII

*Message #1 Posted by **Doug** on 17 Sept 2003, 10:41 p.m.*

There has been no discussion of the HP 48GII. I wonder why. Did everyone migrate to the 49G and now they have no need to bother themselves with the 48GII? (I know the answer to that is no).

From the spec sheets on hpcalc.org, it appears that the only differences are screen size, memory size (and expandability), and cable type. Could there be other differences. Does the HP 48GII take the same rom, and is it also upgradeable?

I still use my HP48G, and don't need all that memory (believe it or not), so I wonder if I should look at the 48 GII.

Re: HP 48GII

*Message #2 Posted by **Jonathan Purvis (New Zealand)** on 17 Sept 2003, 11:37 p.m.,*
in response to message #1 by Doug

The 48GII is not at all a continuation of the 48G series, it's just a 49G with a new CPU. I guess there's not been any discussion of it as it doesn't seem to add anything over the existing 49G except being faster. HP should have named them the 49G+ and 49GX.

Personally i'll stick with my 48GX (and 38G, 39G and 48G).

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HP-97 Blues... any advice?

*Message #1 Posted by **Michael Meyer** on 17 Sept 2003, 8:21 p.m.*

Hi, all.

I've got an HP-97 that won't power up. When I turn it on, it shows only the low-battery LED. The transistor and resistor near the power input get hot. I presume I've got a component or chip shorting. Any advice on where to start? Sound like a familiar problem to anyone? The voltages barely register, of course.

Thanks! Michael

Re: HP-97 Blues... any advice?

*Message #2 Posted by **Katie** on 17 Sept 2003, 8:51 p.m.,*
in response to message #1 by Michael Meyer

Hi Michael,

Have you tried to power it up with the printer motor and/or card reader motor disconnected. I found that the printer motor caused that problem on one of my 97's. I just pulled the wires to the motor and that did the trick. (Then, I had to fix the printer, of course.)

Failing that, have you tried some board swapping with one of your good machines to isolate the problem? It could be on the printer driver board, keyboard or main circuit board.

-Katie

Re: HP-97 Blues... any advice?

*Message #3 Posted by **Ellis Easley** on 18 Sept 2003, 2:30 a.m.,*
in response to message #1 by Michael Meyer

Just from my memory of things I've read here - the 97 has a transistor for over-voltage protection that is turned on to load down the power supply if the voltage gets too high, to pull the voltage back down. I don't know if the transistor has a load resistor to absorb the energy or if the transistor drops all the voltage itself. I remember reading that the transistor sometimes goes bad, stays on, gets hot, and keeps the power supply voltage from rising to its normal level.

Re: HP-97 Blues... any advice?

*Message #4 Posted by **David Smith** on 18 Sept 2003, 3:44 p.m.,*
in response to message #1 by Michael Meyer

First get out your handy dandy HPMUSEUM CDROMS. The HP97 service manual is on them. Full schematics and everything. Most of the power supply is on the display driver board. I have seen several machines where either the power resistor failed or the transistor across it. This led to a cascade of other failues taking out a total of four transistors... yummy.

Another problem that I have seen was due to a stuck print head. The machine will either not light up or displays ERROR if the head cannot go home.

Follow Katies advice and swap out the top end first to see where to start. Also remember that the machine will not work if the printer circuit board is not connected.

Re: HP-97 Blues... any advice?

*Message #5 Posted by **Tony Duell (UK)** on 18 Sept 2003, 5:41 p.m.,*
in response to message #1 by Michael Meyer

I had a Topcat in for repair that did this (it wasn't a 97, it was a 95C, but the circuitry is much the same). There's a circuit in the Topcats to load the power supply down if the input voltage tries to exceed the correct +ve output voltage -- this protects the machine if it's connected to the AC adapter with no battery pack in place, so you don't get IC failures like in the Woodstocks. Anyway, if the power converter (on the CPU board) isn't running, this circuit will try to pull the inpjut voltage right down to 0V, and gets hot in the process. I would start there. The service manual, with scehamtics, is on the MoHPC CD-ROMs. THe power converter is a simple discrete component circuit based round 2 transistors (oscillator and regulator) and a transformer. Most of the times I've had problems with this circuit (not just in Topcats), the oscillator transsitor is open. A 2N3904 is a suitable replacement.

Re: HP-97 Blues... any advice?

*Message #6 Posted by **Michael Meyer** on 19 Sept 2003, 1:12 a.m.,*
in response to message #5 by Tony Duell (UK)

Hi All.

I have the service manual. I started out by swapping boards... it's definitely in the largest main circuit board, even with the printer and card reader disconnected.

The service manual is a bit difficult to read, and the components are in a very different layout than the nice diagram in the manual.

I appreciated the suggestions for where to start to look for the problem, and I'll keep you posted.

Michael

Re: HP-97 Blues... any advice?

*Message #7 Posted by **David Smith** on 19 Sept 2003, 8:08 p.m.,*
in response to message #6 by Michael Meyer

Oooh, bad news doc... I have never seen a bad main board had the decency to have a off-the-shelf component fail. Or an ACT chip either. I have seen a couple of bad PIK chips and a bad ROM chip though.

Re: HP-97 Blues... any advice?

*Message #8 Posted by **Tony Duell (UK)** on 20 Sept 2003, 3:45 p.m.,*
in response to message #7 by David Smith

Odd, my 97 (which I was given in a rather poor state) had a bad ACT chip (I replaced it with one from a 21 with a bad ROM...). The other chips on the CPU board were all fine. I have also replaced many PSU oscillator transistors in Topcats (and classics)....

Re: HP-97 Blues... any advice?

*Message #9 Posted by **Tony Duell (UK)** on 20 Sept 2003, 3:47 p.m.,*
in response to message #6 by Michael Meyer

Electrically the boards are much the same (I would guess you have the later version board with the 16 pin DIL space for the cabel for the 97S I/O module). Start by finding the power converter autotransformer -- a little 'wound component' with 4 pins. Trace the circuitry round that to find 2 transistors. Then test these transistors out of circuit.

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HP49G+ ARM CPU flavor???

*Message #1 Posted by **Bill Wiese** on 17 Sept 2003, 4:48 p.m.*

Has anyone yet opened up their new HP49G+? Could someone post chip mfgr & part numbers?

I'm esp interested in the mfgr/variant of the ARM7 CPU used in this new 49, esp the USB implementation (slave? [likely] host/both? [less likely but it'd be nice]).

Thanks!

Bill Wiese
San Jose, CA

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How to repair the aluminum plate on voyageur?

*Message #1 Posted by **jimc** on 17 Sept 2003, 4:39 p.m.*

I am wondering if anyone has repaired or replaced the aluminum plate on a 10/11/15? Mine took a hit on the aluminum on the upper left corner on one of the "bends". I would like to repair or replace this aluminum piece if at all possible.

TIA.

Re: How to repair the aluminum plate on voyager?

*Message #2 Posted by **Randy Sloyer** on 17 Sept 2003, 6:47 p.m.,*
in response to message #1 by jimc

Replacement isn't practical as the part can only come from another calculator. Unless the calculator fairy pops a 11/15/16 under your pillow, you'd be lucky to find a dead one on eBay for less than $50.00.

Repair is tough as it is a real pain to pull one off without doing yet more damage. They are stuck on with a tenacious double sided tape. The only positive experience I've had is with units that are really beat and they need to be straightened or completely crazed display windows that have to be replaced. I use UN-DO adhesive remover and flat Glide dental floss. It's made of polypropylene and very strong. You soften the goo with the UN-DO and then use the floss like a cheese cutter, sliding it between the faceplate and the case. Takes a while. Any over-eagerness to get it done fast will result in disaster.

For my 2¢ worth, unless it's so bashed it's peeling off, leave it alone! It adds to the character. It's now a confirmed work machine.

Edited: 17 Sept 2003, 7:28 p.m.

Re: How to repair the aluminum plate on voyager?

*Message #3 Posted by **jimc** on 18 Sept 2003, 9:35 a.m.,*
in response to message #2 by Randy Sloyer

Thanks for input Randy. I'll leave it.

Oh, BTW, calculator fairies? ;p

Re: How to repair the aluminum plate on voyager?

*Message #4 Posted by **David Smith** on 18 Sept 2003, 3:45 p.m.,*
in response to message #3 by jimc

Calculator fairies... smaller and flightier than the calculator elves... but also kinder and gentler.

The history as I see it

*Message #5 Posted by **Randy Sloyer** on 18 Sept 2003, 8:34 p.m.,*
in response to message #3 by jimc

David, you're right. You know your HP calculator history.

Some additional facts that some may not be aware of:

The Fairies where much later than the Elves.

The Elves are still to this day an angry lot after having been made redundant with the discontinuance of the 9800 lineup. No need for any heavy lifting once plastic was being used. Hi-Ho-Hi-Ho.

The Pixies quickly displaced the Elves with the introduction of the Woodstock machines. The Elves felt abandoned. They tried to enjoy their forced retirement but the Pixies made it difficult with their rapid expansion into places the Elves never imaged they could venture. The Pixies very much enjoyed their tenure as most wonderful working group in all of calculator-land. The sun shone on all the land.

The Pixies fell in an ugly uprising by the Gremlins of the 30 series. It was an ugly time for all. There was unrest in all the land. A few 34C's did manage to make it out alive to tell about it. They are still on permanent disability but continue to tell all those who listen of their greatness.

The Fairies came to the rescue with low power 7 segment LCD's and batteries that never died. There was rejoicing in all the land once again. Tranquil times existed for those that saw the future.

The Leprechauns managed to push them all out of the way when they brought the Pioneers to town. We soon forgot about all the troubles in the world and went back to work with LCD's and batteries that lasted longer than a wall wart with a broken connector. The world was once again a wonderful place for all who had followed.

It all ended with the passing of two most magnificent engineers. One who understood marketing and how it required products that are not driven by the market, the other an engineers engineer.

It seems the Trolls were left to pick up the pieces...

Edited: 18 Sept 2003, 9:26 p.m.

Re: Elves with Attitude

*Message #6 Posted by **Paul Brogger** on 19 Sept 2003, 1:32 p.m.,*
in response to message #5 by Randy Sloyer

For an insight in the status of the Elves' world view, you might want to download Elf Bowling 1 or either of the sequels.

Recommended!

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HP82161 tape drive problem

*Message #1 Posted by **Pavel Korensky** on 17 Sept 2003, 4:29 p.m.*

Hello,

I just bought my second 82161A tape drive on EBay.

I received it, cleaned the head and I tried to test it. But the behavior of the unit is strange.

I have one tape which was written by someone else and I can read from that tape without any problem. But when I am trying to format a new tape (NEWM 064 for example) I am getting "MEDM ERR" message. When I am trying to write something on the tape, where already are some programs, the WRTP is without any error message and the written file name can be seen in the DIRecory listing. But when I am trying to VERIFY it or read it with READP, I am getting "MEDM ERR". But I can delete the file with PURGE without any problem.

Also, sometimes when I am trying DIR, I get the "MEDM ERR" message, but when I try the DIR once more, I get the listing without a problem.

Anyone have some idea what can be wrong ? I tried several tapes. Also, when I bought my first unit almost two years ago, I had (and still have) the similar problem with the first unit. Tapes can be read, but not written.

Is it possible that something is wrong with my HP-IL module ? Or maybe the head of the new unit is magnetised ? Or some mechanical problem ?

Re: HP82161 tape drive problem

*Message #2 Posted by **Ellis Easley** on 18 Sept 2003, 3:49 a.m.,*
in response to message #1 by Pavel Korensky

Do you retension your tapes? Advancing the tape to the end and then rewinding to the beginning? If you don't, this might be the problem, considering that it is intermittent and occurs with both units. The 82161A manual doesn't address this (maybe these tapes are less prone to the problem) but manuals for machines like the 9825 do. I know the 82161 tapes work completely differently (the 9825 type tapes are driven by an internal belt) but just from my experience with audio cassette tapes, I think there is a tendency for wound tape that has been unused for a while to stick at the edges, layer to layer - especially since these tapes are getting old! Formatting (NEWM) moves the tape through the whole range (but of course overwrites the data). Also, if the tape is sticking, the format put down by NEWM might be marginal due to momentary variations in the tape speed while the format was being written. This could cause marginal operation until the tape is re-formatted. If this was the case, executing NEWM twice might help, allowing the first pass to retension the tape. I wrote a program to move the tape to the end and then rewind it when I was learning how to use the HPIL Devel. ROM. The tape needs to be formatted for the Seek operation to succeed:

```
01 LBL 'RETEN
02 1
03 LAD  ;I had only the tape drive connected
04 4
05 DDL  ;DDL4 = Seek
06 0  ;track (doesn't matter which you use)
07 OUTBIN
```

```
08 255  ;last record
09 OUTBIN
10 LBL 01
11 INSTAT
12 X=0?  ;not busy, no error (seek finished)
13 GTO 02
14 GTO 01
15 LBL 02
16 STOP  ;pause between seek and rewind, just press R/S
17 1
18 LAD  ;again, I had only tape drive connected
19 7
20 DDL  ;DDL7 = Rewind
21 LBL 03
22 INSTAT
23 X=0?  ;wait till rewind finished
24 GTO 04
25 GTO 03
26 LBL 04
27 '*** DONE ***
28 AVIEW
29 END
```

I guess I didn't know about "X(not equal)0"! The Extended I/O ROM has LAD and DDL and I think you can use OUTXB in place of OUTBIN. INSTAT is in the HPIL Module ROM.

Re: HP82161 tape drive problem

*Message #3 Posted by **andy** on 18 Sept 2003, 10:44 a.m.,*
in response to message #2 by Ellis Easley

How are you powering the unit? I used to power mine with a bench power supply that didn't have enough amperage and it caused strange behavior.

Andy

Re: HP82161 tape drive problem

*Message #4 Posted by **Pavel Korensky** on 20 Sept 2003, 10:54 a.m.,*
in response to message #3 by andy

Hello Andy,

I am using the adapter which have the same parameters as the original one. Except that my adapter is for 230V.

The original is 110V -> 8V/3W mine is 230V -> 9V/300 mA

But thank you for the idea. I will test the unit with my benchtop power supply. It is regulated from 0-30V and from 0-5 A and I also will try to measure the current.

Re: HP82161 tape drive problem

*Message #5 Posted by **Pavel Korensky** on 20 Sept 2003, 10:55 a.m.,*
in response to message #2 by Ellis Easley

Hello Ellis,

thank you very much, but the retension of tapes did not help. The behavior of the tape unit is the same.

Re: HP82161 tape drive problem

*Message #6 Posted by **David Smith** on 20 Sept 2003, 12:34 p.m.,*
in response to message #5 by Pavel Korensky

Remember that these machines need a good battery pack installed for proper operation... even when connected to the AC.

Re: HP82161 tape drive problem

*Message #7 Posted by **Hans Brueggemann [GER]** on 20 Sept 2003, 4:50 p.m.,*
in response to message #1 by Pavel Korensky

pavel, 1) after long storage, it could be a "magnetizing problem" of the tape-head. may be, demagnetizing of the head will do the trick (there are special demagnetizers for tape decks and alike available. maybe, you can borrow one from your local radio store?)

2) tapes wear out after time. i.e., the glue that holds the magnetizable powder on the tape will start to decay (i think, normal lifetime is just about 5 years or so) --> loss of magnetic particels -->loss of information on the tape surface. (hmmm, but where to get a "fresh" tape from?? --> i dont know)

cheers, hans

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Does HP-42X work on the new HP-49G+?

*Message #1 Posted by **Erik Ehrling (Sweden)** on 17 Sept 2003, 1:58 p.m.*

Hi!

Has anyone tried using HP-42X on the new HP-49G+? Does it work well? (The idea of a HP-42S that is 3-5 times faster than the original is appealing to me...)

Best regards, Erik Ehrling (Sweden)

Re: Does HP-42X work on the new HP-49G+?

*Message #2 Posted by **Veli-Pekka Nousiainen** on 17 Sept 2003, 2:29 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Send me the files and I will test it. vDOpNOTnSPAM@welho.com, remove DO NOT SPAM before sending VPN

Re: Does HP-42X work on the new HP-49G+?

*Message #3 Posted by **Douglas Rohm** on 18 Sept 2003, 8:38 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Hi Erik, Here is my reply to your post in comp.sys.hp48.

(First reply)

Hi Erik, I just downloaded it and it seems to be running okay. I haven't done any thorough testing yet, but I haven't seen any major issues. The header on the 49G+ remains at the top at all times, as usual. The HP42X screen fits nicely underneath this header so there aren't any display issues.

I did, however, notice that when you exit the emulator with !BYE or ON-F6, the screen clouds up for a second and then clears up and returns to the stack. Nothing is lost or corrupted in the emulator or the 49G+, but it isn't pretty to watch.

I'll let you know if I find anything else.

Doug

(Second reply)

The version I tested in my previous post was the HP42X49E version. I just tried it with the extended version and it doesn't work. I downloaded the HP42X file to the 49G+, stored it in port 1, where it showed up fine, then did ON-C, then recieved the XQ42 file. Tried to run the emulator and the emulator screen shows for a fraction of a second, then the calculator turns off. I turned the calculator back on and I got "Error: Object Not in Port". I checked port 1 and it was deleted either by the emulator or the calculator (I'm guessing the calculator).

It might be wishful thinking, but it seems like the 49G+ handles critical errors more elegantly, instead of "Memory Clear" messages. I'll prove this point more when I start doing more programming :)

Doug

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HP-12cPlatinum "Closeout"?

*Message #1 Posted by **Paul Brogger** on 17 Sept 2003, 10:22 a.m.*

I received an "HPShopping" email recently, announcing "red tag savings" on "closeout" products.

Under the "Calculators" link are listed the 9s, 10bii (neither surprising) and *the HP-12c Platinum*. (??)

Are they clearing out units from the first production run (those with the high program memory "jump bug"???)

Re: HP-12cPlatinum "Closeout"?

*Message #2 Posted by **christof (NoVA US)** on 17 Sept 2003, 5:01 p.m.,*
in response to message #1 by Paul Brogger

The link you posted seems to have expired- I see a special price on hp.com, but no mention yet of closeout pricing...

Re: HP-12cPlatinum "Closeout"?

*Message #3 Posted by **CalcKidd** on 17 Sept 2003, 7:34 p.m.,*
in response to message #2 by christof (NoVA US)

http://www.shopping.hp.com/cgi-bin/hpdirect/shopping/scripts/generic_store/generic_subcategory_view.jsp?BV_SessionID=@@@@1338629357.1063841561@@@@&BV_EngineID=ccdfadcjgkmeemicfngcfkmdfondfgm.0&landing=outlet_store&category=refurb_closeouts&subcat1=calculators&cat_level=2&browse_link=true

This link shows 10% off the 12C Platinum... hmmm.

Re: HP-12cPlatinum "Closeout"? NO

*Message #4 Posted by **Hp Calc Believer** on 17 Sept 2003, 8:59 p.m.,*
in response to message #3 by CalcKidd

It's on multitudes of HP products, not just the Hp-12C Plat. This is a somewhat regular occurance at Hp Shopping.Com and is no indication of anything more than a temporary sale on some items. Nothing more, nothing less, it's a regular action you may not be familar with.

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NCESS Exam - Would you have time to enter the Q's??

*Message #1 Posted by **Bill (Smithville, NJ)** on 17 Sept 2003, 6:18 a.m.*

I've been following the discussion on the banning of certain calculators by the NCEES . I've never taken the exams in question, but...

Would a person really have time during the test to sit there and enter the actual questions into a calculator? I'm guessing that if he was serious about passing the test, he'd be too busy working out the answers to be entering them into a calculator - to do what with them? Study them later so he could take the test again? Pass them on to other peple? How many of the q's could be entered into a calculator during an exam? You'd have to be a very familar with the text entering capability of the calculator to make it pay off.

Don't they change the exam between tests? And most people would be able to recall a large quantity of Q's from memory anyway. If the only purpose of taking the test is to come away with the exam questions, then 5 or 6 serious cheaters could agree to take the test, each one agreeing to memorize certain groups of questions and then pooling them afterward.

Likewise with the IR port - is there time to actually pass answers by IR from one person to another? This would assume that two people (or more) taking the test were conspiring to cheat and are sitting close enough to one another for the ir port to reliably transmit between them. And they would be depending on no one observing them lining their calculators up at odd angles to make the ir work.

It would seem that random seating selection after arrival or even randoming shuffling of the seating after everone has been seated would be enogh to negate the possiblity of someone depending on the use of the IR port.

I'm assuming that the NCEES has seen people actually doing text entry or IR beaming - otherwise why ban it. But I really wonder how big of a problem is it.

I would have thought the bigger concern would be people storing the answers to test questions in the calculator before arriving at the test site instead of worring about them taking the q's home with them.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #2 Posted by **Chan Tran** on 17 Sept 2003, 7:49 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

I wonder why they ban calculator as an engineer would very likely use a calculator in his/her work.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #3 Posted by **hugh** on 17 Sept 2003, 8:31 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

i've always assumed it was an irrational paranoid fear in the examining world about exam calculator use, or just a ballyhoo deterrent to create the impression of effective anti-cheat methods.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #4 Posted by **christof (NoVA US)** on 17 Sept 2003, 10:37 p.m.,*
in response to message #3 by hugh

Me, too- I've never heard of anyone being actually accused of using IR during a test, nor of using the text entry to pull exam questions.

Seriously- if they can't be bothered to come up with new and workable questions, what good are these people?

Re: NCEES Exam - Would you have time to enter the Q's??

*Message #5 Posted by **John Cadick** on 17 Sept 2003, 9:22 a.m.,*
in response to message #1 by Bill (Smithville, NJ)

I have been in touch with several of the state boards and the NCEES. None of them seem to have any documented cases of the type of cheating that they are worried about. The actual meeting discussions (according to one of the state board excecutive directors) was over handheld communications devices like PDAs and cell phones. The NCEES took it upon themselves to extend the ban to the list of advanced calculators.

All of the points that you make are valid. The main reason this is being done is to "simplify" the job of the examination proctors. Many of whom are not knowledgeable enough to know if someone is cheating with a calculator. Also, because of the number of exams given each year, the question pool is difficult to update regularly. That is the reason they are so concerned about people stealing questions.

I am working with a number of people to get this stupid decision reversed. If you agree that it is a stupid decision (or even if you don't) the best thing you can do is to send a protest to the NCEES and your local state board. The protest should be calm and logical and have your points listed logically. A copy of your original post would be good.

By the way, I took my examinations in the 1960s and 1970s. My protest is philosophical not personal. <G>

John

They're Feeling The Heat

*Message #6 Posted by **J.C. Randerson** on 17 Sept 2003, 11:09 a.m.,*
in response to message #5 by John Cadick

After NCEES reposted the policy again I sent them a tongue in cheek message. This got someone there upset enough to write the dean of engineering at my college, who then wrote me. I fired back that as long as I stated my opinion without profanity or threat of violence, it's free speech. At any rate though, I think the Luddites at NCEES are feeling the heat.

J.C. Randerson

Re: They're Feeling The Heat

*Message #7 Posted by **Todd Stock** on 17 Sept 2003, 3:54 p.m.,*
in response to message #6 by J.C. Randerson

This is more about making questions meaningful (e.g., for the 3 x 3 matrix A, find A^-1, or find (A dot (BxC)). Modern calcs have made these exercises pretty much pointless. Same thing with roots of a cubic and a dozen other operations performed in an instant by the HPs or advanced TIs.

I find it curious that none of the permitted machines are capable of matrix or vector algebra, nor will they quickly handle roots and other time consuming but ultimately trivial chores.

The NCEES's problem is also declining numbers of engineers willing to be put through the ringer, an set of exemptions (e.g., industrial, government, or federally controlled) unlikely to disappear, and a flood of non-citizen engineers further diluting the meaning of a PE.

Texas and Florida recently overturned laws banning the use of the term 'engineer' by a broad range of people, and California has proposed to cease recognizing a wide range of engineering specialties as requiring state license.

All this has got the NCEES trying to figure out how to stay relevant and the FE/PE wannabees scrabbling to find calculators designed 15-18 years ago, and long out of production.

Re: They're Feeling The Heat

*Message #8 Posted by **Valentin Albillo** on 18 Sept 2003, 5:17 a.m.,*
in response to message #7 by Todd Stock

Todd posted:

"I find it curious that none of the permitted machines are capable of matrix or vector algebra, nor will they quickly handle roots and other time consuming but ultimately trivial chores."

If I'm not wrong the HP-15C is permitted, as it does have neither I/O nor alpha capabilities at all, yet it boasts fairly comprehensive matrix and vector operations, root finding and numerical integration, as well as being fully programmable and very small, true shirt-pocket size.

Best regards from V.

Re: They're Feeling The Heat

*Message #9 Posted by **Todd Stock** on 18 Sept 2003, 6:22 p.m.,*
in response to message #8 by Valentin Albillo

Val:

Agree - I expect the HP-11C and 15C to be allowed, though the only explicitly permitted machines per the NCEES are as follows:

'" Texas Instruments: TI-30 series (this includes the TI-30Xa, TI-30X IIB, TI-30X IIS, TI-34 II, TI-36X Solar, and TI-36X II Solar)

Hewlett Packard: HP-9 series (this includes the HP-9g and HP-9s), HP-32s, HP-33s (if available)'"

I used a 15C for a few years prior to moving to an HP-41CX, etc. - I found the matrix operations to be a bit cumbersome, but workable if you have the time.

I assume my K&E Decilog would also be legal, though the technology might be deemed too advanced (no required power supply, simplified interface, etc.)

Re: They're Feeling The Heat

*Message #10 Posted by **bill platt** on 18 Sept 2003, 8:24 a.m.,*

in response to message #7 by Todd Stock

Hello Todd,

QUOTE:

"Texas and Florida recently overturned laws banning the use of the term 'engineer' by a broad range of people, and California has proposed to cease recognizing a wide range of engineering specialties as requiring state license."

Could you lead me toward info in this regard? I was not aware of these developments!

Regards,

Bill Platt

Re: They're Feeling The Heat

*Message #11 Posted by **todd stock** on 18 Sept 2003, 6:51 p.m.,*
in response to message #10 by bill platt

The Texas law is actually one sunsetting the current 66 year old restriction against anyone using the term engineer in a public setting - anyone. There were competing house and senate bills last time I checked, though I believe the current status is that the legislature will 'sunset' the old law if neither revised statute goes forward.

The Texas law is pretty silly, and can levy a $3000/day fine should I drop a business card in a restaurant fishbowl drawing - simply for either using the title engineer or indicating that I provide engineering services. Pretty funny, considering no state currently offers a PE exam in Aerospace (my degree field) - it would be useless - the FAA Administrator performs as the approving airworthiness authority, making PEs a non-starter.

The Florida issue was a court decision on the use of the term - the law still restricts the use of licensed engineer, PE, etc., but allows 'engineer' to be tacked on to other titles, e.g. software engineer, domestic engineer, sanitation engineer etc.

A silly issue anyway - legislating title instead of actions...while no one resonably expects a radio talkshow host going by "Doctor of Love" to offer medical services, apparently the licensing organizations are convinced that the trash men might be considered approving authority for that next $200M waste water management project.

The CA proposal is just that - Google and make your own interpretation.

Re: NCEES Exam - Would you have time to enter the Q's??

*Message #12 Posted by **RANDY EAST** on 18 Sept 2003, 12:26 p.m.,*
in response to message #5 by John Cadick

I AM SCHEDULED TO TAKE THE PE EXAM NEXT MONTH. MAYBE I'M BEHIND BUT HAVE THEY OUTLAWED THE USED OF THE HP48SX

THANKS

Re: NCEES Exam - Would you have time to enter the Q's??

*Message #13 Posted by **RR** on 18 Sept 2003, 1:11 p.m.,*

in response to message #12 by RANDY EAST

I believe the ban takes place starting in 2004.

I also noticed you are having problems with your ON key. While you can press down lightly just below the screen and then turn on the calculator (this works because that is where the circuitry runs from the on button to the CPU). Still, I suggest you buy another Hp48 so as to not be caught without a good calculator either a few days or even during the exam.

A plain 48G would be cheap and easy to get, if you have any memory or Cards, buy another SX or probably better, a GX. The G series is slightly faster and has the EQ Lib built in sans the periodic table which is a free download if you really want or need it.

From reading your posts (test in a couple of weeks, etc), I strongly encourage you to just buy another 48 first and then fix your present one.

Re: NCEES Exam - Would you have time to enter the Q's??

*Message #14 Posted by **todd stock** on 18 Sept 2003, 7:02 p.m.,*
in response to message #12 by RANDY EAST

Randy:

Check the FAQ at NCEES website - the ban (if it takes effect) is on the Apr 04 exam, but NCEES claims that they have always had a policy which implicitly 'outlaws' most of the calcs used by engineers and engineering students

In other words, check with your state board to see if they will restrict your use of the HP-48 series.

PPI - the publishers for the Lundeburg books - keeps a fairly current list of individual state policy on their site. Only two states appear to have banned current technology TI, HP, or Casio products - looks like one does not permit graphing calcs.

Given you've probably used the HP-48SX for your entire degree program, I'd raise holy hell if your state elected to go with the Luddite stance for the Oct exam.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #15 Posted by **CME750** on 17 Sept 2003, 4:19 p.m.,*
in response to message #1 by Bill (Smithville, NJ)

NCEES claims that a skilled typist can, with practice, learn to enter text rapidly, even on a non-QWERTY calculator keyboard. It is unlikely that you would be able to do this and still work out the answers to the questions. However, a dedicated professional cheater could, in theory, take the exam solely for the purposes of copying it; it wouldn't matter if he failed.

NCEES doesn't release copies of their old exams. They apparently like to reuse questions, or rework them slightly, between exams. So they don't want their questions to become general knowledge. They apparently believe that cheaters would be able to sell genuine NCEES test questions for major $$.

NCEES acknowledges that the stock HP48 IR port has a very limited range. However, a few years ago, someone on comp.sys.hp48 claimed that you could increase the IR reception range to many feet by simply changing a capacitor or something. This may be a legend; as far as I can tell, no one has ever successfully communicated between HP48s at any significant distance with IR. But NCEES is totally spooked by the claim.

NCEES only cares about what you take *out* of the exam room in your calculator, not what you bring *in*.

The PE exam is open book. In fact, companies like Chotkeh.com have historically marketed PE exam software for the HP48.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #16 Posted by **PhreePhly** on 17 Sept 2003, 6:24 p.m.,*
in response to message #15 by CME750

Have you seen the latest? Digital watches are now banned from the exam room. This is for the October Exam.

NCEES is definately scared. They, of course, brought this on themselves when they went to an all multiple choice exam. This made it easier to grade, but took away the element of "showing your work". I am taking the exam in October (Civil) and appreciate the multiple choice format (I think it is easier), but would be lost if I had to use a non-RPN/RPL calculator.

I started with an 11c in high school and moved to a 15c, 41CX and now a 49G. (Man do I wish I still had my 15c). The 41 went out on me 2 years ago (the only reason I have the 49), but I got desperate and opened it up and fixed the problem. I assume that the 41 is still okay, even for the April exam.

The point is that I have a very difficult time with algebraic entry. I might be able to get the hang of it in 6 months time, but it would be an additional learning curve on top of the pressures of the exam.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #17 Posted by **christof (NoVA US)** on 17 Sept 2003, 10:46 p.m.,*
in response to message #16 by PhreePhly

wait a minute- the exam is all multiple choice?

I'm a computer guy- whether or not I'm an engineer is more up to HR than anyone else. (the fact that I can debug an ATM connection that's flaky because of poor ground maybe makes me a bit more engineer like than the average CCNE, but it's still up to HR)

But.... *multiple choice*? come on. I've helped trian people in how to get passing grades on multiple choice tests without knowiing the material. If they want the PE to mena something, then the test has to mean something.

(sort of like the relative merit of some CS certs:

an MCSE - low, it's a multiple choice dream.

and a CCIE- requires multiple days in a lab- poeple tend to put a lot of stock in it.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #18 Posted by **CME750** on 18 Sept 2003, 1:28 a.m.,*
in response to message #17 by christof (NoVA US)

The Engineer-in-Training Exam is 8 hours of multiple-choice questions. The Professional Engineer Exam is typically another 8 hours of multiple-choice questions. Some states have additional requirements; for example, civil engineers in California get another 5 hours of multiple-choice on surveying and seismic issues.

So yes, it is all multiple-choice. However, the problems --unlike those on most multiple-choice tests

-- are typically quantitative in nature. In other words, you usually have to perform a calculation and then pick one of four *numerical* choices. For most questions, your answer options will be something like this:

(a) 25 ft-lbs (b) 37 ft-lbs (c) 44 ft-lbs (d) 51 ft-lbs

Classical multiple-choice test strategies are of limited value in this situation, because the answer options have no wording clues that might tip you off. You have to be able to perform the calculation.

Multiple-choice exams are probably a practical necessity given the number of exam takers. In California, you can expect about 3,000 people to take the EIT exam and another 3,000 to take the PE exam. The exams are offered every six months, so that makes some 12,000 engineering exams per year in California alone. Nationwide it may well exceed 100,000 exams per year.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #19 Posted by **CME750** on 18 Sept 2003, 12:46 a.m.,*
in response to message #16 by PhreePhly

Digital watches were recently banned by the California Board for Professional Engineers and Land Surveyors. This is not the same as the NCEES ban on graphing calculators.

NCEES prepares standardized engineering and surveying licensing exams, which are used throughout the U.S. However, the exams are actually administered by the State engineering boards. Both NCEES and State Boards can establish exam rules as they see fit.

The NCEES graphing calculator ban applies to all jurisdictions that use NCEES exams (which means nationwide). But the digital watch ban only affects California, at least for now. This could change if other state boards or NCEES choose to adopt the California policy.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #20 Posted by **Shawn Cobb** on 25 Sept 2003, 1:47 p.m.,*
in response to message #16 by PhreePhly

I don't think you would have that much trouble getting used to the algebraic if you put your RPN calc in the closet for a few months. I grew up with algebraics. I didn't really work with RPN much until a couple of years ago. I bought a 48G+ to perform complex numbers calculations at work, but primarily to use when I took the PE exam. Well here I am now, preparing to take the exam in April, and I am going back to an algebraic. I got used to the RPN pretty quick, but I'm not having much trouble going back. However, I did have to give my 48G+ to a friend who is taking the October exam to use as a backup and also to keep me from switching back and forth. I recently picked up the HP 9S. I know this sounds stupid, but I am throroughly impressed with this little guy. It does complex number calculations (but only when entered in rectangular form). Every key has a second function. Everything is easy to find. I am currently taking a PE exam review course, and so far I haven't needed a more powerful calculator for anything. Some things are actually a little easier to do on it than on my 48G+. I have pretty much decided to go forward with the 9S, and will be purchasing a second one as a backup, for a grand total of less than $30.

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #21 Posted by **hugh** on 17 Sept 2003, 8:18 p.m.,*
in response to message #15 by CME750

i know this sound silly but, whats to stop people writing the questions on bits of paper and hiding them about their person?

Re: NCESS Exam - Would you have time to enter the Q's??

*Message #22 Posted by **todd stock** on 17 Sept 2003, 10:18 p.m.,*
in response to message #21 by hugh

A pool of a few thousand questions, randomly generated tests, and some reordering of choices might do the trick. Let Sylvan or Plato administer the test, and use screen emulations of the test-taker's choice of calcs. Nothing in and nothing out - game over.

I'm curious about the def of communications - does an HP-28C communicate if it only transmits short range (18") to a printer? Does an HP-42S communicate (same deal and even less memory/string capability). I noticed the NCEES has "approved" the 32S for use...but who knows with the 32SII, eh?

I guess these guys have never seen a really small video rig. One of our programmers has a significant number of beads, etc. in her hair - could pretty much put a dozen minicams on the exam.

Is it time to pull out my dad's K&E?

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Confusion

*Message #1 Posted by **Andreas Stockburger** on 17 Sept 2003, 2:21 a.m.*

Hi calculator-world,

I am confused about the new models. Can someone please help me?

What new models are out (or will be out in a short timeframe) in europe ?

Thanks for your help

Andreas

Re: Confusion

*Message #2 Posted by **Arnold Steekelenburg** on 17 Sept 2003, 3:59 a.m.,*
in response to message #1 by Andreas Stockburger

Hi Andreas:

Take a look at www.cynox.de or www.dynatech.de. There you can find an overview of the new calculators.

Arnold

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HP49G+ sd-card size

*Message #1 Posted by **Juergen Rodenkirchen (GER)** on 16 Sept 2003, 1:50 p.m.*

The other day, I learned at comp.sys.hp48 that the HP49G+ would be able to address 2GB sd-cards. OK, but is there any reasonable recommendation on the size for sd-cards used with an HP49G+? I do know that a reseller in Switzerland sells bundles that include 64MB cards ...

Juergen

Re: HP49G+ sd-card size

*Message #2 Posted by **Veli-Pekka Nousiainen** on 16 Sept 2003, 4:09 p.m.,*
in response to message #1 by Juergen Rodenkirchen (GER)

"reasonable recommendation on the size for sd-cards used with an HP49G+?"

For absolute compatibility & low budget, if you are planning or already use a Nokia Phone with MMC, I recommend a 64MB MMC. On the other hand, if you want to use the card with digi-camera, get the largest SD (512MB), but you're better off with a camera using CF. CF can go 4GB with FAT32. You may consider cheapest SD available. The calc doesn't need that much memory. I currently use an old 8MB MMC and it's ok.

Re: HP49G+ sd-card size

*Message #3 Posted by **Brandon Del Bel** on 17 Sept 2003, 12:06 a.m.,*
in response to message #1 by Juergen Rodenkirchen (GER)

"...HP49G+ would be able to address 2GB sd-cards."
The only reason anyone would ever need that much memory is if the calculator supports audio playback that blows mig out of the water (perhaps mp3 or the like). I'm sure the highschoolers would love to have usb headphones plugged into their calculator.

Re: HP49G+ sd-card size

*Message #4 Posted by **Bill Wiese** on 17 Sept 2003, 6:21 a.m.,*
in response to message #3 by Brandon Del Bel

Brandon del bel wrote:
"... if the calculator supports audio playback
that blows mig out of the water (perhaps mp3
or the like). I'm sure the highschoolers would
love to have usb headphones plugged into their
calculator."

While the 75MHz ARM on the HP49G+ could very well support the compute requirements of MP3 playback, it'd prob be hard to get the audio out - don't know of any onboard DAC, and it is very likely that the USB functionality on the ARM chip on this calc is that of a 'USB device', not 'USB host' - which means it could not "drive" a USB audio adapter or USB headphones etc. as it is a slave device not a

master.

Bill Wiese
San Jose, CA

Re: HP49G+ sd-card size

*Message #5 Posted by **Juergen Rodenkirchen (GER)** on 17 Sept 2003, 1:38 p.m.,*
in response to message #1 by Juergen Rodenkirchen (GER)

Thanks you all very much for your inputs! Espec., thanks to Veli-Pekka for the comprehensive recommendations, but also Brandon and Bill for interesting thoughts on mp3 :-)

Best Wishes, Juergen

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HP48SX Sticky ON/ATTN button.

*Message #1 Posted by **Randy East** on 16 Sept 2003, 12:58 p.m.*

HOW CAN YOU FIX THIS PROBLEM?

HOW CAN YOU FIX THIS PROBLEM?

*Message #2 Posted by **Randy Sloyer** on 16 Sept 2003, 7:19 p.m.,*
in response to message #1 by Randy East

It all depends.

Physically sticky? Maybe a coffee/cola spill? It would need a bath in distilled water (without the batteries).

Electrically sticky? It would need a new one :^(

Or, in the case of the most bizzare sticky switch I ever saw, it needed to have the aluminum bezel shaved down. Seems the SX was in a car accident and the calculator bottom edge took the impact compressing the bezel and binding the ON button. A real long shot but worth a mention.

Re: HOW CAN YOU FIX THIS PROBLEM?

*Message #3 Posted by **Tracy Vermeyen** on 17 Sept 2003, 12:02 a.m.,*
in response to message #2 by Randy Sloyer

Randy,

I may need to put my 41CV through a bath to clean up the ON/USER and PRGM/ALPHA keys can you please explain how to do this?

I had some corrosion problems and I have cleaned the contacts with a small wire through the access hole, but the contacts gradually get less responsive with time.

HP41 non-responsive keys

*Message #4 Posted by **Randy Sloyer** on 17 Sept 2003, 7:01 p.m.,*
in response to message #3 by Tracy Vermeyen

Try a few drops of Caig Deoxit D5 in the hole first, let soak then scratch around. This is a lower concentration of their Deoxit product and will evaporate after doing the job. That usually does it.

I've found trying to wash the keyboards only makes matters worse as you run the risk of getting dirt into rather than out of the key domes.

Edited: 17 Sept 2003, 7:02 p.m.

Re: HOW CAN YOU FIX THIS PROBLEM?

*Message #5 Posted by **Randy East** on 18 Sept 2003, 12:15 p.m.,*
in response to message #2 by Randy Sloyer

NO COFFE OR ANY FOOD LIQUID HAS BEEN SPILLED ON THE hp. THE KEY DOES APPEAR TO BE LOWER IN THE SETTING THAN THE OTHER KEYS. i TURN IT ON BY TOUCHING THE ON BUTTON THAN THURNING THE ENTIRE CALCULATOR OVER AND TASPING IT ON MY KNEE. iT APEARS THAN i CANNOT TURN THE CALCULATOR OFF BY THE SAME PROCESS. iF i DO NEED A NEW KEY, HOW DOES ONE GO ABOUT THAT PROCESS?

HP48 keyboard woes

*Message #6 Posted by **Randy Sloyer** on 18 Sept 2003, 8:56 p.m.,*
in response to message #5 by Randy East

The ON button is normally lower than the rest. U can try this:

Place the unit on the desk in front of you. With a left finger, press down on the raised portion of the bezel above the B and C keys. Now with your right, try turning the unit on. You may find some pressure applied to the area described will get the unit working normally again. It may continue to work okay for a while or work only with pressure applied. If this test restores operation, the problem is an intermittent keyboard connection and can be repaired.

Post again if this works and we can go to the next step.

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Help!!!

*Message #1 Posted by **BSCobb** on 16 Sept 2003, 11:21 a.m.*

Help!!! I will be taking the Professional Engineer Exam in April 2004. We have recently been informed that calculators with either infrared communication or text capability will not be allowed. I am an electrical engineer, specializing in power systems, so I need to perform many calculations in polar, and flip them back to rectangular easily. In fact, I bought my 48G+ specifically because of the way in handles complex number calculations. Any ideas on a suitable replacement??? I just spoke to HP Technical Support and a 32SII replacement is due out this fall, but if it has IR it won't do me any good.

Re: Help!!!

*Message #2 Posted by **Valentin Albillo** on 16 Sept 2003, 12:24 p.m.,*
in response to message #1 by BSCobb

The HP-15C is the obvious and best choice. It's got no text capabilities nor any other feature which would ban it from exams, yet it has the most comprehensive, integrated, and allegedly better handling of complex numbers in any HP calculator bar none, via its unique complex, parallel, full RPN-stack. It's also got matrices (including linear systems of up to 7 equations, or complex systems up to 4 equations), hyperbolics, factorial and gamma, combinations, permutations, linear regression and statistics, numerical solve and integrate, etc, etc.

If I were you, I wouldn't hesitate to get one ASAP. A decent working unit, somewhat cosmetically challenged, would be reasonably priced even in eBay.

Best regards from V.

Hey Valentin...email me

*Message #3 Posted by **Gene** on 18 Sept 2003, 7:33 a.m.,*
in response to message #2 by Valentin Albillo

I believe you have my work email address...if not, the hotmail address above would work.

Gene Wright

Done ! Did you get my e-mail ? [No text]

*Message #4 Posted by **Valentin Albillo** on 18 Sept 2003, 11:31 a.m.,*
in response to message #3 by Gene

..

Edited: 19 Sept 2003, 5:21 a.m.

Not yet

*Message #5 Posted by **Gene** on 19 Sept 2003, 7:57 a.m.,*
in response to message #4 by Valentin Albillo

Unless you sent in after I left work yesterday...or did you use the hotmail account?

Re: Help!!!

*Message #6 Posted by **CME750** on 16 Sept 2003, 12:44 p.m.,*
in response to message #1 by BSCobb

The 32SII replacement is the 33S. Unofficial prerelease specs are available at http://www.hpcalc.org/hp49gplus.php and http://www.hpcalc.org/images/datasheet33s.pdf. Warning: you may want to put on eye protection before viewing this calculator; it's ugly.

The 32SII didn't have IR, and it doesn't appear that the 33S will have it either. It is likely that the 33S will be deemed acceptable for the EIT/PE exams (but this depends on NCEES, so no guarantees). Suggested retail price = $66.

The 32SII supports complex number operations, but not as elegantly as the HP48. Complex numbers are entered using two levels of the stack. Thus, the 4-level stack becomes a 2-level stack for use with complex numbers. Complex math is performed by hitting the "CMPLX" key before the operator. The 33S will likely be similar.

The 32SII had good programming capabilities, but had very little memory (384 bytes). The 33S is supposed to have 32K of memory. It should be possible to streamline complex operations through programming.

The 33S may turn out to be the most powerful calculator model that is acceptable for the EIT/PE exams under the new rules. Virtually all high-end "graphing" calculators from HP, TI, Casio or Sharp have text capability, and are presumably banned. There don't seem to be many keystroke-programmable scientific calculators on the market today; the 33S may have the market to itself.

An alternative would be older discontinued HP models, such as the 42S or 15C, which had better support for complex numbers. These can be bought used, but they tend to be quite expensive. The 42S may not meet the NCEES criteria for text capability.

(deleted post)

*Message #7 Posted by **deleted** on 16 Sept 2003, 1:15 p.m.,*
in response to message #1 by BSCobb

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Help!!!

*Message #8 Posted by **Chan Tran** on 16 Sept 2003, 1:27 p.m.,*
in response to message #7 by deleted

Can you ask them if you can use the 48 with the IR port tapped up?

Re: Help!!!

*Message #9 Posted by **CME750** on 16 Sept 2003, 2:16 p.m.,*
in response to message #8 by Chan Tran

No good. Even graphing calcs with *no* IR port (like the TI83, TI89, or the original HP49) have been

banned. NCEES doesn't want any calcs with "text editing" capability, which includes virtually all modern graphing calculators, including the HP48 and HP49. They claim that a skilled typist can rapidly copy the exam questions, even on non-QWERTY calculator keyboards.

Some non-graphing calcs, like the HP32SII, HP41, HP42S, and forthcoming HP33S, have some primitive text handling features. But so far, NCEES doesn't seem to be concerned about such models.

My PE plans (Civil) were also upset by the ban on the 48. As an alternative, I plan to use the 32SII. I may also get a 33S for backup and for programming certain functions. It's so ugly that I can't imagine using it as my primary calculator, but perhaps it's something you can get used to. An old 42S would be great, but they're too expensive.

In the unlikely event that the 32SII and 33S are banned, then I will turn to my old 11C.

Re: Help!!!

*Message #10 Posted by **Chan Tran** on 16 Sept 2003, 2:32 p.m.,*
in response to message #9 by CME750

May be some of us would offer a Rent-a-Calc service?

Re: Help!!!

*Message #11 Posted by **christof (NoVA US)** on 16 Sept 2003, 9:34 p.m.,*
in response to message #9 by CME750

the 32Sii has test editing? - I mean, it has alpha variable names, but... I haven't seen any real text entry of any form.

If NCEES gets their panties wadded about single character varnames, i'll laugh.

Re: Help!!!

*Message #12 Posted by **CME750** on 17 Sept 2003, 1:00 a.m.,*
in response to message #11 by christof (NoVA US)

Actually, the 32SII does have some ability to store text messages, if they are entered as an "equation". See p. 12-15 of the manual. But it obviously is not in the same league as a modern graphing calculator as far as text capability goes. NCEES apparently does not perceive the 32SII as a threat to exam security, because it is on their recently-posted list of "approved" calculators.

Re: Help!!!

*Message #13 Posted by **Pierre Brial** on 17 Sept 2003, 11:52 p.m.,*
in response to message #12 by CME750

Is the NCEES list available online ?

Cheers

Pierre

Re: Help!!!

*Message #14 Posted by **CME750** on 23 Sept 2003, 11:36 a.m.,*
in response to message #13 by Pierre Brial

NCEES has posted info about their calculator ban at:

http://www.ncees.org/exams/calculators/8-27-2003_press_release.pdf

http://www.ncees.org/exams/calculators/

Re: Help!!!

*Message #15 Posted by **Tom** on 17 Sept 2003, 11:09 a.m.,*
in response to message #9 by CME750

I wish I still had MY old 11c.

Re: Help!!!

*Message #16 Posted by **hugh** on 16 Sept 2003, 7:33 p.m.,*
in response to message #7 by deleted

i agree with these recommendations. for me, i would use the 15c even if there werent any restrictions.

however, a point of consideration is that both the 15c and the 42 (and indeed the 32sii) are not cheap to obtain. if you get any of these three, use it. a low-cost alternative is another make (eg casio fx-5500l). ok, its no hp, but then its not as bad as a 9g either. its complex support is weak, but you can evaulate expressions like "2i+sqrt(2+3i)/6" in a freeform way and see both parts onscreen at once. theres no text support.

Re: Help!!!

*Message #17 Posted by **ned** on 16 Sept 2003, 4:25 p.m.,*
in response to message #1 by BSCobb

the TI-73! no alpha, but does matrix math, with a downloadable software pack:
http://education.ti.com/us/product/apps/73/matrices.html

Download the guide book. It has a real equasion solver (not just a 'root solver' like the 83). Maybe the old gray model had matrix built in, dunno. As for polar-rec, this can probably be programmed in too. What a shame that only a calc meant for 10 year old kids is allowable. The higher models, 83 and up, might make it only because there is no easy way to type in 'notes' without some notepad software. Otherwise try a casio power graphic series. Again the alpha keys might be allowed, due to lack of notepad function. HP, yeah, the 15C... 49g would be perfect, if only. Let's see if HP makes it back into the education/testing market with the 33s! ha! they make a decent race vehicle tho.

-ned

Re: Help!!!

*Message #18 Posted by **Thibaut.be** on 16 Sept 2003, 4:46 p.m.,*
in response to message #17 by ned

As Valentin quoted, I don't see any better calc than a 15C, that would comply with these rules.

With a little more understanding from the examinators, I agree that the 42S would also be totally adequate (and ever more comfortable to use than a 15C) if they accept a IR-output only calc and that even if capable

of alpha it has in no way any text editor.

Re: Help!!!

*Message #19 Posted by **CME750** on 16 Sept 2003, 4:58 p.m.,*
in response to message #17 by ned

The high-end TIs won't make it. So far, NCEES has explicitly *banned* the TI83, TI89, TI92, and Voyage 2000.

NCEES has not explicitly addressed other TI graphing calcs, or any Casio or Sharp graphing calcs. But all of these models have some degree of text-handling capability. Even if there is no built-in "notepad" function, it's probably possible to find a workaround, or even to just download appropriate notepad software from the Internet.

It's been unofficially suggested, as a rule of thumb, that any calculator with an "Alpha Lock" mode for the keyboard is probably banned. The only purpose for Alpha Lock is to make it convenient to enter long strings of text. And that's precisely what NCEES doesn't want you to do.

So what is the alternative? So far, NCEES has explicitly *approved* the TI30 series, the HP9 series, the HP32SII, and the HP33S. If you want programming capability, the HP33S looks like the way to go.

Re: Help!!!

*Message #20 Posted by **BSCobb** on 23 Sept 2003, 4:14 p.m.,*
in response to message #1 by BSCobb

Thanks to everyone who responded to my questions concerning a suitable replacement for my 48 G+ to use on the PE exam. I was shocked at how many people responed and how quickly. You have all given me and my co-workers some great advice. Thanks again!

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Meeting in Portland, OR

*Message #1 Posted by **Wlodek Mier-Jedrzejowicz** on 15 Sept 2003, 8:31 p.m.*

I'll be visiting Dave Hicks, the Museum Curator, on Tuesday September 23, just after the HP Handhelds Conference. We'll be in Powell's downtown bookstore that afternoon, and it would be a great chance to meet some folks whom we usually meet only on the Museum web site and talk about the conference and other interesting things.

Dave and I plan to be in the bookstore's coffee shop between 3pm and 4pm, no doubt with some HP books and calculators on the table so people can recognize us ;-)

Hope to meet some of the folks from Portland then!

I'll be going on to Corvallis after that, and then to Seattle, meeting HP calculator fans in both towns too. Anyone interested in joining us?

Wlodek Mier-Jedrzejowicz

Re: Meeting in Portland, OR

*Message #2 Posted by **Iqbal** on 15 Sept 2003, 9:05 p.m.,*
in response to message #1 by Wlodek Mier-Jedrzejowicz

Hi Wlodek, I would love to be there. Unfortunately, I just came off holidays and my boss definitely wouldn't like the idea :(But I hope someone walks with his HP 945 Digital Camera and post up some photos.

Re: Meeting in Portland, OR

*Message #3 Posted by **Christof (NoVA USA)** on 15 Sept 2003, 9:18 p.m.,*
in response to message #1 by Wlodek Mier-Jedrzejowicz

All this time I've been waiting to meet up, and you come out after I move to the EAST coast!

Tell me you are have a layover or something.....

Christof

Re: Meeting in Portland, OR

*Message #4 Posted by **Karl Schneider** on 15 Sept 2003, 10:58 p.m.,*
in response to message #1 by Wlodek Mier-Jedrzejowicz

Wlodek --

Hey, count me in! I'm rather close by, actually.

Will you be brining extra copies of your books to sell?

-- Karl Schneider

Re: Meeting in Portland, OR

*Message #5 Posted by **Sean** on 16 Sept 2003, 12:58 a.m.,*
in response to message #4 by Karl Schneider

Can you provide further details on your Seattle itinerary? That would be much closer for me than Portland (Everett). Unfortunately however, we don't have a store as cool as Powell's ;(

Re: Meeting in Portland, OR

*Message #6 Posted by **Thibaut.be** on 16 Sept 2003, 8:42 a.m.,*
in response to message #5 by Sean

I'll be in Basel, but as Sept 23rd is my birthday, please have all a drink on my cost !

Re: Meeting in Portland, OR

*Message #7 Posted by **Paul Brogger** on 17 Sept 2003, 10:47 a.m.,*
in response to message #1 by Wlodek Mier-Jedrzejowicz

I'm planning to attend. I look forward to meeting you both (and anyone else who shows up!)

(And *Powell's* -- what a marvelous choice of location! I can entice along "my better half" to her favorite destination.)

Looking forward to Tuesday!

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HP-49G+ ROM....

*Message #1 Posted by **Speck** on 15 Sept 2003, 8:25 p.m.*

Does anybody know, or have you heard any speculation, as to whether or not ROM 1.20 will be made available to the public for download, and if both it and future ROMs will be backwards compatible with the current 49G? I'm wondering if this is the end for my HP, or if I can take adavantage of some of these new bug fixes. The new calc and ROM numbering system would imply a natural continuation, but with a completely different hardware system, I don't want to just take it for granted. If you wonder why I'm concerned, just consider that my TI-92 is HW1 (HardWare version 1), the 89's are HW2, and the Voyage200 is HW3. I can certainly continue to download and install ROM updates for my 92, but can actually take little, if any, advantage of the new code.

Also, if memory serves, you could, at least for a while, update the base code from one TI to another. Could 49G's ever do this? This is just curiosity on my part.

Re: HP-49G+ ROM....

*Message #2 Posted by **James M. Prange** on 16 Sept 2003, 1:52 a.m.,*
in response to message #1 by Speck

I don't know about the 1.20 ROM, but the 1.22 ROM is available for download at http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareDescription.jsp?locale=en_US&lang=English+%28US%29&pnameOID=351776&prodSeriesId=33568&prodTypeId=215348&basePartNum=COL4392&locBasepartNum=ca-14639-2&os=Microsoft+Windows+95&tech=Firmware.

Given the differences between the 49G and the 49G+, I'd be surprised if the ROM for one could be used on the other. But I don't have a 49G+ yet, haven't tried the 49G+ ROM, and so I really don't know.

Maybe someone could try a 49G+ ROM on a 49G (either actual hardware or emulator) or vice versa?

Judging from the documentation available at http://h20000.www2.hp.com/bizsupport/TechSupport/DocumentIndex.jsp?contentType=SupportManual&docIndexId=179166&locale=en_US&prodTypeId=215348&prodSeriesId=33568, UserRPL (and, I guess, SysRPL) source code for the 49G+ and 49G should be very similar.

From posts on the newsgroup comp.sys.hp48, I understand that some (but not all) libraries written for the 49G work on the 49G+.

Yes, the ROM of a 49G, at least in later revisions, could be used to upgrade the ROM of another 49G via a serial connection between the two calculators..

As for the 49G+, it seems to me that it wouldn't be possible to establish communications between two 49G+s via USB, but perhaps via IrDA? Or maybe the "Serial IR" used in the 48 series is still available on the 49G+? I would hope that it would be possible to transfer the ROM image to an SD card, and then move the card to another 49G+ to update its ROM.

I've read that the 82240B printer works with the 49G+, so apparently the 49G+ can use the "RedEye" protocol as well as IrDA.

Speaking of printers, I wonder whether HP will be marketing an improved printer. Martel Instruments has some nice-looking printers listed at http://www.martelinstruments.com/cased.html. I wonder whether an MCP8830 would work with the 49G+'s IrDA.

So many questions, so few (certain) answers.... I suppose we'll just have to be patient.

Regards,
James

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HP 11C Calculator

*Message #1 Posted by **Phyllis** on 15 Sept 2003, 4:38 p.m.*

Just got an old HP 11c. I don't remember how to change the number of decimal places.

Thanks

Re: HP 11C Calculator

*Message #2 Posted by **Victor Koechli** on 15 Sept 2003, 4:58 p.m.,*
in response to message #1 by Phyllis

Congratulations on your aquisition!

To change the display format, press [f], then either [Fix] for fixed decimals, [Sci] for scientific, or [Eng] for Engineering, then the desired number of decimals (e.g. [f] [Fix] 2 to change to 2 decimals fixed mode).

If you need a manual, get the Museum CD Rom available from this site, then start buying the calcs to fit the manuals you find there ;-)

Cheers, Victor

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28C Memory upgrade ?

*Message #1 Posted by **Roberto FLores** on 15 Sept 2003, 3:10 p.m.*

Hi !...

I know it's out there somewhere but I cant't find the information to upgrade my 28C to 32K...

Anyone ?

Thanks;

Roberto

Re: 28C Memory upgrade ?

*Message #2 Posted by **Andreas Stockburger** on 17 Sept 2003, 2:22 a.m.,*
in response to message #1 by Roberto FLores

Hi,

I would sell my 28c on ebay and buy a 28s ... This is the easiest possibility. Perhaps you make money with this deal ...

Andreas

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HP49G+ where to buy?

*Message #1 Posted by **Chan Tran** on 15 Sept 2003, 12:32 p.m.*

Where can I buy or look for specs and pictures of the new HP49G+ as well as other new HP graphing calcs?

Re: HP49G+ where to buy?

*Message #2 Posted by **David Ramsey** on 15 Sept 2003, 4:55 p.m.,*
in response to message #1 by Chan Tran

Specs and pics here:

http://www.hpcalc.org/hp49gplus.php

Not available in the U.S. just yet, but should be in a couple of weeks.

Re: HP49G+ where to buy?

*Message #3 Posted by **HP49G+soon** on 15 Sept 2003, 9:00 p.m.,*
in response to message #1 by Chan Tran

It's not available yet, but you can pre-order it for 159.99

Re: HP49G+ where to buy?

*Message #4 Posted by **Chan Tran** on 16 Sept 2003, 8:35 a.m.,*
in response to message #3 by HP49G+soon

I read the specs available at hpcalc.org but can't determine if either the 49G+ or the 48GII has a clock.

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HP-38C aand HP-97

*Message #1 Posted by **Jerry Pfile** on 14 Sept 2003, 10:36 p.m.*

Hi,

Apologies for breaking in but I need some information.

I have the above to HPs but each needs a little work. Bought both new years ago but as I'm retired I have no professional need as I did then. However, I'd like to get them up and running for sentimental reasons if nothing else.

The 38C charger has disappeared somewhere over the years as has the box, manual etc. What was the charger model number? All I recall is that it had the two flat contacts housed in the male end of the AC adaptor.

The 97 has perhaps a fatal condition. The battery was removed years ago and lost. What model was the battery and are they still available? More ominous is that the "+" key has no "spring action" at all. Can that be repaired, or are replacement circuit boards still available in the aftermarket?

Would greatly appreciate any info someone can give me regarding the above.

Thanks in advance,

Jerry

Re: HP-38C aand HP-97

*Message #2 Posted by **Thibaut.be** on 15 Sept 2003, 9:23 a.m.,*
in response to message #1 by Jerry Pfile

Spices chargers are quite easy to find on ebay. Check http://www.hpmuseum.org/collect.htm#batts for more details.

The good news is that you can easily replace your battery pack with 2 standard AA batteries (positive above and left side) joined together with a paper clip or a bit of aluminium fold. If you haven't charged your batteries for a long time, my guess is that they are dead and you might want to replace them with 2 rechargeable AA batteries. They work perfectly.

Regarding the 97 there are some far more specialized people on this forum to provide you witha correct answer.

Thibaut

Re: HP-38C aand HP-97

*Message #3 Posted by **Gordon Dyer** on 15 Sept 2003, 1:51 p.m.,*
in response to message #1 by Jerry Pfile

Hi, my 38C ac adapter is HP8207A, 1.8VA, 10V AC output.

The transformer is moulded into the 2 pin plug.

The HP-97 can easily be dismantled and the keyboard taken apart. The spring mechanism for the key cap is seperate from the contacts and you sgould be able to take it apart ot fix or replace the spring. Have a look through this museum's Articles Forum for info on repairing the HP-97.
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=180
I will email to you some pictures I took of my own 97 keyboard dismantled.
Spare battery packs are available on eBay, I have recently bought a new 97 battery pack for $27. I wouldn't have found one here in the UK.
You can also find HP 30 series ac adapters in eBay if you keep looking patiently each week.
Good luck with the repairs!

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Random number generated on a 32sii

*Message #1 Posted by **Charles** on 14 Sept 2003, 8:47 p.m.*

Have any of you written a random number generating program for a 32sii? Specifically generating an integer between say 1 to 5? I don't have the manual and wonder if it could be already in existance?

Best regards, Charles

Re: Random number generated on a 32sii

*Message #2 Posted by **Robert** on 14 Sept 2003, 10:22 p.m.,*
in response to message #1 by Charles

It has a random number generator from 0 to 1(Prob -> R). Couldn't you just use a linear transform of that, i.e.,

Your Random Number = 1 + (4*R)

Re: Random number generated on a 32sii

*Message #3 Posted by **Patrick** on 14 Sept 2003, 11:06 p.m.,*
in response to message #2 by Robert

I think you would need to compute 1+int(5*R) to get a random integer in the range 1..5. Most random number generators produce fractions from zero to one, including zero but not including one.

1+IP(RANDOM*5 [CK=A6CC 10.5byte] (NO TEXT, just a 'dot')

*Message #4 Posted by **Tizedes Csaba** on 15 Sept 2003, 3:46 a.m.,*
in response to message #1 by Charles

.

With a little program

*Message #5 Posted by **Tizedes Csaba** on 15 Sept 2003, 4:44 a.m.,*
in response to message #1 by Charles

Hi!

Try it:

```
LBL R         #random
INPUT N       #how many Nums?
INPUT I       #mInimum?
INPUT A       #mAximum?
LBL J         #jump here
RCL A
RCL sub I
1
add
```

```
RANDOM
mul
IP
RCL add I
PSE          #put another PSE, if it too fast
DSE N
GTO J
RTN


'add', 'sub', 'mul', 'div' mean
'add', 'substract', 'multiple' and 'divide' in this order.
```

Csaba

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New HPs keyboard quality

*Message #1 Posted by **Victor Koechli** on 14 Sept 2003, 5:13 p.m.*

Yesterday I played a bit with a 17BII+ in a store here in Zurich. In my opinion the keyboard is awkward, it feels *very* cheap, and the '1' key didn't even work. Of course this particular machine was there for everyone to play with, but still: Are 49G+ keyboards the same as of the 17BII+? If yes, I'll have to think very well about buying one...

Cheers, Victor

Re: New HPs keyboard quality

*Message #2 Posted by **Gene** on 14 Sept 2003, 5:28 p.m.,*
in response to message #1 by Victor Koechli

No, the 49G+ and 48GII keyboards do not look like they are the same as the 17BII+ (which has the same keyboard as the 10BII).

They appear to be much better and, although reports on comp.sys.hp48 have indicated some problems with early unit keyboards clicking but not registering the push, another individual there has indicated no such problem.

As always with early adopters, there may be some tweaks that need to occur.

Looks like the 49G+ are going to be very good.

Re: New HPs keyboard quality

*Message #3 Posted by **Joan Cárdenas** on 15 Sept 2003, 8:16 a.m.,*
in response to message #2 by Gene

Hi all,

My 49g+ can be an early unit since its serial number is cn33100781, made at the end of july.

But the overall quality of the keyboard is quite bad and is not reliable at all. I think the reason is quite simple, they just change the system from metalic bubble to a plastic bubble. There's nothing to do with the old Hp's keyboards. And also there's a funny thing, if one press and hold a key and keep increasing the preasure more times, the calc keep registering the input, instead of the old keys behavior, where a press means only one register until the complete release.

So, a bit disapointing...

Regards.

Re: New HPs keyboard quality

*Message #4 Posted by **J.Manrique** on 15 Sept 2003, 10:39 a.m.,*
in response to message #3 by Joan Cárdenas

Funny, your Serial Number seems to be lower than a marketing sample I've seen some time ago. Maybe some one is offering too early units.

Mine is CN33101969, and its keys work fine, perhaps not as good as hp48g, but fine anyway.

J.Manrique López de la Fuente
Users Club from Gijón
1077 HPCC Member
AsturLiNUX & HispaLiNUX Member

Re: New HPs keyboard quality

*Message #5 Posted by **hugh** on 14 Sept 2003, 7:00 p.m.,*
in response to message #1 by Victor Koechli

i've been meaning to ask about the new 17bii for a while now. functionally, are there any improvements over the original 17bii, or is it an excersise in cost reduction.

i've always thought the original 17bii was a very fine machine (one of my favorites).

they've messed it up, havent they?

Re: New HPs keyboard quality

*Message #6 Posted by **Victor Koechli** on 15 Sept 2003, 4:31 a.m.,*
in response to message #5 by hugh

I don't know the 17BII, so I can't tell what differences there are between it and the 17BII+. Of course, if you'd like to know anything special, I can always go back to that store and check it out, it's quite close to where I work. As far as the keyboard quality is concerned, it certainly seems to be a step in the wrong direction. I mean, the machine hasn't been out for long, has it? And still, one key on that specimen I was playing with already is broken.

If there is something I can find out for you, let me know. Just be warned: I don't know much about financial stuff. But others in this forum do...

Cheers, Victor

Re: New HPs keyboard quality

*Message #7 Posted by **Christof** on 15 Sept 2003, 11:49 a.m.,*
in response to message #6 by Victor Koechli

Sounds like time to ask randy if he thinks the old 17bii will take a 32k chip, since that seems to be the main upgrade.....

Re: New HPs keyboard quality

*Message #8 Posted by **Alan Miles** on 15 Sept 2003, 12:08 p.m.,*
in response to message #6 by Victor Koechli

HI

I have an HP 17Bii+ AND an HP 17Bii in front of me. The HP 17Bii+ has all the functions of the 17Bii and uses the same menu tree etc. As far as I can tell everything seems to calculate in the same way although I have heard there may be one or two changes in some formula (although I havent found any of these yet!). The HP 17Bii+ is claimed to have 32 KB memory, a lot more than the old 17Bii. The 17Bii+ also has currency convesion that was NOT in the 17Bii.

The keyboard seems OK to me although it is possible to get a "click" without the number actually registering (for some reason this seems to happen mostly on the number 4 on my calculator) Once you get used to the keyboard it works OK. The keyboard layout is identical to the HP 17Bii+ but the keys are bigger. The printing on the keys seems very solid and I wouldnt expect this to rub off even under heavy use.

I have a 10Bii as well, the keyboards are NOT the same. 10Bii keyboard is actually a little larger. The 10Bii has 8 rows of 5 keys and the 17Bii+ has 2 rows of 6 keys at the top then 5 rows of 5 keys below. The 10Bii keyboard does however have the same problem of getting a click on the "4" key not always registering (weird??) The 10B and 17Bii+ are identical in size and shape overall except the 17Bii+ seems a little thicker, it looks nicer too.

I actually quite like this 17Bii+ unit. I prefer the look to the old HP 17Bii. The supplied case (leather?) is VERY nice and MUCH better than the old 17Bii case. Manual is still very comprehensive with 300+ pages. Also it still has the ir port for printing.

Does anyone know of another calculator I should look at that is as good for finance/banking/business use?

Another financial calculator ...

*Message #9 Posted by **Valentin Albillo** on 15 Sept 2003, 12:48 p.m.,*
in response to message #8 by Alan Miles

Alan Miles asked:

"Does anyone know of another calculator I should look at that is as good for finance/banking/business use ?"

If you can find one (eBay, for instance), then the vintage SHARP PC-1421 Business/Financial Computer (known as EL-5510 in the US) can give a run for its money to anything HP has to offer, past & present, both in sheer power, ease of use and programming, and full I/O. Very good manual, too: thick, detailed, and full of examples and useful programs.

Go get one, I've got both in my collection, and very proud of them.

Best regards from V.

The ghost of HP past

*Message #10 Posted by **Tom (UK)** on 15 Sept 2003, 1:35 p.m.,*
in response to message #8 by Alan Miles

Does this mean the potential HP42S lives on inside the HP17bii+?

If you say the menu and keys are the same and it has IR then it sounds very similar.

Has anyone taken one to bits to see if there is a ROM chip, or is this inside a 'one chip' circuit?

Sorry if I'm going over old ground.

Re: New keyboard problems

*Message #11 Posted by **Randy Sloyer** on 15 Sept 2003, 8:18 p.m.,*
in response to message #8 by Alan Miles

Okay, now you have my attention. I've ignored the 17Bii+ up to now as a 10Bii knock-off. I never looked close enough at the keyboards to see that they were indeed different.

I have dissected several non-functional keyboard 10Bii's and found the common problem to be flux contamination from the bottom to top plate-through holes in which the battery clip is installed. The flux migrates onto the top of the circuit board that forms the base cross-points of the key switches and prevents good contact. If you pop the battery door and remove the batteries, you'll see the lower right side of the battery clip is opposite the 4 key.

They actually improved the design over the Pioneers as the bottom of the switch is gold plated copper, much better than what preceded them. The keyboard dome is still a formed plastic sheet with a conductive ink deposit that closes the switch. I think it is more a process problem than a design issue. They did improve some other nagging Pioneer problems, notably the common breakage of the LCD. It floats in the 10Bii rather than being glued to a rigid metal frame. I would imagine it is the same in the 17Bii+. The 10Bii was actually an HP design, I'm speculating, but it may have been the last thing ACO did as the circuit boards have a year 2000 copyright. I think the 17Bii+ is an extension of that design. One only needs to look at the 33S to know that is NOT an HP design.

The fact it has an I/R port baffles me. Why 'o why would they go to the trouble of adding that when they no longer make a printer to receive it? Is it a Saturn chip or is it an emulator? I think it is time for me to buy one and bust it open just for fun to see if the 42SX might really be a possibility.

Edited: 15 Sept 2003, 8:23 p.m.

Re: New keyboard problems

*Message #12 Posted by **James M. Prange** on 16 Sept 2003, 2:24 a.m.,*
in response to message #11 by Randy Sloyer

> Quote:
>
> The fact it has an I/R port baffles me. Why 'o why would they go to the trouble of adding that when they no longer make a printer to receive it?

Maybe HP intends re-badge one of these?

Regards,
James

Re: New keyboard problems

*Message #13 Posted by **Erik Ehrling (Sweden)** on 16 Sept 2003, 2:58 p.m.,*
in response to message #11 by Randy Sloyer

> The fact it has an I/R port baffles me. Why 'o why would they go to the trouble of adding that when they no longer make a printer to receive it? Is it a Saturn chip or is it an emulator? I think it is time for me to buy one and bust it open just for fun to see if the 42SX might really be a

possibility.

Keep us posted! If not, then I guess we would have to write I/O routines for the good old HP-42S instead...

Regards,
Erik Ehrling (Sweden)
Homepage:http://w1.322.telia.com/~u32220482/index.html

Re: New keyboard problems

*Message #14 Posted by **Gordon Dyer** on 17 Sept 2003, 5:50 p.m.,*
in response to message #11 by Randy Sloyer

Any new calculator with an IR port should be IRDA v2 compliant, bi-directional and be able to communicate with a PC. Can the 17BII+ or 49G+ do this?

Re: New HPs keyboard quality

*Message #15 Posted by **Christof (Hurricane Path USA)** on 15 Sept 2003, 9:10 p.m.,*
in response to message #8 by Alan Miles

There are a few of the more esoteric functions missing from the 17Bii+ it seems, but overall what I hear about the operational aspects is encouraging.

The currency conversion is interesting- that along with the multi language capabilities makes me wonder if the 19Bii ROM wasn't used as the source for this emulation.

The 17Bii and the 19Bii were not very much different. I've often wished that the few things they didn't share were shared.

I'm curious to see how the new 19bii+xtra-supersized-gold-platiunim-collector's-limited edition will come out. Personally I always loved the clamshell. I've never had one break- and I've got several 28S machines that are ex high school classroom calcs that have seen some pretty heavy use. Yes- the battery door always sucked a bit, but the dual mode usage (that clamshell folds all the way over) and ergonomics always have attracted me.

And in direct respone to yur question--

It's a toss up. If you need RAM (I keep an entire set of books summarized in a 17Bii) then the 17Bii+ is probably the best one for you. Otherwise, the 12C is fantastic and well respected in a world where appearances matter.

The TI BA series isn't half bad, either.... but..... well.

HP17Bii languages

*Message #16 Posted by **Tom (UK)** on 16 Sept 2003, 7:13 a.m.,*
in response to message #15 by Christof (Hurricane Path USA)

I think some 17Bii's had an extra ROM for the multi language version so this 2nd ROM may have been the source for the 17Bii+.

Re: HP17Bii languages

*Message #17 Posted by **Victor Koechli** on 16 Sept 2003, 11:19 a.m.,*
in response to message #16 by Tom (UK)

Actually, the machine I played with 'spoke' german, so either all 17Bii+ are multilingual, or HP again makes models with an additional ROM..

Cheers, Victor

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HP Forum Archive 13

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Dead HP35?

*Message #1 Posted by **PeterL** on 14 Sept 2003, 1:06 p.m.*

Hi there, today I found a HP35 with Charger on a fleamarket. Got it for 2.5 Euros (appr. 2.5$). And I did'n look into the battery compartment before I paid for the calculator. The calc has the Ser.No 1302S 75403 and the batterie are numbered 1420-0272. I think this means that both, the calculator and the batteries are about 30 years old.

They looked this way, a huge amount of crystals from the electrolytic and green and blue debris from the junction of electrolytic and copper... The liquid managed to reach the supply-unit's plug in the calculator. Testing with a regulated power supply, the calculator doesn't work :-(I didn't peel off the back label yet, are there any experiences that the calculator can be get back to life?

73 Peter

Re: Dead HP35?

*Message #2 Posted by **Tony Duell (UK)** on 14 Sept 2003, 1:16 p.m.,*
in response to message #1 by PeterL

If the fault is bad connections, corroded wiring, or a problem with the discrete components in the power converter circuit, it can be fixed. If the problem is a dead IC, well, then you need to find another machine to raid parts from as all the ICs in an HP35 are custom. So it might well be able to be repaired. It's certainly worth peeling off the label, taking the case apart and having a look. And if everything looks alright, then power it up from the bench supply and test at least the power voltages on the testpoints.

Re: Dead HP35?

*Message #3 Posted by **PeterL** on 16 Sept 2003, 3:52 a.m.,*
in response to message #2 by Tony Duell (UK)

Hi Tony, Thank you for your answer. I hope it will be not too bad.....

73 Peter

Re: Dead HP35?

*Message #4 Posted by **David Smith** on 14 Sept 2003, 3:02 p.m.,*
in response to message #1 by PeterL

Don't peel off the full label. You just need to carefully peel back the top corners of the label (around 1/2 inch).

Re: Dead HP35?

*Message #5 Posted by **PeterL** on 16 Sept 2003, 3:48 a.m.,*
in response to message #4 by David Smith

Hi David, can you tell me the coordinates of the two hidden screws? Then I will drill holes to get them out.

It seems to be a better way to me than peeling off the thin aluminium plate.

73 Peter

Re: Dead HP35?

*Message #6 Posted by **David Smith** on 16 Sept 2003, 1:42 p.m.,*
in response to message #5 by PeterL

You rub around the upper corner of the labels with your finger and find where the screws are. If I remember right, the screw holes are mayby around 5/8 inch in from the edges of the label and around 3/8 inches down.

Re: Dead HP35?

*Message #7 Posted by **PeterL** on 17 Sept 2003, 4:44 a.m.,*
in response to message #6 by David Smith

Hi David, thank you, Iwill try it.

73 Peter

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HP Forum Archive 13

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Plagerized HP-85 ad? - (Not exactly!)

*Message #1 Posted by **Mike** on 14 Sept 2003, 8:58 a.m.*

I have been contacted by some members of the forum, about an HP-85 auction that is running, that appears to be plagerized copy of one of my auctions.

I just wanted to let everyone to know that the seller purchased that item from me just about 10 days ago and had an emergency and had to resell it. He was too honerable to back out of the deal and didn't even want to let me know of the situation, when it occured. But he did explain what he was doing.

That auction is here:

Copied ad

My auction

I hope he gets what he is asking, as that is one of the nicest HP-85 that I have sold. It is virtually unmarked and has been 100% restored (belts and capstan). The inside was remarkably clean as if not used much.

I would also like to thank those that contacted me about the ad. http://www.msdsite.com/images/smile.gif

Edited: 14 Sept 2003, 9:02 a.m.

Your a class act mike.....

*Message #2 Posted by **db(martinez,california)** on 14 Sept 2003, 11:22 p.m.,*
in response to message #1 by Mike

.... and this is an example of folks keeping a potential complaint private. It was also a good idea to use the fourm to maybe help a fellow HP user by vouching for his up-for-sale unit. Thats sour cheese indeed; he barely got time to play with it.

Re: Plagerized HP-85 ad? - (Not exactly!)

*Message #3 Posted by **Ellis Easley** on 15 Sept 2003, 6:03 a.m.,*
in response to message #1 by Mike

Mike, can you tell us where you got the new belts? I need a set and I need some other, different belts, too, and would like to know about a source.

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value of 10 c

*Message #1 Posted by **norm** on 14 Sept 2003, 1:46 a.m.*

I have a working hp 10 c need info. on value overall good cond. no book

Re: value of 10 c

*Message #2 Posted by **Patrick** on 14 Sept 2003, 3:52 a.m.,*
in response to message #1 by norm

Recent sales of 10C's on eBay have been in the 150-220 range, depending on condition and presence of a manual.

eBay Price Tracker

*Message #3 Posted by **Mike** on 14 Sept 2003, 9:20 a.m.,*
in response to message #1 by norm

Just wanted to remind everyone that you can input eBay prices to my online eBay price tracker (completed auctions please). (You can post non-HP, if you like) Anyone can search completed items and input to the tracker.

eBay price tracker

About an HP-10C. Nice ones should be $200-$250. Mint ones would go higher.

Edited: 14 Sept 2003, 10:56 a.m.

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Horse Racing 11C

*Message #1 Posted by **tbcab@aol.com** on 14 Sept 2003, 1:30 a.m.*

Further down this page, there is some discussion concerning a "horse racing" 11C on eBay. I ended up buying this 11C, and wanted to post what I have (and have not) found.

There is, in fact a template on top of the regular face plate. The template looks to have been professionally die cut, with an adhesive backing, not glued on at the kitchen table. Also, the printing on the template looks like a "factory" job. The calc passes both tests, and seems to function simply as an 11C.

I found another reference on some other discussion site to another one of these having come up on eBay some time back. The discussion was similar to what we saw here. But the point is that there has been at least one other auction of this type of item - Yes, maybe this very one.

Something else I found interesting, and possibly related to this calculator, is that HP apparently sponsors the "Galway Plate" horse race. I don't follow horse racing, and have never heard of the Galway Plate, but see http://sport.guardian.co.uk/horseracing/story/0,10149,1009359,00.html to see what I am talking about. Perhaps HP put these out in association with this horse race. Just speculating.

Does anyone else know anything about HP's association with horse racing?

Re: Horse Racing 11C

*Message #2 Posted by **Patrick** on 14 Sept 2003, 4:00 a.m.,*
in response to message #1 by tbcab@aol.com

Congratulations on your purchase, tbcab. I think the 11C is a very fine little machine. In fact, for the last few weeks I've been labouring to bring the power of the SOLVE function from the 34C and 15C to the 11C by means of a program which follows Dr. Kahan's algorithm description reasonably closely. I'll publish it here at some point.

But about your "special" version...

Does the template suggest that certain keys have functions that cannot be explained with the normal operation of the calculator? For example, I could make certain keys operate differently by using USER mode or by prefixing the keystroke with GSB. Are there template key functions which don't follow these patterns?

The reason I'm asking is that, if so, it would suggest that a different ROM was installed, in some machines at least. Based on your description of it operating like a "normal" 11C, the odds are small of this being so, but I thought I'd ask!

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TI Converts an HP fanatic

*Message #1 Posted by **Steven Kutoroff** on 13 Sept 2003, 8:05 p.m.*

I have been using HP Calculators since the HP-35 and even used a 9830 when they were new. I have a pretty good collection of different models and always scoffed at those made by TI. But, we just bought my son a new TI-83 Silver for school and I was playing with it. These are really very nice units, maybe not the same ergonomics, but the ease of use and the logical way they work for routine operations is very very impressive. It comes with software for both PC and Macintosh computers. Overall, I was impressed. If HP re-enters this market, they cannot use a warmed up 48 series. The TI has become a remarkable unit. Any agree?

Re: TI Converts an HP fanatic

*Message #2 Posted by **karl gruber** on 13 Sept 2003, 9:00 p.m.,*
in response to message #1 by Steven Kutoroff

I agree.

I just bought my son an 83 Silver as well. These are fantastic calculators with SUPERB support from TI.

I've owned and used a 45, 55, and 41CX. I even bought six of the British hoard of new 41CXs when they were still cheap. I guess I'll keep them for all the fanatics in a few years.

HP dropped out of the race and will NEVER catch up. NEVER!

Best, Karl (((like posting Corvette news on the Porsche board!!!))

Re: TI Converts an HP fanatic

*Message #3 Posted by **Joesph** on 13 Sept 2003, 10:36 p.m.,*
in response to message #2 by karl gruber

"HP dropped out of the race and will NEVER catch up. NEVER!"

You really think?

Thr 39G+ sounds like it will be good for kids to me. Has some nice features like a 75MHz processor. It also has a very intuitive interface.

We'll just have to wait and see.

Re: TI Converts a [so called] HP fanatic

*Message #4 Posted by **Brandon Del Bel** on 14 Sept 2003, 3:14 a.m.,*
in response to message #2 by karl gruber

As an "HP fanatic", does the acronym RPN mean anything at all to you? Another thing, the last time I checked, the TI-83 series can't even take a derivative of a function or do symbolic integration. I went from

an 83+ to a 49G, and I will never go back; I don't even like my 89 as much as the 49G. TI dominates the market because they are weasels; they make mediocre products with loads and loads of support and promotion (sort of reminds me of Microsoft). Sorry to be so blunt, but I hate TI calculators with a passion. You can have your "SUPERB support"; I'll stick with quality and RPN.

Re: TI Converts a [so called] HP fanatic

*Message #5 Posted by **Frederic** on 14 Sept 2003, 8:38 a.m.,*
in response to message #4 by Brandon Del Bel

I have about every HP and TI graphing calculators made and if you are talking about quality, i think TI win the race! I have in my hand a TI-86 for a lot of year without any problem with it even if heavily use. You don't like them because you have a passion hating TI for long but thinks change a lot since the TI-55 cracky calculator!

The TI-89 with RPN application is very difficult to beat in terms of usability, physical quality, support, ease of use.

But yes, you were true: between 1970 and 1990, TI introduced a lot of mediocre, cheap, cracky, uninspired calculators, but their graphing line are simply the best, and not only for students.

But yes, i confess it, for every day calculations and fun of using them, i will never echange my HP-41 system or 25C for anything graphing TI or HP sharp or casio did!!!

Re: TI Converts a [so called] HP fanatic

*Message #6 Posted by **Veli-Pekka Nousiainen** on 14 Sept 2003, 9:12 a.m.,*
in response to message #5 by Frederic

"The TI-89 with RPN application is very difficult to beat in terms of usability, physical quality, support, ease of use." BULL...

The keys are awful in tactile feedback, location and colouring. No sign of usability design. The new hp 49g+ runs rings around any calculator. VPN

Re: TIHP

*Message #7 Posted by **Michel Beaulieu** on 14 Sept 2003, 11:38 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

I have a HP-48GX and a T-89 and they are very diferent but they are, IMO, quality products over casio than can please a scientist like me. Screen and processor is better in TI but keyboard and "extra feature" (sound, time etc) is for HP. But i never had any HP screen problem nor TI keyboard one

20 years ago, TI were more affordable but HP were better calc. Today the difference is only a question of choice between RPN or ALGEBRAIC phylosophy. And as a matter of choice, no one can tell another that he made the good choice and the other is in the dark side.

So the competition that begun 20 years ago between TI and HP users is now over without looser just winners that presents good products to their respective customers...

Edited: 14 Sept 2003, 11:39 a.m.

Re: TI Converts a [so called] HP fanatic

*Message #8 Posted by **Brandon Del Bel** on 14 Sept 2003, 1:14 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

> Quote:
>
> "The TI-89 with RPN application is very difficult to beat in terms of usability, physical quality, support, ease of use." BULL...

I wholeheartedly concur. Every implementaion of RPN on the TIs has been nothing more than awkward.
When I say bad quality, need I mention the fact that the TI-89 has no x-root button? I personally do not enjoy having to type inverse powers. Why is there no button for the base 10 log, and why are the trigonometric functions all secondary!? Do you actually think I want buttons for x y z and t removed from the rest of the alphabet (do I even want a button for y z and t)? I could go on, but I'll just sum it all up by saying that TIs suck.

did your kids learn any math ?

*Message #9 Posted by **Norm** on 14 Sept 2003, 8:49 p.m.,*
in response to message #8 by Brandon Del Bel

Greetings to the crowd,

let me jump in to the debate. I see that the uproar is whether a TI graphing calculator or an HP graphing calculator is better for your kids to learn math.

I just cringe when you guys say "....has got excellent support and a 75MHz processor". My view: Your kids aren't learning any math, they are just buying more outlandish modern software trash (Windows XP) and then having to call "tech support" when it doesn't work worth beans.

My viewpoint: Get your kid a restored HP-34C (or HP-31E) or an HP-32S (OK HP-32S is the most reasonable selection) and get the kid to LEARN SOME MATH not how to CALL TECH SUPPORT.

ANY PROPERLY DESIGNED CALCULATOR REQUIRES ZERO (0.00000) in the way of "TECH SUPPORT" because every button and every feature and every subtlety will already be NICELY explained and intuitively obvious to use.

Not only that, it will function flawlessly for the next 40 years (such as with an HP-34C) and be a flawless calculating companion even though you NEVER phoned any "tech support" or quoted how many hundred MegaSnertz or GigaHurtz the CPU had. Such as with an HP-34C.

Does your kid know the answer to Sin(45) in his head? Does he have an understanding of what is E to the -1 power ? Or is he just playing videogames, surfing the internet, drinking starbucks coffee and trading e-mail with his friends all thanks to his marvelous TI or HP piece of squash rot. ??

Either company's offerings at the present time are trash and an insult to intelligent people. Stick with the classic HP's that were discontinued by the likes of "Carly".

JIMC love that echo of RED LLLLLLEEEEEEEDDDDDDDD's oooweeee babeeeeeee

hubbbaaaa hubbaaaa *aaaaahhhh* gimme them RED LLLLLLLLEEEEEEDDDDDDDDDDD's

:o)

Best,

- Norm

Re: did your kids learn any math ?

*Message #10 Posted by **Joesph** on 15 Sept 2003, 3:49 a.m.,*
in response to message #9 by Norm

sigh Where to begin?

"I just cringe when you guys say "....has got excellent support and a 75MHz processor". My view: Your kids aren't learning any math, they are just buying more outlandish modern software trash (Windows XP) and then having to call "tech support" when it doesn't work worth beans."

WTF does Windows XP have to do with this? The 49G+ doesn't run XP. I'd hardly call it "outlandish modern software trash". It seems to be very high quality.

<snip luddite rant about being too complicated>

"Either company's offerings at the present time are trash and an insult to intelligent people. Stick with the classic HP's that were discontinued by the likes of "Carly" "

Are you nuts? How are excellant tools an insult to intelligent people?

I think you're trolling (I *hope* you're trolling).

Starbucks

*Message #11 Posted by **Ellis Easley** on 15 Sept 2003, 6:19 a.m.,*
in response to message #9 by Norm

If you dislike Starbucks, you might enjoy a recent novel by Kinky Friedman (country singer turned detective novel writer) called "Kill Two Birds And Get Stoned". If you are a Kinky Friedman fan, you might not know about this book because it's not necessarily stocked in the Mystery section, with all his detective stories in which he (Kinky) is the main charcter. This book introduces a new main character (a writer) and I found it at Borders in the Literature section, not the Mystery section.

Re: did your kids learn any math ?

*Message #12 Posted by **Speck** on 15 Sept 2003, 7:59 p.m.,*
in response to message #9 by Norm

Well, since that kid may soon have to sell ALL of his calcs to pay the upcoming coffee tax, he/she may truly get to learn math the old fashioned way. Who'd have thought politicians REALLY COULD do something beneficial for education?

Speck.

Coffee Tax ?

*Message #13 Posted by **Euclid** on 16 Sept 2003, 2:07 a.m.,*
in response to message #12 by Speck

...since that kid may soon have to sell ALL of his calcs to pay the upcoming coffee tax

Coffie Tax?? HUH? <panic>WHAT COFFEE TAX????<panic>

Yikes!!

Re: Coffee Tax ?- spend my dimes

*Message #14 Posted by **christof** on 16 Sept 2003, 1:56 p.m.,*
in response to message #13 by Euclid

on good calculators for the kids :)

of course, at my rate of ingestion, it's more like 40 cents a day....

Coffee Tax ? You laugh, but....

*Message #15 Posted by **Speck** on 16 Sept 2003, 9:40 p.m.,*
in response to message #13 by Euclid

It was more-or-less a smart-allecky post by me, but the city of Seattle, Washington, has been getting a lot of media attention lately for the proposed 10 cent per cup "Espresso Tax" (I'm not kidding about this) that the city is estimating will bring in as much as 6 million dollars. I believe some of that money is to be siphoned off for preschool programs. It's that whole "anything for the kids" mentality, along with the previous post about education, calculators, and coffee, that made me muse whimsical.

If you think this is no big deal, imagine the posts we'd get here from Norm if they still made red LED calculators, and gov't started taxing those LED's "for the kids!" :)

Speck.

Re: TI Converts a [so called] HP fanatic

*Message #16 Posted by **Charles** on 14 Sept 2003, 6:54 p.m.,*
in response to message #6 by Veli-Pekka Nousiainen

I've used the TI86 and liked it, UNTIL I tried a 48G, then was hooked on rpn...then I finally found a 32sii, and the enter key center and large along with layout make them winners. For any students choosing an 89, I have to ask have you noticed the trig (both primary and arc) are all SECONDARY keys?? Count your keystrokes, I've done it on many calculations, enough to know that rpn is better for me, and rpn goes hand in hand with a dedicated key layout. That's just my opinion. HP will have to wow us with the new calcs, if they don't then I'll just pick up a 48gx as a backup for my 32sii and pray for longevity! Charles

Oh, no!!

*Message #17 Posted by **R Lion (España)** on 15 Sept 2003, 5:30 a.m.,*
in response to message #16 by Charles

> Quote:
>
> ...then I'll just pick up a 48gx as a backup for my 32sii...

Better buy and use the 48GX and keep the 32SII in a drawer as RPN backup... ;-)

Re: Oh, no!!

*Message #18 Posted by **Ed Look** on 19 Sept 2003, 2:56 p.m.,*
in response to message #17 by R Lion (España)

Actually I have both the 32sii and a 48G (no +, no X, no bloody A, B, C, D... sorry, wrong forum) and like him, I am using the 32sii as my workhorse and the 48G as backup. The 32sii LOOKS like it's used: a little smudging, dirt, fine scratches, etc.; the 48G is still new looking.

I still have my first HP, a 34C. I'd rather use that but due to age and wear, it's kind of dotty these days. In fact, that's what I like about the 32sii- it's remarkably like a 34C! For general calculating and light programming, not all night theoretical crunching, it's very "user friendly".

Re: TI Converts a [so called] HP fanatic

*Message #19 Posted by **Jonas Lööf** on 15 Sept 2003, 9:32 a.m.,*
in response to message #16 by Charles

When I first bought my ti89 5 years from now, i found the trig key placement quite annoying. But i started to operate the shift keys with the left thumb for hand held use, the way I allways used it. When you get used to this, you wont even think of the shift key operation, it becomes automatic.

Re: TI Converts a [so called] HP fanatic

*Message #20 Posted by **unspellable** on 15 Sept 2003, 1:15 p.m.,*
in response to message #4 by Brandon Del Bel

Microsoft offers lots of support? Am I missing something?

Re: TI Converts a [so called] HP fanatic

*Message #21 Posted by **Norm** on 15 Sept 2003, 9:08 p.m.,*
in response to message #20 by unspellable

point taken, Mr. Unspellable.

Microsoft does not have what we would call "customer support".

I heard they do have a 1-800 number that you can phone if you are having difficulty. There is a tape recorded voice, which laughs hysterically at you and repeats on an endless loop. Because they can play that into hundreds of telephone lines all at the same time, it keeps costs down and profits up.

Re: TI Converts a [so called] HP fanatic

*Message #22 Posted by **Andy** on 21 Sept 2003, 6:37 p.m.,*
in response to message #4 by Brandon Del Bel

Well,You are indeed right.but really you don't have to be so harsh. I have a friend whom works in 2A systems, they are doing an app. And well that app modifies everything in the TI 83, and is as capable as a 49G os. I wouldn't change HP for TI,(i never Will),but when the app reach the market I'll be the first one to buy it. 2A Systems. keep that name is mind.

regards Andy

Re: TI Converts...OK, I'll bite....

*Message #23 Posted by **jimc** on 14 Sept 2003, 2:08 p.m.,*
in response to message #1 by Steven Kutoroff

At the risk of jumping in to an argument much like religon, politics or best new female rap vocalist (OK, maybe not), I will say that the new TI does run circles around my recent experiences with HP calcs. I purchased a new HP calc (30S) for my son for school. Within a year the calculator lay at the bottom of the dreaded junk drawer, because the 8 key no longer did. It also suffered from display issues. It was not a well constructed calc.

I bought him a used 83 TI, and I do very much like it, as does he. I don't appreciate the AOS, but the keys are large (for old eyes), seem well placed and the quality does seem to be there. I will not opine on the quality of the new HP's as I haven't yet seen them.

Thus far however, I think the old HP (the one I remember) and the new HP are completely different companies. One is market driven, the other was product driven. Different philosophies for different times. In today's WalMart world, large companies only know market driven- blame it on MBA's, blame it on globalization, but to find a profitable niche market for a quality product is tough for a publicly held company. Face it, the calculator market is being sandwiched between PDA's, cell phones, and laptops. I applaude HP for not abandoning the market YET.

My experience with HP's include my 48GX (good calc, but awkward interface), 41CX (the best!), 10C (great design - a classic) and 25 (RED LLLLEEEEEDDDDD's).

Re: TI Converts...OK, I'll bite....

*Message #24 Posted by **Veli-Pekka Nousiainen** on 14 Sept 2003, 4:39 p.m.,*
in response to message #23 by jimc

"I purchased a new HP calc (30S) for my son for school. Within a year the calculator lay at the bottom of the dreaded junk drawer,..."

AND you are right. That is a chinese cheapo that has a HP label on it. You should have bought a HP 32S, a HP 32SII or a HP 42S (very good), but wait...there is a new hope: you could buy either the new HP 33S or the HP 39G+ depending on the need.

"I bought him a used 83 TI..." oh, you already did that? Not a bad choise either, but not a HP.

VPN

Re: TI Converts...OK, I'll bite....

*Message #25 Posted by **GE** on 14 Sept 2003, 6:02 p.m.,*

in response to message #24 by Veli-Pekka Nousiainen

TI hardware's quality is very good. You won't have a problem with the screen (scratches...) and the keyboard is excellent (hard plastic keytops...). Recent HPs have put the company to shame. I ran to buy the HP-10B-II and found that the product was impressive, until I physically typed on it - an horrible experience ! My fear for the new models is that they may use this kind of keyboard. I am the first to say that HP48s were nice machines, a little confusing for the old-time user, but still very powerful. Note also that Steven is talking about the TI83+SE, not the TI89. The latter has usability issues due to the cramped keyboard, one should go to the Voyage200 instead, very usable. Also, the TI83+ is very VERY fast ! Alas, its function set is limited, an example : its 1-character variables (reminds me of the lousy HP38G...). So, hardware wise TI rules today (2003). I hope no crappy keyboard (or short battery life) will prevent HP from jumping again in the race.

Re: TI Converts an HP fanatic

*Message #26 Posted by **Steven Kutoroff** on 14 Sept 2003, 7:17 p.m.,*
in response to message #1 by Steven Kutoroff

Pleased to see I stirred up the pot on this.

I offered my son an HP48SX, but it put him off and the school uses the TI and suggests it for home use. So we bought him one. I was hoping he wouldn't use it and we could return it for a refund. But it became clear we had to open it, so I did and I played with it.

I like the way it you set up graphing and I think it works naturally for a kid learning algebra and trig. The 48 entry of formulas is sophisiticated and slick, but maybe too much for kids in middle and high school.

I will stick to my HP calculators (35,41,16,75,71,48). But, if HP intends to compete in this market today, they are going to have to keep costs down yet make a machine that appeals to GameBoy toting kids that expect a lot from their electronics.

I think us older guys grew up with unreliable electronics and products like the HP handhelds changed our view of things because they worked day to day and worked well. $395 in 1973 must be as much as a good laptop costs today. So, $100 and change buys a lot these days for kids.

I've never seen any of those prototype HPs that worked like a PDA or were PDA based. Pen and stylus devices are not permitted at the standardized tests and TI has done a good job of making a machine for classroom use.

Would I buy a TI for work? NO. I'll take one my HPs or use Excel.

Re: TI Converts an HP fanatic

*Message #27 Posted by **Les Bell [Sydney]** on 14 Sept 2003, 8:33 p.m.,*
in response to message #26 by Steven Kutoroff

>> I think us older guys grew up with unreliable electronics and products like the HP handhelds changed our view of things because they worked day to day and worked well. <<

If you think electronic devices are no longer unreliable, then the new HP will prove a sad disappointment.

When I bought a 82240B printer for my 48GX a couple of years ago, I added an HP6S to the order for my son, who would soon need a scientific calc for secondary school.

I was disappointed with the poor design, inconsistent key sequences and lousy documentation. In the end, he barely used the calc, but it hardly matters as it has now died, with two display segments failed.

I continue to have high hopes for the 48GII and 49G+, but I have to say, it's against the evidence of my own experience and others. Sad . . .

Best,

--- Les [http://www.lesbell.com.au]

Re: TI Converts an HP fanatic

*Message #28 Posted by **Brandon Del Bel** on 14 Sept 2003, 9:38 p.m.,*
in response to message #26 by Steven Kutoroff

> Quote:
>
> I think us older guys grew up with unreliable electronics and products like the HP handhelds changed our view of things because they worked day to day and worked well.

I think I should point out that I am only 18, and, thus, my first HP was a 49G. I do not love HP for nostalgia's sake; I love them because they are designed for people who actually know something.

TI designs calculators for the average highschool student: conformist and uninterested. I'm fresh out of highschool; I can tell you guys first hand that teenagers couldn't give a damn about how good their calculator is. All they care about is if it's the one everyone has and (more importantly) what games can they get on it. You would be surprised at how many of these students just play games durring class (I know I used to do it). A previous author mentioned the voyage200 calculator; I'd like to see you use that on any test.

In my experience, TI calculators do the math for you; HPs help you along the way.

aftermarket programs for hp / obscure Pournell refrence

*Message #29 Posted by **db(martinez,california)** on 14 Sept 2003, 11:05 p.m.,*
in response to message #28 by Brandon Del Bel

I have heard of RPN applications for TI but not aftermarket AOS applications for HP. Does this mean that TI users are now the better programmers, or just stuck with a lemmon and desperate?

TI has constructed some well built calculators but imho; if it is not RPN then it is not worth using. (Here comes that Jerry Pournell refrence) On the gripping hand; i just love my new old Corvus 500.

Re: aftermarket programs for hp / obscure Pournell refrence

*Message #30 Posted by **Veli-Pekka Nousiainen** on 16 Sept 2003, 6:13 a.m.,*
in response to message #29 by db(martinez,california)

"I have heard of RPN applications for TI but not aftermarket AOS applications for HP."

Well ... HP 38G, 39G, 40G, and the new fast 39G+ ALL have Algebraic only operations. The 49G and the new fast 48GII and 49G+ have both RPN and Algebraic and you can even call one environment from the other using RPL> or `back-ticks`.

There are also several HP financial calculators with Algebraic only or both RPN & Algebraic (HP-19BII being the top-model)

Re: TI Converts (well, entices) an HP fanatic

*Message #31 Posted by **Paul Brogger** on 15 Sept 2003, 12:09 p.m.,*
in response to message #1 by Steven Kutoroff

I've several times posted my favorable impressions of my TI-83+SE -- most notably the extent of support and the cost of tools (read: FREE) for assembly-level (Z80) development.

That said, my next-to-last son is very happy with his HP-48G+, wouldn't have anything to do with a non-RPN calculator, and readily figured out how to translate the high school TI-oriented math exercises to his HP, and *without* the manual(!) ("It's not *that* hard to figure out, dad!") He has just carted the calculator off to college.

The youngest, however, is perfectly content with a TI, and he's is rather more involved with the ladies than in the AOS/RPN debate! Now, if I had it to do over again, (and if forced to choose), which one would I rather be more like?

Re: TI Converts (well, entices) an HP fanatic

*Message #32 Posted by **Bob** on 15 Sept 2003, 12:46 p.m.,*
in response to message #31 by Paul Brogger

Can't you have both ?

It is common knowledge that a strategically placed HP calc on the table next to you while studying will draw in attractive women in droves. :-)

(12345 to delete)

Re: TI Converts (well, entices) an HP fanatic

*Message #33 Posted by **Tom (UK)** on 15 Sept 2003, 1:49 p.m.,*
in response to message #32 by Bob

I quite often have to 'beat them off with a stick' (UK saying) when women realise I've got an HP calculator - NOT.

Re: Having it All

*Message #34 Posted by **Paul Brogger** on 15 Sept 2003, 2:34 p.m.,*
in response to message #32 by Bob

Well, let's just examine the evidence . . .

I have (at least) two sons. (Actually five kids.)

But as a counter example, Alex (the HP-48 user) is off to a school associated with Nintendo -- one that specializes in the art, science, math and programming behind video game production. (It's actually accredited, believe it or not!) Of his freshman class of 199, only 9 are women. (But then, he's been told not to plan on "having a life" for the next four years anyway . . .)

So, I'd say it's possible, but not always easy.

wow- that is not an easy ride

*Message #35 Posted by **christof (Heavy Weather, USA)** on 15 Sept 2003, 11:20 p.m.,*
in response to message #34 by Paul Brogger

Computer programming. Even worse- *game* programming. all that realism, physics, the math behind movement. how silly! :)

That is one tough school. Of course it is accredited. Wish him luck for us- and tell him we expect a new FPS for the 49G+ ! (I'd prefer a civ I type game, but....)

Re: no, it's not!

*Message #36 Posted by **Paul Brogger** on 16 Sept 2003, 9:39 a.m.,*
in response to message #35 by christof (Heavy Weather, USA)

Alex is big on RPG's. He and my youngest cut their video game teeth during that magical time when the technology wasn't quite up to full audio -- by reading all the plot & dialog text as it scrolled across the screen, they actually "learned something": both test off the charts in vocabulary and spelling. (Now the characters are speaking audio; I fear for the next generation!)

But it does look like a daunting program. (Regardless, I can't help feeling jealous of him!)

Re: TI Converts (well, entices) an HP fanatic

*Message #37 Posted by **Dave Shaffer** on 15 Sept 2003, 4:39 p.m.,*
in response to message #32 by Bob

You just need to find your woman at the right place. I found mine in graduate school, also studying astronomy (although it took us a few years after school to get together permanently). She has an 11C (acquired about the same time I got mine), bought me my 41CV, and had a 32S LONG before I got mine!

Re: OT Posts and what ever happened...

*Message #38 Posted by **Randy Sloyer** on 15 Sept 2003, 8:38 p.m.,*
in response to message #37 by Dave Shaffer

to Mr. Brogger on that camping trip were we discussed publicly which calculator to take along to impress his friend of the female gender?????

Time to provide details Paul. Heck, it might serve to get this thread back onto the HP vs TI debate. Did brand X work better than brand Y? Did it take the romantic glowing red LED's of a Topcat on battery power for her to see the real you?

Edited: 15 Sept 2003, 8:41 p.m.

Re: OT Posts and what ever happened...

*Message #39 Posted by **Paul Brogger** on 16 Sept 2003, 9:24 a.m.,*
in response to message #38 by Randy Sloyer

I tracked down my original post -- I'm sorry if it mistakenly implied romance.

Actually, I'd tried, waving my empty hands in the air, to convey the quality of old H-P to my friend Nick and his wife over coffee during an earlier visit at his home in So. Cal. He & I later met with our respective youngest sons in the Eastern Sierra (Mono Lake region), and though I brougt along a fully-charged HP-34C, the subject of calculators just didn't seem to come up . . .

Reminiscing ;-)

*Message #40 Posted by **Peter Anderson-Stewart (AU)** on 17 Sept 2003, 4:25 a.m.,*
in response to message #39 by Paul Brogger

Please feel free to delete, mod down, up or postero-antero laterally. I must admit that one girlfriend and I roamed the corridors of our large teaching hospital armed with dual HPs, 67s and our HP Rappaport-Sprague stethoscopes sneering at all the lesser lights with their cheapie Littmans (and probably TIs ;-)). Gawd knows what it would cost to replace the HPs these days, hopefully I'll never find out as the stethoscope is indestructible but my 67 & 41CX are in need of the gentle ministration of Randy ;-). This forum reminds me ever so slightly of a certain populous computer platform versus a more ummm, innovative platform forum, or indeed a certain trauma list forum when the LIttmanites demand that theirs is "the one true way" as we HP users sniff at their cheapie construction. And don't let anyone get started on the 14" versus 18" tubing debate, that one can run and run, nearly as bad as the indefensible gun debate or the SUV debate on the trauma list ;-). Ahh well, just my Pacific peso's worth.

Littmanns

*Message #41 Posted by **Victor Koechli** on 17 Sept 2003, 5:50 a.m.,*
in response to message #40 by Peter Anderson-Stewart (AU)

Well, at the time of my internship, I thought Littmanns weren't sooo bad. I could hear things some reidents with their HPs couldn't, but then again this maybe was not the stethoscope's merit. In the meantime, however, my Littmann has almost completely disintegrated, and if I'd still work in Internal Medicine, I'd certainly have a HP by now...

Anyway, as for calculators, I always stuck with HP. My 15C was my permanent companion, it had all the formulas I needed on the go and is the smallest HP I know of - gorgeous! A long time since, though...

An yes, I am an Apple user, and will always be.

Cheers, Victor

Re: Stethoscopes -- Parallels with HP Calculator unit?

*Message #42 Posted by **Paul Brogger** on 17 Sept 2003, 10:14 a.m.,*
in response to message #40 by Peter Anderson-Stewart (AU)

I didn't even know HP made stethoscopes. So, out of curiosity, I search for info, and find out that HP has sold its patents to Philips, and is no longer manufacturing a much-loved product. (If there is a spirited debate over which brand is better, there is a cadre of devoted users on each side of that debate.)

Let me guess: I suppose the stethoscope unit didn't return the kind of profit that was respectable during the .com bubble [note especially the use of *past tense*], or that they don't fit the new corporate self-image. Now, where else have I seen the effects of that kind of thinking, I wonder?

Re: Stethoscopes -- Parallels with HP Calculator unit?

*Message #43 Posted by **Laurence** on 17 Sept 2003, 2:29 p.m.,*
in response to message #42 by Paul Brogger

Actually HP spun off its whole medical group a few years ago with the rest of the buisinesses that went to Agilent Technologies. Agilent then sold the Medical group to Philips where it is now thriving, especially in patient monitoring. The HP stethoscope went along with the rest of the product line and Im glad to see its still for sale! I was responsible for the sales and marketing of this item (amongst other things!)in the UK for a couple of years, it never sold in large quantities as it cost 20 times the price of a standard stethescope but it was of superb quality and did sell to the very top cardiologists which bought HP a lot of good will and probably contributed to the sale of lots of other equipment these people bought.

There were lots of "stories" circulating about this stethescope including a story about a solid gold one made for a doctor in Saudi Arabia in the 70's!

Re: Reminiscing --Links

*Message #44 Posted by **bill platt** on 17 Sept 2003, 10:21 a.m.,*
in response to message #40 by Peter Anderson-Stewart (AU)

A link:

http://www.allheart.com/ag280a01.html

Regards,

Bill

More OT reminiscing ;-)

*Message #45 Posted by **Peter Anderson-Stewart (AU)** on 17 Sept 2003, 5:24 p.m.,*
in response to message #44 by bill platt

Regarding gold HPs steths, one of the more, shall we say, flamboyant cardiologists with what one could only describe as a borderline personality disorder here in Sydney had his HP gold plated some years ago and I still see him wandering the streets with it in the position du jour (believe me dear members, it varies more often than fashion ;-)).
I can't imagine that a solid gold one would be particularly useful as I would have thought that with gold being such a malleable metal that its ability as a conductor of sound would be less than stainless steel, but hey, what would I know ;-)
As for a spirited debate, well, that is certainly gilding (no pun intended) the lily, as it normally degenerates to a "is" "isn't" gainsaying 3 or 4 way slanging match between the "True Believers tm", the "Lovers of Littman", the meths drinkers and the corn circle society.
I guess it all comes down to what you are comfortable with, for me, I was lucky (or prescient) enough to have always had HP steths and calculators and used Apple, others obviously feel they can get by with more, ummm, popular or disposable items.
As "they" say, you pays your money .....
Cheers, and all the very best, Peter

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PocketPC 2003 and the HP48 emulator

*Message #1 Posted by **Marcel** on 13 Sept 2003, 10:46 a.m.*

It seems that there is a common problem with PocketPC 2003 and the HP48 emulator. I've heard others mention the problem but haven't seen any solutons. The GNU licence screen shows for a fraction fo a second and then the program (apparently) exits.

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HP-41 Unit Management System

*Message #1 Posted by **Angel Martin** on 13 Sept 2003, 3:29 a.m.*

Here's an entry in the nostalgia department - though fun!

I'm currently working on an extended Unit Managemenr System ROM (UMS) for the 41, based on the implementation made on standard modules like the THERMAL, MACHINE, or PETROLEUM packs.

My goal is to also add electrical units, obviously missing on these above.

I started reverse-engineering the MCODE listings for the "SI-" function, but was wondering if someone has information on how this UMS was designed and implemented, so I can get a boost start with the project.

Any suggestions will be appreciated. Also, if the interest is there, we could have it available on line once finished.

Re: HP-41 Unit Management System

*Message #2 Posted by **Mike (Stgt)** on 13 Sept 2003, 5:48 a.m.,*
in response to message #1 by Angel Martin

If I may help, let me know. What I could do is an MCode-trace for one or two calls (loops reduced).

Ciao.....Mike

Re: HP-41 Unit Management System

*Message #3 Posted by **Angel Martin** on 13 Sept 2003, 8:03 a.m.,*
in response to message #2 by Mike (Stgt)

I take you up on that. Can you e-mail me the results? SI- is my favorite, have you got the THERMAL rom?

What I'm after specifically is how they implemented the look-up table for the allowed units, as well as how they wrote the dimension-checking algorithm.

It might be a tall order, but no pain no growth..

Thanks, AM

Re: HP-41 Unit Management System

*Message #4 Posted by **Mike (Stgt)** on 14 Sept 2003, 9:25 a.m.,*
in response to message #3 by Angel Martin

I'm currently sick at home, ASAP I have access to the IBM host I do send all about what I may extract from the THERMAL.

Ciao.....Mike

Re: HP-41 Unit Management System

*Message #5 Posted by **Angel Martin** on 14 Sept 2003, 11:12 a.m.,*
in response to message #4 by Mike (Stgt)

Thanks much in advance, and gute Besserung!

Best, AM

Re: HP-41 Unit Management System

*Message #6 Posted by **Mike (Stgt)** on 15 Sept 2003, 6:07 p.m.,*
in response to message #5 by Angel Martin

Tnx, hope I'll may send you soon some trace.

Ciao.....Mike

Re: HP-41 Unit Management System

*Message #7 Posted by **Ed** on 14 Sept 2003, 8:24 p.m.,*
in response to message #2 by Mike (Stgt)

Wow....this is great! The longer I get to use my hp41 the better!!

Re: HP-41 Unit Management System

*Message #8 Posted by **Chris Catotti (Florida)** on 17 Sept 2003, 3:27 p.m.,*
in response to message #7 by Ed

Also, please look at the functions that were available with the AECROM by Redshift Software. It had features like display the X register in Feet or inches. For example, 6.5 in the X register displays as 78 when in the Inches Mode, but only with the AECROM installed. The display defaults to regular mode if the AECROM is removed.

I sold the ROM, but I have a scan of the manual, if a copy would help, drop me an e-mail. (Caution: PDF File sizes are approximately 1 MB + 1 MB + 3 MB = 5 MB Total)

Re: HP-41 Unit Management System

*Message #9 Posted by **Mike (Stgt)** on 18 Sept 2003, 5:25 p.m.,*
in response to message #8 by Chris Catotti (Florida)

Yes I am interested in that manual. But I do all my eMails with a HP200LX and a 33.8k modem, so 5MB are a heavy load. Well, let's try. My address you find here
http://ourworld.compuserve.com/homepages/NutEm/nutem.htm#re

Ciao.....Mike

Re: HP-41 Unit Management System

*Message #10 Posted by **Ángel Martin** on 22 Sept 2003, 2:46 a.m.,*
in response to message #8 by Chris Catotti (Florida)

Hi Chris,

Thanks for the input. I'd also appreciate getting a copy of the scanned manual, I'm sure it will help me understand how does the feature work.

Thanks, ÁM.

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How to replace battery of GRiD card?

*Message #1 Posted by **John Smith** on 13 Sept 2003, 2:52 a.m.*

Those who are using 1 MB GRiD ram card, can you help how to replace the battery?

I do not see any battery chamber, or battery cover. All I see is a battery marker cicumscribed by a circle on face paper paste on to the card. I'm afraid to do anything without proper instructions, in case I damage the card.

I do not have the instruction booklet. If anybody would be kind to provide me step by step instructions, would be highly appreciated. Or if you can refer me to related web site address would be equally helpful. Thanks,

John

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HP-bar-code generator

*Message #1 Posted by **Michel Beaulieu** on 12 Sept 2003, 9:59 p.m.*

I need to print bar-code for my newly acquired wand for the 41c. Where can in find a good program to do that?

Thanks

Re: HP-bar-code generator

*Message #2 Posted by **Mark Hardman** on 12 Sept 2003, 10:10 p.m.,*
in response to message #1 by Michel Beaulieu

The User Code utility is what I use to generate bar-code. A copy can be downloaded right from this site.

http://www.hpmuseum.org/software/41uc.htm

Mark Hardman

Re: HP-bar-code generator

*Message #3 Posted by **Emmanuel, France** on 13 Sept 2003, 7:54 a.m.,*
in response to message #1 by Michel Beaulieu

```
Several programs for instance could be useful too:
PBC    (needs CCD Module) for ThinkJet HP2225B (IL version)
PBCDJ  Christoph Klug's version of PBC for DeskJet 500
CBNN   (needs Plotter Rom) for Plotter HP7470A (IL version)
       in order to print BC of Non Normalized Number
CBPG   (needs Plotter Rom) for Plotter HP7470A (IL version)
CBP    (needs Plotter Rom) for HP82162A Thermal Printer
CBD    (needs Plotter Rom) for Plotter HP7470A (IL version)
       in order to print BC of Data (Numbers, Instructions)
MCBCP  (needs MCP MCode instruction) for HP82162A
       Thermal Printer or Plotter HP7470A (IL version)
       in order to print BC of MCode instructions


Also a special ROM exists:
SKWID Bar Code ROM for ThinkJet HP2225B (IL version)


Good luck! To be continued...
```

Re: HP-bar-code generator (addendum)

*Message #4 Posted by **Emmanuel, France** on 13 Sept 2003, 8:04 a.m.,*
in response to message #1 by Michel Beaulieu

Please visit this url: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3046468506&category=11713#ebayphotohosting[

Re: HP-bar-code generator

*Message #5 Posted by **Bill** on 13 Sept 2003, 8:19 a.m.,*
in response to message #1 by Michel Beaulieu

Try the following Bar Code Maker by Dan MCDonald. It's a Excel spreadsheet with a True Type Bar-Code Font.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=42

Re: HP-bar-code generator

*Message #6 Posted by **Tony Duell (UK)** on 13 Sept 2003, 4:37 p.m.,*
in response to message #1 by Michel Beaulieu

If you prefer linux, you might try the 'prog41bar' and 'barps' programs in my 'LIF Utilities for Linux' distribution. It's avaialble from the HPCC web site, and comes as C source code (GPLed)

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HP49G repairs---what's the situation?

*Message #1 Posted by **Mark Ordal** on 12 Sept 2003, 3:35 p.m.*

I now have a 49G with a largely nonfunctional keyboard. I haven't taken the time to identify all of the nonfunctioning keys but I know that Enter, +, -, /, *, Delete, and Clear are all completely dead. I can still turn the calculator on and off. Not very useful as it is.

Any help would be appreciated.

--Mark

Re: HP49G repairs---what's the situation?

*Message #2 Posted by **Randy Sloyer** on 12 Sept 2003, 7:34 p.m.,*
in response to message #1 by Mark Ordal

In warranty, HP will replace it. Out of warranty, they will replace it for a fee. I think it is about $90, don't know for sure.

If you're into DYI, try pressing down hard above the F5 key while trying the dead column. If it works with pressure applied, you'll need to open the unit to fix a lost contact between the logic board and keyboard.

Post again if that works and we can take it to the next level.

Re: HP49G repairs---what's the situation?

*Message #3 Posted by **Mark Ordal** on 13 Sept 2003, 3:00 p.m.,*
in response to message #2 by Randy Sloyer

Randy is on target! Applying pressure above the F5 key does indeed restore function to the dead keys!

The next question is how to open the case without damaging it? It seems to be just a friction fit at the bottom, but there must be some kind of hidden clips further up---how does one deal with those?

--Mark

Re: HP49G repairs - how to open

*Message #4 Posted by **Randy Sloyer** on 13 Sept 2003, 8:23 p.m.,*
in response to message #3 by Mark Ordal

Using a 5/32"/#22/4mm drill bit, drill the tops off the six heat stakes in the battery compartment. Do not use a power drill, but simply twist the bit in your fingers. You'll find the blue plastic drills quite easily by hand. You only have to go deep enough so that the rivet releases, you'll end up with a blue ring when you've drilled far enough.

Now find yourself a clean, dry wooden popsicle stick. Seems silly as everything handy is made of

metal but the wood will not mar the plastic case. From the bottom, slide the stick up the channel that the cover fits in about a half-inch. Use the stick as a crowbar and separate the case halves. Repeat on the other side. They will pop open with enough force.

Once both halves are free at the bottom, pulling away from the case, free the positive battery clip from it's retainer.

Hold the case bottom in one hand, the top in the other and pull the halves apart. Don't seperate by more than a quarter of an inch or so or you'll break the case.

Now, push the bottom half up toward the top of the front half. The halves should separate and the top should slide up and free itself. You should not have to pry or do anything other than push up and pull apart at the same time. Once it pops apart, you may trash the battery clip, but it does not matter, it is easily bent back into its original position.

The next step is to separate the logic board from the keyboard. Above and below the three large chips at the top you'll see six twist tabs, three above, three below. Study them carefully. Normally, you will have to twist the bottom tabs clockwise, the top counter or anti-clockwise to release. In some machines the direction stated is not correct and you will need to establish the proper direction to free the logic board. You do not want to twist them in the wrong direction as doing so will surely fracture them and you will be cursing the dyslectic person that assembled the unit. Once the tabs are centered, you can lift the logic board up from the bottom and free it from the six cinch points.

It's now time to inspect the keyboard connector, especially on the far left side as the last connection to the left is the right most row that you are having trouble with. Bend the white plastic of the keyboard connector upward and see if the foam pad underneath is centered in the case. Many times it is not and it causes the loss in connection. The solvent UN-DO (aka heptane) available in hardware stores and Wal-Mart will cause the sticky pad to release so that you can remove and re-position the pad in the proper place. Many times you'll only need to bend the keyboard connector upward to reestablish proper connection. Clean the keyboard and logic board connections with a cotton swab and isopropyl alcohol. Reassemble, twisting the tabs in the reverse of the direction as required to remove. You'll get about four to six cycles on these before they fracture so be very carefull as to not to waste close/open cycle for no good reason. It is best to start with the left and rightmost bottom tabs followed by the center bottom then the left/ right upper and finally the center upper. This is the best order to center the logic board to insure the proper connectiion to the very fine pitch LCD connections.

Once back together, simply snap the black bottom back into place. Install batteries and test. If all goes well, your 49G will be back to normal.

Edited: 13 Sept 2003, 8:25 p.m.

Message to Dave Hicks

*Message #5 Posted by **Tom (UK)** on 15 Sept 2003, 7:19 a.m.,*
in response to message #4 by Randy Sloyer

Dave,

Could you find space on your site for this excellent discription of how to take the HP49G appart (and how to put it together again)?

I realise that the HP49G is far too new for you, but it IS already out of production! ;-)

Tom.

Randy: Article-ize that Post!

*Message #6 Posted by **Paul Brogger** on 15 Sept 2003, 12:31 p.m.,*
in response to message #4 by Randy Sloyer

(Please, if you haven't already done so . . .)

Re: HP49G repairs---what's the situation?

*Message #7 Posted by **Eddie** on 13 Sept 2003, 10:19 a.m.,*
in response to message #1 by Mark Ordal

Hello Mark, Check this site HP recommended him to me, he is ausome. His name is Randy and he fixed my HP 41CV. Give him a shout. http://www.fixthatcalc.com/

HP-49G Dead COM port

*Message #8 Posted by **Jeff** on 15 Sept 2003, 7:14 p.m.,*
in response to message #1 by Mark Ordal

Since we are discussing the opening of the HP-49G, is there a way to determine, once open, what exactly is wrong with the COM port? Or possibly even fix it?

Re: HP-49G Dead COM port

*Message #9 Posted by **Randy Sloyer** on 15 Sept 2003, 11:05 p.m.,*
in response to message #8 by Jeff

The first thing wrong with it is that is it not true RS-232. Nothing like the 48 I/F at all, it looks like the RX and TX lines pass through a 150 ohm resistor with a transorb to ground. The other end of the resistors go directly to the CPU, same pins as the 48. There are no level shifting circuits like the 48. It looks like there are three other active pins that go to the CPU in the same manner.

I haven't put a scope to one, but I suspect the TX swing to be 0 to 5V rather than the standard +/-12. I know a lot of 232 receivers will handle that, but will it work in all cases?

Re: HP-49G Dead COM port

*Message #10 Posted by **James M. Prange** on 16 Sept 2003, 2:10 a.m.,*
in response to message #9 by Randy Sloyer

Note that early (ID93... and lower) 49Gs had a "serial port hardware bug" that caused a weakened and distorted signal. This would usually, but not always, still work with most RS232 ports.

See http://www.hpcalc.org/search.php?query=serial+port+bug for more information.

Regards,
James

Re: HP-49G Dead COM port

*Message #11 Posted by **Ellis Easley** on 17 Sept 2003, 4:45 a.m.,*
in response to message #9 by Randy Sloyer

The old bipolar 1488/1489 chip (whichever is the receiver) switched at about +1V, like a TTL chip. I've wondered whether today's CMOS receivers could be depended on to have a similar threshold. The RS-

232 EIA spec says from -3V to +3V is undefined. There is a later spec (RS-485? 422?) specifying 0-5V voltage swings (the original Mac serial ports were based on this) but it also specified differential signals, although the chips could be used single-ended.

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1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #1 Posted by **Albert** on 12 Sept 2003, 2:59 p.m.*

Hi all,

I know, this issue was already asked long time ago and far away; unfortunately, I don't remember when and where... Let's go: Are 1600 mAh 1.2 V NiMH Batteries dangerous for an HP-25C? I mean, only use; recharging will be performed outside calculator. Original pack is Ni-Cd 1.2 V 750 or 600 mAh.

Thanks,

Albert

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #2 Posted by **Randy Sloyer** on 12 Sept 2003, 7:38 p.m.,*
in response to message #1 by Albert

To quote the Nike ads, Just Do It.

You already know the #1 rule - never charge in the calculator. With that law of calculator preservation firmly established, any 1.2-1.5 Volt AA sized source will do fine. The calculator doesn't know and doesn't care, but you will when they last two times longer...

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #3 Posted by **PeterL** on 14 Sept 2003, 12:46 p.m.,*
in response to message #2 by Randy Sloyer

Hi there, ...never charge in the calculator....

Since I didn' knew that rule, it killed my HP25 after three Years charging them in the calculator. :-(

73 Peter

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #4 Posted by **David Smith** on 13 Sept 2003, 12:45 p.m.,*
in response to message #1 by Albert

Yes, they will work just fine. Even better are the 1800maH cells. There are some supposedly 2100-2300maH AA cells out there, but testing and users seem to indicate that they are no better than the 1800 maH... must be marketing milliamp hours (2300 mmaH).

Although they will charge just fine in the machine, we all know that it is best to avoid connecting your Woodstock machines to the evil power plug. If you MUST do it, try to make sure that the battery pack is making contact (LEDs light up) and leave the machine on while charging. The increased load will help keep

the voltage down. Remember that these batteries require 3 times as long to fully charge as the originals.

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #5 Posted by **Tom Scott** on 13 Sept 2003, 2:02 p.m.,*
in response to message #4 by David Smith

Sorry if this has been discussed many times before, but what is the problem connecting a Woodstock to the power line?

Thanks, Tom Scott

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #6 Posted by **Albert** on 13 Sept 2003, 5:41 p.m.,*
in response to message #5 by Tom Scott

Let's see,

Internal Integrated Circuits (IC) of calculator are connected directly to the power supply. If you forget batteries out while power supply is connected, the ICs will be fried. The reason is the following: in woodstock calculators , the AC power supply adapter doesn't have the rectifier itself, instead of that, it is the machine with a single diode and a resistor who converts AC voltage in order to charge the battery pack. Unfortunately, the same circuit is connected to the whole ICs set of calculator without any kind of protection. In fact, battery pack must play the capacitor role. Without batteries, internal circuits are exposed to high voltage/current combination, very dangerous and lethal gift.

Regards, Albert

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #7 Posted by **George** on 14 Sept 2003, 10:09 a.m.,*
in response to message #6 by Albert

Does this "rule" also apply t the classics?

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #8 Posted by **Albert** on 14 Sept 2003, 11:45 a.m.,*
in response to message #7 by George

More or less ...

Not 100 * 100, but I suggest you to follow that rule always if possible. Classic AC power adapter has a diode bridge rectifier inside. In addition, classics are protected because they are 3 input contacts (2 positives (+) and Ground - GND). First (+)ve with 15 Vdc or V= to charge batteries and the second one with 3.6 Vdc to operate with the machine safely. Therefore, charging battery pack circuit is isolated from internal machine ICs. For more information, please see explanations on the following HP Museum link:

http://www.hpmuseum.org/batts/battery.htm -> Classics.

Anyway: Avoid charge battery pack without batteries in!

Albert

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #9 Posted by **George** on 14 Sept 2003, 1:44 p.m.,*
in response to message #8 by Albert

Thanks for the info. I have been selling off some of my collection of HP calcs. and would like to get a HP45 or HP55 to "play" with. Hence my interest in this thread.

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #10 Posted by **Albert** on 14 Sept 2003, 2:58 p.m.,*
in response to message #8 by Albert

Misprint:

Wrong: "Anyway: Avoid charge battery pack without batteries in!"

Right: "Anyway: Avoid use the machine without batteries in AND AC Power Adapter connected!"

Sorry, Albert.

Re: 1600 mAh 1.2 V NiMH Batteries for an HP-25C

*Message #11 Posted by **David Smith** on 14 Sept 2003, 3:07 p.m.,*
in response to message #7 by George

The classic chargers have a dual supply/volatge regulator built in. You can run them just fine without the battery pack installed... except for the card reader machines. These machines have a direct connection to the unregulated battery supply to the card reader chip. Also they need the extra current from the battery to run the reader motor.

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HP-48S v. HP-48G

*Message #1 Posted by **whoru** on 12 Sept 2003, 1:53 p.m.*

Can somebody tell me the differences (in great detail if you wish) between the 48S & the 48G? I think the 48G is supposed to be more powerful but how? Are they equally matched in terms of graphics capabilities? If not, what are the differences?

Thank you.

Re: HP-48S v. HP-48G

*Message #2 Posted by **Raymond Del Tondo** on 12 Sept 2003, 8:38 p.m.,*
in response to message #1 by whoru

Hello,

there are some obvious differences. The G is faster than the S, has a much better display, and adds some functionality like forms and 3D graphing over the S. The color and menu trees have changed, as some of the standard key assignments.

Some prefer the S over the G because of its standard key assignments. However, the G has many advantages over the S, so I vote for the 48G.

Note that the display resolution on the S and G are the same, but the contrast is much better on the G model, and even better on the latest production units, which have a nearly black and white high contrast display.

Much more information on these machines and their differences can be found on www.hpcalc.org

Raymond

Re: HP-48S v. HP-48G

*Message #3 Posted by **christof (NoVA USA)** on 13 Sept 2003, 1:16 p.m.,*
in response to message #2 by Raymond Del Tondo

I don't think the display is all that much better. In fact- with the exception of late model 48GX machines, I can't seem any real functional diffrence at all. the contrast on some of the earlier 48SX machines is actually better than the standard production 48G (except the very late chinese models).

I prefer the S/SX in many cases because of the lack oof gui menus- which is the exact reason many people prefer the G series.

For anything short of sysrpl programming, the differences are really very minor seeming to me except for the 1: menuing system 2: equation library (which the 48G has and the 48s lacks.) (the cpu speed doesn't really affect life unless you are doing some pretty heafty computing)

My 48GX makes a much better PDA, though :)

Re: HP-48S v. HP-48G

*Message #4 Posted by **Juergen Rodenkirchen (GER)** on 13 Sept 2003, 1:25 p.m.,*
in response to message #2 by Raymond Del Tondo

Just to add a probably important difference to the list Raymond gave already: There is no built-in solver for initial value problems with differential equations on the S (as far as I know). Unlike the G which has the RKF (Runge-Kutta-Fehlberg) scheme implemented which works very well and enables you to visualize solutions of an IVP directly from the plot menu.

Best Wishes, Juergen

Re: HP-48S v. HP-48G

*Message #5 Posted by **Chan Tran** on 16 Sept 2003, 11:33 a.m.,*
in response to message #4 by Juergen Rodenkirchen (GER)

In general the G is more powerfull than the S. I have both the SX and GX and I used the GX more if only for the screen. It would be difficult to describe the difference in details. However, if you are thinking of buying one of them I suggest that you buy both because they are very cheap now.

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Copying the standard Pac cards

*Message #1 Posted by **quemazon** on 12 Sept 2003, 12:20 p.m.*

I have a 67/97 standard card pac and would like to copy it to blank cards. I have a 97 and a 41CV with card reader. Is there a way that I can use either of these machines to copy the standard cards to blanks? Thanks,

Nathan

Re: Copying the standard Pac cards

*Message #2 Posted by **Chan Tran** on 12 Sept 2003, 12:28 p.m.,*
in response to message #1 by quemazon

I think you can just load them into the calculator then write a new card. I would use the 97 though.

Re: Copying the standard Pac cards

*Message #3 Posted by **Victor** on 12 Sept 2003, 2:11 p.m.,*
in response to message #1 by quemazon

I don't think you can use the 41CV to copy cards. When the reader reads the cards, it converts the program to 41 format. It would still be in that format if you were to write them back out. Then the program on the card would not be usable in a 67 or 97.

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HP 85B Schematics wanted

*Message #1 Posted by **Dave** on 12 Sept 2003, 10:52 a.m.*

I am working on a HP 85B with a dead power supply. No +5, +12 just 37volts on the large cap on the power supply board. Can anyone please help. Schmatics would be great! - Dave

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Meeting info, Allschwil

*Message #1 Posted by **Matthias** on 12 Sept 2003, 7:40 a.m.*

Last news of the meeting in Allschwil can be seen here:

http://www.hp-collection.org/meeting.htm

Re: Meeting info, Allschwil

*Message #2 Posted by **Thibaut.be** on 12 Sept 2003, 9:29 a.m.,*
in response to message #1 by Matthias

Thanks Matthias.

I suggest that everybody brings some specialities from his place to be shared at the meeting.

By the way I am planning my journey by car. Route is Brussels - Luxembourg - Strasbourg - Basel. I'd be glad to give a lift to anyone going to the meeting. I have up to 3 free seats in my car.

Re: Meeting info, Allschwil

*Message #3 Posted by **Mike (Stuttgart)** on 12 Sept 2003, 4:13 p.m.,*
in response to message #2 by Thibaut.be

I'll have to come by my own car as I have to transprort more than only some ROMs. <G>

BTW, instead of names, Matthias could have shown some URLs, just to give an idea who is who. Here is mine (not too much uptdated since long, new: about the HP200LX, alas unfinished)
http://ourworld.compuserve.com/homepages/nutem/

Ha - if I see the meeting list I suppose the conference language will be French. C,a va être dure.

Ciao.....Mike

Re: Meeting info, Allschwil

*Message #4 Posted by **Museum** on 12 Sept 2003, 4:36 p.m.,*
in response to message #3 by Mike (Stuttgart)

I prefer swiss german for the conference language :)

(Ok, german and english is alo ok, but french? this will hard for you to listen to me that day!!)

Re: Meeting info, Allschwil

*Message #5 Posted by **Emmanuel, France** on 12 Sept 2003, 6:18 p.m.,*
in response to message #3 by Mike (Stuttgart)

I think we will speak only one language: beer. ;o)

Re: Meeting info, Allschwil

*Message #6 Posted by **Matthias** on 13 Sept 2003, 2:25 a.m.,*
in response to message #5 by Emmanuel, France

There is no alcohol inmy appartment :)

Re: Meeting info, Allschwil

*Message #7 Posted by **Emmanuel, France** on 13 Sept 2003, 3:25 a.m.,*
in response to message #6 by Matthias

Beer w/o alcohol exists... I saw one, one time!

Re: Meeting info, Allschwil

*Message #8 Posted by **Mike (Stgt)** on 13 Sept 2003, 5:54 a.m.,*
in response to message #6 by Matthias

NO ALK? Sorry, but how about shifting the meeting location to the next resaurant? There will be a free side room for us all, otherwise wee look in the near France for one. They'll take the 25 EUR too. (One beer I speek French as good as English <G>)

Ciao.....Mike

Thanks, Matthias! Meeting info, Allschwil

*Message #9 Posted by **Emmanuel, France** on 12 Sept 2003, 2:42 p.m.,*
in response to message #1 by Matthias

```
Hello everybody!


Will bring some items if interest:
HP41C, HP41CV, HP48G, HP48GX, HP49G,
Paname modules for HP-41,
HP82162A HPIL Printer, HP82168A HPIL Acoustic Coupler, HP82169A HPIL/HPIB interface with PC
ISA card,
HP110 and HP-85.


Before I go to Aschwill, you can order your pre-programmed
Eprom sets for HP-41 and HP-71 Eprom Box, or items below.


Thanks for interest!
```

Stuff for trade?

*Message #10 Posted by **Angel Martin** on 13 Sept 2003, 3:43 a.m.,*
in response to message #9 by Emmanuel, France

I too will bring some stuff for trade, it isn't much but somebody may be interested. Here's a partial list:-

- 10 meter HP-IL cable (or was it 5 meter?) - HP 110 laptop computer - HP-IL acoustic coupler - plain 41 Memory Modules - 41 Card Reader 1A

Best, AM

Re: Meeting info, Allschwil

*Message #11 Posted by **Mike (Stgt)** on 14 Sept 2003, 11:03 a.m.,*
in response to message #1 by Matthias

Hi Matthias!

Not to confuse others, but on your map north is on the RHS<G>. Eh, Emmanuel, le 200LX le montre tres bien. Tu va voir.

Ciao.....Mike

Re: Meeting info, Allschwil

*Message #12 Posted by **Emmanuel, France** on 14 Sept 2003, 5:57 p.m.,*
in response to message #11 by Mike (Stgt)

```
Dear Michael,
I know it. Mine is running inside a 48Mb Flash Disk.
Yours.
```

http://pageperso.aol.fr/Xeq41/Ventes/flashdisk481.JPG
http://pageperso.aol.fr/Xeq41/Ventes/flashdisk483.JPG

Re: Meeting info, Allschwil

*Message #13 Posted by **Raymond Del Tondo** on 14 Sept 2003, 7:40 p.m.,*
in response to message #12 by Emmanuel, France

Hi Emmanuel,

did you also install Windows 3 on the 200LX ? I did, and it works quite well, even with mouse support.

Regards,

Raymond

Re: Meeting info, Allschwil

*Message #14 Posted by **Emmanuel, France** on 15 Sept 2003, 12:57 a.m.,*
in response to message #13 by Raymond Del Tondo

```
Not yet but it could be an idea.
Ithink there's no enough memory for Win3.1
However a DOS 3.0 more than a 5.0 version could work?!
Will bring a 48Mb Flash Disk and a 512K Ram card to Allschwill (please see my
list).
```

Re: Meeting info, Allschwil

*Message #15 Posted by **Mike (Stgt)** on 15 Sept 2003, 6:14 p.m.,*
in response to message #12 by Emmanuel, France

Eh! Emmanuel!

Those photos remind me the beginning. I use a 256MB CF in my LX, I know others (in NZ <G>, hello Tony!) who use 1GB in a HP200LX. But to be honest, 48MB is not bad for the beginning.

Ciao.....Mike

Re: Meeting info, Allschwil

*Message #16 Posted by **Daniel Diggelmann** on 16 Sept 2003, 12:14 p.m.,*
in response to message #15 by Mike (Stgt)

I'll bring my 200LX / 4MB RAM and second one 2MB RAM / doublespeed. A 128MB CF card is plenty of room for me... Looking forward to a 200LX session.

Cheers Daniel

Re: Meeting info, Allschwil

*Message #17 Posted by **Matthias** on 16 Sept 2003, 3:39 p.m.,*
in response to message #16 by Daniel Diggelmann

I'm urgentli looking for 2-3 battery covers for my HP41... So bring them along with you to the meeting, please!

Matthias

Re: Meeting info, Allschwil

*Message #18 Posted by **Mike (Stgt)** on 18 Sept 2003, 5:34 p.m.,*
in response to message #1 by Matthias

I hoped you'd publish the map I prepared for the LXer.

Ciao.....Mike

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Reparing half-nut 41CV

*Message #1 Posted by **Tracy Vermeyen** on 11 Sept 2003, 11:28 p.m.*

I am trying to repair a half-nut 41CV for a friend. I found two cracked posts near the strip connection and fixed them using tips from this forum... this fixed the problem, Yes? No, it still will not turn on. Tried fresh batteries, still no luck. Can someone give me some more troubleshooting tips to keeping me progressing toward success?

Tracy

Re: Reparing half-nut 41CV

*Message #2 Posted by **Tony Duell (UK)** on 12 Sept 2003, 5:40 p.m.,*
in response to message #1 by Tracy Vermeyen

If you have a 6V supply (either a bench PSU, or even a 6V battery), connect it directly to the logic PCB with the machine apart. The -ve side goes to the -ve terminal of the largest capacitor on the board, the +ve side to the commoned end of the 2 piggybacked diodes in the top left corner of the PCB (as you look at it). If the machine will power up then, the fault must be in the flexible PCB in the I/O assembly, or cracked posts (etc) which are preventing it from making good contact with the logic PCB. If the machine doesn't power up when the logic PCB is connected to the PSU, then there's a fault on that board. Could be just about anything -- 'on' switch contacts, CPU, diplsya hybrid, passive components.

Re: Reparing half-nut 41CV

*Message #3 Posted by **Randy Sloyer** on 12 Sept 2003, 7:48 p.m.,*
in response to message #1 by Tracy Vermeyen

The first thing to try is a "master reset". Short the leads together for a second or so of the 470uf (the largest) cap on the left side of the board and retry. Many times the processor will be in la-la land and will not respond otherwise.

If that doesn't do it, Tony's suggestion is spot on. The current consumption will help with a fault finding direction. If it powers up with a direct connection to the diode and capacitor, it is most likely a broken trace on the battery connector. This usually happens only with a battery leak.

Normal operation will be between 30 and 50 ua, standby will consume about 1 ua.

My money's on a master reset. Half-nuts are pretty darn hard to kill.

Edited: 12 Sept 2003, 7:49 p.m.

Re: Reparing half-nut 41CV

*Message #4 Posted by **Tracy Vermeyen** on 13 Sept 2003, 12:22 a.m.,*
in response to message #3 by Randy Sloyer

Thanks to Tony and Randy for the technical assistance!

Another 41CV is back into service! The calculator was revived by shorting across the capacitor as recommended by Randy. Good thing too, because I would have had to ask Tony for better directions, like a photo, on where to apply the 12V (I'm a CE, not a EE).

I feel great being able to return a working HP to my buddy at work, thanks guys.

Re: Reparing half-nut 41CV

*Message #5 Posted by **Randy Sloyer** on 13 Sept 2003, 9:50 a.m.,*
in response to message #4 by Tracy Vermeyen

Congrats on a job well done. Good thing you didn't apply 12 volts, you would have smoked it. 4 x 1.5 volt batteries = 6 volts. They'll actually work down to about 4 volts.

One other thing to mention is the classic green fuzz problem. Always look on the battery connector and springs in the battery holder for green stuff. If you see any, clean it up with cotton swabs and alcohol. The current levels at which a 41 operates does not tolerate cooties on the connections.

Re: Reparing half-nut 41CV

*Message #6 Posted by **Tracy Vermeyen** on 14 Sept 2003, 9:45 p.m.,*
in response to message #5 by Randy Sloyer

Randy,

I recognized my 12-volt error right after I sent the post, thankfully my electronic skills are somewhat better than my typing. Thanks again for you help you are a wonderful source of knowledge and I appreciate you sharing it.

Re: Reparing half-nut 41CV

*Message #7 Posted by **David Smith** on 13 Sept 2003, 12:47 p.m.,*
in response to message #4 by Tracy Vermeyen

You can connect the test supply directly across the big capacitor. The low battery indicator will light up though.

Re: Reparing half-nut 41CV

*Message #8 Posted by **Thibaut.be** on 14 Sept 2003, 4:25 p.m.,*
in response to message #1 by Tracy Vermeyen

Tracy, you have a Belgian name. Are you from Belgium ?

Re: Reparing half-nut 41CV

*Message #9 Posted by **Tracy Vermeyen** on 14 Sept 2003, 9:50 p.m.,*
in response to message #8 by Thibaut.be

My father immigrated to the US from Belgium after WWII- he was 13 yo at the time. I have never been there, but I hope to visit relatives over there some day.

I am curious, is Vermeyen a common name in Belgium? I know of one famous painter from the 15(?)th century with the same name, but very few others.

Take Care

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Old HP calculators in stock

*Message #1 Posted by **Jon** on 11 Sept 2003, 4:21 p.m.*

I have found some HP calculators in a bookshop (an old stock) I have asked for the price and this is the result:

HP 41CV halfnut: 250 eur. HP 28S: 200 eur. HP 27S: 100 eur.

Prices are based on the price they had when they were in production (paid by the bookshop) and must be confirmed because the responsible didn´t know what to do with them . Anyway I don´t think it is possible to get a great discount.

All of them are New in Box, but I think they are too expensive. What do you think?.

Cheers

Jon

Re: Old HP calculators in stock

*Message #2 Posted by **Christof (VA USA)** on 11 Sept 2003, 6:20 p.m.,*
in response to message #1 by Jon

I think the price is very fair for the 27S - I'd love to finally get one of those, myself! It's one of the few Pioneers I just *cannot* find.

The CV is also probably more than fair, the NOS 41CX machines are regulalry getting > $300 prices.

I can't say much about the 28S- While NIB is rather rare, it seems about 50EUR high for my enteric response. (psych joke.)

Re: Old HP calculators in stock

*Message #3 Posted by **chan tran** on 11 Sept 2003, 8:03 p.m.,*
in response to message #2 by Christof (VA USA)

i think i would love a nib 28s for 50 euro. about 80 dollars right.

Re: Old HP calculators in stock

*Message #4 Posted by **Andy** on 11 Sept 2003, 8:35 p.m.,*
in response to message #1 by Jon

Tell me how to buy them .. Please, Here is my e-amil: suffer002a@yahoo.com

Re: Old HP calculators in stock

*Message #5 Posted by **thibaut** on 12 Sept 2003, 5:50 a.m.,*

in response to message #4 by Andy

Take the 41CV and the 27S, forget the 28S.

Don't forget that these are mint items, so at this price it's quite a bargain.

Re: Old HP calculators in stock

*Message #6 Posted by **Joe Edwards** on 12 Sept 2003, 8:58 a.m.,*
in response to message #1 by Jon

Tell me how to buy them .. Please, Here is my e-amil: lamewing@(nospamplease)sbcglobal.net

Joe

Re: Old HP calculators in stock

*Message #7 Posted by **Jon** on 13 Sept 2003, 10:14 a.m.,*
in response to message #6 by Joe Edwards

Hi everybody:

I have got several proposals related to trade these calculators, buying them from other countries... Ok! I am not interested on them at those prices and I will not organize any contact with the bookshop´s owner. Please understand it is an small shop in Spain and they don´t speak english. Anyway if somebody is interested and pays their price plus paypal fees and delivery cost I can do it for you. In fact the bookshop is very close to my home.

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HP49g+ has equation library?

*Message #1 Posted by **Charles** on 11 Sept 2003, 3:01 p.m.*

Do any of you early interceptors see the possibly promised equation library on your 49gplus machines? Just curious. Charles

Don't think it's there

*Message #2 Posted by **Gene** on 11 Sept 2003, 7:10 p.m.,*
in response to message #1 by Charles

I think that was an early leak that is not present.

There is an extensive constants library, but no equation library, according to the hpcalc.org specs...

If not, then this should do

*Message #3 Posted by **Dave** on 12 Sept 2003, 1:43 a.m.,*
in response to message #2 by Gene

Equation Library

Re: If not, then this should do

*Message #4 Posted by **Gene** on 12 Sept 2003, 7:44 a.m.,*
in response to message #3 by Dave

Quite correct. That's what so great about the 48/49 series. so much is out there to make the machines do what we want them to. :-)

Gene

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Dust on HP-42S Window

*Message #1 Posted by **Tom Scott** on 11 Sept 2003, 2:08 p.m.*

Can anyone tell me how to remove (or move) the dust on the inside surfaces of my HP-42S display window(s)?

Thanks, Tom Scott

Re: Dust on HP-42S Window

*Message #2 Posted by **DUSTBUSTER** on 11 Sept 2003, 2:17 p.m.,*
in response to message #1 by Tom Scott

CHECK OUT RANDY'S POST BELOW:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=41672

Re: Dust on HP-42S Window

*Message #3 Posted by **Tom Scott** on 11 Sept 2003, 8:03 p.m.,*
in response to message #2 by DUSTBUSTER

Thanks. I don't know how I missed that.

Tom Scott

I forgot to mention...

*Message #4 Posted by **Randy Sloyer** on 12 Sept 2003, 8:23 p.m.,*
in response to message #3 by Tom Scott

One thing I failed to mention was not to jam the tube in so far as to split the bottom half from the top. The older windowed version machine bezels will distort a bit, possibly leaving a wrinkle. Uggh. You just need to direct the air blast between the halves and the tapered tip helps alot.

Edited: 12 Sept 2003, 8:24 p.m.

Re: I forgot to mention...

*Message #5 Posted by **Tom Scott** on 13 Sept 2003, 2:07 p.m.,*
in response to message #4 by Randy Sloyer

The techique worked pretty well although I did leave small marks on the side of the plastic case where I wedged the two halves apart. Also, it looks like I left a small mark on the window (perhaps when I slipped trying to wedge the tube in).

Tom Scott

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17bii/19bii utpn awol

*Message #1 Posted by **hugh** on 11 Sept 2003, 12:11 p.m.*

i had expected implementing black scholes using the 17bii/19bii's powerful solver would be easy.

nope. utpn (upper tail probability normal) is missing. theres a cheesy version of bs in the hp support docs, but it uses a 4 term hastings approx of the normal distribution (|e| < 2.5e-4). so it doesnt even get 4 figs.

i wonder why they didnt put it in.

Edited: 11 Sept 2003, 12:11 p.m.

more 19bii programming

*Message #2 Posted by **hugh** on 11 Sept 2003, 4:43 p.m.,*
in response to message #1 by hugh

does anyone know if there's some way (eg using let & get) to make a subroutine?

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HP 35 Servicemanual

*Message #1 Posted by **G.Schneider** on 11 Sept 2003, 11:48 a.m.*

I need Help for a HP 35 Servicemanual

Re: HP 35 Servicemanual

*Message #2 Posted by **dbrunell** on 12 Sept 2003, 1:45 a.m.,*
in response to message #1 by G.Schneider

The closest thing I've seen to a service manual is the series of articles from the June 1972 HP Journal, available from this site. It's on CD 6. More of a block diagram than anything else, but still pretty useful.

Re: HP 35 Servicemanual

*Message #3 Posted by **Tony Duell (UK)** on 12 Sept 2003, 5:45 p.m.,*
in response to message #1 by G.Schneider

Would my 'HP35 notes', which contain pinouts of the main ICs, a list of testpointss, etc be of any use? I can e-mail them to you (a fairly small plain text file).

Ellis Easley, please read

*Message #4 Posted by **Tony Duell (UK)** on 13 Sept 2003, 7:46 p.m.,*
in response to message #3 by Tony Duell (UK)

Sorry for posting this publically.... Ellis, I would have sent you the HP35 notes (as you requested), but some spam-blocking software on you ISP refuses to allow me to send you mail. I am not particularly amused -- I hate spam as much as everyone else, but I like having legitimate e-mail bounced even less (particulalry when it's some information that's been requested, and which I am providing due to my own kindness). If you provide me with an e-mail address that I can actaully send messages to, I'll send you the HP35 notes (and the notes on the 45, 55 and 65).

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HP 48gx

*Message #1 Posted by **Kevin Liebzeit** on 11 Sept 2003, 10:11 a.m.*

Could someone provide me with a starting location for information on programming the HP 48gx - for a beginner? Help is needed! :)

Is it worth getting a HP 48gx or should I look at the new HP 48GII or HP 49G+ ?

Kevin

Re: HP 48gx

*Message #2 Posted by **Raymond Del Tondo** on 11 Sept 2003, 10:56 a.m.,*
in response to message #1 by Kevin Liebzeit

The source is: www.hpcalc.org . There you'll find all you need, from the starter to the expert.

Regarding the model to choose:

It's always worth getting an HP-48GX, aspecially if it has the new b/w display;-)

However, just take a look at the new machines (48GII, 49G+), try them, test them, and then decide which suits you best.

Raymond

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HP 15c HP-42s or HP 41cx

*Message #1 Posted by **Krystal** on 11 Sept 2003, 10:03 a.m.*

Hello, I am looking to purchase a HP calc for my husband. He is a returning college student who always complains about his classes requiring a TI calc. He uses it fine when he needs to, but he's always talking about HP calcs. I know he owns a HP-20s or two, but complains that they are not RPN or something. Which should I get him: 15c, 42s, or 41cx. He is a mathematics major/computer sci minor and will be using this pretty much every day when he isn't forced to use the TI. I think he owned a HP 32 a while ago, but from what I have read it doesn't do matrices, so that is out. Which is the best choice for my hubby? If you give an answer, can you please explain in non engineering/mathematical terms as to why it is a better choice? Thank you.

Re: HP 15c HP-42s or HP 41cx

*Message #2 Posted by **Raymond Del Tondo** on 11 Sept 2003, 10:49 a.m.,*
in response to message #1 by Krystal

I'd vote for the HP-42S, because your husband seems to be used to the form factor, because he uses a 20S, The 42S can easily do matrices with it's editor, has a two line display, is easily programmable, has enough memory for most tasks, and the batteries can last years.

There are more reasons for the 42S, but these should suffice for the first turn;-)

There are of course reasons for the HP-15C, or the 41CX.

Regards,

Raymond

Re: HP 15c HP-42s or HP 41cx

*Message #3 Posted by **Randy Smith** on 11 Sept 2003, 10:51 a.m.,*
in response to message #1 by Krystal

All of these calcs are pretty hard to find for a decent price. All of them have different things that make them better for different purposes. The 15c has built in matrix functions. However, it has no output capability except to the display. But it is quite pocketable as is the 42S. The 42S also has built in matrix functions and further has infra red output capability to a printer so that you can have a permanent record of what his working on. The only input capability is through the keyboard. The 41CX has no built in matrix capability but it can be added through a module called the Advantage Module. The 41CX has several storage choices such as a magnetic card reader, a disk drive, and a tape drive. All of the information and programs saved on these devices can be saved indefinitely until needed. Altogether, the 41CX is probably the most flexible choice; but, you need to have more items to have matrix capability. The 15C is limited by having no output capability. In my opinion the 42S bridges the gap between the 15C and the 41CX pretty well, but has the disadvantage of having no long-term storage capability except in the memory of the machine. Any programs or information lost in the memory of the machine due to lock up or accidental clearing would have to be loaded again through the keyboard.

A definite cost analysis!

*Message #4 Posted by **christof (VA USA)** on 11 Sept 2003, 3:02 p.m.,*
in response to message #3 by Randy Smith

All of the machines will *work*

The 15C is probably the least useful (sacrilege, I know) for a CS major. But it cna be had for under $150 pretty handily.

the 42S (WITH THE RAM UPGRADE) is much more useful, and is probably the most useful dollar for dollar. An IR printer (the a model) can be had for under $60 generally, and the 32K RAM version should be available off and on for a reasonable price from fixthatcalc.com (I'd estimate under $300, perhaps as little as $250) - With 32K RAM you have enough room to model algorthms, code up some nifty time savers (network calculators, binary calculations, etc), and run some large matrices.

The 41(CX) has the most goodies- but you pay for the goodies. Estimate about $150 for a good working CX with maybe one useful module- $30-$80 each for extended memory (two), $100 minimum for a working disk drive, $30 to $100 depending on condition and type of printer, then there's the HPIL module, etc. (I'm a heathen. I love my 41CXs, but the calc that I CARRY as a computer professional is a 42S(upgraded)

the 48GX is also a great option if it is allowable. GREAT option. You can even code original computer languages in assembler on it. (but I still carry the 42S every day)

Re: HP 15c HP-42s or HP 41cx

*Message #5 Posted by **Ron Ross** on 11 Sept 2003, 11:01 a.m.,*
in response to message #1 by Krystal

If $$$$ is not an issue, the Hp42s is probably a good solid choice (actually, you just named 3 of the best ever calculators). And you won't have to deal with hubby spending any more money on 41c periphials and ROM cartridges.

However all three are discontinued and actually quite sought after.

For a more powerful present day graphics, I suggest an Hp48G+ or a 48GX if you wanted to (or needed to) buy today.

Next month Hp will release a new line of graphics calculators that look to be really nice. However, they are not proven machines and with Hp's recent track record, could be loaded with Cockroaches or other nasty parasites (some seem to live on or eat batteries).

I use an Hp48GX and am very happy with it. I also have the newer and then discontinued Hp49G. The 49G is faster and has better software features than my 48GX, but doesn't compare in keyboard quality FEEL (I have heard from reliable sources that while the keyboard of the 49G doesn't feel as good, it is designed to outlast the older Hp's: I can't argue against this point because MINE WILL, but only because I don't use it!).

Two places to look for the three calculators you mentioned(and none are really reasonable for the average calculator user). As I stated earlier, the three you ask for are three of the best.

http://www.hpcalcman.com/pages/1/index.htm

and ebay.

Else look at the Hp48G series. It is your best buy for the features and value (and handles Martices really well).

Re: HP 15c HP-42s or HP 41cx

*Message #6 Posted by **Krystal** on 11 Sept 2003, 11:05 a.m.,*
in response to message #5 by Ron Ross

I looked at the HP 48gx and I don't think he wants anything like that due to the size issue. It looks as big as his TI calc. I read through some of the info on the 48gx and it uses RPL. I though I was looking for an RPN calc.

Re: RPL is advanced RPN

*Message #7 Posted by **Ron Ross** on 11 Sept 2003, 11:09 a.m.,*
in response to message #6 by Krystal

Though there are many who would argue this. It is keystroke similiar and to general use RPN.

Re: RPL is advanced RPN

*Message #8 Posted by **bill platt** on 11 Sept 2003, 11:23 a.m.,*
in response to message #7 by Ron Ross

Yes, RPL is different from RPN, but only slightly or greatly, depending on what you want to do! For hand calculations on the keys (no programming) they are almost identical, except that "number ENTER x^2" gives the square of a number in RPN, but "number ENTER ENTER x^2" is required in RPL (this is a very minor difference and in essentially all other things, they are the same). RPL also has an "infinite" stack and no "lastx" feature, but a 4 level limited stack, and lastx, are easily implememented on RPL machines (I got the "lastx" from someone here on this forum!).

The real difference between RPN and RPL is in the programming. It is a really significant change in thinking to go from a 32s type of programming to the 48 series or RPL language. Yes, RPL is more powerful, structured etc but for someone like me, a practicing engineer, it has been a significant learning curve to get proficient on RPL--in some ways it is like PASCAL or BASIC and so seems easy, but then in other ways is is not so clear.....

The "form factor" difference is also important. The 48 is really big. The 15c is beautifully small. The 42s is a very nice size. The 15c is significantly slower than the 42s--noticable with small programs especially if they use transendentals or trig.

The 41cv is generally less expensive than the 42s on e-bay, but you have to be VERY careful about damage to the battery compartment and broken screw posts (just ask lots of questions before bidding). If you want to do matrices, you must get a module (Advantage) which I don't think is all that expensive.

Also, look at the following:

http://www.hpcalc.org/hp49gplus.php

it looks like HP is bringing out a new RPN programmable in the next month. yes, it looks different, but it is a possibility.

regards,

Bill Platt bill at plattdesign dot net

Edited: 11 Sept 2003, 11:28 a.m.

Re: HP 15c HP-42s or HP 41cx

*Message #9 Posted by **Ron Ross** on 11 Sept 2003, 11:14 a.m.,*
in response to message #6 by Krystal

One other reasonable consideration. The Hp28S. He may like this machine (I don't). It will be fairly cheap, is smaller than a 48G (actually its direct predicessor), and still easy to get via ebay.

Buy one in as good of condition as you can get. Make SURE you get one with a GOOD battery door.

Feature wise, a really nice pocket calculator (if you have a slightly oversized pocket). Looks good.

But again if $$$$ is not an issue, I vote for a 42s.

Re: HP 15c HP-42s or HP 41cx

*Message #10 Posted by **Thibaut.be** on 11 Sept 2003, 11:23 a.m.,*
in response to message #9 by Ron Ross

As already stated, these 3 calcs are excellent, and they all have their + and - but at the end they all score in the same range.

I'd also vote for the 42S as it is the most powerful and the fastest of these 3.

Nevertheless I would also seriously consider 48GX and 49G+ for academic use. The CAS is a very luch advanced tool that really help when discovering new topics in maths. For a lower price than a nice 15C, 41CX or 42S you could find on ebay.

Re: HP 15c HP-42s or HP 41cx

*Message #11 Posted by **Krystal** on 11 Sept 2003, 11:22 a.m.,*
in response to message #1 by Krystal

I think I have decided to go with the HP 42 since it has a few more features than the HP 15c and it has the same body style as the HP 20s.

Now, is the programming on the HP 42 the same as on the HP 41x?

Also, why did HP stop making this calculator if it was such a nice piece of equipment?

Krystal

Re: HP 15c HP-42s or HP 41cx

*Message #12 Posted by **bill platt** on 11 Sept 2003, 11:37 a.m.,*
in response to message #11 by Krystal

Hi Krystal,

THe 42s is designed to be compatible pretty directly with 41c/v/x programs. I am not personally familiar with this aspect, but have heard a bit about it:

http://www.hpmuseum.org/hp42s.htm

scroll down to the "programming" part.

Sadly, it was off the market before I knew it existed--so I bought a 32sii instead (in 1996).

Maybe the 42s was discontinued due to the release of the 48 series. It is sort of like being a boat manufacturer---do you produce a 20' 22' 25' 28' 29', or do you drop the 28 footer?

Regards,

Bill at plattdesign dot net

Re: HP 15c HP-42s or HP 41cx

*Message #13 Posted by **Thibaut.be** on 11 Sept 2003, 11:52 a.m.,*
in response to message #12 by bill platt

The 42S is supposesd to be compatible with programs written for the 41.

At a certain programming level, you might regret the full alpha keyboard on the 41CX, onlmy accessible with menus on the 42S, but other people swear that with a bit of habit it's not an issue anymore.

Anyway it is an excellent choice.

Re: HP 15c HP-42s or HP 41cx

*Message #14 Posted by **Erik Ehrling (Sweden)** on 11 Sept 2003, 11:30 a.m.,*
in response to message #1 by Krystal

It is all a question of taste, but I would vote for the HP-42S. It is the only of the three that has a two line LCD, it has more memory, is faster and contains all the functionality that you would have to spend a fortune on special modules to get for the HP-41C(V/X).

Regards,
Erik Ehrling (Sweden)
http://w1.322.telia.com/~u32220482/index.html

Read this, Krystal :-)

*Message #15 Posted by **Valentin Albillo** on 11 Sept 2003, 11:41 a.m.,*
in response to message #1 by Krystal

Krystal wrote:

"Hello, I am looking to purchase a HP calc for my husband. [...] I know he owns a HP-20s or two, but complains that they are not RPN or something. Which should I get him: 15c, 42s, or 41cx. [...] If you give an answer, can you please explain in non engineering/mathematical terms as to why it is a better choice?"

The ideal choice would be an HP42S. Reasons:

- Same form factor as the HP20S. If he's used to that and only regrets it not being RPN, the 42S is same physical quality, like shape, but much more powerful, and RPN to boot. It easily fits a shirt pocket, try that with a bulky 41C.

- The HP42S is much faster (more than 15 times), has much more memory (more than 15 times) and is much more capable than the HP-15C, and the same applies re the HP-41 He will be able to do all kind of matrix manipulations with utmost ease, as well as many other advanced functions, while using

glorious, classic RPN.

- The HP42S has a fully alphanumeric, graphic, two-line display, whereas the other models feature a non-graphic, one line display. This will allow him to clearly see all messages and results with full prompts and texts, and even some small but useful graphics.

Matter of fact a small routine can be prepared that, the moment your husband is presented with and turns on the machine, it will display an "I LOVE YOU" message on the display, complete with music *and even a big, graphic heart and all!!*. It would make for the nicest surprise, don't you think ? :-)

Best regards from V.

Edited: 11 Sept 2003, 11:43 a.m.

Re: Read this, Krystal :-)

*Message #16 Posted by **42S** on 11 Sept 2003, 3:09 p.m.,*
in response to message #15 by Valentin Albillo

I forgot to mention the graphics.

They really do matter. For minehunter and yahtzee (still working on that, using the dice roller code on the site)

But also for plots (I admit to using this as a technically allowed cheating aid - the prof never believed the the calculator was programmable and allowed it on exams- to help me sanity check some solutions.

-oh, and the statistics on the 42S are great, and very expandable.

Yahtzee programming

*Message #17 Posted by **Thibaut.be** on 12 Sept 2003, 5:51 a.m.,*
in response to message #16 by 42S

Keing in the program is an excellent exercise for both alpha keyboard learning and debugging techniques...

Yahtzee...

*Message #18 Posted by **Gene** on 12 Sept 2003, 7:46 a.m.,*
in response to message #16 by 42S

Don't forget the yahtzee program over at my site for the 41/42 series. Works well and is just waiting for some graphics. :-)

http://www.rskey.org/gene/hpgene

Re: Yahtzee...

*Message #19 Posted by **christof (NoVA US)** on 12 Sept 2003, 11:02 a.m.,*
in response to message #18 by Gene

AH- that should make the whole project a lot faster :)

thanks, Gene!

Re: HP 15c HP-42s or HP 41cx

*Message #20 Posted by **Bob** on 11 Sept 2003, 11:41 a.m.,*
in response to message #1 by Krystal

For every day use and cost effectiveness, my choice is a 4th calc, the HP48GX. If you are getting one because he always wanted one of those 3 calcs that is different. I have had and used the 41C, 41Cv, and the 42S. I don't use any of them anymore. I have borrowed and used a 15C, but didn't like it. After using the 48GX, I am sold on it's performance. I now own 3 of them as well and use them in my work as an R&D Engineer.

I think the 3 machines mentioned will all be more expensive than a new 48GX, but will be less capable. The size makes a difference to some, but not to me. I don't walk around with a calc in my pocket. Ever. If I go to a meeting, it is not really all that big to carry with me. For longer hikes to another building, I always take my briefcase/bag with me anyway. The 48GX is powerful, has tons of software and programs for it, and is easy to use.

It's your choice of course, but collectors have driven the price of the 3 calculators that you mentioned to collector level prices, not daily use affordability. While still expensive, the 48GX is available new, has later technology, and is durable. It was billed as the supreme engineering calculator and it's longevity and popularity support that claim.

As for RPN vs. RPL, I really can't tell much difference in use for the most part other than the stack difference.

As a bonus, you can pick up a 48GX, 48G, or 48G+ pretty cheap on EBay compared to the other calcs you mentioned.

Good luck.

[OT] Re: HP 15c HP-42s or HP 41cx

*Message #21 Posted by **R Lion** on 11 Sept 2003, 12:50 p.m.,*
in response to message #1 by Krystal

How many "Don Juan" helping you, milady. ;-)

Re: HP 15c HP-42s or HP 41cx

*Message #22 Posted by **Vincent Weber** on 15 Sept 2003, 4:34 a.m.,*
in response to message #1 by Krystal

Hi Krystal,

The 3 calcs you mentioned are among very best HP manufactured and I understand your dilemna: none of the 3 can totally outperform the other 2 in every aspects:

I) 15C --- - Strenghts:

1) Very nice form factor, the best ratio features / volume ever and probably the "most classy" award 2) one of the very few calculators to feature a complex stack (the first one actually) 3) limited but nice matrix integration (you can even recall a matrix pointer of the stack, long before the HP28/48 series) 4) complete set of advanced features accessible directly from the keyboard (hyperbolics, random number, combination & permuation, gamma, solve, integrate). 5) Recall arithmetics (RCL+,...) and all 12 conditionals.

- Weaknesses:

1) -Very- slow... 2) No alphanumeric display. Not even an alpha display of program steps, which makes

programming (otherwise quite powerful) and degugging a -real- pain. 3) No I/O whatsoever. Don't even think about exporting or importing a program... 4) Matrix handling looks nice on the surface, but actually requires a lot of key stroke to enter a matrix, even in "User" mode - which is not even as convenient as the '41 Advantage module, supposely less integrated. Complex matrix is a nightmare (you need to enter the matrix in real form, call a matrix function to transform it into a complex form, and convert back after finishing the operation).

II) 41CX ----

Strenghts:

1) The most flexible calc ever, due to the expansion ports. No other calc can claim to be as versatile: advanced math, finance, aviation, chemistry - everthing is there. But you need to pay for extra modules. 2) I/O: Provided you buy the necessary hardware (again...), you can load/save programs with various kind of hardware. 2) Very good handling of alphanumerics, with letters directly accessible on the keyboard. 3) Extended memory: this offers a lot of flexibility, especially the ability to manage files (ascii or binary). 4) Timer functions: if you want to use your calc as a clock/"PDA" (less useful nowadays - but this is a myth as the NASA made HP build the time module to take the '41 on board the space shuttle in 1981). 5) Synthetic programming: The calc is a hackable machine that allows to enter extra instructions (some kind of machine code) - while neither 15C or 42S can. But you need to have a 'hacker' mind... 6) Prestige: Along with the '48, the '41 is the most mythical device ever produced ! You have to remember that the first version (41C) was out in 1979 (i.e. prehistory) and nevertheless is still a very useful tool today !

Weaknesses

1) Quite slow (but still twice faster as the 15C). 2) Quite big (not pocket-friendly, due to the expansion ports). 3) Will cost you a lot in add-on modules, cf. next point. 4) Lack of build-in functionality (this is a deliberate choice - the machine is meant to be expanded, hence there are few built-in features). Compared to the 15C and the 42S, the '41 is especially lacking a complex stack (even the Advantage Module only offer a 2-number "stack" implementation, not very ideal). But you may not need to compute complex operations. On the other hand, matrixes are quite well handleded by the routines of the Advantage Module: although they are not as integrated as those of the 15C and the 42S, they do the job very well and offer additional functionality of its 2 competitors (especially for matrix manipulation). 5) Lack of recall arithmetics and only 10 conditionals (minor point to me anyway). 6) Lack of Gamma function, combination and permuation, random number - all of which are easily programmable and some of which being present in the PPC ROM, so, not that much of an issue (if you can find the ROM). 7) No named variables as on the 42S - you have to deal with registers only, which makes it hard to remember what you really wanted to do in a program when you review it after a long time.

III) HP-42S ------

Strenghts:

1) The almost perfect calc: The programmation power of the 41, the features of the 15C, and much more. 2) Elegant and pocket-friendly. 3) Very fast 4) Smooth and nice complex & matrix integration. Just as the 28 or the 48, can handle various object types on the stack (matrix, complex, strings - but no lists, programs, or algebraic expressions/equations).

Weaknesses:

1) No other I/O than I/R one-way printing, which is -a shame- for a calc of this quality. No other way to input a program than your fingers. That's why the '41 survived still for 2 years after the 42 release. The 42 was actually more a 15C upgrade than a 41C upgrade, and only the 48SX would definitely berry the good old 41. A 42SX project was sadely cancelled (probably not to undermine the '48 sales). 2) Ackward alphanumeric entry. No matter how people can claim that you can get used to it, the fact remains that you will never type a text a fast on the 42 than on the 41, simply because each letter requires 2 key strokes instead of 1. If you are very

keen on using your calc as a memo pad, I strongly recommend you choose the 41 instead. 3) Limited memory (8K, which is little more than a '41CX with 2 extended memory module). A 32K upgrade is possible, but is a very manual operation and you will have a hard time to do it. 4) No time function - but these are not so useful on a calc nowadays. 5) No extended memory, meaning no "files" as on the 41CX. You can type additional text editing programs, though. But again, see my point on the '42S alphanumerics entry... 6) No way to enter complex numbers in a different mode than the dislay mode (rectangular or polar). An "angle" key like on the 48 would be welcome. 6) No algebraic equations for the solver. The more recent 32SII added this handy feature (while I love RPN, I think that it is easier to type 'P*V=N*R*T' than ' LBL "GAZ" MVAR "P" MVAR "V" MVAR "N" MVAR "R" MVAR "T" RCL "P" RCL "V" * RCL "N" RCL "R" * RCL "T" * - RTN' :) A matter of choice.. 7) A 42SII could also have introduced the very nice fraction support of the 32SII.

That's it for now :) Other points you could consider:

1) If you do not need matrixes and are not too demanding on complex numbers, you can go for the 32SII - simple and solid. 2) If you want power of RPL in a nice format, the HP28S is a good alternative. 3) If you have a Palm device and do not mind using a sytlus instead of a keyboard, I recomment the "P41CX" '41CX emulator for PalmOS from Charles (www.palmgear.com). You can have *all* 41 modules for a mere $10. The emulator is very good. If you own a PocketPC, you might want to look at ev41, or the very good Pocket15C 15C simulator (www.lygea.com).

My 2 cents. Cheers, Vincent Weber

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Killer Dash...?!

*Message #1 Posted by **Tizedes Csaba** on 11 Sept 2003, 5:13 a.m.*

I downloaded BoulderDash from hpcalc.org to my 48SX (I want to try, maybe it works), and when I run it, I get a 'G version by The Master'-like message, and the calc not responded more. I try to canceling the prg with [ON], but I heard rattling-voice.

I taked off batteries, waiting (and pressed [ON] for sure it will die) but when I installed batts again, the calc not wake up. I try it sometimes, but nothing...

I give once full plotted display with a centered vertical line. And nothing more...

Can anybody help me, how I can wake up my calc again?

Csaba

After the first 'panic' - works again

*Message #2 Posted by **Tizedes Csaba** on 11 Sept 2003, 6:57 a.m.,*
in response to message #1 by Tizedes Csaba

I try it again... Everything works... Uhhh... Cs.

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HP-41 wand module

*Message #1 Posted by **Frederic** on 10 Sept 2003, 7:40 p.m.*

Hi, i bought the 5 CD of the museum and i'm looking for that HP book :

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3046468506&category=11713#ebayphotohosting

On wich CD will i find it?

Thanks

Re: HP-41 wand module

*Message #2 Posted by **Mark Hardman** on 10 Sept 2003, 10:09 p.m.,*
in response to message #1 by Frederic

I only have the DVD. It lists the Creating your own HP-41 Barcode manual in subdirectory "CD4".

Mark Hardman

oddly enough

*Message #3 Posted by **Christof (VA USA)** on 11 Sept 2003, 6:23 p.m.,*
in response to message #1 by Frederic

I was about to ask the same thing....

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HP-49G+ Power consumption

*Message #1 Posted by **Daniel Diggelmann** on 10 Sept 2003, 7:10 p.m.*

[pre]As my home page is gone I'll go on posting my news here. When I received my new calc the batteries where already dead as they were of most other buyers. So I suspected the machine would draw excessive current even when off. So I measured the current of the the new HP-49G+ vs HP-49G:

HP-49G+ ------- OFF: 0.02 mA ON: 10 mA (doing nothing) Running: 80 mA

HP-49G ------ OFF: 0.02 mA ON: 7 mA (doing nothing) Running: 20 mA

The Test shows that the new calc draws four times more power when it's running a program. Actually the current is approx proportional to the speed gain. As the calc is usually not doing much most of the time I don't expect it to eat too much batteries. So I take the installed batteries were of poor quality. The off current is just the same.

Re: HP-49G+ Power consumption

*Message #2 Posted by **Tom (UK)** on 11 Sept 2003, 3:50 a.m.,*
in response to message #1 by Daniel Diggelmann

The power sometimes is not in proportion to the speed gain as smaller technology versions of the same design have lower current (as internal capacitance is lower). Also newer technology usually HAS to run on a lower voltage - the HP49G+ could run on 3V rather than 4.5V? (I assume the HP49G+ runs from 3 x 1.5V batteries). I wonder what voltage is connected to the ARM processor.

Saturn design may have been more efficient as it wasn't trying to 'emulate' anything. The new design may have lower power 'per instruction' but the emulation may require 2 or 3 instructions each, so no net gain.

The stand by current of 10mA doesn't look too good, a large improvement can be gained by turning off or reducing the clock speed to the processor (not the display) when it's not doing anything. The down side is a tiny start up delay when you start pressing keys, but this should not be noticable.

Do you know the Off / Standby / Running current of other HP calcs using the Saturn processor (e.g. '28, '42, '32, '48)

If the speed is 4x and the running current is 4x then for a given set of tasks the batteries should last the same time. With most electronics the battery life is dominated by the standby current (10mA vs 7mA) so I would guess the batteries will only last about 70% of the time as the older calculator. From memory the AAA batteries used to last about 6 months of light use in the HP49G, so the HP49G+ should need new batteries every 4 months?

I presume there is no connector for an external power supply. HP could have done a 'docking station' including the data connection and power / charger for the internal batteries - oh well may be in the next series of calcs :-)

Re: HP-49G+ Power consumption

*Message #3 Posted by **Veli-Pekka Nousiainen** on 11 Sept 2003, 4:04 a.m.,*

in response to message #2 by Tom (UK)

I Assume (I make "Ass" out of "u" and "me") the CPU is Samsung S34210 - the same used HP iPAQ h1940. I/O 3V, core 1.8V, slow mode = 12MHz, running 48/75MHz (calculator) and about 203MHz on a PDA. Maybe the slow mode could be halved to 6MHz, to cut off even more from the stand-by current, but otherwise it is a very good design. OFF has every possible circuitry OFF - even annuciators, which don't have a dedicated line anymore (like they did in Yorke/Clarke).

Standard usage is maybe one month of battery life. The fast IrDA, fast USB (serial on 48gII), SD card, 25% more LCD, etc. will eat more batteries. So a "typical" heavy user may need to buy a new set before every weekend. (-;

Re: HP-49G+ Power consumption

*Message #4 Posted by **Brandon Del Bel** on 11 Sept 2003, 1:21 p.m.,*
in response to message #3 by Veli-Pekka Nousiainen

Hmmmm... I think you're pushing it with your power consumption estimates; nonetheless, I use rechargeable batteries, so I'm in good shape.

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A suggestion to those who did not receive their parcel

*Message #1 Posted by **Emmanuel, France** on 10 Sept 2003, 4:29 p.m.*

```
I just know that there's too many robberies or other crimes
because La Poste is using temporary workers.
Sometimes they change them after a week ...
Mister G. of La Poste gave me this information.
Alas ...
First I was thinking that CDRs or serial cables (for HP-48)
were good reasons for a theft or for a parcel to be opened.
It's not the fact of customs. My green labels are an example but they read them and found some
interest.
Complaints made are too often unregistered and needed to be re-made.
Any suggestion from someone who used UPS from France?
```

Re: A suggestion to those who did not receive their parcel

*Message #2 Posted by **Jeff** on 11 Sept 2003, 7:14 p.m.,*
in response to message #1 by Emmanuel, France

Emmanuel, If this would get me package here any sooner I would agree. I do not have any experience with UPS overseas.

Re: A suggestion to those who did not receive their parcel

*Message #3 Posted by **Emmanuel, France** on 12 Sept 2003, 7:17 a.m.,*
in response to message #2 by Jeff

```
Not recovered previous parcel. No news from La Poste.
Boring.
Prepared another one in case of ...
```

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Let's go to the moon, its '69 again :o)

*Message #1 Posted by **Norm** on 10 Sept 2003, 4:09 p.m.*

Howdy friends, didn't have anything worth telling U the last couple of weeks.

But check out this news article: http://www.time.com/time/nation/article/0,8599,480984,00.html

It says that NASA has recently compared the tradeoffs between the Space Shuttle and the Apollo rockets (with space capsule for crew) and finds considerable advantage to the Capsule !!!!!!!

They are even thinking of going back to the earlier design. No this is not a joke, and this is no drill. Read it for yourself.

Apparently a 100 ton winged space shuttle has more economic and engineering difficulty overall, than a 5 ton space capsule (!)

NASA is also looking at a mini-space shuttle (no doubt pushed along by a rocket). One thing they are way too quiet about ..... using a rail-gun to pre-launch the whole thing with energy from the ground. I think there are STILL too many MBA's to be visionary enough to really jump ahead..... a rail gun launch from the mountain at Hawaii, of a mini-space-plane, somewhere between a shuttle and a space capsule.

Classified information about updated space capsule....

*Message #2 Posted by **Norm** on 10 Sept 2003, 4:11 p.m.,*
in response to message #1 by Norm

I have just received classified information from NASA headquarters..... when the Apollo rockets are put back into service, there will be an HP-34C
with RED LEEDDDDDDDD's (oooweee babeee)
next to each astronaut, bolted to the armrest.

also

*Message #3 Posted by **Norm** on 10 Sept 2003, 4:14 p.m.,*
in response to message #2 by Norm

also breaking news,

Carly Fiorinia will get a ride into space on the new updated Apollo rocket. There will be a special framework to hold a Wal-Mart beach chair for her, just directly below the rocket nozzles.

Re: Let's go to the moon, its '69 again :o)

*Message #4 Posted by **Grant Goodes** on 10 Sept 2003, 4:28 p.m.,*
in response to message #1 by Norm

It's not so much that the shuttle is advanced and a capsule old-fashioned; rather, NASA has basically insisted

on a winged-design for any proposed manned vehicle since the Apollo system was retired, despite the clear engineering disadvantages. Similarly, NASA has continued to persue LOX/LH2 (liquid oxygen + liquid hydrogen) rockets, despite the engineering reality that the less exotic, seemingly primative LOX/Keronsene rocket (as used by the Saturn V first stage, and Soyuz) results in a cheaper cost/Kg to orbit. Something other than engineering expertise is driving these designs (and I don't think I have to point out the obvious parallels with HP calculator designs post-1985).

As long as people (both in NASA, and in their funding bodies such as Congress) continue to be swayed by Buck Rogers -style flash, the US space program will continue to flounder. A return to a less flashy, but far more realistic (and proven) capsule design for ferrying astronauts to/from LEO would be a definite turning point, and although I wouldn't hold my breath, might indicate the first "small step" on the way back to the moon.

To bring it back to HP: Are we seeing the first small steps to the return of the traditional HP values with the latest releases? I'm not so sure, and will definitely NOT be selling my HP-41 system or my HP-16C anytime soon.

grant..

Re: Let's go to the moon, its '69 again :o)

*Message #5 Posted by **christof (NOVA US)** on 11 Sept 2003, 7:41 p.m.,*
in response to message #4 by Grant Goodes

http://www.xcor.com/

Great fuel. Great burn. Great *manned* test platform.

(and I had a lot of fun doing some static tests on a visit I made a few months ago)

Re: Let's go to the moon, its '69 again :o)

*Message #6 Posted by **Paul Brogger** on 10 Sept 2003, 5:37 p.m.,*
in response to message #1 by Norm

I don't think a winged "space ferry" is necessarily a bad idea. The fault, as I (inexpertly) see it, is in insisting that the shuttle be the primary lift vehicle, and that it be capable of returning cargo from orbit.

Those requirements dictated the overall size of the vehicle, and of the boosters, resulting in a great deal of the costs incurred. Were they to have simply developed something along the original "Dyna Soar" concept (that is, a winged, maneuverable space taxi), the stress on a smaller, lighter vehicle would have been a fraction of what actually resulted, both going up and coming down.

Meanwhile, use of the Shuttle as the primary lift vehicle limited the sizes of satellites, and delayed a whole string of launches when the Challenger exploded.

I'm sure there's more to it than that, but putting all their eggs in the Shuttle basket sure seems to have been a boneheaded move.

Re: Let's go to the moon, its '69 again :o)

*Message #7 Posted by **Andrés C. Rodríguez (Argentina)** on 11 Sept 2003, 11:20 a.m.,*
in response to message #6 by Paul Brogger

The Gemini capsule initial concept was to land as a sort of an ultralight glider (a unfoldable Rogallo wing),

which was disregarded later in time. Perhaps it could be reconsidered now, some 40 years later, to provide a new capsule with the ablity to make controlled landings, instead of relying in "fishing" astronauts in the middle of the sea, as noted in the Time article referenced by Norm. (Certainly, some classics are coming back!)

Re: Let's go to the moon, its '69 again :o)

*Message #8 Posted by **David Smith** on 11 Sept 2003, 12:18 p.m.,*
in response to message #1 by Norm

When the shuttle was first funded, all the tooling for the Apollo rockets and engines were destroyed so that we would be guaranteed of not having anything to fall back to if the shuttle program ran into problems.

Let's go to Mars... let's not invite NASA or the gooberment.

Useful Space Links

*Message #9 Posted by **bill platt (les Estats Unis d'Amerique)** on 11 Sept 2003, 6:57 p.m.,*
in response to message #1 by Norm

Hi all here is a list of some of the links I have gathered over time. I cannot seem to find another very good one that talks about a number of "new" "innovative" reentry vehicles--some look like helicopter blades glued to a capsule---just like my 1950's chldrens book on rocketry!

http://www.sandcastlevi.com/space/spa-hero.htm

http://faculty.erau.edu/ericksol/projects/gemini/chap12.html

http://www.tetherapplications.com/seds1.htm

http://www.geocities.com/CapitolHill/9694/ioVan5.html

http://www.hq.nasa.gov/office/pao/History/SP-4209/ch3-4.htm

http://www.hq.nasa.gov/office/pao/History/SP-4201/ch4-5.htm

http://www.marsacademy.com/traj/traj1.htm

http://www.acri.fr/English/Studies/Spatial/gnc.html

http://apollo.cnuce.cnr.it/CODRM97/AAS98-173.html

http://www.apollosaturn.com/

http://yarchive.net/space/index.html

Regards,

Bill at plattdesign dot net

Edited: 11 Sept 2003, 7:00 p.m.

Thanks for the space chat, folks,

*Message #10 Posted by **Norm** on 12 Sept 2003, 5:47 a.m.,*
in response to message #9 by bill platt (les Estats Unis d'Amerique)

Thanks for the space chat, folks, I enjoyed all of your reply posts. "XCOR" was interesting, as was the consensus that NASA has too much bureaucracy to proceed with things beyond the Space Shuttle.

The Shuttle was, obviously, quite an achievement when it first flew. But NASA has not done any impressive "buck rogers" stunts in the last decade or two. They just run the school bus back & forth, back & forth (until it blows up) they need to try some new stuff.

For those of us with engineering mindset (all of us?) the focus needs to be upon cost per kilogram of material shipped into space. That specification will vary with the different vehicles that get proposed and built. It needs to be made as low as possible. My vote is for an electric rail-gun launch from Hawaii. The vehicle should already be going 400 miles an hour and be at 15,000 feet by the time the rocket motors are ignited.

I don't yet see any unifying consensus between all the different factions. It appears President Kennedy did the nation a favor by demanding a very specific goal of our country, at the earlier time. Painful to say if you are a republican, but its true that it was the democrat Kennedy that got everybody to focus upon the specific goal, that gave us the legendary "Apollo" years, an absolutely unbeatable time that no number of Humvee's, big-screens and stock-fraud millionaires in McMansions shall ever replace.

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Meeting at Allschwil

*Message #1 Posted by **Emmanuel, France** on 10 Sept 2003, 2:06 p.m.*

```
Will come with JFG from Grenoble. Then might need a plan.


Will bring a 486 mother card with power supply, keyboard, mouse, FDD, HDD and my Eprom Burner.
Christoph, could you loan a HP-IL/PC card?


My contribution:
Briefing on making bar code for HP-41
Briefing and demo on data transfer
Briefing and demo on making Eproms
Briefing on building an Eprom Box


Enough? Boring? Any idea?
```

Re: Meeting at Allschwil

*Message #2 Posted by **David** on 10 Sept 2003, 3:06 p.m.,*
in response to message #1 by Emmanuel, France

Man, I wish I lived near you!!! Maybe someone can type up some notes, or tutorials from your presentation.

Re: Meeting at Allschwil

*Message #3 Posted by **Emmanuel, France** on 10 Sept 2003, 4:17 p.m.,*
in response to message #2 by David

I'll make a report after the meeting. ;o)

Re: Meeting at Allschwil

*Message #4 Posted by **Matthias** on 10 Sept 2003, 4:32 p.m.,*
in response to message #2 by David

Nice to hear this, notmally we europeans always say this...

So, come to the meeting, europeans

Re: Meeting at Allschwil

*Message #5 Posted by **J-F Garnier** on 11 Sept 2003, 7:03 a.m.,*
in response to message #4 by Matthias

Hello,

I plan to present improved versions of my Emu41 and Emu71 emulators with full HPIL support.

I will also bring some old HPIL stuff from the 80's: HPIL boards designed by me for the Kristal

company, prototypes of HP82166 converter and HP82160 module. Maybe also my old HP110 Portable Plus...

See you soon...

J-F

Re: Meeting at Allschwil

*Message #6 Posted by **Raymond Del Tondo** on 11 Sept 2003, 10:34 a.m.,*
in response to message #5 by J-F Garnier

Hi Jean-Fracois,

maybe I should bring my W&W HP-IL interface for the HP-48 to the meeting, just to show how it works with the HP-48.

Regards,

Raymond

Re: Meeting at Allschwil

*Message #7 Posted by **Emmanuel, France** on 11 Sept 2003, 11:56 a.m.,*
in response to message #6 by Raymond Del Tondo

```
Guy Toublanc, former member of PPC-Toulouse
gave me his works on saving HP-48 data onto LIF 3.5" discs (HP9114A or B)
trough RS232c interface with the help of HP-71B.
```

Re: Meeting at Allschwil

*Message #8 Posted by **Mike (Stgt)** on 11 Sept 2003, 1:38 p.m.,*
in response to message #1 by Emmanuel, France

Hi!

And I'll join from Stuttgart with 'my' HP200LX, just to show how JF Garniers emulators run on such a gem. ;-)

Ciao.....Mike

BTW, if I come by car I'll bring the HP9000-300 with me if someone is interrested to trade. If I come by train - sorry - no trade. C,a dépend, si le quinques sont mure dans le chardin de Mama <VBG>

Re: Meeting at Allschwil

*Message #9 Posted by **Raymond Del Tondo** on 11 Sept 2003, 6:56 p.m.,*
in response to message #8 by Mike (Stgt)

Hi Mike,

I have lots of parts of Series 300 machines, and some complete units. Do you need some of them?

Regards,

Raymond

Re: Meeting at Allschwil

*Message #10 Posted by **Mike (Stgt)** on 12 Sept 2003, 7:21 a.m.,*
in response to message #9 by Raymond Del Tondo

Nan! Pls - no!! I'll probably never have time to have a closer look to it, and to keep it only for history reasons I just do not have the room any more. But with the IL-IB interface it would go nice with the HP-41.

Ciao.....Mike

Re: Meeting at Allschwil

*Message #11 Posted by **Emmanuel, France** on 12 Sept 2003, 3:36 a.m.,*
in response to message #8 by Mike (Stgt)

Mama vit-elle dans le bayou?

Re: Meeting at Allschwil

*Message #12 Posted by **Daniel Diggelmann** on 12 Sept 2003, 6:25 a.m.,*
in response to message #11 by Emmanuel, France

Hi all meeting visitors. You can go on using the classified ads. Here is the link: http://pub21.bravenet.com/classified/show.php?usernum=1803468352 Sorry for any inconvenience - my home page was deleted from the free webservice.

Best Regards Daniel

Re: Meeting at Allschwil

*Message #13 Posted by **Mike (Stgt)** on 12 Sept 2003, 7:23 a.m.,*
in response to message #11 by Emmanuel, France

Non, dans le Congo.

Ciao.....Mike

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HP-41 Rom image

*Message #1 Posted by **Emmanuel, France** on 10 Sept 2003, 1:16 p.m.*

I use the following file extensions:

*.LST	Disassembled listing of Rom
*.BIN	Binary image of Rom for JFG's Emu41
*.HPX	Hepax Rom format °
*.640	Rambox or Eramco format °
*.824	Mountain Computer MC Eprom format °
*.825	Stéphane Barizien Mleprom format °
*.41R	Rom image made by SDS-II
*.41U and *.41L	Binary files for U2 and L8 Eproms
*.MU2 and *.L8	Motorola S. Hex. files for U2 and L8 Eproms
*.IU2 and *.IL8	Intel Hex. files for U2 and L8 Eproms

° software for translation from LIF disc into a PC file: LIFUTIL

Any idea? Thanks!

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HP-97 Printer

*Message #1 Posted by **Howard** on 10 Sept 2003, 1:15 p.m.*

Hello All. I'm hoping somebody can help me with my HP-97 printer.

The problem is that the top row of pixels does not print. It appears to be an alignment problem but I cannot see any adjustment.

Can the problem be fixed?

Thank you in advance.

Re: HP-97 Printer

*Message #2 Posted by **David Smith** on 10 Sept 2003, 5:39 p.m.,*
in response to message #1 by Howard

There are three likely causes (in order of probability): 1) A burned out dot in the printhead. Bad news. Only replacement is from another HP91/92/97. If you check the resistance of the print head signals, you should see around 10 ohms to ground for each one. An open circuit is not good.

2) A bad driver transistor. Good news is the transistor array chip is a standard off-the-shelf part.

3) A bad cable trace or connector connection. Cable trace may or may not be fixable depending upon where it is bad.

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Is there any info about the Voyager series hardware?

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 9 Sept 2003, 11:42 p.m.*

Hi to all, I'm gathering any info I can get about the Voyagers hardware: ROM, RAM, CPU, display pinout, description and versions, PCB versions, electrical signals (coconut-like CPU) and with some luck the ROM dump... Any links or personal information to share? I'm about to poke my some of my Voyagers (HP-11C, 12C, 15C) with a scope to get some electrical information, and display driver info (multiplex rates, segments, columns). I've seen many HP-41 sites, but none of our beloved HP-1xC series! I'm planning to build a PIC-based microcontroller logical analyser (very basic, only the bus signals) to see what I can get of it.

Best regards,

Nelson

Info about the Voyager series: Luiz is da man

*Message #2 Posted by **Renato** on 10 Sept 2003, 1:27 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Nelson, Luiz has gathered much information about voyagers. He has enough information, he could write a book about them ...

Renato

Luiz is da man- but I lost his email!

*Message #3 Posted by **christof (VA USA)** on 11 Sept 2003, 6:39 p.m.,*
in response to message #2 by Renato

Luiz- email me please :)

thanks- christof

I'll be back soon...

*Message #4 Posted by **Vieira, Luiz C.** on 10 Sept 2003, 11:21 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Hi all you guys;

I read my name and thought I should answer... (Thanks, Renato).

About Voyagers, all I get was taken from some stuff I collected myself and many information posted here by guys like Tony Duell, Ellis, Pavel, Meindert and Vassilis among others (if I misspelled the names or forgot someone, forgive me). What I have so far is information related to ID codes for some IC's, LCD different types and a few HP15C compatible "IC" mixing. What I saw, based on Tony's observations, is that the main NUT-based chips (derived from the NUT-family used in the HP41) have internal ROM data, being the main chip the

R2D2. No, not the golden android from Star Wars, instead RAM_ROM&Display_Driver. This main NUT is also the controller, and I cannot imagine a way to dump internal ROM contents unless there are some "hidden" codes that allow it to be done. The main subject is the extra third chip available in the HP15C: is it only a 64 extra registers CHIP or it also contains ROM-code? As the HP15C's owners know well, the HP15C has 67 registers (plus Random seed register), and 64 of them are shared with program lines. And that's the main part!

I'm in the middle of some time consuming activities and I'm visiting the MoHPC pages about twice a day in a "read-only" basis. That's why many of you have not heard my "voice" so often, but don't be so "happy"... I'll be back soon.

Best regards.

Luiz (Brazil)

Re: I'll be back soon...

*Message #5 Posted by **Bill Wiese** on 10 Sept 2003, 12:06 p.m.,*
in response to message #4 by Vieira, Luiz C.

Luiz wrote (with some trimming): [quote] What I have so far is information related to ID codes for some IC's, LCD different types and a few HP15C compatible "IC" mixing..... the main NUT-based chips (derived from the NUT-family used in the HP41) have internal ROM data, being the main chip the R2D2.... RAM_ROM&Display_Driver. This main NUT is also the controller, and I cannot imagine a way to dump internal ROM contents unless there are some "hidden" codes that allow it to be done. The main subject is the extra third chip available in the HP15C: is it only a 64 extra registers CHIP or it also contains ROM-code? As the HP15C's owners know well, the HP15C has 67 registers (plus Random seed register), and 64 of them are shared with program lines. [\quote]

Yes I suspected that HP15Cs have some ROM on their CPU chip. (Perhaps not all versions though ??)

If the Nut instruction set has an instruction something akin to "MOV reg, codespace[addr]" or "MOV mem, codespace[addr]" and there are no security bit issues - many modern microcontrollers have provisions to disallow program code ROM areas from being fetched as data - then an external ROM could be created with a PLD & EPROM - to fetch 10bit words from the internal codespace ROM on CPU.

Bill Wiese

San Jose CA

Re: I'll be back soon...

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 10 Sept 2003, 2:34 p.m.,*
in response to message #5 by Bill Wiese

I was thinking of what chip is CPU or ROM or RAM on the HP-15C. I have a HP-15C and HP-11C both brazilian and both from the approx. same date, and they share exactly one chip in common: the 1LM2-0001 (on the right corner). The 15C have another in the middle (1LH1-0302), and the display controller is different (1LH1-0305 on the 11C and 1LH1-0306 on the 15C). By simple deduction I think that the 1LM2-0001 is the CPU and the display controller have ROM/RAM inside, and the middle chip on the 15C is more RAM. This is a wild guess, I can't prove this yet (I'll try as soon I get borrowed some scope). I still have hope that I can get the ROM out of them with some microcontroller probe. About the display, it has some distinct characteristics: it has a excellent viewing angle because it uses 2x multiplex instead of 3x or 4x from the more modern calculators. This explains the HUGE ammount of pins that the display have: 56! At least in my old Voyagers.

11C s/n 2644B33846 - fiber PCB w/ 2 chips, keys, display

12C s/n 2317A01958 - fiber PCB w/ keys, flex PCB w/ chips and display, all sealed with a black envelope

15C s/n 2723B12245 - fiber PCB w/ 3 chips, keys, display

The 11C and 15C above uses the same display and steel mounting, the 12C uses the same display with different mounting (adhesive tape?)

I'm curious about the newer 12C ones, is the display or PCB or chips much different? Anyone have some pics of inside one to share? I have many scanned pics from my 11C and 15C all disassembled.

Best regards,

Nelson

Re: I'll be back soon...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 10 Sept 2003, 5:20 p.m.,*
in response to message #6 by Nelson M. Sicuro (Brazil)

Olá, Nelson;

the "big chip" is the R2D2 (controller with RAM/ROM and display driver; you can see many of its terminals are connected to the LCD) and the small, common one is the keyboard scanner, common to many Voyagers (I saw almost all except the HP10C with this chip). You can see it's the only one with connections ending in the keyboard; maybe it has other functions... No other chip is connected to the keyboard.

Exception made to the new HP12C units and the HP10C (I have not seen one in the inside), all Voyagers have two chips, and the HP15C has three.

I have some scanned images my own and I'll post them later. I'm in a rush because I have to apply a test to my students in a few minuts...

Best regards

Luiz

HP-15C chips?

*Message #8 Posted by **Nelson M. Sicuro (Brazil)** on 10 Sept 2003, 5:45 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Olá, Luiz

If I remember right, the coconut CPU has the keyboard scan lines in it, and it also controls the wake-up of the CPU with the "ON" key with an interrupt. I think that there is no "keyboard scan chip", this is really the CPU. If you look at the pics of one Voyager opened here in the museum, the chip on the right side is the 1LF5-0301, and in the HP paper that describes the coconut CPU from Tom Revere (HP, dated 7/14/81) it describes the 1LF5-0301 as the HP-11C version of the coconut CPU. I'll try to identify the pinout of the CPU of my HP-11C with a scope next week.

Best regards,

Nelson

Makes sense to me

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 11 Sept 2003, 12:43 p.m.,*
in response to message #8 by Nelson M. Sicuro (Brazil)

Hi, Nelson;

your post makes perfect sense to me. Thank you.

I looked at one of the pictures I have and it shows a newer HP11C, single PCB, no flex circuit board. I see a 1LH1-0305 connected to the LCD lines and a 1LM2-0001 connected to the keyboard lines. Wich one is the processor?

http://www.logeng.com.br/images/HP11C_internals.jpg

Best regards.

Luiz

Re: Makes sense to me

*Message #10 Posted by **Nelson M. Sicuro (Brazil)** on 11 Sept 2003, 12:54 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Olá, Luiz

I think that the 1LM2-0001 is the CPU and the 1LH1-0305 is some sort of LCD controller/ROM/RAM.

As I said, I concluded that the CPU is the very same on the HP-11C and the HP-15C that I have (made here in Brazil, year 1986/1987).

With this in mind, I'll try to discover the bus signals (clocks 1 and 2, ISA, DATA, SYNC, PWO) and try to build a "dummy cpu replacement" to copy the ROM. Of course I can be wrong, but I'll try to prove my theory.

Best regards,

Nelson

(P.S. I'm talking with Renato about other calculator projects. I'll be great if we can trade some ideas!)

Some new facts... Halfnuts on the rescue

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 11 Sept 2003, 5:32 p.m.,*
in response to message #10 by Nelson M. Sicuro (Brazil)

Hi Nelson, folks;

despite of my "smashed" available time, I also include this new fact: halfnut architecture. Look at the picture. (please, guys, feel free looking at the other pictureshere. Maybe you can find something useful. Be my guest.)

http://www.logeng.com.br/images/halfnut_CPU.jpg

As you can see, the HP41 halfnuts have a sigle nut-CPU connected to the keyboard and a sort of R2D2-hybrid display driver, with RAM and ROM as well.

What can I say? ROM dump is now closer to be done in Voyagers, as all of these facts become clearer. I think your considerations are perfectly correct, Nelson.

And Yes! Let's play some e-cards around here and let all folks be informed for new achievements as we get them, right?

Best regards.

Luiz

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BTW, when we are talking about ROM modules,

*Message #1 Posted by **Pavel Korensky** on 9 Sept 2003, 6:22 p.m.*

anybody can share some binary (or HEX) images of HP-41 ROM modules ? I am really interested about Diagnostic, Extended I/O and similar ROM images. If anybody have some ROM images, you can contact me via e-mail

Re: BTW, when we are talking about ROM modules,

*Message #2 Posted by **David** on 9 Sept 2003, 9:06 p.m.,*
in response to message #1 by Pavel Korensky

What can you do with those? Just curious?

Re: BTW, when we are talking about ROM modules,

*Message #3 Posted by **Pavel Korensky** on 10 Sept 2003, 6:26 a.m.,*
in response to message #2 by David

I want to use them in hardware ROM module emulator.

Re: BTW, when we are talking about ROM modules,

*Message #4 Posted by **David** on 10 Sept 2003, 7:23 a.m.,*
in response to message #3 by Pavel Korensky

So for instance you could make a replica of a ppc module etc? Is that easy to do? I am also interested in picking up a few rare modules.

Re: BTW, when we are talking about ROM modules,

*Message #5 Posted by **Holger Veit (DE)** on 10 Sept 2003, 9:45 a.m.,*
in response to message #4 by David

>So for instance you could make a replica of a ppc module etc? >Is that easy to do? I am also interested in picking up a few >rare modules.

As long as the module is *passive*, i.e. a pure ROM, this should not be too difficult. Some modules have additional hardware in it, though; obviously the Card Reader ROM (which might still work for its "7XXX" emulation commands, though), the HPIL module, the Time module, the Wand module, the IR printer module, and the HEPAX module, to name the most prominent ones.

For the PPC module, I am wondering though, whether it is so attractive to have a replica in ROM - the code in there is not MCODE, but user code; so you could load the most attractive things into user memory (I did this with MK and LB, for instance, until I had more powerful commands from the CCD module). From this point of view, it is meanwhile outdated, and more a collector's item, and as such, one would of course not accept a copy.

Regards Holger

Re: BTW, when we are talking about ROM modules,

*Message #6 Posted by **David** on 10 Sept 2003, 12:06 p.m.,*
in response to message #5 by Holger Veit (DE)

"(I did this with MK and LB, for instance, until I had more powerful commands from the CCD module). From this point of view, it is meanwhile outdated, and more a collector's item, and as such, one would of course not accept a copy. "

Yes this is true, but I still use my HP41 everyday, and ROMS such as the unit conversion in the thermal or petroleum roms would be a great thing to have (without using up a port because I don't need any of the other functions.) It's like buying a music CD....You only want 1 song, but have to buy the album to get it (and meanwhile get 10 other songs you have no use for). It would be great to have a few functions etc from different roms.

Re: BTW, when we are talking about ROM modules,

*Message #7 Posted by **Diego Diaz** on 10 Sept 2003, 2:48 p.m.,*
in response to message #6 by David

Sure, you can get'em. I did, just browse a little and they'll come up in several flavours...

I've even done my own one (flavour, I mean...)

That is, as the 41's ROM data is organized in 10bits words, and usual unit for binary info is the 8bit (byte) the original MLDL desing from Lynn A Wilkins, (published in the PPC Journal Vol. 9 Nr. 3 April 1982) used two chips, namely one 2732 for the Lower 8bits and one 2716 for the remaining upper 2bits, with a splitting-bits "organization".

Please take a look at: www.kuipers.to/hp41.htm, he's doing an amazing work about this issue.

and also: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=39344, another little contribution by my side.

Cheers.

Re: BTW, when we are talking about ROM modules,

*Message #8 Posted by **David** on 10 Sept 2003, 3:22 p.m.,*
in response to message #7 by Diego Diaz

Well.....that all looks like Greek to me. I am circuit challenged, hopefully one day an easier solution will be found.

Re: BTW, when we are talking about ROM modules,

*Message #9 Posted by **Diego Diaz** on 10 Sept 2003, 6:10 p.m.,*
in response to message #7 by Diego Diaz

Just to correct the link in my previous post:

http://www.kuipers.to/hp41.htm

Sorry Meindert :-(

Re: BTW, when we are talking about ROM modules,

*Message #10 Posted by **Meindert Kuipers** on 11 Sept 2003, 6:04 a.m.,*
in response to message #9 by Diego Diaz

I like Diego's approach as well, although bits are thrown away. That is not a big problem these days, but I remember the times when we were fighting to save every single byte. My usage of the 2 upper bits is more complicated, and requires an extra multiplexer, plus complicated logic when writing to MLDL RAM. I am now at 2/3 filling of the CPLD, and still have to add bankswitching. I am considering to use Diego's approach when I am running out of CPLD macrocells, we will see.

Meindert

Re: BTW, when we are talking about ROM modules,

*Message #11 Posted by **Christof** on 12 Sept 2003, 12:02 p.m.,*
in response to message #5 by Holger Veit (DE)

I would love a copy of the ppc rom- I'm not particularly concerned with serial numbers and boxes, more concerned with operation.

The PPC ROM in particular is very useful regardless of the programming language used to generate the rom as I don't always have 8K of storage (or whatever) to set aside for copies of the ROM :)

Add in the hpil/dev or ext/io and a few other hard to find roms and I would dearly love to have some actual *fit in the rom slot* roms to use when I need them.

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HP 20 Build quality???

*Message #1 Posted by **Joe Edwards** on 9 Sept 2003, 10:01 a.m.*

Hey guys, I have searched high and low for an HP calc to replace my lost 32s. Still looking too. My wife needs a calculator, but doesn't like RPN. It will be used for simple 4 banging. My school bookstore had about 3 HP 20s models (in the box, vs. the blister pack). They are on sale for 15 bucks each. Should I pick them up? I am more interested in the quality workmanship of the older HP's vs. today's scientific calcs (please no graphing calcs - I have a TI for that - school). I guess my question is this, "Are the HP 20s built as well sturdily as the 32 and 42s models? " Thanks for the help.

Joe

Re: HP 20 Build quality???

*Message #2 Posted by **bill platt** on 9 Sept 2003, 10:14 a.m.,*
in response to message #1 by Joe Edwards

Joe:

Yes, the 20s is equal to the 30s in build quality. I have a couple and so do my co-workers. Some will quibble about indonesia versus singapore etc but i have not found any severe differences. The 20s is nice--it even has 99 lines of programming space which is great for putting a repetitive calc into--like a conversion you have to do over and over--like say square feet converted to square meters--you just go (in program mode) LBL A * .3048 x^2 = RTN. Then, when you want to take square feet to square meters, you type in the square feet, hit xeq a, and out pop the square meters. It's great for that sort of thing.

The 20s also has a "last" key which makes it possible to easily do chain calcs, and a "swap" key for when you change your mind about what divides what etc.

So, yes, buy some. 15 bucks is very good, too--I'd like more of them at that price!

Regards,

Bill

Recommendation: BUY!

*Message #3 Posted by **Paul Brogger** on 9 Sept 2003, 10:17 a.m.,*
in response to message #1 by Joe Edwards

Toward the end of the 32s' availability, production was shifted (I think to China), and a switch was made from double-shot molded keys to painted keytops. I have examples of both versions, and I can attest that the look and feel of the later 32s example is noticeably inferior to those of the earlier unit. (Of course, the very last examples of the 32s sported a notoriously bad color scheme -- and, I suspect, painted keytops.)

I will say, however, that operationally, any difference is much less noticeable -- maybe a slightly less definitive keypress in the newer unit, but still **much** better than that of ANY contemporary competitor.

I have in hand an early HP-20s, and it too has double-shot keys, bright, beautiful, lasting legends, and both solid feel & operation. I don't know if later production of the 20s was changed to painted keytops or not, but I suspect it was. Regardless, you'll either be buying truly wonderful, absolutely rock-solid algebraic (sigh!) calculators, or dependable units that are "merely" superior to anything else you're likely to find.

At 15 bucks each, I'd buy all three. (I'll buy one of them from you for $20 + postage . . .) I don't know what they're going for on eBay, but I suspect you could recoup the entire investment by selling one MIB.

Re: HP 20 Build quality???

*Message #4 Posted by **hugh** on 9 Sept 2003, 1:23 p.m.,*
in response to message #1 by Joe Edwards

i've always felt the 20s was underrated. its a rather nice scientific calculator for day to day use. the programming model is sensible.

also, i think it has the clearest display of all pioneers, being segments rather than dot matrix.

buy them all, definitely

*Message #5 Posted by **Christof (NoVA US)** on 9 Sept 2003, 2:20 p.m.,*
in response to message #1 by Joe Edwards

these are true pioneers, with the old quality.

and they are worth a bit more than $15 on ebay right now, so you will be getting yourself a decent deal on lifetimes machines.

and hey, who ca argue with 99 program steps on top of the best $15 scientific you can find?

Bought them all

*Message #6 Posted by **Joe Edwards** on 10 Sept 2003, 8:55 a.m.,*
in response to message #1 by Joe Edwards

Well, even before checking the responses I decided to purchase all three of them. There are several more in the blister packs, but I have seen one of those before and the construction didn't seem to be up to par. Made in China? These three are as solid as my old lost buddy (HP 32s) and I am happy to own them. Too bad they are not RPN, but hey at least the are real Pioneer models. It is a good thing they are cheap considering my student loans are going to be a month late!!!!

Joe

Re: Bought them all

*Message #7 Posted by **Bert K** on 10 Sept 2003, 12:41 p.m.,*
in response to message #6 by Joe Edwards

The 20s is very nice. I have one as a backup for my two 32sII calculators (a brown and a silver bezel). The 20s has the most pleasing color scheme (yellow/blue) IMO. Indeed too bad it isn't RPN, it doesn't get much use because of that. The 32sII is my work horse.

Re: Bought them all

*Message #8 Posted by **bill platt** on 10 Sept 2003, 3:24 p.m.,*

in response to message #7 by Bert K

Hi Bert,

I have exactly your combination, too (2 32sii, 1 br 1 silver, 1 20s). Except that then I went crazy and became a calculator addict and bought (2) 48gx, a 48g, a 41cv, a 45 (inherited) more 20s', an 11c and a 15c, and the list is growing....

regards,

Bill

Re: Bought them all

*Message #9 Posted by **Bert K** on 11 Sept 2003, 12:34 a.m.,*
in response to message #8 by bill platt

Nice collection you've got there Bill. I forgot to mention I also have a nice 10C and a Casio FX-602P at home.

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12C: How to switch number of digits ?

*Message #1 Posted by **Andreas Stockburger** on 9 Sept 2003, 9:52 a.m.*

Hi,

a college of mine uses a 12c. He asked me to support him in switching the display from "0.000000 00" to "0.00" which is default for financial-persons .....

Thanks in advance

Andreas

[f] [FIX] [2]

*Message #2 Posted by **Roger** on 9 Sept 2003, 9:56 a.m.,*
in response to message #1 by Andreas Stockburger

to the point :)

Sorry - No FIX-Key at this machine

*Message #3 Posted by **Andreas Stockburger** on 9 Sept 2003, 10:13 a.m.,*
in response to message #2 by Roger

.

[f] [2] (no text)

*Message #4 Posted by **R Lion (España)** on 9 Sept 2003, 10:27 a.m.,*
in response to message #1 by Andreas Stockburger

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12C 3v battery

*Message #1 Posted by **tom** on 9 Sept 2003, 3:13 a.m.*

when did they start putting the 3v battery in the 12c? (a huge improvement in my opinion)

Re: 12C 3v battery

*Message #2 Posted by **Jordi Hidalgo** on 9 Sept 2003, 6:49 a.m.,*
in response to message #1 by tom

According to HP Partsurfer, all 12C's with serial numbers CN11500001 (April 2001) and above have the 3V batt.

Jordi

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Latest on the HP Create a Calculator Contest

*Message #1 Posted by **Ben Salinas** on 8 Sept 2003, 10:47 p.m.*

Yes, there is still stuff going on with this. Basically, HP has been making plans with my school district, and my school district has been telling me nothing. I have been kept informed on what has been going on via e-mails from Gene Vicano from San Diego. Here is the latest news: On September 18th, Tony Jones (HP's Worldwide Director of Product Management) will be coming from Australia to Mercedes, Texas to present me with a check (a check made out to me... not a scholarship) and a calculator which is (and i quote) "a yet-to-be released HP graphing calculator. It will be our most-powerful one to date. Unfortunately, our press policy forbids us from disclosing details prior to launch." (my guess is that it is the 49g+). I recieved that answer when I asked which calculator I would be receiving. I was told that I was supposed to be recieving a 9g, but since "...[my] entry was very sophisticated [they] are making an exception." The presentation made by Tony Jones will include the presentation of the check and calculator as well as a question and answer session. In the near future (tomorrow or Wednesday) I should be recieving a call to answer a few questions HP has. Thanks for all your support. -Ben Salinas

Re: Latest on the HP Create a Calculator Contest

*Message #2 Posted by **Tom (UK)** on 9 Sept 2003, 3:48 a.m.,*
in response to message #1 by Ben Salinas

Thanks for the update.

Please make sure all the keys work on your new calc (if early reports are accurate), if they don't it will be a powerful and high profile message to HP if you have to hand back the prize to Mr Jones.

I'm sure you will be inundated with heartfelt requests of what to include in the question and answer session with HP! I'm sure you can read all the other threads on what people here want so I won't pester you with my pet 'hates' of recent HP calcs ;-)

Re: Latest on the HP Create a Calculator Contest

*Message #3 Posted by **hugh steers** on 9 Sept 2003, 1:30 p.m.,*
in response to message #1 by Ben Salinas

well done ben!

Re: Latest on the HP Create a Calculator Contest

*Message #4 Posted by **Christof (NoVA US)** on 9 Sept 2003, 2:27 p.m.,*
in response to message #1 by Ben Salinas

Congrats again- it's very cool that you won this contest!

It sounds fantastic that they've upgraded the calculator for you- whatever it turns out to be.

Official School District Press Release

*Message #5 Posted by **Ben Salinas** on 9 Sept 2003, 8:32 p.m.,*
in response to message #1 by Ben Salinas

SCIENCE ACADEMY STUDENT WINS NATIONWIDE HEWLETT PACKARD/SCHOLASTIC CREATE-A-CALCULATOR CONTEST Hewlett Packard executives to hold local award ceremony on September 18

MERCEDES – Sixteen-year-old Ben Salinas of McAllen won the first annual "Create-A-Calculator" contest sponsored by Hewlett Packard (HP) calculators and Scholastic magazine. The nationwide contest, which closed in May 2003, was an effort to get students and teachers involved in creating the next version of an HP calculator.

Salinas, a junior at The Science Academy of South Texas in Mercedes, won the 9-12 grade category with his design of the HP-51S scientific calculator. As the first place winner, he will receive a $3,000 scholarship for him to use as he sees fit and a pre-launch edition of the hp 49g+ graphing calculator scheduled for release in stores on October 6 at a suggested retail price of $175.99.

Hewlett Packard's Director of Worldwide Product Development Tony Jones and Director of Worldwide Marketing Lee-Khuan Goh will present him with the scholarship check and calculator on Thursday, September 18 at 9 a.m. at Biblioteca Las Americas library, located in Mercedes off Expressway 83 and Mile 2 West Road.

The good news was not too surprising to Salinas, who was the top winner out of 6,000 entries.

"I felt that I had made a good product, and I thought I would have a chance to win once the engineers took a look at my entry," Salinas said. "All of my features were realistic and possible to make. It's a real calculator."

The HP-51S was Salinas' ideal calculator, which combines the best features of different calculators into one instrument. Many of the device's features are the same as his HP-32II scientific calculator, but with a number of innovative features, upgrades and functions.

"I put things that have never been on calculators before, like the blue backlit LCD screen on mobile phones that you find," he said.

Other practical features that Salinas included in his calculator were a glow-in-the-dark keyboard, USB and IR ports as well as more memory and programmability.

The probable engineering major also added several impressive functions to the HP-51S, such as: • Psuedo-graphing, which allows the scientific calculator to graph in a way more accurate than a graphing calculator; • Total base conversion and operation, something that has never been on a calculator before even though users such as computer scientists and electrical engineers frequently need it; • SigFigs, which helps users preserve accuracy on sophisticated measuring calculations; • Unit conversion, something that is on graphing calculators but not on scientific calculators; and • RPN, which allows users to get intermediate answers during long equations.

For the Create-A-Calculator contest, Salinas submitted a professionally compiled binder to Hewlett Packard that contained thorough and detailed information on the HP-51S calculator.

Hewlett Packard Calculators General Manager Fred Valdez said the company was very impressed with both Salinas' intelligence and practicality of design.

"Ben worked off a solid basis of information and familiarity with our high-end scientific calculator, which is a major achievement for someone of his age and experience," Valdez said. "He enhanced this with what he recognized to be the needs of like-minded students and professionals to create a perfectly viable design."

Valdez continued: "Ben had tough competition, as we received more than 6,000 entries by May 15 (the closing date for entries), and the entries were still flooding in. He was a clear entry in his age category."

The self-starter actually learned about the contest on his own through the Internet. According to Mark Schroll, Engineering, Designing and Development teacher at The Science Academy, Salinas approached him a week before the contest deadline and asked him to be his sponsor for the contest.

“Ben had already put his binder together. He just wanted my input and my approval,” Schroll said. “Ben put together an exceptional project.”

Salinas credits The Science Academy, a public school for students who wish to explore the career fields of math, science, architecture and engineering, for teaching him the skills he needed to develop his calculator. Some of his documents are written in Java, a computer programming language, and his calculator is drawn in AutoDesk Inventor, an engineering design software.

“Everything that’s contained in this binder has been what I have learned from this school,”Salinas said.

This particular student also keeps his mind intellectually charged by participating in University Interscholastic League (UIL) competitions in Math, Science, Calculator, Number Sense and Computer Science divisions.

There were two other winners in the Create-A-Calculator Contest. In the K-5 grade category, Michelle Klutcharch of Glen Oaks Elementary School in Glen Oaks, Illinois won a $1,000 scholarship award and hp 9g graphing calculator. In the 6-8 grade category, Zlatko Minev of Kent Middle School in Kentfield, California won a $2,000 scholarship award and hp 9g graphing calculator.

# # #

Editor’s Note: Digital image of Salinas and HP-51S calculator available. Ben Salinas is an amazingly bright, well-mannered and articulate young man who is available for interviews.

Re: Official School District Press Release

*Message #6 Posted by **Joshua Belsky** on 10 Sept 2003, 6:44 p.m.,*
in response to message #5 by Ben Salinas

Let's see those pictures!

Re: Latest on the HP Create a Calculator Contest

*Message #7 Posted by **ned** on 10 Sept 2003, 9:36 a.m.,*
in response to message #1 by Ben Salinas

Congrats on winning the contest, it's good to know a true enthusiast won based on good ideas. I was afraid that the marketing people at hp would give the prize to some 'cute' egronomic design. Ben, i've been waiting for significant figures to appear on calculators, that's a great idea. Hopefully hp puts your entry on their site for all to see. And hopefully they use your ideas too!

~ned

Re: Latest on the HP Create a Calculator Contest

*Message #8 Posted by **Tom Scott** on 10 Sept 2003, 1:04 p.m.,*
in response to message #1 by Ben Salinas

Congratulations Ben.

Tom Scott Lander, WY

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The New HP calcs

*Message #1 Posted by **Andy** on 8 Sept 2003, 8:37 p.m.*

I guess you all have seen the new HP PDF calcs series.Well the calcs only have one light source, (I laugh whenever I look at it....) But the HP 49G+ is real... judging from the 49G that it wasn't a bad untraditional model, I supposed that the new Branch of calcs will be of the quality of the 39/49G series. Yes piooners died, long time ago.... (so my 17B is alone in this town...) the quality of the past still in the machines (and in some manuals,like the one in the 39G, but dissapointly gone in the 49G manual,....), If you have faith in the 49G it will do awesome demostrations of power in your very hands... Just like we,saw the 48G showing it incredible power.... :).

If there is any power in the (emulation of the saturn = OS of the ROMS, Yes the ARM probably is runnig an emulator of the chipset saturn.)we will see it. I'm just dissapointed with the PDF . The 17BII+ isn't not as bad as it looks. It is indeed as powerful as the 17B that I have had for 13 years. It is just the way that we look at the math. The new users (KIDS) do the math considerably different than we do.

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User programmable ROM module ?

*Message #1 Posted by **Pavel Korensky** on 8 Sept 2003, 6:53 p.m.*

Hello,

after more than one year, I returned to my hobby project of the redesigned user downloadable ROM module for HP-41.

The whole idea is to use the modern parts and fit 16KB (10 bits wide) of EEPROM into original HP-41 module.

Currently, I have two possible solutions how to fit the necessary memory and interface electronic into small place inside the original module.

1. PIC18F252 in SO28 package or 18F452 in TQFP44 package. Both processors have enough internal memory for both the necessary code and 16KB of HP-ROM code. 2. PIC16F72 or similar in the SSOP28 package and external SPI compatible serial EEPROM (256 Kb, 32768 x 8).

Both modules can be loaded with HP ROMs binary images from PC, via RS-232 port and special adapter.

Anyone is working on similar project ? I would like to share ideas and/or problems.

Re: User programmable ROM module ?

*Message #2 Posted by **Bill Wiese** on 8 Sept 2003, 8:04 p.m.,*
in response to message #1 by Pavel Korensky

Hi Pavel..

I'm not 'working' on this but have a few ideas...

Maybe try a small PIC 12Cxx CPU. In an 8pin DIP these have 5 or 6 I/O pins. And then use some serial EEPROMs - 93Cxx, 24CXX, etc. All CPU has to do is manage the HP41 bus protocol and the I2C or Microwire serial memory protocol. You might even be able to use a MMC or SD card!!

Bill Wiese

San Jose CA

Re: User programmable ROM module ?

*Message #3 Posted by **Pavel Korensky** on 8 Sept 2003, 8:23 p.m.,*
in response to message #2 by Bill Wiese

It is not so simple. Those small PICs are not fast enough to do the job. When you look at the timing diagram of HP-41 bus cycles, you can see that the ROM address is sent between 16-32 cycle and the opcode must be sent by PIC between 46-00 cycle. So, there is only 14 cycles for the whole processing. It is 14 x 2.8us = 39.2 us. It is roughly 39 PIC instructions (let's suppose that the PIC is running on 4 MHz).

During this time, you must check the address (if it is in the module or not), recalculate the address to the EEPROM address space, send the command and address to the EEPROM and read back 16 bits of EEPROM data (at least 40 clocks on CLK line of serial EEPROM). I2C is of course out of discussion, because maximum clock rate for I2C is 400 KHz.

On the other side, with PIC16F72 or similar (with hardware SPI/Microwire) it is possible to do it. Modern SPI/Microwire EEPROMS can have clock rate up to 5 MHz and PIC itself can run at 20 MHz. Personally, I think that the 18F252 is the best solution, because there is only one chip inside the module and also, the fast serial EEPROMs in SMD package are hard to buy in small quantities, at least in my country.

Re: User programmable ROM module ?

*Message #4 Posted by **Pavel Korensky** on 8 Sept 2003, 8:36 p.m.,*
in response to message #3 by Pavel Korensky

There are more problems than the timing. One of them is power consumption. Of course, it is possible to send the PIC to "sleep" state, but when there is wake-up from sleep, the PIC needs to wait 1024 clock cycles before it is able to continue. It is 51.2 us for the 20 MHz clock or 18.28 HP-41 bus cycles. It means that the module will draw approx. 5 mA all the time when the HP-41 is switched on.

Re: User programmable ROM module ?

*Message #5 Posted by **Holger Veit (DE)** on 9 Sept 2003, 3:45 a.m.,*
in response to message #4 by Pavel Korensky

>There are more problems than the timing. One of them is power >consumption. Of course, it is possible to send the PIC to >"sleep" state, but when there is wake-up from sleep, the PIC >needs to wait 1024 clock cycles before it is able to >continue. It is 51.2 us for the 20 MHz clock or 18.28 HP-41 >bus cycles. It means that the module will draw approx. 5 mA >all the time when the HP-41 is switched on.

This is simply a K.O. criteria for the PICs despite of what other merits they might have (typicially the only merit is that people are just accustomed to them for long - this is still keeping the lousy 8051 pest alive). You might consider TI's MSP430 series as a suitable alternative.

Holger

Re: User programmable ROM module ?

*Message #6 Posted by **Christoph Klug** on 9 Sept 2003, 4:35 a.m.,*
in response to message #5 by Holger Veit (DE)

Actual for thuch a HP41 plug in rom solution the existing Zeprom is the reference :-)

Best wishes from Germany - Christoph Klug

Re: User programmable ROM module ?

*Message #7 Posted by **Pavel Korensky** on 9 Sept 2003, 6:45 a.m.,*
in response to message #6 by Christoph Klug

I read about ZEPROM, but I never saw what is inside.

Re: User programmable ROM module ?

*Message #8 Posted by **Pavel Korensky** on 9 Sept 2003, 7:06 a.m.,*
in response to message #5 by Holger Veit (DE)

I just looked at MSP430 and it looks good. Thx for the idea, maybe I should learn a new micro family.

Zeprom

*Message #9 Posted by **Christoph Klug** on 9 Sept 2003, 10:20 a.m.,*
in response to message #8 by Pavel Korensky

Dear Pavel,

inside a Zeprom you find a small pcb. On top side of pcb is placed the Eprom and less smd components. On the bottom side of pcb is placed a surface mounted ASIC chip for interfacing the Eprom to HP41 bus. The ASIC chip is bonded directly to the pcb and sealed by a black glue mass. Zeproms make available 16KByte ROM and opional bank switching.

Best wishes from Germany - Christoph Klug

Re: User programmable ROM module ?

*Message #10 Posted by **Bill Wiese** on 9 Sept 2003, 2:40 p.m.,*
in response to message #3 by Pavel Korensky

Pavel I didn't realize the PIC12Cxx series was that slow (or HP41 bus timing that fast).

Yes, take a look at the TI MSP430... small fast low power...

Bill

Re: User programmable ROM module ?

*Message #11 Posted by **Nelson M. Sicuro (Brazil)** on 9 Sept 2003, 3:37 p.m.,*
in response to message #10 by Bill Wiese

With this microprocessor (TI-MSP430F449 with 60KB flash ROM) you can put THE ENTIRE HP-41 INSIDE!! I just ordered some (free!) samples from TI, I'll start to develop a emulator with this chip. Its assembler language is really powerful, it is best suited to a project like this than the PIC series. It is also capable to drive a LCD display directly! (not the one from HP-41 :'(it has much more segments... but the (numerical) one from the Voyagers is great!)

Best regards,

Nelson

Re: User programmable ROM module ?

*Message #12 Posted by **Pavel Korensky** on 9 Sept 2003, 4:31 p.m.,*
in response to message #11 by Nelson M. Sicuro (Brazil)

of course, you can emulate the whole HP with this chip. I suppose that the same you can do with ATMega128 or similar.

But in my project, I am facing a different problem. I must fit one or two packages in a really small space. I measured it and the whole design must fit on the PCB which is 10x24 mm. It is

really not easy, especially if the whole design should be made from available SMD parts (this mean no fancy micro packages, sold only in 1000 quantities).

Re: User programmable ROM module ?

*Message #13 Posted by **Meindert Kuipers** on 9 Sept 2003, 11:52 a.m.,*
in response to message #1 by Pavel Korensky

All info on my project is on www.kuipers.to/hp41, but this will not fit in a module housing. My intention is to put it in a cardreader. Power consumption looks acceptable and connects to a PC with USB.

Meindert

Re: User programmable ROM module ?

*Message #14 Posted by **Pavel Korensky** on 9 Sept 2003, 1:43 p.m.,*
in response to message #13 by Meindert Kuipers

Of course, I know about your design. Actually, I have the printed PDF just here at the table. :-)))

But my goal is not to make MLDL, but to make a replacement for normal ROM modules which will be downloadable by user.

BTW, how do you catch the start of the 56 bits cycle in your design ? I hooked the HP-41CV to my logic analyzer and it seems that all timing diagrams which was described in PPC or your PDF are a bit wrong. Namely, the SYNC does not go low with the raising edge of CLK02, but with falling edge. Also, after pressing the ON button, there are really wild things on SYNC and POW lines.

Re: User programmable ROM module ?

*Message #15 Posted by **Meindert Kuipers** on 9 Sept 2003, 2:22 p.m.,*
in response to message #14 by Pavel Korensky

I almost feel flattered ;))

I have looked at the exact relationship of SYNC and the clocks with a scope, and they are a bit off indeed. Just make certain that it does not matter. The best reference is the original MLDL design, which catches the end of SYNC with 2 flipflops, mine is based on this. If you want to have the VHDL code, send me an email and I will mail it to you. I will publish the final code anyway. The important times are the rising edges of the clocks, do not use any other edges of HP41 signals!

Note that my MLDL is a ROM replacement as well, but just in a larger housing, but a smaller module would be great anyway. If I would do a project like yours I would go for the 8051 variations of Cygnal see (www.cygnal.com). The big problem will be power consumption as you need to verify the address in every single cycle. Startup times after a powerdown will be critical as well, but the HP41 will be doing several internal cycles anyway before accessing external ROM.

The relationship between PWO and SYNC is described in the HP41 Service Manual. Use google to find the relevant website, as the URL cannot be used in this forum unfortunately.

Meindert

Re: User programmable ROM module ?

*Message #16 Posted by **Pavel Korensky** on 9 Sept 2003, 4:05 p.m.,*

in response to message #15 by Meindert Kuipers

The problem is, that I never had a chance to look at the original MLDL design. I only have a PDF with the first part of the article, where are no schematics. Maybe, I should buy a PPC Journal CDs.

Because I am trying to use only microcontroller, the VHDL is not necessary. BTW, I like the idea of using old card reader as a housing for MLDL and/or modules. I was thinking about similar design, but I do not have card reader, so I am trying to put everything in normal small module.

I have the service manual (from HP-Museum CD-ROMs), but the informations in the manual are not complete. Between pressing ON button and the phase when HP-41 is going to Standby mode and waiting for key press, there are especially wild things on SYNC and PWO lines. In my current prototype, I am testing both PWO and SYNC lines and I am waiting for the state, when PWO is low and SYNC is high for at least 200 us. This seems a solid indication that calculator is in standby mode. As soon as SYNC goes low and PWO up, we are at the 54 cycle and the program start counting CLK pulses.

Re: User programmable ROM module ?

*Message #17 Posted by **Diego Diaz** on 9 Sept 2003, 6:58 p.m.,*
in response to message #1 by Pavel Korensky

Hi everybody,

Pavel, I'm deeply interested in this issue.

Please take a look at: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=40493.

The full thread is interesting indeed, please read.

I'm still working on the PIC18LF252 approach. Last weekend I finished my (home-made) PIC programmer, and I'm still reading the oversized PIC Data-sheet.

I followed the advice from Vassilis Prevelakis (on the referred thread) and sent a mail to Mr. Ioannidis asking for the code, but I haven't received his reply... yet? So the code for the 18C252 is still a secret for me. May you can try to ask him and perhaps the luck be with you... :-)

On time, the MPS430F14x(1) (wich seem to fit the suitable size for the task) are "huge" 64 pin QPF's... Remember you only have 12mm x 23mm PCB space inside a standard 41 module. They use 1.8v... 3.6v supply. As far as I've tested, all my 41's (I've got 1 "C" 1 "CV" and 3 "CX") started to show a weird behavior when logic "1" falls below 3.5v, this looks like a very narrow gap (0.1v) for the reliability to fit in. And MPS430's (please correct me if I'm wrong as I've not yet read the full specs) don't run above 8Mhz.

At 40Mhz a PIC18LF252 powered at 4.2v. draws 10mA typical, wich seems quite reasonable. Should the code handle the task efficiently, lower frequencies (and currents) can be reached. Furthermore, the required 1024 cycles for start-up are not needed if you use EC mode, and keep the oscillator running while PIC is in SLEEP.

So, next step, try to get the existing code (I'm not very confident about that) or develop a brand new one from scratch.

If your're interested mail me.

Cheers.

Re: User programmable ROM module ?

*Message #18 Posted by **Pavel Korensky** on 9 Sept 2003, 7:42 p.m.,*
in response to message #17 by Diego Diaz

It is interesting, that same ideas and arguments are recycled over and over again. :-)

The low power microcontrollers (with 3.x V power supply)really does not work reliable with HP-41. I already tried it. So, MPS430 or Cygnal are not usable. Others have timing problems when it comes to wake-up from sleep (for example Atmel ATMega, PIC) etc.

BTW, did you tried to look at the power consumption of external oscillators ? I tried and it seems that the average external oscillator consume 3x more power that the PIC or ATMega at full speed. I think that the only solution is to use normal crystal attached to the PIC and use a smart software. The PIC must be in the SLEEP state when the calculator is switched off. There is enough time for 1024 Tosc cycles, because the ROM-module access is not needed at least for several HP-41 instruction cycles. It seems that it should be OK, if PIC start to work when the calculator is in Standby mode, just after the pressing the ON button. When the calculator is switched off (ON button pressed once again), the PIC can do to sleep.

The only problem is, that the PIC will consume power when the HP-41 is in Standby mode. Personally, I can live with it.

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Trading on Meeting in Basel

*Message #1 Posted by **Daniel Diggelmann** on 8 Sept 2003, 6:48 p.m.*

On behalf of Matthias I installed a classified ads section on my home page. Visitors are invited to use this ads in order to prepare any trades on this event.

Cheers Daniel

URL

*Message #2 Posted by **Daniel Diggelmann** on 8 Sept 2003, 7:06 p.m.,*
in response to message #1 by Daniel Diggelmann

http://members.fortunecity.de/aerobat/index.html

Re: URL

*Message #3 Posted by **Christoph Giesselink** on 10 Sept 2003, 5:47 p.m.,*
in response to message #2 by Daniel Diggelmann

This URL (http://members.fortunecity.de/aerobat/index.html) is dead for me since today? Has anybody still access?

Christoph

Re: URL

*Message #4 Posted by **Daniel Diggelmann** on 10 Sept 2003, 6:25 p.m.,*
in response to message #3 by Christoph Giesselink

Hi Christoph,

Many thanks for letting me know. It seems I have been suspended from FORTUNE CITY. They can just delete any home page which doesn't comply with the rules. If that happened I don't see what I did wrong. The only thing I remarked when calling my classified ads from the office is that our firewall blocked a popup or something which is on their "black list". Does anybode have more experience with this kind of problems. It was my first attempt whith a free webhsting service. I'll possibly change to another provider. Sorry for any inconvenience caused. I still got the classified ads. I'll se what I can do with them.

Best Regards Daniel

Re: URL

*Message #5 Posted by **Wayne Brown** on 11 Sept 2003, 1:15 p.m.,*
in response to message #4 by Daniel Diggelmann

Free web-hosting services often prohibit any sort of commercial or profit-making activities. They might have misinterpreted your classified ads as some kind of business activity. Perhaps it would help if you email them and explain the real purpose of your ads.

Re: URL

*Message #6 Posted by **Raymond Del Tondo** on 11 Sept 2003, 7:04 p.m.,*
in response to message #3 by Christoph Giesselink

Not for Daniel's home page, but I can still edit my ad.

BTW: I also have an edit button in your ad. The other ads from Christoph K., Matthias, and Daniel only have their email link, of course. How come?

Raymond

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I repaired my 15C back plate

*Message #1 Posted by **bill platt** on 8 Sept 2003, 5:14 p.m.*

Some time back, I posted with a question regarding repairing the back of my 15c, where the metal plate was peeling up. A number of helpful comments were posted, and so I got to work! Following Randy Sloyer's suggestion, I first removed the rubber feet, disconnected the screws, and took care in lifting the back of the calculator off, so as not to lose the Electrostatic Discharge spring connectors (thanks for the head's up Randy!).

Then, I soaked the back in heptane. now, I remember being able to buy heptane in 1 gallon quantities back in the city (Philadelpha) but now I am in the country--so I used "white gasoline" instead (camp stove gasoline, aka naptha (but not *real* naptha)). I used a narrow, very sharp "k-bar" knife to gently pry the back off--which of course caused it to roll up a bit. Once I had it off, it was generally easy to flatten it using a rolling pin. (In retrospect, one of my cooking knives is even thinner and would have been better).

Finally, with all the glue residue cleaned off, I applied double sided carpet tape to the calculator back, and then applied the metal plate, working from middle to edges. I may go back with a "vacuum bag" to suck it down really tight. (Vacuum bagging is a common practice in the production of high quality fiberlgass or "composite" parts. You merely put a plastic bag around the part that needs to be squeezed, and suck out the air. the result is 14.7 psi pressure on the part).

Mistakes made:

I was impatient. This is always a problem to be dealt with. In a moment of indescretion, I slopped a bit of acetone into the glue joint---having forgotten that the calculator is made of polystyrene! Acetone dissolves PS, and so some of the "tooth" is gone from the outside, and I have discoloration and a permanent fingerprint. Oh well, I knew better, so serves me right!

In peeling the back off, before I rummaged around for a really narrow knife, I started out the cleaving process using a too-dull knife, and this left some permanent ridges in the back --maybe 3 mil (0.076 mm) deep--which were not removable with the rolling pin. Perhaps a small printing press would do the trick--but then I might damaged the silkscreened back labels.

It is interesting to note that in the original construction, a double-sided tape was used--both for the feet, and for the plate, though they are of different kinds--perhaps in order to deal with the higher compliance of the rubber feet, a more compliant tape was used there.

I have flatbed scans of the pieces, if anyone would like to see them, please e-mail me at bill at plattdesign dot net.

Best regards, and thanks again to all who posted help,

Bill Platt

Re: I repaired my 15C back plate

*Message #2 Posted by **Veli-Pekka Nousiainen** on 17 Sept 2003, 2:18 p.m.,*
in response to message #1 by bill platt

You may send the scans to vDOpNOTnSPAM@welho.com Remove the DO NOT SPAM before mailing. VPN

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Zapping NiCd cells

*Message #1 Posted by **Renato** on 8 Sept 2003, 4:24 p.m.*

I tried an alternative for zapping battery cells. I used a current/voltage controlled DC supply, instead of a large capacitor. Without any connection to the DC output, I set a 20V voltage limit, with a low current (300mA) limit. After the output voltage is stabilized, I connect positive output to cell +ve, and negative to cell -ve : ZAPPP.

So far so good, and much less clutter than using a capacitor.

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HP45 self-tests?

*Message #1 Posted by **barry** on 8 Sept 2003, 4:06 p.m.*

any self-tests for the HP45? tnx! barry carson city, nv

Re: HP45 self-tests?

*Message #2 Posted by **Bill Wiese** on 8 Sept 2003, 4:19 p.m.,*
in response to message #1 by barry

Hi Barry

IIRC, I don't think any of the Classic or Woodstock calcs had self-test code - ROM space was just too precious.

Bill San Jose CA

Re: HP45 self-tests?

*Message #3 Posted by **barry** on 8 Sept 2003, 4:49 p.m.,*
in response to message #2 by Bill Wiese

would you or others please recommend a good procedure for checking the unit out before putting it up for auction/sale? in beginner parlance, of course! it just had the cadmium pack rebuilt by Batteries Plus, unit powers up nicely, etc, but i would like to be able to state in the ad that i feel reasonably safe that the item performs as stock. no manual on hand! tnx in advance, barry PS: i know, i'm going to have to breakdown and purchase the CD!

Re: HP45 self-tests?

*Message #4 Posted by **Bill Wiese** on 8 Sept 2003, 8:14 p.m.,*
in response to message #3 by barry

Hi Barry...

I commend you on your trying to be a good-faith seller and caring about what your purchaser buys.

See that entering 8.888888888 [CHS][EEX] 88 [CHS] results in a display of "-8.888888 -88" (oops, might have gotten one too many '8' digits in the mantissa).

See that every key "does something". See that you can store and recall numbers into the memories. See that changing one memory doesn't wipe out another's contents.

On a calc like an HP45 if a few calcs work and the keys work and the display lights OK then you're pretty well off. If anything failed in the ROM or ACT chip the whole calc would've gone haywire. (Not necessarily true of higher-end later programmable calcs.)

Get another sci calc (even cheapie non-HP is OK). Run them back to back for several calculations on log & trig functions. They won't be exactly the same (HP's prob better!) A good test:

[9][sin][cos][tan][f][arctan][f][arccos][f][arcsin]

should end up with a number close to 9:

9.004076644

is what the Calculator Forensics project at http://www.calcinfo.com says the HP45 produces.

Bill Wiese

San Jose CA

Re: HP45 self-tests?

*Message #5 Posted by **Ernie Malaga** on 8 Sept 2003, 10:20 p.m.,*
in response to message #4 by Bill Wiese

When performing these tests on the HP-45 and HP-65, remember that the contents of R9 is corrupted by the execution of certain operations. Don't be concerned if RCL 9 gives you garbage you didn't put there; that's "normal" on these two machines.

The operations that corrupt R9 are all trigonometrics (including polar/rectangular conversion) and, in the case of the HP-65, the logical tests (such as x=y?, etc.).

-Ernie

Re: HP45 self-tests?

*Message #6 Posted by **David Smith** on 9 Sept 2003, 4:06 p.m.,*
in response to message #1 by barry

A really quick and dirty test of HP machine internals is to press E+ (the summation key) twice. You should see "2" in the display. This exercises a lot of the CPU and the memory chip. Recommended for all HP25 machines in particular... way to many of them will say "1" because the RAM chip is toast.

And test the display by entering -8.888888888E-88.

is the display test good for all?

*Message #7 Posted by **barry** on 9 Sept 2003, 10:48 p.m.,*
in response to message #6 by David Smith

i'm guessing this is true for all displays as it lites up all segments?

Re: is the display test good for all?

*Message #8 Posted by **David Smith** on 10 Sept 2003, 5:42 p.m.,*
in response to message #7 by barry

Yes, the idea is to light up all possible segments. It is also a good idea to punch in all all 10 possible digit displays and a 1-9 display. You could have a shorted display segment that would not show up with all 888888888. I had a machine that showed the "1" digit weird.

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HP-49G+ keyboard issue

*Message #1 Posted by **Daniel Diggelmann** on 8 Sept 2003, 3:25 p.m.*

I tried to find out what the reason could be for the keyboard problems with the new HP-49G+. First of all the keyforce is too high. Secondly sometimes keypresses are not recognised. Look at the HP-41 ENTER key at the bottom of my homepage: http://members.fortunecity.de/aerobat/index.html The red dot shows the point where force is applied to the new keyboard whereas the nicely molded 41-key had it in the middle. So clearly the force must roughly double. I could imagine that changing to the original design would bring back the nice keyclick we all wanted. But this would require changing the key molds as well as the PCB layout which is a mayor cost factor. What do you think?

Re: HP-49G+ keyboard issue

*Message #2 Posted by **dbrunell** on 8 Sept 2003, 4:56 p.m.,*
in response to message #1 by Daniel Diggelmann

Daniel, thanks for putting up the great pictures so that the rest of us can see the HP49G+ up close. Making the change you suggest would indeed reduce the force necessary, but it would also increase key travel. How does the 49G+ key travel compare to the 41C? I'm inclined to believe that changing the leverage would not affect the reliability of contact closure. That would be more a factor of the dome design and materials used. The classics had gold plating on the PCB.

Re: HP-49G+ keyboard issue

*Message #3 Posted by **andy** on 8 Sept 2003, 8:40 p.m.,*
in response to message #1 by Daniel Diggelmann

Does the 49G+ has the same 3D rotation that the original 49G ?

Re: HP-49G+ keyboard issue

*Message #4 Posted by **Daniel Diggelmann** on 9 Sept 2003, 7:11 p.m.,*
in response to message #3 by andy

The HP-49G+ has got the same functionlity as the HP-49G. Just everything works a lot faster :)

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HP 71b Metal-back vs Plastic Back: Robustness

*Message #1 Posted by **Neil** on 8 Sept 2003, 3:06 p.m.*

I recently managed to acquire an HP 71b, metal back version, dated 1984 (sw version 1BBBB). I have read almost everything on the 71b found in the forum archives since I got this model and the consensus seems to be that the plastic back version is much more robust, and even if it does go faulty, it is straightforward to open up and repair. Contrast this with the metal back version which appears to have a flexible connector which is prone to corrosion, and if it goes faulty then is awkward to open up and repair. So, I am wondering, is the metal back version really that bad compared to the plastic back one? Is this corrosion due to extensive use outdoors, in wet or humid climates?

Any other plus and minuses to the metal back version?

Re: HP 71b Metal-back vs Plastic Back: Robustness

*Message #2 Posted by **Gordon Dyer** on 8 Sept 2003, 3:25 p.m.,*
in response to message #1 by Neil

I have 3 71B's, all with metal backs and no corrosion problems. I suspect that the plastic back was for cost saving.

Re: HP 71b Metal-back vs Plastic Back: Robustness

*Message #3 Posted by **Neil** on 9 Sept 2003, 3:27 p.m.,*
in response to message #2 by Gordon Dyer

Hi Gordon,

How long have you had your 71b's and have you used them extensively?

Re: HP 71b Metal-back vs Plastic Back: Robustness

*Message #4 Posted by **Gordon Dyer** on 9 Sept 2003, 6:18 p.m.,*
in response to message #3 by Neil

I liked the look and spec of the 71B during the late 1980's but never used one. Then 2 years ago I saw one advertised and bought it, then 2 more! I havent used them extensively but just occasionally I find some time to have a go.

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HP Conference in Orange County CA - 9/20-21

*Message #1 Posted by **Guy Ball** on 8 Sept 2003, 3:00 a.m.*

I have no connection to the organizers, but I just wanted to pass the word that this year's HP Handheld Conference will be held in Newport Beach, CA this year on Sat./Sun., Sept 20/21. This is the premiere HP calculator and handheld device users event held every year by a diehard collection of HP enthusiasts/volunteers. This year, HP itself will be there, talking about and showing off their newest calculators. For more information, visit their site at http://holyjoe.net/hhc2003/index.htm The event cost is probably going to be about $50 for the two days. Word has it that HP may even be footing the bill for the conference dinner on Sat.

Re: HP Conference in Orange County CA - 9/20-21

*Message #2 Posted by **Paul Brogger** on 8 Sept 2003, 1:18 p.m.,*
in response to message #1 by Guy Ball

It would have been nice to have known about this a couple of weeks ago, to save on air fare, etc. (I've relatives in So. Cal. & could have made a very economical trip of it . . .)

What should I watch for early info regarding next year's event?

Re: HP Conference in Orange County CA - 9/20-21

*Message #3 Posted by **Arnold Steekelenburg** on 8 Sept 2003, 1:57 p.m.,*
in response to message #2 by Paul Brogger

Hi Paul,

The website of Joe Horn (holyjoe.net) is the one to watch. Every year around june Joe updates the site with information on that years event. Or watch newsgroup coms.sys.hp48. When the dates are set the newsgroup receives a post.

Arnold

Earlier Warning Was Here

*Message #4 Posted by **Dan M** on 8 Sept 2003, 2:31 p.m.,*
in response to message #2 by Paul Brogger

Jake Schwartz gave the info in this Forum this past June.

Early Warning Here

Watch Holyjoe.org, as mentioned, or join a discussion list for more info or warnings.

Dan M. </P>

Edited: 8 Sept 2003, 3:36 p.m.

Re: Earlier Warning Was Here

*Message #5 Posted by **Paul Brogger** on 8 Sept 2003, 7:47 p.m.,*
in response to message #4 by Dan M

Well, I guess I missed it . . .

Thanks to those who've posted the announcements, and I'll keep my antennae up for similar posts in the future. (I suppose if I frequented a few more sites, I might be a bit better informed!)

HHC: financial aid?

*Message #6 Posted by **Brandon Del Bel** on 8 Sept 2003, 3:41 p.m.,*
in response to message #1 by Guy Ball

Man, I would really love to go to this, but the cost of the conference and a hotel room is rather prohibitive for a college student. *sigh*, I'll probably just suck it up and pay, but I at least want to check into all of my options. Let me know if there is any assistance available; thanks.

Brandon Del Bel

Re: HHC: financial aid?

*Message #7 Posted by **Guy Ball** on 9 Sept 2003, 11:47 p.m.,*
in response to message #6 by Brandon Del Bel

Unfortunately the conference is paid for by a bunch of HP calculator users like you and me who just hope to break even. This is definitely not a high-powered, business type affair. No COMDEX here. Just a bunch of HP fanatics (and you know who you are) -- many who were there when the HP thing got started 30 years ago. I'm a newbie when it comes to this. So I look in awe at their continued efforts! Take a look at the type of presentations to get a good feel for the type of conference it will be: http://holyjoe.net/hhc2003/index.htm -- towards the bottom of the page.

Re: HHC: financial aid?

*Message #8 Posted by **Brandon Del Bel** on 10 Sept 2003, 12:30 a.m.,*
in response to message #7 by Guy Ball

yeah.. I just had to ask anyway; hopefully I'll be able to split a room with someone to cut costs.

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HP 82164A

*Message #1 Posted by **Jeff** on 7 Sept 2003, 8:44 p.m.*

Can the HP 82164A connect to the modern PC? I have Windows XP and was wondering if this is compatible. Please advise. Jeff

of course,..

*Message #2 Posted by **Hans Brueggemann** on 8 Sept 2003, 1:11 p.m.,*
in response to message #1 by Jeff

...and w/o any limitations. with an auxillary program (terminal program or my HPILCOM - if you want to give it a try: just drop me line-) on your pc, you can use your pc as a storage device for the HP41. if you want to store/retrieve programs, you also need the x-i/o module, however i am currently doing some synthetic programming on the HP41 to avoid the necessity of that module.

cheers, hans (remove all the 8 from mail address)

Re: of course,..

*Message #3 Posted by **Bill Smith** on 8 Sept 2003, 2:40 p.m.,*
in response to message #2 by Hans Brueggemann

i am interested in seeing more of your synthetic programming efforts. have always been curious as to whether the specific functions in the X-i/o module could be programmed in user space on the 41. could or will you post your code here?

thanks, bs

Re: of course,..

*Message #4 Posted by **David E** on 8 Sept 2003, 3:16 p.m.,*
in response to message #2 by Hans Brueggemann

"however i am currently doing some synthetic programming on the HP41 to avoid the necessity of that module."

Wow...that sounds great!!!

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11C non-painted logo

*Message #1 Posted by **Quemazon** on 7 Sept 2003, 3:34 p.m.*

I have an 11C that has absolutely no paint on the logo. The calculator is in good condition and doesn't show any signs of wear but there isn't even a trace of paint on the logo. It really looks as if there was never any paint on it. Is this normal? Does anyone know of a batch of 11C's with non-painted logos? The serial is #2716A54720.

Thanks.

Re: 11C non-painted logo

*Message #2 Posted by **Patrick** on 7 Sept 2003, 4:37 p.m.,*
in response to message #1 by Quemazon

I have a 15C in the exact same condition.

My opinion has always been that this is simply as a result of taking the machine in and out of its case. Even if you otherwise treat the calculator with the utmost respect, that friction from the case eventually exacts its toll.

I have a number of other Voyagers which show logo paint wear -- the paint is partially rubbed off for some distance from the edge of the logo. That's the forensic evidence which leads me to my opinion.

Re: 11C non-painted logo

*Message #3 Posted by **Gordon Dyer** on 7 Sept 2003, 10:11 p.m.,*
in response to message #1 by Quemazon

I think that when the paint is badly worn some owners then rub it all off deliberately (my mother did this to her gas cooker markings!).

Re: 11C non-painted logo

*Message #4 Posted by **Randy Sloyer** on 8 Sept 2003, 7:08 a.m.,*
in response to message #3 by Gordon Dyer

Most of these are made of metalized plastic. The chrome is very thin and wears off. The very early ones where make of die cast zinc and hold up better.

You can repaint with chrome model paint or a paint marker pen. Sharpie markers now have a silver metallic ink pen which works quite well.

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12c rubber feet

*Message #1 Posted by **Mike** on 7 Sept 2003, 2:26 p.m.*

What type of glue should I use to reattach the rubber feet? One of them just now fell off. Its age is # MY73400494

Re: 12c rubber feet

*Message #2 Posted by **David Smith** on 7 Sept 2003, 3:13 p.m.,*
in response to message #1 by Mike

The feet are held on by double sided sticky tape. The 3M stuff in the little dispensers sold at any office supply store will work, but carpet tape available at hardware stores is stickier and works better.

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hp86b hpib dip switch setting

*Message #1 Posted by **Andy** on 7 Sept 2003, 12:46 p.m.*

My hp86's hpib dip switch(s) is internal. There are 10 switchs on the small red panel.

I would like information on their settings so I can utilize the hpib port.

Thanks,

Andy

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What is this on eBay??

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 6 Sept 2003, 11:35 a.m.*

Hi all, take a look at this:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3045612562&category=11712

I also see one with the picture of the 49G...

Comments??

Nelson

I won't be paying to find out

*Message #2 Posted by **Patrick** on 6 Sept 2003, 11:48 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

This guy is very aggressive and puts a very similar ad into eBay next to a picture of every kind of electronic doo-dad you can possibly think of. No matter what you are searching for, he wants you to find his one product.

To his credit, he makes it very clear in the ad itself you are not actually buying anything physical, just information.

I certainly wont be prospecting for gold with this guy. He may very well have some useful info, but there are just too many people out there trying to fleece you to make it worth finding out.

My approach with all of these too-good-to-be-true offers is that (real-estate no-money-down is the prime example), if the scheme does work as well as they say, why aren't they out there doing it and making those huge profits instead of spending their time like this selling a handfull of items for a few bucks each?

Re: I won't be paying to find out

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 6 Sept 2003, 11:56 a.m.,*
in response to message #2 by Patrick

Good point!

Regards,

Nelson

These ads are against eBay rules

*Message #4 Posted by **Mike** on 7 Sept 2003, 12:00 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

and when reported are removed.

Report any such add that is just selling info links to other "FREE" stuff. It's all bogus and against ebay terms. It is essentially selling info to buy outside ebay but is really just a SCAM anyway.

Do search for FREE HP and you can find many.

Bet this one is gone within an hour.

Edited: 7 Sept 2003, 12:02 a.m.

Re: These ads are against eBay rules

*Message #5 Posted by **Les Bell [Sydney]** on 7 Sept 2003, 6:19 a.m.,*
in response to message #4 by Mike

It's certainly gone now.

Best,

--- Les [http://www.lesbell.com.au]

Re: These ads are against eBay rules

*Message #6 Posted by **David Ramsey** on 7 Sept 2003, 12:42 p.m.,*
in response to message #5 by Les Bell [Sydney]

...and has been replaced by several others. These jerks are like cockroaches.

Re: These ads are against eBay rules

*Message #7 Posted by **David Smith** on 7 Sept 2003, 3:14 p.m.,*
in response to message #6 by David Ramsey

Monty Python said it best: Spam spam spam spam... Spam spam spam spam...

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Custom HP-11C?

*Message #1 Posted by **Patrick** on 6 Sept 2003, 3:34 a.m.*

Did HP or anyone else ever offer a customization service for HP-11C's or other Voyagers. Take a look at this auction which shows an 11C like machine with strange keyboard markings. They appear to be very well done, not haphazard. It also appears that certain keys now have new functions. Very strange.

Re: Custom HP-11C?

*Message #2 Posted by **R Lion (España)** on 6 Sept 2003, 4:37 a.m.,*
in response to message #1 by Patrick

I saw this (or other like this calculator) on ebay some time ago. The seller canceled the auction when he realized he had a special unit...

It's only an overlay

*Message #3 Posted by **Randy Sloyer** on 6 Sept 2003, 8:56 a.m.,*
in response to message #2 by R Lion (España)

Since the Voyagers have a USER mode, there where custom programs developed that simply mapped the unique functions to different keys. Based on the sellers description, I think this is a horse handicapping program ported from the 41.

The different legends are on a sticky sheet pasted onto the calculator. The real bezel should be underneath. If not, they just peeled it off and stuck on their own.

No different than 41 or 48 overlays.

NBD (No Big Deal)

Edited: 6 Sept 2003, 9:01 a.m.

Re: It's only an overlay

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 6 Sept 2003, 11:22 a.m.,*
in response to message #3 by Randy Sloyer

The HP-11 have the "User" mode, but it only swaps the function of the first 5 keys of the first row. You can call the labelled functions "A" through "E" without using the "G" shitf, but the original functions are called using the "G" shift. I really thing that it is a customized HP-11C with different keyboard faceplate and ROM. My 2¢...

Regards,

Nelson

Re: It's only an overlay

*Message #5 Posted by **Patrick** on 6 Sept 2003, 11:38 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

Yes, not sure about the overlay theory. I think there are custom key labels here that cannot be explained by user mode or through "GSB X" key combinations.

It still could be an overlay

*Message #6 Posted by **Victor Koechli** on 8 Sept 2003, 4:55 a.m.,*
in response to message #5 by Patrick

The custom labels are only on the A through E, R/S and RCL keys. The keys themselves are all original. I really think it's just an overlay designed for a specific program.

Just my 2 cents. Victor

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Aurora FN1000 available at Fry's

*Message #1 Posted by **Mike Sebastian** on 5 Sept 2003, 10:37 p.m.*

The Aurora FN1000 financial calculator is available at Fry's for $24.99. The Arlington, Texas, store had several. Yes, it is RPN and has a four register stack. And, while it appears to be inspired by the 12C, there are differences.

Re: Aurora FN1000 available at Fry's

*Message #2 Posted by **Stan** on 5 Sept 2003, 10:47 p.m.,*
in response to message #1 by Mike Sebastian

How about posting a picture?

Re: Aurora FN1000 available at Fry's

*Message #3 Posted by **Brandon Del Bel** on 5 Sept 2003, 11:58 p.m.,*
in response to message #2 by Stan

http://image.fp.outpost.com/art/product/box_shots/3783316.box.GIF

got that from http://shop4.outpost.com/product/3783316

Re: Aurora FN1000 available at Fry's

*Message #4 Posted by **db(martinez,california)** on 6 Sept 2003, 11:21 a.m.,*
in response to message #1 by Mike Sebastian

Thanks for the heads up Mike. I'll be going past the Sacramento Frys in two weeks. I'll get one. Maybe they will come out with a cheap scientific rpn next. RPN LIVES!

Re: Aurora FN1000 available at Fry's

*Message #5 Posted by **jose goncalves** on 6 Sept 2003, 12:07 p.m.,*
in response to message #4 by db(martinez,california)

I wonder what kind of manual this Fry's specimen will come with. The Brazilian version of the FN1000 sports a shameless Word copy of the Portuguese original HP manual. I've posting some comments here about it some time ago. Can someone check this, please ?

Jose

Re: Aurora FN1000 available at Fry's

*Message #6 Posted by **Pierre Brial** on 7 Sept 2003, 11:12 p.m.,*
in response to message #1 by Mike Sebastian

I don't know the Auroras. How is the quality ? Is there somewhere a larger picture ?

All the Best

Pierre

Re: Aurora FN1000 available at Fry's

*Message #7 Posted by **Gordon Dyer** on 8 Sept 2003, 3:34 p.m.,*
in response to message #6 by Pierre Brial

Try this page...
http://procalc.net/imgs/base/113g.jpg

Re: Aurora FN1000 -- Programming Features?

*Message #8 Posted by **Paul Brogger** on 8 Sept 2003, 7:12 p.m.,*
in response to message #1 by Mike Sebastian

Does it have the same 99 steps and line # addressing as the 12c? Do registers get eaten up by program memory as the latter is needed?

BTW, I have an Aurora "SC-150X 131-function Scientific Calculator" -- a nondescript little plastic-keyed LCD model with a hinged clamshell cover. I think I got it at WalMart for ~$5.00 a couple years ago. But it's neither programmable nor RPN.

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If you think the 33s is ugly...

*Message #1 Posted by **Ben Salinas** on 5 Sept 2003, 10:33 p.m.*

So, I am just wondering if everyone who is saying the 33s is ugly has seen the 10bii+ (http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=359) Now that is an ugly calculator. It looks like it would fall apart after using it once. -ben

Re: If you think the 33s is ugly...

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 6 Sept 2003, 11:27 a.m.,*
in response to message #1 by Ben Salinas

I think that the "V" shaped keyboard of the 33S is the worst ever designed layout. The case isn't so bad. This 10bii+ have a good *looking* keyboard (I never touch one to feel it) but the case is only acceptable...

Regards,

Nelson

Re: If you think the 33s is ugly...

*Message #3 Posted by **Raymond Del Tondo** on 6 Sept 2003, 5:51 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

The 10BII keyboard is simply unreliable. I have a unit, and there were some threads here about that cheap keyboard...

Raymond

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Another HP calc. on eBay using hpmuseum pictures!

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 5 Sept 2003, 9:15 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3045535039&category=11713

Is so hard to get a real picture? Or the item is in so bad shape?? This don't smell right...

Re: Another HP calc. on eBay using hpmuseum pictures!

*Message #2 Posted by **Patrick** on 5 Sept 2003, 9:44 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

With a zero rated seller, no less. Caveat emptor.

Re: Another HP calc. on eBay using hpmuseum pictures!

*Message #3 Posted by **Mitch** on 5 Sept 2003, 11:31 p.m.,*
in response to message #2 by Patrick

Everyone has to start with zero. He just needs to be asked questions before bidding. Looks like he can post pics of calc he is selling because he has other items for sale that looks like he took pics of. Also he doesn't say how much shipping will be, have to ask ahead otherwise he could be surprisingly high.

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HP 49G+ calcs for sale in the US?

*Message #1 Posted by **Joe Edwards** on 5 Sept 2003, 8:52 p.m.*

Okay, I have looked through HP's site and have found nothing in regards to the sale of the HP 49G+. IF they are being sold in the states could someone please provide a link? Thanks guys.

Joe

(deleted post)

*Message #2 Posted by **deleted** on 5 Sept 2003, 9:07 p.m.,*
in response to message #1 by Joe Edwards

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP 49G+ calcs for sale in the US?

*Message #3 Posted by **Brandon Del Bel** on 5 Sept 2003, 9:43 p.m.,*
in response to message #2 by deleted

Ahem.. that is only a pre-order.

Re: HP 49G+ calcs for sale in the US?

*Message #4 Posted by **alexander** on 8 Sept 2003, 12:33 a.m.,*
in response to message #1 by Joe Edwards

You can pre-order the hp 49g+ on the following website: www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=360

I had to pre-order because: A. I'm impatient. B. I can't read German.

Re: HP 49G+ calcs for sale in the US?

*Message #5 Posted by **Brandon Del Bel** on 8 Sept 2003, 1:43 a.m.,*
in response to message #4 by alexander

yeah, I pre-ordered there, too

Not yet

*Message #6 Posted by **Gene** on 8 Sept 2003, 11:23 p.m.,*
in response to message #5 by Brandon Del Bel

C'mon guys. For whatever reason, HP hasn't announced the 49G+ and it's not yet available in the US. I know we can find it all over HP's websites :-) but it hasn't been made official yet.

Patience, young Jedi...

Re: Not yet

*Message #7 Posted by **Brandon Del Bel** on 9 Sept 2003, 1:28 a.m.,*
in response to message #6 by Gene

heheh, I wouldn't have done it if the price wasn't so good. besides, you can't expect me to be patient!

Re: HP 49G+ calcs for sale in the US?

*Message #8 Posted by **Eddie** on 9 Sept 2003, 1:06 p.m.,*
in response to message #1 by Joe Edwards

It will be available around sep. 24th check samson cable at
http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=360

Re: HP 49G+ calcs for sale in the US?

*Message #9 Posted by **Ben Salinas** on 9 Sept 2003, 7:35 p.m.,*
in response to message #8 by Eddie

I have reason to believe that it will be released in stores on October 6th (although webstores might recieve them earlier). Today a press release about my winning the HP contest was released by my school district (i will link you as soon as it is online) and it said "a pre-launch edition of the HP 49g+ graphing calculator scheduled for release in stores on October 6 at a suggested retail price of $175.99" I am expecting that my district got the information from HP. Furthermore, at this mini-press release at my school they will be talking about the release of 3 new calculators which will be released in October (i am guessing the 48gII, the 33s and the 49g+). -ben

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hp85 printer belts

*Message #1 Posted by **andy** on 5 Sept 2003, 11:55 a.m.*

Anyone know where to obtain a suitable replacement for the toothed belts which drive the hp85's thermal printer?

Thanks,

And

Re: hp85 printer belts

*Message #2 Posted by **dbrunell** on 6 Sept 2003, 11:50 a.m.,*
in response to message #1 by andy

There are a number of companies that sell that type of belt. Can you measure the pitch, width, and number of teeth?

Re: hp85 printer belts

*Message #3 Posted by **Juergen (CH)** on 8 Sept 2003, 3:49 a.m.,*
in response to message #2 by dbrunell

You can find the specification of the belts here:

http://www.vintagecomputers.freeserve.co.uk/hp80/85repair.rtf

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RPN Calculator List

*Message #1 Posted by **Robert** on 5 Sept 2003, 10:08 a.m.*

I'm looking for a list of which HP's are RPN. Does one exist?

Re: RPN Calculator List

*Message #2 Posted by **bill platt** on 5 Sept 2003, 10:36 a.m.,*
in response to message #1 by Robert

Well, the museum pretty much does that--just browse through the front page.

As far as current models, there aren't any! (except the 12c and the recently released 12cplatinum (whichis noit as good as the 12c original). Except that new releases are just starting to come out:

17bii+ 49g+ 19bii+ 48gII 33s

All these appear to be RPN vs Algebraic selectable

Re: RPN Calculator List

*Message #3 Posted by **Veli-Pekka Nousiainen** on 5 Sept 2003, 11:54 a.m.,*
in response to message #1 by Robert

List 1: only RPN List 2: only Albegraic (or simpler) List 3: both RPN & Albegraic List 1+3= RPN found What do you want? List 2: 01,10,17B,18B,19B,22S,27S,38G,39G,39G+,40G List 3: 12C Plat,17BII,17BII+,19BII,19BII+,48GII,49G,49G+ VPN

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HP97 keyboard

*Message #1 Posted by **Chan Tran** on 5 Sept 2003, 8:52 a.m.*

I have a 97 and it's very nice. The main keyboard kind of losing the click and I have to press them pretty hard to make sure they registed. I hope someone would suggest a cleaning and or repairing technique.

Re: HP97 keyboard

*Message #2 Posted by **Katie** on 5 Sept 2003, 11:15 a.m.,*
in response to message #1 by Chan Tran

The 97 keyboard doesn't "click" so I assume that you mean that the key press isn't making good contact. Anyway, it's pretty easy to disassemble the 97 keyboard and clean it.

Once you open the 97 case (6 screws) there are another few screws to remove the keyboard from the top of the case and then a bunch more screws to remove the contact PCB from the keyboard itself. But you don't have to worry about any pieces falling out, all the keys and springs are kept in place by caps on the end of the key stalks. Just clean the gold plated contacts and the gold plated contact matrix with isopropyl alcohol and that should fix your problems.

Re: HP97 keyboard

*Message #3 Posted by **David Smith** on 5 Sept 2003, 5:37 p.m.,*
in response to message #1 by Chan Tran

The HP97 service manual is on the HPMUSEUM CDROM set. When taking apart the HP97 keyboard, note the relative positions of the gold keyboard contact sheet and the two white plastic spacer sheets. Different machines have them in different orders.

Re: HP97 keyboard

*Message #4 Posted by **Chan Tran** on 8 Sept 2003, 8:48 a.m.,*
in response to message #3 by David Smith

Thanks all for the posts. I will try to clean the keyboard. I also have an offer for a keyboard. I think it would be just fine. Thanks.

Re: HP97 keyboard

*Message #5 Posted by **Gordon Dyer** on 8 Sept 2003, 3:23 p.m.,*
in response to message #3 by David Smith

My HP-97 had the white spacer sheets together on the smaller keys and either side of the gold contact sheet on the larger keys. The manual shows a white sheet either side of the contacts. I reassembled it with white spacer sheets either side of the contacts for both sets and it now feels better and seems very reliable. I wonder if the assembly line used the spacer sheets to better position the contacts, or was it just poor quality assembly???

Re: HP97 keyboard

*Message #6 Posted by **David Smith** on 8 Sept 2003, 3:32 p.m.,*
in response to message #5 by Gordon Dyer

Almost all the HP97 machines that I have seen have had the two sheets together. I had a machine with lots of flakey keys and a spacer sheet on each side of the contacts. I reassembled the keyboard with the spacer sheets together and all the problems went away.

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HP 49G+ now available

*Message #1 Posted by **Juergen (CH)** on 5 Sept 2003, 5:26 a.m.*

Just saw that a reseller in Switzerland now sells the HP 49G+. Anyone out there who already bought one and can tell us about keys, speed, color scheme, ... ?

I'm looking forward to see the first review here on this forum.

Regards, Juergen

Re: HP 49G+ now available

*Message #2 Posted by **Daniel Diggelmann** on 5 Sept 2003, 8:23 a.m.,*
in response to message #1 by Juergen (CH)

Hi all,

The first batch of HP-49G+ arrived in Switzerland yesterday. I preordered one a few days ago and received it today. I'm actually quite impressed how HP came back to the calc market. The calc looks very good with appealing colours. The finish is of good quality. It came in a cardboeard box, USB cable, german manual, CD. What I really like is the genuine leather case with magnetic catch as seen on some ladies handbags. The calc's case feels sturdy and the LCD is of very good contrast. The keys are of hard plastic and do have the good old hinge on the bottom side. They have a very strong click. For me it's very important to be able to do fast entries. This has improved over the HP-49G. But sometimes (seldom) it clicks and the calc doesn't read the key. My calc has got one key y^x which needs s specific pressure (it actually seldom works). I'll return the calc for a replacement after having played whith it. The speed of the calc is very comfortable and plots are very fast compared with the HP-49G. As mentioned on comp.sys.hp48 the speed is 3-5 times the HP-49G. There is a IR port but it doesn't work with my HP-82240B printer. What surprised me a bit is that the installed batteries were already dead. Counting in that this is a brand new product I just hope that it doesn't consume huge amounts of power. Bear in mingd it's a 75MHz CPU! But on most PDAs it's actually the background lighting of the LCD which eats a lot of power. The port is now IrDA compatible which makes sense. With the SD card it should be possible to have all programs from HPCALC.ORG on-board :) All in all I'm happy with HP's new creation. More comments to come soon.

Re: HP 49G+ now available

*Message #3 Posted by **christof (NoVA US)** on 5 Sept 2003, 11:06 a.m.,*
in response to message #2 by Daniel Diggelmann

Pictures!

Re: HP 49G+ now available

*Message #4 Posted by **Veli-Pekka Nousiainen** on 5 Sept 2003, 11:10 a.m.,*
in response to message #3 by christof (NoVA US)

http://www.hpcalc.org/hp49gplus.php

Re: HP 49G+ now available

*Message #5 Posted by **christof (NoVA US)** on 5 Sept 2003, 11:13 a.m.,*
in response to message #4 by Veli-Pekka Nousiainen

I was hoping for the actual device with case and manual (at least a size referent) :)

Re: HP 49G+ now available

*Message #6 Posted by **Veli-Pekka Nousiainen** on 5 Sept 2003, 11:40 a.m.,*
in response to message #5 by christof (NoVA US)

Look at the page I gave to you. It's all there. The detailed information tells it is the same size as the older models.

Re: HP 49G+ now available

*Message #7 Posted by **Scuba Diver** on 5 Sept 2003, 11:45 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

I like the sound of the leather case...I'd like to see what it looks like!

nitpicking on this silly post.

*Message #8 Posted by **christof (NoVA US)** on 5 Sept 2003, 11:47 a.m.,*
in response to message #6 by Veli-Pekka Nousiainen

Look- I *did* look at the site. I have been there several times over the past few weeks. I said- not the pictures i'm looking for.

Agian, to be clear: the site lacks additional photographic information I am interested in. I have been to the site. Many times.

Okay, let's get into it, then.

1: the main photo on the page is an obvious marketing picture and has no real 'how it feels in the hand' referents.

2: the close up photos of the usb and sd ports don't give us a lot about the case construction, just 2 limited views of the slots.

3: there's no photo of the manual (a sample page isn't a manual) nor the case at all.

4: How's the screen look in light? what's the contrast like? Marketing photos are NEVER right in that regard.

Now, can you stop implying I'm incapable of web browsing? :)

Re: nitpicking on this silly post.

*Message #9 Posted by **Brandon Del Bel** on 5 Sept 2003, 12:43 p.m.,*
in response to message #8 by christof (NoVA US)

hahaha

Re: nitpicking on this silly post.

*Message #10 Posted by **Veli-Pekka Nousiainen** on 5 Sept 2003, 5:48 p.m.,*
in response to message #8 by christof (NoVA US)

http://www.live-id.org/hp49gplus/

Re: nitpicking on this silly post.

*Message #11 Posted by **Raymond Del Tondo** on 5 Sept 2003, 9:56 p.m.,*
in response to message #10 by Veli-Pekka Nousiainen

As usual with the newer 'hp' machines: Unreliable keyboard. Not much to add...

Raymond

(Reference:http://www.live-id.org/hp49gplus/)

keyboard

*Message #12 Posted by **Michel Beaulieu** on 5 Sept 2003, 10:17 p.m.,*
in response to message #11 by Raymond Del Tondo

My HP-20S, 30S 48G, 6S, 38G don't have any Keyboard problem. Even my HP-49G, no contact problem ,it's just a bad feeling but no problem with newer keyboard for me. The only calcs i have with keyboard problem is my C, CV and CX HP-41's halfnut (none of my fullnut have problem) And a lot of my older TI calculators ;-) have problem of bouncing ;-)

Pictures

*Message #13 Posted by **Daniel Diggelmann** on 6 Sept 2003, 2:55 a.m.,*
in response to message #12 by Michel Beaulieu

I made a few pictures of my machine:

http://members.fortunecity.de/aerobat/index.html

Cheers Daniel

Re: Pictures

*Message #14 Posted by **Raymond Del Tondo** on 6 Sept 2003, 5:58 p.m.,*
in response to message #13 by Daniel Diggelmann

Hi Daniel,

please show the unit on the 20th in Basel.

And don't forget your Omnibook;-)

Regards,

Raymond

Re: Pictures

*Message #15 Posted by **Daniel Diggelmann** on 6 Sept 2003, 7:17 p.m.,*
in response to message #14 by Raymond Del Tondo

Hi Raymond,

I'll sure bring the HP-49G+ I actually bought it so early to have it for the meeting. And yes the OmniBook will be my companion.

Looking forward to seeing you :)

49 g+ documentation

*Message #16 Posted by **James Stephens** on 7 Sept 2003, 11:43 a.m.,*
in response to message #10 by Veli-Pekka Nousiainen

Do I understand this correctly: the calculator comes with manuals on CD and there is a (printed) Quick-start Guide?

Thank you.

Re: 49 g+ documentation

*Message #17 Posted by **Juergen Rodenkirchen (GER)** on 7 Sept 2003, 1:36 p.m.,*
in response to message #16 by James Stephens

Right! See Daniels post below for more information!

Re: 49 g+ documentation

*Message #18 Posted by **Pierre Brial** on 8 Sept 2003, 1:21 a.m.,*
in response to message #16 by James Stephens

Manuals on CD are the worst marketing invention of the past ten years. Did HP give a free computer in order to read the CD ? What about peoples who don't have a computer (yes, that still exist) ? And if you want to bring your calculator on travel ? Do at least Hp offer a paper manual on request ?

All the Best

Pierre

That 33s is U.G.L.Y.

*Message #19 Posted by **Mike** on 5 Sept 2003, 8:58 p.m.,*
in response to message #4 by Veli-Pekka Nousiainen

That has to be the ugliest calculator I have ever seen in my life.

I wonder what the person, who designed it, was smoking. Better yet, I wonder what the person who approved the design was smoking.

UGLY!

Re: That 33s is U.G.L.Y.

*Message #20 Posted by **Tom Scott** on 5 Sept 2003, 9:34 p.m.,*
in response to message #19 by Mike

Apparently they tried to make it look like a cell phone.

Tom Scott Lander, WY

0-for-1 on Working Keyboards?

*Message #21 Posted by **Paul Brogger** on 5 Sept 2003, 5:10 p.m.,*
in response to message #2 by Daniel Diggelmann

I appreciate the several positive points mentioned, but I find this early report of keyboard trouble worrisome, especially in light of what folks have said about 10Bii keyboards. Problems already in a sample of size=one. Ouch!

Re: 0-for-1 on Working Keyboards?

*Message #22 Posted by **dbrunell** on 6 Sept 2003, 1:03 a.m.,*
in response to message #21 by Paul Brogger

One solution to this problem is to keep returning your calculators to the store until you get a good one with no bad keys (assuming one exists). If everyone does this, the rejects will pile up at HP pretty quickly and they will learn the benefits of designing things correctly the first time. Sadly, they once understood this. True, the old HP used to turn out occasional bad products, but usually it was because of the engineers trying to be "clever." The solderless Spice series and the battery door on the 28S come to mind. Now it's just junk.

I have an assortment of HP classics, a TI-92 plus with a fantastic RPN shell (and a large ENTER key :), and an iPAQ. Of what value would a 49G+ be to me if the keyboard stinks?

Re: 0-for-1 on Working Keyboards- BUT

*Message #23 Posted by **christof (NoVA US)** on 6 Sept 2003, 2:34 a.m.,*
in response to message #22 by dbrunell

Wow-

(great pictures.)

given the photos, I have to say that this looks like an amazing beast. the display really is a step up, probably better even than the 32Sii contrast.

I'm willing to see how the keyboard works out, but I'll say that (and I have a ti89, as well as 48sx/gx and 49g) this looks like a winner. In terms of speed, adaptability (someone will shortly put onboard assemblers in), and usability (aside fromt he possibly bad keyboard) this beats the 89 hands down. I'll bet it's a matter of months before usb keyboard drivers appear for those of us who like to develop onboard, too :)

Overall I think that the design team has made massive improvements in looks. The calculator is actually pretty again- and the case is a drastic improvement over the recent trends of calculator slide on covers.

I'm personally pretty excited (not quite enough to struggle with a german manual, though).

(and great pictures!)

-Christof

Re: 0-for-1 on Working Keyboards?

*Message #24 Posted by **Joe Edwards** on 6 Sept 2003, 4:02 p.m.,*
in response to message #22 by dbrunell

What RPN shell are you using on your TI 92? Thanks.

Joe

Re: 0-for-1 on Working Keyboards?

*Message #25 Posted by **dbrunell** on 6 Sept 2003, 8:00 p.m.,*
in response to message #24 by Joe Edwards

Re: RPN on TI 89/92/V200

I'm using RPN 2.022 by Lars Frederiksen. Here's the link:

http://www.paxm.org/symbulator/download/rpn.html

Hi Paul...Re: 0-for-1 on Working Keyboards?

*Message #26 Posted by **Gene** on 7 Sept 2003, 9:50 p.m.,*
in response to message #21 by Paul Brogger

I don't know how much I'd make of the keyboard reports so far. I think I would wait until it is actually introduced in the US, whenever that is.

Early models are often in a state of flux. Imagine the mess the 41c would have been in had the internet existed in the first few weeks when bugs were found.

HP knows the keyboard is important. I am sure they read the letters about the 49G's terrible keyboard.

They appear to be back in the market to stay and if these first ones aren't as good as we like, give them the benefit of the doubt and a few weeks / months to respond...or just wait until the intro is official, at least. :-)

Gene

Re: Hi Gene... Now 0-for-2 with regard to Working Keyboards???

*Message #27 Posted by **Paul Brogger** on 8 Sept 2003, 9:20 a.m.,*
in response to message #26 by Gene

Note I didn't say it's the end of the world, just that I'm worried . . .

[BTW, it appears (unless I've misread things) that two out of two reports mention keyboard quirks. Double-ouch!]

And, to compound the worry: if anyone thinks the HP calculator division, anxious to show

profitability on these new products, is going to trash their initial production run *and* the internal keyboard designs and spruce things up (to release an HP-49G+iiBetaSuperSportUltraModified?) -- well let's just say that I'm guarding against over-optimistic thinking.

Now, if H-P can exert some serious pressure upon its supplier... well that's another matter entirely. I hope they wrote some sort of "acceptance clauses" into their contract with Kinpo (or whomever)!

Re: Hi Paul... Early in the game :-)

*Message #28 Posted by **Gene** on 8 Sept 2003, 9:48 p.m.,*
in response to message #27 by Paul Brogger

Again, I am just trying to get people to wait until it's been available in the US before jumping to conclusions. I don't think these very early 49G+ are going to be indicative of the way things will be soon. There are always kinks early. Just look at the 41c..."Not saving x to lastx when pressing Sigma+? How dare they!"

:-)

HP knows the importance of the keyboard...just look at the return of the "click".

I am confident in the HP future.

Re: HP 49G+ now available

*Message #29 Posted by **Juergen Rodenkirchen (GER)** on 6 Sept 2003, 2:34 p.m.,*
in response to message #2 by Daniel Diggelmann

Daniel, thanks a lot indeed for this first review of the new HP49G+. As I can see from the pictures that you put on your web-site (thanks again), the manual included in the package probably is just the "Quick Start Guide". As Eric reported at hpcalc.org regarding the new HP48GII,

> Quote:
>
> I also have a copy of the first 175 pages of the 48GII documentation (this is the "Quick Start" guide). The first production calculators will only come with the Quick Start Guide, but there should be a coupon included to receive the full manual (800 pages or so) free of charge.

I was wondering if this is also true for the 49G+. So, my question if the package actually does include such a coupon for the complete manual?

Regards, Juergen

Re: HP 49G+ now available

*Message #30 Posted by **Daniel Diggelmann** on 6 Sept 2003, 7:07 p.m.,*
in response to message #29 by Juergen Rodenkirchen (GER)

Hi Juergen,

My package didn't come with a coupon. The printed manual is a quickstart manual but it's quite good. The CD includes a PDF file with almost 1000 pages! This manual is very good and seems to be from G. Urroz which wrote the two manuals for HP-49G. All in all the HP-49G+ is an interesting machine. On the other hand the keyboard can be a knockout criterium for a calc. In my opinion todays the main reason to use a calculator instead of a PC is the ease of keying-in numbers. Ol' HP did use to have not

only excellent software, good manuals but also very very good keyboards. And they should definitely find a way to improve the keys of the new calcs. I mean compared to a HP 30S the HP-49G+ is much more HP look and feel (except for the keys). But they seem to have tried to redo the hinged keys. They just did not get them right first time. The thing is that a quality check on the prototypes would have shown this in the very first minutes of operation. But I'm positive that HP will work on it or they will loose the calc market completely. Students and professionals need a calc to do their number entries without always checking the display. To sum it up: Except for the keys the HP-49G+ is certainly the most powerful calc availabe. The next thing I will check is the power drain compared to the HP-49G. I'll measure this with a HP-3468A Digital Multimeter connected to the HP-41CX :) Stay tuned...

Re: HP 49G+ now available

*Message #31 Posted by **Juergen Rodenkirchen (GER)** on 7 Sept 2003, 1:31 p.m.,*
in response to message #30 by Daniel Diggelmann

Hi Daniel,

thanks a lot for answering and the new information and ...

> Quote:
>
> Stay tuned...

Will do! :-)

Juergen

Re: HP 49G+ now available

*Message #32 Posted by **Eddie** on 9 Sept 2003, 1:04 p.m.,*
in response to message #31 by Juergen Rodenkirchen (GER)

The HP 49G+ will be available in the US around Sep 24th You can pre-order at http://www.samsoncables.com/catalog/prodDetail.cfm?Prod_ID=360

Re: HP 49G+ now available in Singapore

*Message #33 Posted by **Y K Wong (Singapore)** on 11 Sept 2003, 3:47 a.m.,*
in response to message #32 by Eddie

Guys,

It is also available in Singapore now, check this out http://www.educalc.net/ , if you place the order now, perhaps you can have it before Sep 24th!

I was told that the "sample" 33S and 48GII are also available for hand-on preview - sorry folks, only if you are in Singapore ;-)

Cheers

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Why did HP stop building the HP 15 and 16c?

*Message #1 Posted by **Joe Edwards** on 4 Sept 2003, 6:07 p.m.*

I was just looking thru HP's website and I see the sell the 12c. Can anyone explain to me what they stopped making the 15c and the 16c? It seems that the 15c would still have a great deal of value...its size and capabilities outweigh the size of my TI-83+ I have to use in class. I would much rather pull out a small calculator like the 15c for quick number crunching, but I don't want all the financial calculations as I still need the scientific calculations.

Thanks.

Joe

Re: Why did HP stop building the HP 15 and 16c?

*Message #2 Posted by **Richard Garner** on 4 Sept 2003, 6:59 p.m.,*
in response to message #1 by Joe Edwards

It's like anything else that is a perfect product. It's good, it's in demand, it's useful, therefore it must be discontinued?

Re: Why did HP stop building the HP 15 and 16c?

*Message #3 Posted by **Frederic** on 4 Sept 2003, 7:29 p.m.,*
in response to message #2 by Richard Garner

I remember someone saying that about the Volksvagen "beetle" original edition! And they stop produce it too. Today the vast majority of drivers won't buy a volks "bug" even if they were still produce; they prefer Honda Civic or a Hyundai Santa Feeee!

Not enought scientists and eng. to buy these tools but enought businessman, bankers and students for the 12C!

Lack of business sense :-)

*Message #4 Posted by **Mike** on 5 Sept 2003, 11:56 a.m.,*
in response to message #1 by Joe Edwards

There is no doubt in my mind, that if HP started selling the original HP-15C, that it would be one of the most popular calculators of all time. It would sell far better than any of HP's current calculators. The 10 series is **the only shirt pocket calculator**, that HP has ever made. That makes it a strong seller.

If you walk through most engineering departments, you will see the 15C or 41 used more than just about any other calculator.

The 15C is still heavily used, hence it's high costs. I had a friend that had his 15C stolen on a business trip. I gave him a brand new 48GX, for free, and he asked if I could get him a 15C. He much preferred the 15C.

Edited: 5 Sept 2003, 11:58 a.m.

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hp85 trouble

*Message #1 Posted by **andy** on 4 Sept 2003, 10:32 a.m.*

My hp85 has a problem. It turns on, and it passes its self test. However, after ~1-2min it turns off and then back on again and hangs. If I tap on the corner (near the power switch) it will come back on. It of course sounds like some kind of intermitancy. I think I've traced the problem to a bad power switch. When I test the continuity across the switch in its "on" position, my meter reads closed for a while and then reads open.

Any thoughts? It seems like a high quality switch but I suppose it could certainly be to blame.

Andy

Re: hp85 trouble

*Message #2 Posted by **hugh** on 4 Sept 2003, 2:37 p.m.,*
in response to message #1 by andy

you could take the switch out of circuit and see if all is well.

Re: hp85 trouble

*Message #3 Posted by **Tony Duell (UK)** on 4 Sept 2003, 5:25 p.m.,*
in response to message #1 by andy

According to the HP85 service manual, the power switch is a double-pole unit that breaks both the live and neutral mains wires. I assume you realised this, and are checking each section separately. For testing you could try shorting out each section of the switch with a jumper wire (take care -- this is mains you're working with). If the machine then works (of course the power switch won't do anything if it's shorted out), then you know the switch is faulty. Again, from what I can see in the service manual, each half of the switch has 2 wires of the same colour, so to short it out you just link those 2 wires of the same colour together, and keep the 2 groups separate.

Re: hp85 trouble

*Message #4 Posted by **David Smith** on 4 Sept 2003, 5:41 p.m.,*
in response to message #1 by andy

If the switch is flakey, you can probably make it work again just by spraying it with contact cleaner. Most switches like this have sealed housings. I have successfully fixed many of them by drilling a small access hole in the side of the switch with a hand (pin vise) drill. I try to locate the hole away from probable internal workings like pivots or bearings. I drill in an upwards direction so that drill shavings do not fall into the switch.

Re: hp85 trouble

*Message #5 Posted by **andy** on 4 Sept 2003, 10:37 p.m.,*
in response to message #4 by David Smith

Well, its not the power switch. I de-soldered both wires from the switch and soldered them directly together. After plugging it in, it came up just fine for about 2 minutes and 10 seconds. Then the power light goes off, the screen goes blank, and the cassette light comes on.

Then I can give the unit a nice solid tap on the corner just above the power switch and it resets itself and comes back on (picking up on that corner does the trick too). Then it returns to its locked-up state with the cassette light ~10-15 seconds later.

Should I check the big transformer next? It seems like a power supply problem to me.

Any thoughts?

Thanks...

Andy

Edited: 4 Sept 2003, 10:42 p.m.

Re: hp85 trouble

*Message #6 Posted by **David Smith** on 5 Sept 2003, 5:40 p.m.,*
in response to message #5 by andy

I would try to start wiggling around wires and tapping around with a screwdriver handle to isolate where the intermittent connection or component is. These sort of things can be rather frustrating to find.

Re: hp85 trouble

*Message #7 Posted by **Tony Duell (UK)** on 5 Sept 2003, 5:51 p.m.,*
in response to message #5 by andy

The fact that the cassette light turns on means it's not the transformer. In these machines, the transformer porvides only one voltage, which is then regulated on the PSU board (the one on the side of the paper roll holder) to give all the voltages the machine needs. The fact that the power LED goes out implies that you're losing the +6V line (IIRC) from the CPU board. This does sound like an intermittant connection. I'd start by re-seating all the cables and connectors in the unit (especially those darn tape-like ribbon cables). Then I'd get the service manual (it's on the MoHPC CD-ROM set), and check the PSU voltages when the machine fails. Find out which one(s) you're missing, and from which PCBs.

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TVM program for HP20S

*Message #1 Posted by **Chan Tran** on 4 Sept 2003, 8:16 a.m.*

I wonder if someone out there has a TVM program for the 20S. My wife needs those functions but she refuses to use any thing RPN or RPL. Thank you.

Re: TVM program for HP20S

*Message #2 Posted by **RR** on 4 Sept 2003, 9:44 a.m.,*
in response to message #1 by Chan Tran

You can probably program in a simple payment program, but with only 99 steps and NO SOLVER, you might not get a nice TVM program like the 12c or other Hp's.

The Hp21s has TVM via a loadable program (and I do have that out of storage). If it works well, and I can look at, I will post code so you can use on 20s (should work key for key).

But a far better and more reliable way to handle might be to buy an Hp10B (not the Bii, in this case).

Another approach is to buy an Hp38G and use its solver (Hp38G has nice HP quality keyboard). Or buy an Hp17B (cheaper than an Hp17Bii since it is NOT RPN selectable). Also Hp18C's sell fairly cheap (looks just like a 19B, but with a lot less RAM and no Trig)

If you can find it or get very lucky, an Hp27s is the calculator of choice (but you could get an Hp17Bii or Hp19Bii for less). An Hp22s also has TVM in a built in library, I believe.

If she doesn't mind colorful and rubber keys, an Hp49G has TVM and can be set to algebraic. Hp39G's are dirt cheap and behave just like the Hp38G's (aside from rubber keys) and give you access to lots more features ie RAM, programs, and other goodies.

Lastly, if you can bear it, a Ti-83 (graphics) or a BAII plus would work nicely. Both are actually pretty good, I just am Highly biased myself to Hp calculators.

Cheap and Fast solution: Buy an Hp10B. Simple easy to use calculator.

Best solution: Hp27s but $$$$ and hard to find.

I also like the Hp19BII+, but I can't say anything about the keys (I haven't touched one).

Re: TVM program for HP20S

*Message #3 Posted by **christof (NoVA US)** on 4 Sept 2003, 10:06 p.m.,*
in response to message #2 by RR

my votes-

the 20s is going to be rought to solve for, but you cna maybe do it.

the 10b (not ii) is great, and makes a matching pair with the 20s if she needs to do 'other math stuff' ever.

the 17Bii and 19Bii are probably the best, hands down- anytime you are dealing with finance you will have to deal with lists, equations (solver), and statistics. (and the 17Bii+ has a lot more RAM)

the 38G is really cheap, though :)

let me see how short any kind of usable tvm progrma can be....

Re: TVM program for HP20S

*Message #4 Posted by **bill platt** on 4 Sept 2003, 9:48 a.m.,*
in response to message #1 by Chan Tran

Hi Chan,

I programmed it in once, but in a very simple way:

I just translated the equation into the program space, but you have to know what you want to solve for, first--and arrange the equation to isolate the chosen variable. I am not sure if the 99 lines is enough so that you could have 4 different routines: for P, int, N and B (assuming no FV or initial value variation).

Regards,

Bill

Re: TVM program for HP20S

*Message #5 Posted by **Chan Tran** on 4 Sept 2003, 1:44 p.m.,*
in response to message #4 by bill platt

Thanks RR and Bill for the responses. I think I can get something working here but more suggestion would be greatly appreciated. Let me explain a bit about my situation here. My wife as in my original post won't use any RPN or RPL machine. She also won't let me make any purchase as she knows that I love to buy calculator stuff. For the calculators in my collection they are: HP20S HP32SII HP41CV and 41CX HP48SX and 48GX HP97 TI58C TI55 TI85

Now I am pretty sure that the TI85 can run some nice TVM program but I am not familiar with the thing and downloading software is not possible because I don't have the link cable. (buying the link cable is not an option). I am familiar with the TI58C so may be it's an option but since this is an HP forum I didn't want to post such a question. The HP20S is about the only other alternative.

Again thanks for any suggestion.

Re: TVM program for HP20S

*Message #6 Posted by **Adem Ordna** on 4 Sept 2003, 1:54 p.m.,*
in response to message #5 by Chan Tran

Kind ok clumsy but it works.

http://www.hpmuseum.org/software/20stvm.htm

Re: TVM program for HP20S

*Message #7 Posted by **bill platt** on 4 Sept 2003, 2:26 p.m.,*
in response to message #5 by Chan Tran

Hi Chan,

Your other option is to let her use the 32sii----you put the TVM equation into the equation list, and you can solve for any variable.

Or, if you are doing the 20s route, just translate:

Most likely, you want to find out hte payments, given a set initial balance and a fixed interest rate and number of payments. So:

Given that

-B = P*[1-(1+I/100)^-N/(I/100)] + F*[1+(I/100)]^-N

It is a simple matter to program your 20S to solve for -B: Just STO the appropriate values for payment ,interest, and number of payments, and then run a program that does this equation:

LBL A RCL P * (1 - (1 + RCL I / 100) y^x RCL N +/-) / (RCL I / 100) = + RCL F * (1 + (RCL I / 100)) y^x RCL N +/- = RTN

for the variables, use 0 for P, 1 for I, 2 for N, and 3 for F

If you enter exactly what is here, it will run fine.

Example, a 5 year used car loan at 4.8% APR, with 100 per month, and no value at end of the loan:

-B = $5324.89

so, first you store 100 in register 0, 0.4 in register 1 (that is, 4.8 / 12) and 60 in register 2, and 0 in register 3.

If you want to solve for P, you have to rearrange the equation and reenter it in the calculator. If you are lucky, it will fit along with this program, just as "label B".

There are 47 lines, and the checksum (assuming no other programs in memory) is 8A8b (leftshift show ["."] in program mode)

BTW, I entered this equation after writing it straight down, and ran it, and it worked fine. The 20S is a fine little simple algebraic machine!

Best regards,

Bill Platt

Edited: 4 Sept 2003, 2:29 p.m.

Re: TVM program for HP20S

*Message #8 Posted by **bill platt** on 4 Sept 2003, 3:34 p.m.,*
in response to message #7 by bill platt

OK, so here is the equation rearranged equation, solving for "P" (payment)

We assume that the operator can handle the -B business in the front end, so there is no +/- call. You can also save lines in both these routines if you make sure to enter the "N" as a negative number (then you can remove those +/- lines as wll).

Given: P = -B-F*(1+I/100) / { [1-(1+I/100)^-N] / (I/100) }

B = register 4, F = register 3, N is Register 2, I is register 1

LBL B RCL B (assumes -B is stored in B) - RCL F * (1 + RCL I / 100) y^x RCL N +/- (don't need this if N is saved as negative) = / ((1 - (1 + I / 100) y^x RCL N +/- (dont need this if N is saved as negative)) / (RCL I / 100 = RTN

I have not attempted to totally optimise this--saving a few lines where possible. But both porgrams fit!

Best regards,

Bill

Re: TVM program for HP20S

*Message #9 Posted by **Ron Ross** on 4 Sept 2003, 2:31 p.m.,*
in response to message #5 by Chan Tran

Sounds like the rest of us. I buy anyway, but have to wear earplugs on many occasions. Your Ti-58C is a poor substitute even if you have the finance module (but then agaaaain, you might make another Hp convert). But then I shouldn't need to tell you, since you do have one.

The Ti-85 does have some software available via download (I know, not an option) and it also has a simple solver that can easily handle the TVM eq. It is your best bet without shelling out any bucks under your constraints. It is superior to an Hp20s for versatility (quality and feel are a different matter). This was Ti's answer to the Hp48G (didn't quite measure up, but got them in the game). If you no longer have manual, Ti website either has or you could probably use an 86 manual for reference which is definitely available via download from Ti.

If the wife gets tired of carrying around a graphics, then suggest a $20-30 pocket calculator such as the Hp10b or the BAII+. I suggest the BAII+ for versatility, but the Hp10B is still a quality calculator (unlike the more recent 10Bii trash, I haven't played with the latest and very newest of course).

Good luck!

Re: TVM program for HP20S

*Message #10 Posted by **DougT** on 4 Sept 2003, 4:12 p.m.,*
in response to message #9 by Ron Ross

I have to agree with what Ron and some of the other folks have mentioned: sneak off and buy a dirt-cheap 10B! I bought one years ago for my wife, who also is RPN-challenged. She recently decided to get a "fresh" Casio or some other non-HP unit, so I sold the 10B for peanuts on eBay. They are nice, solid business calculators with decent keys.

Re: TVM program for HP20S

*Message #11 Posted by **Randy SMith** on 4 Sept 2003, 3:28 p.m.,*
in response to message #5 by Chan Tran

I say take away her algebraic calcs!! ;-)

Re: TVM program for HP20S

*Message #12 Posted by **Meyer Michael +** on 4 Sept 2003, 5:04 p.m.,*
in response to message #11 by Randy SMith

I say, TAKE AWAY ALL OF THEM! (Except for a museum collection, of course).

(sigh)

Re: TVM program for HP20S

*Message #13 Posted by **Roberto Flores** on 4 Sept 2003, 5:50 p.m.,*
in response to message #5 by Chan Tran

Hi...

I hate to say this - in this HP forum but the TI-58C has all the financial formulas built-in in the Master Library ROM, which was included with each and every 58/59 calc. I still have mine and also the manuals, if you need info on how to use it I will be glad to help.

This is, if you must use the TI, the LED and rechargeable batteries may not be the way you want to go.

Regards;

Roberto

Re: TVM program for HP20S

*Message #14 Posted by **Chan Tran** on 4 Sept 2003, 8:48 p.m.,*
in response to message #13 by Roberto Flores

Roberto! Yes I need info to use the library. I have the module installed in the calculator but I lost the instructions for the module. It would be great if you can help. I would like to use other programs in the library too. Thanks

the ti85

*Message #15 Posted by **christof (NoVA US)** on 4 Sept 2003, 10:09 p.m.,*
in response to message #5 by Chan Tran

There's a kind of cable that you can make for it, that requires no electrical parts (just cable and ends). Check google

and programming it may not be that hard- I am fairly certain the manuals can be downloaded...

Re: the ti85

*Message #16 Posted by **Chan Tran** on 5 Sept 2003, 8:46 a.m.,*
in response to message #15 by christof (NoVA US)

Thanks Gordon, I looked at a few drawings for the cable and they don't look that difficult. They do requires some resitors and diodes but that's not a problem. The connectors used are readily available unlike the one on the 48 and 49.

Re: the ti85

*Message #17 Posted by **christof (NoVA US)** on 5 Sept 2003, 10:57 a.m.,*
in response to message #16 by Chan Tran

the manual:

http://education.ti.com/us/product/tech/85/guide/guides.html

cable plans (there are more on the web)

http://www.ticalc.org/hardware/cables/index.html

-C

Re: TVM program for HP20S

*Message #18 Posted by **Gordon Dyer** on 4 Sept 2003, 7:36 p.m.,*
in response to message #1 by Chan Tran

You can buy a HP-10B cheaply!

Re: TVM program for HP20S

*Message #19 Posted by **Chan Tran** on 8 Sept 2003, 8:47 a.m.,*
in response to message #18 by Gordon Dyer

Thanks for all the good suggestions and assitance. This is what I did. I wrote a simple program that would only calculate the payment based on interest rate, number of payments and present value. It basically what my wife needs. I got the instructions to use the master library for the TI58C. I can get the TI58 to work but not the 58C but it's not a problem. Thanks. I will be making the link cable for the TI85 and look for some program to download. Thanks again for the info.

So look like I am OK.

Thanks.

Re: Glad to hear it!

*Message #20 Posted by **Ron Ross** on 8 Sept 2003, 9:50 a.m.,*
in response to message #19 by Chan Tran

I did get my 21s out and load the TVM program. It takes ALL 99 steps, is in keyboard code and would have taken me a while to re-code to standard label keystrokes for the 20s. I could easily SCREW this up and my 20s's are still in storage, so I had no way to check if my translation was successful.

I still suggest an HP10b, if your wife complains about the large graphics calculator.

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Using disposable batteries in a 82143A printer?

*Message #1 Posted by **Emmanuel Verbeeck** on 4 Sept 2003, 4:44 a.m.*

Hi everyone,

Do anyone of you know wether it is possible to use disposable batteries (cells) in the 82143a thermal printer?

The standard rechargeable battery pack I got is dead, and I would like the possibility to use the printer without any external power source (like my matching HP-41CV where I just put disposable N cells).

The holder for the 4 batteries is intact, I am wondering wether I can open it and put some disposable batteries (something like a AA cells, but thicker) in it?

Thanks in advance, Emmanuel

Why not use rechargeables?

*Message #2 Posted by **Mike** on 4 Sept 2003, 12:09 p.m.,*
in response to message #1 by Emmanuel Verbeeck

If you are going to the bother to open the battery holder, why not just stick in some Sub-C rechargeables? It's easy and these batteries are readily available.

Why do you prefer disposable over rechargeable?

Good suggestion

*Message #3 Posted by **Emmanuel Verbeeck** on 4 Sept 2003, 3:04 p.m.,*
in response to message #2 by Mike

Thanks Mike, I'll follow your advice.

I'll also need to find a 110V-to-220V convertor (US-Europe) but that's very easy and cheap to obtain.

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A graphic display for a HP-42 *hardware* emulator?

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 3 Sept 2003, 8:09 p.m.*

Hi all, I'm searching for a graphic display (with controller) to build an emulator with microcontrollers of the Saturn CPU, to emulate the HP-42S (resolution of at least 131x16). Any of the "hardware" fellows knows any cheap one? Or anyone interested in the project?

Best regards,

Nelson

Fast HP41CX *hardware* emulator?

*Message #2 Posted by **Werner** on 4 Sept 2003, 4:09 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Hi Nelson,

that's an absolutely great idea to emulate a HP42s as a real hardware emulator with modern microcontrollers! It is an extremely valuable approach for the HP fan community.

I am more an enthusiast of the HP-41CX because it has the synthetic programming capabilities and the multiple I/O- and IL-capabilities. These allow ROM image exchanges between PC and RAMbox and M-Code programming including I/O. Would it also be possible for you to build a hardware emulator for the HP-41 with a nut processor emulation ?

I believe that many people would buy an HP-41CX-hardware emulator from you which they could place into an old original housing with the good keys. There is really a big fan community for the HP41!

The reason for this inquiry is the discrepancy of the slow performance speed with the enormous quality and brilliance of the HP-41 design (also the HP42 is of course of enormous desing quality).

There are different great emulators for PC or PDA, especially I would like to mention Jean-Francois Garnier's "EMU41", an indeed great emulator for PC/MS-DOS. His new version not only perfectly emulates the HP41 with all ROMs and also with RAMBOX for machine code programming, no, it also emulates the whole HP-IL-loop system in a bidirectional manner, i.e. the real HP-41 that is connected to a PC via HP-IL and IL/PC-interface card can “see” and control virtual mass storage devices, printers, video interfaces and more of the “inside-PC-world”. On the other hand the PC-emulator can “see” and control the “outside world”, i.e. all the real equipment of the real IL-loop. So you can transfer ROM images, m-code programs and everything.

Already on a 600MHz-Windows notebook EMU41 is 400 times as fast as the real HP41 !

There are some great guys who support the broad HP41 community with very good new hardware, for example Christoph Klug with his great IL2000 system and interfacing solutions and Meindert Kuipers, developing a real Machine Language Design Lab Module (MLDL) for the HP41.

The only thing that is still really missing, that's a fast hardware emulator based on microcontrollers for HP41

which one could build into an original old housing. It should be able to address a RAMbox / MLDL (internally implemented or in conjunction with Meindert's MLDL) and it should be able to address HP-IL. High speed would mean high power consumption, but with modern Li-Ion batteries there should be a solution, what do you think ?

Nelson, would it be possible to develop such a wonderful device ? For us HP41 fans that would be "Heaven on Earth"...

Best regards, Werner

Edited: 4 Sept 2003, 5:51 a.m.

Re: Fast HP41CX *hardware* emulator?

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 4 Sept 2003, 9:08 a.m.,*
in response to message #2 by Werner

Yes, it can be done. I was thinking on the 42S because I have one and I really like it... The "Coconut" CPU is even simpler than the "Saturn" CPU, and the original ROM of the 41CX is only 24Kword. I only need to know how to emulate the HP-IL periferal (I was thinking on a MMC/SD card as a mass storage, they are simple and cheap). I still gathering information, any help from this community is welcome!

Best regards,

Nelson

Re: Fast HP41CX *hardware* emulator?

*Message #4 Posted by **Werner** on 4 Sept 2003, 10:22 a.m.,*
in response to message #3 by Nelson M. Sicuro (Brazil)

Nelson,

thank you for your response, that's indeed great news that it would be principally possible! I think Jean-Francois Garnier is THE software expert on modeling of virtual IL. And Christoph Klug is a top IL hardware expert. Perhaps you could co-operate with those smart and kind people or other great experts like Meindert Kuipers, HrastProgrammer or Warren Furlow on such an ambitious mega project? I believe the huge HP41 enthusiasts community would really be thrilled and grateful, I don't think that I am exaggerating ...

If the emulator had RAM that emulated Quasi-ROM (like every RAMbox, MLDL or Hepax module does), one could load all ROM images and there would not be any need for further fast hardware emulation of the very many application ROMs. So this would generalize and simplify the overall approach.

The HP41 platform is very flexible and comprehensive, one can later write M-code programs that enhance its capabilities by far. For example one could later easily write M-code software that allows sophisitcated complex vector and matrix manipulation being similar to Matlab solutions and being better than the existing HP calculator solutions (this is one example only). The only critical issue really is the slow speed of the original HP41 hardware! So in my opinion a microcontroller based emulator would be THE breakthrough.

Best regards, Werner (Germany)

Re: Fast HP41CX *hardware* emulator?

*Message #5 Posted by **Monte Dalrymple** on 4 Sept 2003, 10:31 a.m.,*
in response to message #2 by Werner

I hesitate posting this because the project is one of those "as time permits" endeavors, but...

I have started a project to replace the main board of a fullnut CX with an FPGA version of the CPU that I am in the process of reverse-engineering, a large FLASH memory to hold the ROM images (main, timer, ex fncs, plus a number of modules) and a large RAM to hold memory, ex memory and memory for the port images. I expect the FPGA version of CPU to run up to 100X the speed of the original design, under program control.

As the memories will be 16-bit I plan to use one of the extra bits to enable/disable the high speed operation. Thus the I/O bus would not "see" the faster operations, only the normal-speed transfers aimed specifically at something connected to a port...

There are copyright issues involved, so the board would only be available as an exchange for an original 41CX board and the FLASH would be shipped without any module images installed. I might stick a serial port in the FPGA though.

Re: Fast HP41CX *hardware* emulator?

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 4 Sept 2003, 12:48 p.m.,*
in response to message #5 by Monte Dalrymple

My project is also "as time permits", but it will be based initially on Microchip's PIC microcontroller, and I think that the speed will not be that fast (max. 2~4x original). I'm building my project with a very (very!) modest budget, as I cannot afford using those FPGAs, and I'll use parts from "deceased" 486/PentiumI boards (SRAM, Flash). I built my own PIC burner... I'm a hobbyst in electronics and a programmer as a real job (I have my own little software house), and one of the challenges that I'm going for is to "recycle" old non-working calculators (not only HP ones, but all will be using RPN logic!). I'm also learning the algorithms to use in other CPU platform I'm developing (simulated on PIC) with more resources, or a "upgrade" from a Saturn/Coconut CPU (more instructions, larger registers?). I could get faster microcontrollers (Scenix?) but I cannot get those here...

Your CPU simulation is on firmware or pure gate logic? I'm searching another CPUs as well, and I found some very interesting ones from Holtec that have on-board LCD controller and about 4KB ram, but these are OTP, not well suited for this kind of (trial-and-error?) project.

Regards,

Nelson

Re: Fast HP41CX *hardware* emulator?

*Message #7 Posted by **Monte Dalrymple** on 4 Sept 2003, 1:43 p.m.,*
in response to message #6 by Nelson M. Sicuro (Brazil)

The CPU will be as exact a copy of the nut CPU as I can make from the available documentation, with the addition of parallel address and data busses for the FLASH and RAM. I design using a hardware description language, which is then synthesized into the gates (or CLBs for an FPGA).

Re: Fast HP41CX *hardware* emulator?

*Message #8 Posted by **Meindert Kuipers** on 4 Sept 2003, 1:27 p.m.,*

in response to message #5 by Monte Dalrymple

This thread is developing into something REALLY interesting. I am working on implementing the logic of an MLDL (RAM/ROM box) in a CPLD. A larger FPGA will certainly fit the HP41 processor, but it will be very hungry for power. Thay is the main reason why I will stick with my 'slow' 41CX with my MLDL in a Card Reader housing. Communication with a PC will be based on USB.

If I can be of any assistance let me know, and please share as much infomation as possible!

Meindert

Re: Fast HP41CX *hardware* emulator?

*Message #9 Posted by **Monte Dalrymple** on 4 Sept 2003, 1:54 p.m.,*
in response to message #8 by Meindert Kuipers

I am very aware of the power issue. That's why I am still thinking about what family I'll use for the implementation. I would prefer an antifuse of flash-based device but the quiescent power may shoot down that idea unless I power it down. But then there's the issue of recognizing the "on" button...

Re: Fast HP41CX *hardware* emulator?

*Message #10 Posted by **J.D.Clemens** on 4 Sept 2003, 2:09 p.m.,*
in response to message #9 by Monte Dalrymple

What are the fast today's PDA's, Palms and so on made of? Is their hunger for power such a problem? 400 MHz ? And HP-49G+: 75 MHz ? I think the HP-49G+ is not originally engineered but based on an emulator layer of the Saturn and nevertheless 5-10 times as fast as HP-49G ? John

Edited: 5 Sept 2003, 4:54 a.m.

Re: Fast HP41CX *hardware* emulator?

*Message #11 Posted by **Nelson M. Sicuro (Brazil)** on 4 Sept 2003, 2:13 p.m.,*
in response to message #9 by Monte Dalrymple

About the power consuption issue, how about using a low-power, high-speed microcontroller emulating the CPU on firmware? There is some chips that consumes less than 1mA on full speed (about 20~40MHz), but I'm not shure as I don't have their datasheets here. My project uses PIC microcontrollers (2mA at 4MHz max) but is meant to be inexpensive, not fast. The RAM/ROM flash that I can get is a bit power hungry, but the total power is less than 100mA. If I can use some 1800mA/H NiMH cells it can last about 18 hours of full speed processing (not in sleep/standby mode).

Regards,

Nelson

Re: Fast HP41CX *hardware* emulator?

*Message #12 Posted by **Monte Dalrymple** on 4 Sept 2003, 3:21 p.m.,*
in response to message #11 by Nelson M. Sicuro (Brazil)

The issue isn't so much the operating power as it is the quiescent power. The FPGAs I'm looking at would require less than 10mA if running 2x and less than 20mA running 5x.

However, they require 5mA (typical) when not running. This is what I would like to get rid of. The flash and RAM power can probably be ignored when running at these slow speeds because I'll only have the chip selects on when absolutely necessary. Power goes directly as frequency, so running very fast (more than 10x) needs to be limited to things like inner loops where it really pays.

Re: Fast HP41CX *hardware* emulator?

*Message #13 Posted by **Nelson M. Sicuro (Brazil)** on 4 Sept 2003, 4:52 p.m.,*
in response to message #12 by Monte Dalrymple

Is there any way to disable the clock for some "regions" in the FPGA creating some "deep sleep" mode? I'm not familiar with such devices. The microcontrollers that I use have very low quiescent current in sleep mode (5V, 2~9uA; 3V, 0.7uA) but their clock is about 4MHz (at 5V, 2mA).

Regards,

Nelson

Re: Fast HP41CX *hardware* emulator?

*Message #14 Posted by **Bill Wiese** on 4 Sept 2003, 4:50 p.m.,*
in response to message #11 by Nelson M. Sicuro (Brazil)

Hi Guys...

One CPU you might wish to examine is the TI MSP430 series. Onboard RAM & flash, various I/O ports, etc. Numerous variants. Ultra-low power, 16-bit ALU, and there's a free C compiler available.

I think microcontroller emulation of Nut CPU will be quite good performance-wise even on a standard 8-bitter - 6805, PIC, etc. - running at even a moderate clock speed.

For a bit of extra speed, perhaps the native code that emulates each Nut instruction should use unlooped code. This will not change size of the emulation kernel appreciably.

I'd bet that with a tight interpreter loop, the bit of emulation overhead would be more than compensated for by higher clock speed, parallel fetches, and faster register moves.

Bill Wiese

San Jose CA

Re: Fast HP41CX *hardware* emulator?

*Message #15 Posted by **Nelson M. Sicuro (Brazil)** on 4 Sept 2003, 5:02 p.m.,*
in response to message #14 by Bill Wiese

I'm thinking on the Atmel's ATmega128, it has 128KB Flash ROM, 4KB SRAM, 4KB EEPROM, clock up to 16MHz and very low power CMOS. But I can't affor yet the programmer and some chips to begin the tests. I'm thinking in various optimizations in the emulator code, but first I'll try to fit it in 2Kword of code in the PIC16F628 that I have here! I'm planning on pre-fecth of the external EEPROM (where the HP-ROM is) in 5 bytes chunk (4x10 bit word) to speed up, but it is serial... Well, this is just a

prototype to prove the concept. The basic hardware (display, keyboard) is working very well on 7-segments display or 5x7 matrix LED display (beautiful!). The project is going a little slow, as I have much work to do with my Delphi projects (those that pay the bills!!).

Regards,

Nelson

Microcontrollers and Calculator Re-engineering

*Message #16 Posted by **Paul Brogger** on 8 Sept 2003, 1:49 p.m.,*
in response to message #5 by Monte Dalrymple

I have myself spouted off several times about hardware and/or software ideas which I've taken absolutely nowhere, but here goes again . . .

The last notion I had was building an LED RPN model. I bought a few used TI-55's (10-digit LED stick, double-shot keys, acceptable key click, but a too-large plastic case), thinking I might insert a microcontroller between the original chip and the keyboard and display. The idea is: the RPN-aware microcontroller would monitor the keyboard, generate the display, and maintain, stack, register, and program memory. It would control program vs. execute modes, implement program editing, and sequence program execution.

Whenever calculation needed doing, it would electronically "press the keys" for the original TI-55 chip, and decode the answer from the chip's LED drivers (output lines). This would minimize program development -- all the math stuff would be available from the original electronics. But that would be had at a possibly unacceptable price: the original TI's keyboard de-bounce delay would be encountered with most steps during program execution . . . (The microcontroller might optimize its own programs by "keying in" small subroutines into the 55's 49-step memory and then executing them?)

One might even gang two LED sticks together and get a two-line LED display!

It all sounds fun, but I haven't done anything yet, so it's just a thought experiment at this point. I don't have any experience with microcontrollers, but that looks tractable. The 9V supply for the TI-55 might be a problem, if the microcontroller requires 5V (if only from a complexity standpoint). I did play with decoding 7-segment LED drivers way back in collge. (If I remember right, you only need 5 of the segments' states to determine the intended numeral.)

Anyway, if anyone has knowlege of the difficulties involved, you might want to set me straight!

Re: Microcontrollers and Calculator Re-engineering

*Message #17 Posted by **Nelson M. Sicuro (Brazil)** on 8 Sept 2003, 2:49 p.m.,*
in response to message #16 by Paul Brogger

I already tested with 7-segment displays and the TI-55 keyboard, is really easy do manage it. I have also a HP-32E with non-soldered chips and display and I'll built a "replacement" to their mainboard with the low-cost chips that I use (Microchip PIC16F628). I also have some TI calculators (TI-30, 55, MBA, Programmer) that uses LED stick displays (the one of the TI-55 is the best, 11 digits plus sign) and some Commodore models (these are the best, display is 14 digits and the keyboard is far better than the TI's). Writting the calculator software from scratch is a big challenge, but not impossible. To write an emulator for some HP-ROMs available is much simple (I'll try an HP-41 emulator with LED 5x7 matrix displays). I'll try both ways, as time permits... Please write me an email if you have any questions about hardware and microcontrollers, I'll try to

answer.

Best regards,

Nelson

Re: A graphic display for a HP-42 *hardware* emulator?

*Message #18 Posted by **dbrunell** on 4 Sept 2003, 4:20 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Www.mpja.com has a 240 X 64 LCD with backlight and controller for USD 24.95. There are a number of surplus electronics outfits on the web that might have something closer. If I were building it, I would use an active display technology like vacuum fluorescent or LED dot matrix.

Re: A graphic display for a HP-42 *hardware* emulator?

*Message #19 Posted by **Nelson M. Sicuro (Brazil)** on 4 Sept 2003, 9:04 a.m.,*
in response to message #18 by dbrunell

I already have LED dot-matrix display (5x7 char.), but it the characters are well-spaced and can't be used for "graphics" application. In the other hand, ther are well suited for a HP-41cx emulator... but the power consumption is really high! A 16 char. display consumes about 500mA at 5V, 2.5W!! But it is beautiful, indeed...

Regards,

Nelson

Re: A graphic display for a HP-42 *hardware* emulator?

*Message #20 Posted by **Gordon Dyer** on 4 Sept 2003, 7:39 p.m.,*
in response to message #19 by Nelson M. Sicuro (Brazil)

Use the LCD and work on a 4 line display enhancement which shows all of the stack...
Good luck with the project.

high speed fourty-one

*Message #21 Posted by **Christoph Klug** on 5 Sept 2003, 5:56 a.m.,*
in response to message #20 by Gordon Dyer

Dear Hp41 hardware enthusiasts,

creating a high speed HP41 by using modern technologies is really a great idea.

Please desing the new hardware compatible to the existing HP41 case. Also include a bus system which is compatible to the existing HP41 plug in ports. Than we are able to use the new "fast speed" solution with existing components like IL-Module or the new MLDL unit from Meindert Kuipers.

Remember : The HP41 is much more than a handheld calculator, this machine is also a system controller for HP-IL (Which includes printing, plotting, mass storage and advanced hardware interface applications :-). Last not least nice gateway solutions exist to PC world (EMU41 from Jean-Francois Garnier)

Best wishes from Germany - Christoph Klug

Re: A graphic display for a HP-42 *hardware* emulator?

*Message #22 Posted by **Meindert Kuipers** on 7 Sept 2003, 9:02 a.m.,*
in response to message #18 by dbrunell

Why not get a brand-new HP49G+ and do all the tricks in software .....

Meindert

Re: A graphic display for a HP-42 *hardware* emulator?

*Message #23 Posted by **Nelson M. Sicuro (Brazil)** on 7 Sept 2003, 9:41 a.m.,*
in response to message #22 by Meindert Kuipers

What is the fun then?? The best part is design my own hardware! And these new calcs are bigger than my shirt pocket... (both ways: size AND price ;)

Regards,

Nelson

Re: A graphic display for a HP-42 *hardware* emulator?

*Message #24 Posted by **Erik Ehrling (Sweden)** on 8 Sept 2003, 12:25 p.m.,*
in response to message #18 by dbrunell

Hmm... the HP-42S screen looks great at 262 x 48 (i.e. each pixel being displayed by 2x3 pixels) but that would require a sligtly wider LCD...

Best regards, Erik

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HP-15C or 11C i found

*Message #1 Posted by **Frederic** on 3 Sept 2003, 7:24 p.m.*

Hi! i finally found a scientific calculator that have the same series as the HP-12C i already have. But the calculator is in very bad cosemtic condition : completely scratches back label, no more logo on the right, the silver besel have a lot of tin scratches ant there is a scratches on the black faceplate ;-(

The good news is that it works perfectly! The problem is that i don't know which model is it : a 15C or a 11C. I remember the 2 models and they have differences with keyboard key assignements?!?

I have no BLUE keys and if i remember, the 15C and 11C have one : is there variant keyboard assignements for the 15C or the 11C. One thinks i'm sure is that's not a 12C : no business key!

thank you for answering

Fred

Edited: 3 Sept 2003, 7:27 p.m.

Re: HP-15C or 11C i found

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 3 Sept 2003, 7:38 p.m.,*
in response to message #1 by Frederic

I think you have one HP-10C, it is the only one of the Voyager series that doesn't have the blue "g" shift key.

Best regards,

Nelson

Probably a 10C

*Message #3 Posted by **Renato** on 3 Sept 2003, 10:30 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

As Nelson said.

You can check the keyboard against a 10C picture here: http://www.hpmuseum.org/10c.jpg

Also, you can run the keyboard test , that should end with "10" on the center of the display. Instructions for auto and keyboard test are at the end of this page: http://www.hpmuseum.org/features/10cf.htm

Re: HP-15C or 11C i found

*Message #4 Posted by **Frederic** on 4 Sept 2003, 7:19 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

You were right. it's a 10C i made the self test and i saw the museum picture; me, i was hoping to get a 15C

or at least a 11C. Well it's better than nothing.

Thanks Fred

Better than nothing?

*Message #5 Posted by **Patrick** on 4 Sept 2003, 7:57 p.m.,*
in response to message #4 by Frederic

Well, if you are a pure user then, yes, the 11C and 15C would be of more value to you. However, the 10C is the rarest of all the Voyagers and those of us who fancy themselves as collectors hunt for them avidly. In fact, if you look on the "Prices & Rarity" section of the Museum, you'll see that the 10C is rated as "Very Difficult" to find, whereas the 11C is "Easy" and the 15C is "Moderate".

A few months ago, a 10C with a manual went for about $175 (I know because I bought it). Just recently, a 10C alone went for over $200 (no, I didn't get that one). You can generally get an 11C for much less than $200 and a 15C in average condition in that range as well.

If you don't fancy the 10C, I suggest you put it up for auction on eBay and use the proceeds to buy a 15C. It will be pretty close to a wash financially, I suspect, or a small gain for you.

Re: Better than nothing?

*Message #6 Posted by **Frederic** on 4 Sept 2003, 8:51 p.m.,*
in response to message #5 by Patrick

Well, i wasn't aware of that! I'm not a collector but i lie the 15C; i had on but it has been stolen some years ago. You are probably ok with selling it but the problem is that it is cosmetically very BAD but electronically fully functionnal so for a collector, it's not a good specimen! Perhaps i can find someone with an ugly 15C to exchange it for my very ugly 10C ;-)

P.S. : i'm more happy now since i know i have a rare calculator, ha if the ex owner's knows what you know about the 10C and it's value...

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hp 48s calc with 48sx manual (vol 1)

*Message #1 Posted by **Neil** on 3 Sept 2003, 3:58 p.m.*

I won an auction some time ago on ebay for a hp 48s calculator which came in the box + case + 48sx quick reference guide + 48sx owners manual volume 1. Everything was made in Singapore.

Since this is my first RPL calc, I was looking for the programming section in the manual, which I noticed is to be found in volume 2 of the owners manual, which did not come with the calculator. I then checked a few other 48s auctions on ebay and I see that there exists a specific 48s owners manual.

So what I am wondering is did HP ever supply the vol 1 48sx manual + 48sx quick ref guide with 48s calculators? There is only enough room in the box for one manual, so the seller couldn't have forgotten to enclose volume 2. Anyway, I asked the seller but I didn't get an answer. Possibly the factory just stuffed the 48sx documentation by mistake in a 48s box, but I am just curious if anyone has experienced this.

Re: hp 48s calc with 48sx manual (vol 1)

*Message #2 Posted by **christof (NoVA US)** on 3 Sept 2003, 4:12 p.m.,*
in response to message #1 by Neil

The 48S and 48SX are the same aside from the external port expansion slots. So the manuals work for both- My 48S (also bught used) came with the later one big volume edition of the 48SX manual, which works fine. AFAIK, HP never put out a seperate manual set for the 48S as they did with the G series, HP put out one manual set for the 48g, 48g+, and 48GX)

I do prefer the printing where they had the manual split into 2 volumes, since they are wire bound and lay flat more easily.

But- you either have the one BIG single volume, in which case you ust need to dig deeper and find that everything really is in there, or you have the 1st volume of the 2 volume printing (again, they had the SAME information, just different printings), In which case yoou need to buy the MoHPC DVD/CD set with the 48s/sx manuals on it :)

and , incidentally, hpcalc.org has a great tutorial on user rpl. area48 has tons of information of all sorts that you will find very useful.

Re: hp 48s calc with 48sx manual (vol 1)

*Message #3 Posted by **Roberto Flores** on 3 Sept 2003, 8:08 p.m.,*
in response to message #1 by Neil

Hi !.

Perhaps you need to take a look at the HP 48 Programmer's Reference Manual (00048-90054) which was not included with the SX.

It is basically the same as the Advanced User's Reference manual for the 48G, it describes the functions but is

no programming tutorial.

Regards;

Roberto

Re: hp 48s calc with 48sx manual (vol 1)

*Message #4 Posted by **Chan Tran** on 3 Sept 2003, 10:50 p.m.,*
in response to message #3 by Roberto Flores

My 48SX came with 2 volume user's manual. I did have to buy the Advanced User's Reference Manuals.

Re: hp 48s calc with 48sx manual (vol 1)

*Message #5 Posted by **Neil** on 7 Sept 2003, 3:14 p.m.,*
in response to message #4 by Chan Tran

Thanks for all the feedback. I'm pretty sure the HP factory packed the SX vol 1 manual because they probably ran out of 48s manuals at the time, and since these manuals are so thick, they couldn't put both vol 1 & 2 in the same box. As I said, I got the 48sx quick reference guide as well. So altogether, that makes a 48s calculator + 48s box + 48sx vol 1 manual & ref guide. No big deal. I'll use the websites for RPL programming info.

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"A user's comments on two HP-42S emulators"

*Message #1 Posted by **Erik Ehrling (Sweden)** on 3 Sept 2003, 3:21 p.m.*

Hi!

This is a short note to tell that I just have uploaded a short presentation that I held at the HPCC London July meeting regarding the two HP-42S emulators Emu42 by Christoph Giesselink and HP-42X by "Hrastprogrammer" at:

http://w1.322.telia.com/~u32220482/index.html

Best regards, Erik Ehrling (Sweden)

Re: "A user's comments on two HP-42S emulators"

*Message #2 Posted by **Richard Garner** on 3 Sept 2003, 5:56 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

In your presentation you said that Emu42 supports 32KB RAM. How do you set Emu42 to register 32KB instead of 8KB? That was a nicely put together presentation by the way, good job.

Re: "A user's comments on two HP-42S emulators"

*Message #3 Posted by **Christoph Giesselink** on 3 Sept 2003, 7:13 p.m.,*
in response to message #2 by Richard Garner

The emulator itself can only make HP42S state files with 8KB RAM. An external program is necessary to make one with 32KB RAM. The program is available at http://privat.swol.de/ChristophGiesselink/Lewis/Mke42.zip.

Christoph

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HP 42s ROM Dump

*Message #1 Posted by **Richard Garner** on 3 Sept 2003, 3:12 p.m.*

Hey Folks,

I finally found someone that had a 48GX. We spent this past holiday weekend getting the 42s ROM dumped. I would like to thank all of you that have written procedures, programs, taken time to answer questions and make suggestion in this forum. Thank you. I have a copy of the Emu42 Demo that was listed here a few months ago. Has there been any updates to it sense it was listed here last?

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I want to sell a spare HP-15C but I don't know how...

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 3 Sept 2003, 2:53 p.m.*

I want to sell a spare HP-15C that I have (in box, manual in brazilian portuguese, protective plastic cover of both calc. and manual, vinyl case, very well preserved) but I don't know how to do it! I cannot pass the eBay credit card verification for some reason (misspelled adrress? but the card is ok!). And I don't know how to recieve payments here in Brazil from international buyers also. I have a personal PayPal account, but it doesn't accept credit cards. I'm seeking for any advices, help, or even offers (pls ask for pics)... I'll put the offer on the Ads section also, but I need first know if I can recieve payments from other countries besides my own (Brazil).

Best regards,

Nelson

P.S. I have also a HP-11C but it is in poor condition, no box, no manual, several scratchs, rubber foot missing...

Re: I want to sell a spare HP-15C but I don't know how...

*Message #2 Posted by **GS Leong** on 3 Sept 2003, 3:00 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

sell it here in the classifieds take bids by email set a date and sell to the highest bidder. Then take only certified check and do not ship until you receive the money I think that if you let every one know up front there will be no problems.

my $.02

Re: I want to sell a spare HP-15C but I don't know how...

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 3 Sept 2003, 3:18 p.m.,*
in response to message #2 by GS Leong

The problem is how to cash a (US?) check here in Brazil... Or I can exchange it for something of the same value.

Regards,

Nelson

Re: I want to sell a spare HP-15C but I don't know how...

*Message #4 Posted by **Dave** on 3 Sept 2003, 3:26 p.m.,*
in response to message #3 by Nelson M. Sicuro (Brazil)

Usually international money orders work. Check with your bank what works best. Western Union offers pretty good service - used it with some tranactions to Eastern European countries just fine.

Re: I want to sell a spare HP-15C but I don't know how...

*Message #5 Posted by **David Smith** on 3 Sept 2003, 3:30 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

I would reccomend using Western Union for payment. They have a wire transfer sort of service or have paper money orders. They have offices just about everywhere on the planet.

Re: I want to sell a spare HP-15C but I don't know how...

*Message #6 Posted by **unsepllable** on 3 Sept 2003, 3:55 p.m.,*
in response to message #5 by David Smith

Before using Western Union check out MoneyGram. They are generally cheaper than Western Union.

Re: I want to sell a spare HP-15C but I don't know how...

*Message #7 Posted by **David Smith** on 4 Sept 2003, 5:47 p.m.,*
in response to message #6 by unsepllable

Last time I checked the Moneygram people were not as widespread as Western Union, but if the buyer an seller both have access, go with whatever is cheapest.

International money orders from the US post office can be a joke. It can take a couple of months to get one for most countries. You have to find the right clerk at the right post office, pay for a voucher, send it to New York, who sends it overseas, who sends back a money order, who eventually sends it to you, who sends it to your customer.

Re: I want to sell a spare HP-15C but I don't know how...

*Message #8 Posted by **christof (NoVA US)** on 3 Sept 2003, 4:27 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

One thing you can do is have people who have paypal accounts use the echeck or balance transfer features.

the classified ads here are good, you may also want to talk to Luis when he gets on, he's bought and sold with some of us in the past.

good luck, and the 11c sound great, too :)

-Christof

Re: I want to sell a spare HP-15C but I don't know how...

*Message #9 Posted by **christof (NoVA US)** on 3 Sept 2003, 4:31 p.m.,*
in response to message #8 by christof (NoVA US)

er Luiz.

I always do that.

(pass 1441 to delete)

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I want to sell a spare HP-15C but I don't know how...

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Module list

*Message #1 Posted by **Matthias** on 3 Sept 2003, 2:01 p.m.*

I want to make a list of all known HP41 modules. Can anybody tell me, what are the following modules:

HP-82500A-A03-16, HP-82500A-A21-25, HP-82500A-E01-24, HP-82500A-E26-30, HP-82500A-E32-35, HP-82500A-E37-47, HP-82500B-A02-06, HP-82500B-A08, HP-82500B-A10, HP-82500B-A13, HP-82500B-A15, HP-82500B-A17-46, HP-82500B-E01-29, HP-82500B-E34-64

Re: Module list

*Message #2 Posted by **Matthias** on 5 Sept 2003, 10:00 a.m.,*
in response to message #1 by Matthias

Come one guys! It's not possible, that you to not have such a modul! Or are you so petty bourgeois, not to tell us, what you have?

Re: Module list

*Message #3 Posted by **Wayne Brown** on 5 Sept 2003, 12:31 p.m.,*
in response to message #2 by Matthias

None of those numbers are formatted like any of the numbers I've seen on any HP modules. Mine all look like 5061-5238, 5061-7292, 00041-14023, 82242A, 82183A, etc. I have no idea what those numbers you gave represent.

Re: Module list

*Message #4 Posted by **r. d. bärtschiger.** on 5 Sept 2003, 2:36 p.m.,*
in response to message #3 by Wayne Brown

I did some checking and found a list of modules which I had created years ago as a spread sheet file. Here is a text copy of it. It may not be complete, but it may serve your purposes. The 'In Stock' column means I have that module. No, none are for sale.

rdb.

```
Listing of Hewlett Packard HP-41C, HP-48SX/GX & HP-71B Accessories & Modules.


No.  No.     Description.                          In Stock.  XROM No.


 1   15001   Standard Applications Module.         Yes.       05
 2   15002   Statistics Module.                    No.        02
 3   15003   Math 1 Module.                        Yes.       01
 4   15004   Financial 1 Module.                   Yes.       04
 5   15005   Surveying Module.                     No.        03
 6   15006   Circuit Analysis Module.              No.        06
 7   15016   Real Estate Module.                   Yes.       11
 8   15017   Navigation Module.                    No.        14
 9   15018   Aviation Module.                      No.        19
```

10	15019	Thermal & Transport Science Module.	No.	13
11	15020	Machine Design Module.	No.	12
12	15021	Strucural Analysis for Civil Module.	No.	07&19
13	15022	Games Module.	Yes.	10
14	15023	Home Management Module.	Yes.	09
15	15024	Clinical Lab & Nuclear Medicine.	No.	19
16	15026	Securities Module.	No.	19
17	15027	Stress Analysis for Mech. Module.	No.	08
18	15039	Petroleum Fluids Module.	No.	15&16
19	15042	Auto/Start Duplication ROM Module.	No.	10
20	15043	HP-41 HP-IL Development Module.	No.	22
21	15049	Math/Statistics Module.	Yes.	01&02
22	15055	Adavntage Module.	Yes.	22&24
23	80024	HP-48SX Demo ROM Card.	Yes.	None
24	82104A	Magnetic Card Reader, for HP-41C.	Yes.	30
25	82143A	Peripheral Printer.	Yes.	29
26	82153A	Bar Code Wand.	Yes.	27
27	82160A	HP-IL Interface Module, for HP-41C.	Yes.	28&29
28	82161A	HP-IL Digital Cassette Drive.	Yes.	28
29	82162A	HP-IL Thermal Printer.	Yes.	29
30	82180A	Extended Functions/Memory Module.	No.	25
31	82181A	Extended Memory Module.	Yes.	None
32	82182A	Time Module.	No.	26
33	82183A	Extended I/O Module.	Yes.	23
34	82184A	Plotter Module.	No.	17&18
35	82208A	PC Serial Interface Kit.	Yes.	None
36	82208B	PC Program Developement Link.	Yes.	None
37	82208C	PC Serial Interface Kit.	Yes.	None
38	82209A	Macintosh Serial Interface Kit.	No.	None
39	82210A	HP-41CV Emulator ROM.	Yes.	None
40	82211A	Equation Library ROM Card.	Yes.	None
41	82214A	32Kbyte RAM Card.	No.	None
42	82215A	128Kbyte RAM Card.	Yes.	None
43	82216A	1Mbyte RAM Card.	Yes.	None
44	82240A	IR Thermal Printer.	Yes.	None
45	82240B	IR Thermal Printer.	Yes.	None
46	82241A	AC Adapter.	Yes.	None
47	82241AB	AC Adapter, 220 Volt.	Yes.	None
48	82242A	IR Printer Module.	Yes.	29
49	82400A	Magnetic Card Reader, for HP-71B.	Yes.	None
50	82401A	HP-IL Interface Module, for HP-71B.	Yes.	None
51	82441A	Forth/Assembler Module.	Yes.	None
52	82478A	Debugger.	Yes.	None
53	82479A	Data Acquisition Module.	No.	None
54	82480A	Math Module.	No.	None
55	82481A	AC Steady State Circuit Analysis.	No.	None
56	82482A	Finance Module.	No.	None
57	82483A	Surveying Module.	No.	None
58	82484A	Curve Fitting Module.	No.	None
59	82485A	Text Editor Module.	No.	None
60	82488A	Data Communications Module.	No.	None
61	82489A	AMPI Statistics Module.	No.	None
62	82490A	HP-41/HP-71 Translator Module.	Yes.	None
63	2359	MLDL 48 SX ROM Card.	Yes.	None
64	2694	Math Library ROM Card.	Yes.	None
65	2903	Math Library Applications ROM Card.	Yes.	None

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HP 9114B Battery Problems ???

*Message #1 Posted by **Chris Catotti (Florida)** on 3 Sept 2003, 3:20 a.m.*

I need to use my HP-IL type HP 9114B Disk Drive. The Battery is dead and will not take a charge. Can I remove the battery back and connect up an external power (Such as 1.5 Volt alkaline D-Cells via jumper wires with alligator clips) source.

I really need to use it, sooner than I can have the battery pack rebuilt.

Re: HP 9114B Battery Problems ???

*Message #2 Posted by **Victor Koechli** on 3 Sept 2003, 7:05 a.m.,*
in response to message #1 by Chris Catotti (Florida)

The battery is a 6V lead acid battery, and unfortunately the drive will not operate once it's dead.

I have disassembled my battery pack in order to rebuild it. I'll check the wiring when I get home, and then I'll get back to you...

Cheers, Victor

Re: HP 9114B Battery Problems ???

*Message #3 Posted by **Victor** on 3 Sept 2003, 12:57 p.m.,*
in response to message #1 by Chris Catotti (Florida)

I was able to get a lead-acid 6V lantern battery from Radio Shack and was able to use it. I removed the existing battery from the battery pack, attached wires to the connections to the original battery pack via alligator clips, ran the wires out of the battery pack, and attached the wires to the 6V lantern battery. I was able to plug in the charger to recharge the battery, then use the drive normally.

I would imaging attaching wires to a normal 6V lantern battery would work OK as long as you didn't try to recharge it.

Re: HP 9114B Battery Problems ???

*Message #4 Posted by **David Smith** on 3 Sept 2003, 3:32 p.m.,*
in response to message #1 by Chris Catotti (Florida)

The lead acid cell is 2.0 Amp-hours. Four "D" cells should work just fine... just don't hook up the charger.

Re: HP 9114B Battery Problems ???

*Message #5 Posted by **Chris Catotti (Florida)** on 3 Sept 2003, 5:21 p.m.,*
in response to message #4 by David Smith

Does anyone know exactly of a battery part number (Radio Shack, Intestate Batteries, etc.) that I can buy

to wire internally to replace the sealed lead acid cells. I may gett by tonight on flashlight cellls, but I should make it more permanant.

Any hints? THANKS!

Re: HP 9114B Battery Problems ???

*Message #6 Posted by **Tony Duell (UK)** on 3 Sept 2003, 5:30 p.m.,*
in response to message #1 by Chris Catotti (Florida)

The connector inside the battery pack compartment on a 9114 is a 6V DC input. I forget the polarity, but if you pull the cover off the drive unit itself (4 TX9 screws on the bottom), you can see the wires to the back of the connector -- red is positive. You can use an external 6V supply, but the 9114 draws a considerable current (well over 1A at times), so I doubt if normal D cells would work. A 6V bench supply will, though.

Re: HP 9114B Battery Problems ???

*Message #7 Posted by **Diego Diaz** on 3 Sept 2003, 7:24 p.m.,*
in response to message #6 by Tony Duell (UK)

http://www.marvac.com/products/powersonic/ps628.htm

AFAIK, this is the substitution battery for the original Panasonic LCR-226P (no longer available).

You can find the PowerSonic PS-628 in several places, the above is only an example from a Google search.

Regards.

The absolute easiest solution

*Message #8 Posted by **Mike** on 3 Sept 2003, 6:49 p.m.,*
in response to message #1 by Chris Catotti (Florida)

check your email. I just replied via email.

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TVM accuracy revisited

*Message #1 Posted by **Tommi** on 3 Sept 2003, 3:13 a.m.*

Heylo! Was looking for a good TVM program for my HP41CX and found the improved FI (FIN) program in PPC Journal 1983 Jan/Feb, p.22f. Great program btw :)

In another thread, the first accuracy problem presented in the PPC article was discussed. What is really the most "correct" answer here???

According to the PPC article, the HP12C in those days returned FV=-1,244,458.491 (in the previous thread, the incorrect FV=-1,237,786.903 is mentioned for 12C/P, but the payment period is BEGIN, not END).

The PPC article goes on to calculate the trouble-some interest rate using the super accurate function (((1+i)^n)-1)/i, where n can be fractional (available on e.g. HP-37E in those days, but not 12C or HP41). This will give FV=-1,244,458.519.

(The above function do exist in 12C, but only works with INT(n). What about 12CP?)

The improved FI (FIN) program for HP41 presented in the article, will give FV=-1,244,458.520, using the accurate E^X-1 and LN1+X functions available on the HP41.

Interestingly, my HP49G emulator (ROM version 1.18) returns FV=-1,244,458.523.

Do we have 10 significant digits here somewhere for FV?

- HP12C : -1,244,458.491
- HP41C : -1,244,458.520
- HP37E : -1,244,458.519 (returns same as 12C in normal use)
- HP49G : -1,244,458.523

Re: TVM accuracy revisited

*Message #2 Posted by **Victor Koechli** on 3 Sept 2003, 7:29 a.m.,*
in response to message #1 by Tommi

And which would be the correct answer?

Re: TVM accuracy revisited

*Message #3 Posted by **Rodger Rosenbaum** on 3 Sept 2003, 8:09 p.m.,*
in response to message #1 by Tommi

Tommi says:
"Do we have 10 significant digits here somewhere for FV?

HP12C : -1,244,458.491

HP41C : -1,244,458.520
HP37E : -1,244,458.519 (returns same as 12C in normal use)
HP49G : -1,244,458.523"

The interest rate in this problem is (lots of digits):

i=.538 993 302 623 106 141 922

The FV is (lots of digits):

FV=-1,244,458.519 105 488 899 859 678

Interestingly, if one computes the interest rate with the following sequence on the HP17B II
(or some similarly Saturn based financial calc)

(begin mode) 1 N 15 I%YR 100 PV FV 26 N I%YR
one gets i=.538 993 302 622

But if one uses the LNP1 and EXPM1 functions on the HP48
and evaluates EXPM1(LN(1.15)/26) one gets:
.538 993 302 623

I'm sure one of the things the later financial calcs, especially the Saturn based ones, did to improve accuracy is to use an internal LNP1 and EXPM1 where appropriate. So why the discrepancy in the LSD?

If this problem is solved with the HP48's TVM solver, and the interest rate is calculated with the keystroke sequence:
(begin mode) 1 N 15 I%YR 100 PV FV 26 N I%YR
the result is -1,244,458.51909
But if the interest rate is calculated as EXPM1(LN(1.15)/26), and this is stored in I%YR, and the FV is solved for,
the result is: -1,244,458.5191, which is more nearly correct . I hadn't before seen a result where the internal result of a Saturn based financial calc is less accurate than what I can calculate myself with the LNP1 and EXPM1 functions.

Re: TVM accuracy revisited

*Message #4 Posted by **Rodger Rosenbaum** on 3 Sept 2003, 8:19 p.m.,*
in response to message #3 by Rodger Rosenbaum

In the interest of clarity, in my previous posting, where I said:

If this problem is solved with the HP48's TVM solver, and the interest rate is calculated with the keystroke sequence:
(begin mode) 1 N 15 I%YR 100 PV FV 26 N I%YR
the result is -1,244,458.51909

Replace with:

If this problem is solved with the HP48's TVM solver, and the interest rate is calculated with the keystroke sequence:
(begin mode) 1 P/YR 1 N 15 I%YR 100 PV FV 26 N I%YR
Then type 1040 N 0 PV 25 PMT FV
the result is -1,244,458.51909

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HP DEKJET 610CL Printer -- does not print

*Message #1 Posted by **Harsha** on 3 Sept 2003, 2:07 a.m.*

have a HP DEKJET 610CL Printer. When i give the print command it takes the paper in but does not print anything. The paper actually stays there and I have power off and on to get the paper out of the printer. Meanwhile I get a message 'THERE WAS AN ERROR PRINTING THE DOCUMENT. THE DEVICE IS NOT CONNECTED'. I installed the drivers again but nothing changed. If the device is not connected why will it even take the paper in when I give the print command?? Any clues?/ Thanks

Re: HP DEKJET 610CL Printer -- does not print

*Message #2 Posted by **Victor Koechli** on 3 Sept 2003, 2:54 a.m.,*
in response to message #1 by Harsha

Are you printing from a new HP 49G+ ? I never get this error message on my 49G... ;-)

Sounds like the printer or cable could be the problem. For differential diagnosis, you can try the following:

- Download the most recent driver version for your OS from HP's website. Chances are that they are more recent than what you've got on any CD that came with the device.
- Uninstall the driver first, reboot, then reinstall it, then reboot again.
- You might also want to check the cable, i.e. try a different one.
- If it's USB, check if other USB devices work with your computer. If not, the USB drivers could be the problem. However, I have no idea how to reinstall these...
- Finally, test the printer with a different computer. If you get the same result, then probably your printer is defective.

What OS are you using?

Cheers, Victor

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HP-45

*Message #1 Posted by **Jon** on 2 Sept 2003, 6:58 p.m.*

I have got a HP-45 and I see the model is not written in the front label (just hewlett packard). Is this usual?. I can´t use the timer facility (RCL CHS 7 8). Are there calculators without it?.

Thanks

Jon

Re: HP-45

*Message #2 Posted by **David Smith** on 3 Sept 2003, 3:34 p.m.,*
in response to message #1 by Jon

Are you sure it isn't an HP35 or HP80?

Re: HP-45

*Message #3 Posted by **Jon** on 3 Sept 2003, 4:50 p.m.,*
in response to message #2 by David Smith

Yes, I am sure. I can send you a photograph if you say to me your e-mail

Best Regards

Jon

Re: HP-45 Timer Missing?

*Message #4 Posted by **Katie** on 4 Sept 2003, 12:48 a.m.,*
in response to message #1 by Jon

Supposedly the later models of the 45 don't have the timer in ROM. What's the serial number on yours? The most recent one that I have is 1350Axxxxx and it has the timer in there.

Sorry,the timer is present

*Message #5 Posted by **Jon** on 4 Sept 2003, 2:50 p.m.,*
in response to message #4 by Katie

The timer works. I was doing it wrong, sorry. I was pushing all the keys at the same time. When I push RCL and after CHS-7-8 it works. In the other hand I insist, it is a HP-45 and the model doesn´t appear in the front label :-)

Re: HP-45 Timer Missing?

*Message #6 Posted by **David Smith** on 4 Sept 2003, 5:59 p.m.,*
in response to message #4 by Katie

I have never seen an HP-45 without the timer function, and I have played with some very late model ones.

I would suspect that your machine either has had the front label replaced from a '35 or an old style label was left hanging around in the HP parts bin and was used when the machine was built. I have seen quite a few flukes like this (particularly very early in the production cycle) like HP25C machines with HP25 front labels, or keyboards that did not have "Continuous Memory". I also have an HP25 with an HP22 front label (known to have come that way from the factory).

SERIAL NUMBER

*Message #7 Posted by **Jon** on 5 Sept 2003, 12:56 p.m.,*
in response to message #6 by David Smith

May be somebody is interested on the serial number. It is 1507S06263

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HP-55 Calculator & Carry Case

*Message #1 Posted by **Jon** on 2 Sept 2003, 1:50 p.m.*

Just listed for sale on Ebay. HP-55 calculator and carrying case. Does not include adaptor/charger.

Wrong place here...

*Message #2 Posted by **Raymond Del Tondo** on 2 Sept 2003, 3:15 p.m.,*
in response to message #1 by Jon

...please use the advertisements section.

You should try, please....

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 2 Sept 2003, 5:42 p.m.,*
in response to message #1 by Jon

posting your add here, mostly because people who want to buy and sale look for these adds in there, not here.

Chances are your post is soon removed, so the forum space keeps its main subjects.

Best regards.

Luiz (Brazil)

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hp95lx

*Message #1 Posted by **mike1646** on 2 Sept 2003, 10:53 a.m.*

HI,

i recently aqired a hewllet pacard 95lx and need to connect it to my pc i made a cable and tried to use datacomm and hypertrm in windwos xp but it will not work can yu help ??

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My good luck: a 10C

*Message #1 Posted by **John** on 2 Sept 2003, 9:47 a.m.*

Today, an old civil engineer friend of mine called me in for a consultation on a project. He was very satisfied with my advice and when I was about to leave, he said "now be sure to send me a bill for your services." It was then that I noticed two 10C's on his desk. Oh,I said, you have two of those? -Yes, you like them? Here, have one! I thanked him and told him there wouldn't be any bill coming. (I'm comfortably retired anyway, and usually I don't charge my friends for 'over the board' advice, especially when I even get a good lunch...) This 10C (1982) is very well kept, with only minor signs of use.

Congrats (n/T)

*Message #2 Posted by **Raymond Del Tondo** on 2 Sept 2003, 10:37 a.m.,*
in response to message #1 by John

Re: My good luck: a 10C

*Message #3 Posted by **Patrick** on 2 Sept 2003, 4:20 p.m.,*
in response to message #1 by John

So, he still has one left, eh? What was your friend's phone number again?

;-)

Congrats, John!

Re: My good luck: a 10C

*Message #4 Posted by **jimc** on 2 Sept 2003, 7:18 p.m.,*
in response to message #1 by John

John, you are a fortunate fellow indeed! I have only recently managed to get a hold of one of these little fellas and I think its a lot of fun! I also got a copy of the manual with it, and so if I can offer up any help in any way, please let me know!

Take good care of it, and use the little guy often!

Congrats.

Re: My good luck: a 10C

*Message #5 Posted by **Iqbal** on 2 Sept 2003, 8:00 p.m.,*
in response to message #4 by jimc

Hey John, Does he need any surveying advice? :)

Re: My good luck: a 10C

*Message #6 Posted by **christof (NoVA US)** on 3 Sept 2003, 12:40 p.m.,*
in response to message #1 by John

I just got my first voyager (scientific, that is), too and I'm beginning to see what people mean about them. For true pocket programmables, they are really nice units!

Good luck with yours, and use it often :)

Re: My good luck: a 10C

*Message #7 Posted by **bill platt** on 3 Sept 2003, 1:13 p.m.,*
in response to message #6 by christof (NoVA US)

Hi christof,

what kinds did you have before? I think I remember you having a 48, and a 41 also?

Re: My good luck: a 10C

*Message #8 Posted by **christof (NoVA US)** on 3 Sept 2003, 4:22 p.m.,*
in response to message #7 by bill platt

I've got a bit of a collection now-

For pretty much daily use, i tend to use the 48, 42, and 41 most. (though the 41 is more often used to explore the 41 than for calculating maximum rack densities and network aggregation) The 28 is nice, but it's losing ground. I like the keyboard better than the 48, but the display and memory of my black LCD gx is winning out.

I also use a 17Bii and 19Bii (I keep them both updated, not sure yet which one will get the final nod) for some home business data and calculations. (If the 17Bii had 32K, I think it would hold all the data I need for a year.)

The Voyager is new, but I'm working on some programs already :)

I do have a few others- I'm a nut for handheld computing devices, but they have to be onboard programmable to be 'real' :)

Re: I'm a nut for handheld computing devices

*Message #9 Posted by **Valentin Albillo** on 4 Sept 2003, 4:52 a.m.,*
in response to message #8 by christof (NoVA US)

Christof wrote:

" I'm a nut for handheld computing devices, but they have to be onboard programmable to be 'real' :) "

Then do yourself a favour and get some Sharp vintage handheld programmable pocket computers. There are plenty of them in eBay, at quite low prices, and I'm sure you'll agree they're incredibly enjoyable machines, with physical quality and features second to none.

Some suggestions: if you like financial models, try and get a Sharp EL-5510 and enjoy comparing its features and capabilities to the HP-12C/12CP. You'll be amazed ! As for scientific models, try

the Sharp PC-1475 with its matrix capabilities and 20-decimal precision versus the HP-15C, or if you happen to like graphics, try the Sharp PC-1360 with its 4x24 characters, 150x32 pixels. And for maximum pocketability, get a Sharp PC-1260, 1261, or 1262, which are even smaller than an HP-15C, fully metallic, boast up to 10 Kb of RAM, and feature a full alphanumeric keyboard and 2-line display, running programs 10+ times faster than an HP-15C, by the way !

All four models are programmable both in extended BASIC *and in machine language* right from the keyboard, as per your request, and have full I/O capabilities to a number of peripherals, including printer, mass storage, serial devices, even to a PC.

If you happen to like them, you can build quite a sizable collection now that their prices are still low (that's gonna change fast). Not only will you enjoy and use them, but it will also broaden your perspective re handheld computing devices. Most HP calc fans and collectors tend to think there has never existed anything approaching the quality and capabilities of their beloved calcs, which blinds them to the possibility of appreciating some other equally good or even better machines. Owning and getting to know well said Sharp machines will open many an eye and mind.

Best regards from V.

I sell or trade a vintage SHARP

*Message #10 Posted by **R Lion** on 4 Sept 2003, 7:16 a.m.,*
in response to message #9 by Valentin Albillo

PC 1350 + RAM card of 16kb. In PERFECT cosmetic and working condition.

Raul L

Edited: 4 Sept 2003, 7:40 a.m.

A fine machine, indeed [LONG]

*Message #11 Posted by **Valentin Albillo** on 4 Sept 2003, 9:26 a.m.,*
in response to message #10 by R Lion

The Sharp PC-1350 is extremely similar to the 1360 model, and even somewhat faster, actually. It does have a very comfortable, fully alphanumeric QWERTY keyboard and a wonderful 4x24 character alphanumeric and graphic (150x32) display (including lowercase characters).

This is the machine I use the most, together with an HP-15C. Its large display makes it a pleasure to enter and edit program lines and expressions to be evaluated. You can recover any line/expression once entered/computed, edit it via cursor keys, and reevaluate it again with utmost easy. In case there's some error, a message appears and the cursor will be positioned at the exact place where the error was detected, which is extremely fast and convenient.

I took this machine with me during 2002's summer holidays and wrote a fully graphic version of my HP-41C Othello for it, showing the full 8x8 board on the display and allowing the user to enter moves by navigating said board with the cursor keys. This machine is so comfortable to use that I did write the whole program directly on it, from scratch, without ever needing pencil or paper, the 4-line display was more that enough to avoid losing sight of the whole 'picture'.

In short, I would heartily recommend this machine to anyone and everyone. If you've got

one, you can find a lot of information and some software for this machine here, including some graphic games written in machine language.

In case you're wondering how programming looks like in this machine, here's an excerpt from my Othello program, namely parts of the subroutine that sets up the graphic board and the one that checks if it's legal for you to pass. You can see in the listing instances of nested FOR..NEXT loops, subroutine calling, multiple statements per line, logical decisions, printing user-defined graphics in binary form at a given position, string arrays, string handling, etc.:

```
240 GOSUB 140: PRINT "Setting up board...";
245 FOR X=3 TO 31 STEP 4: FOR Y=2 TO 30 STEP 4: PSET (X,Y)
246 NEXT Y: NEXT X
250 M=45, N=55, B(44)=-1, B(54)=1, A=-1, H=44
252 GOSUB 435: IF U LET M=55, N=45
255 B(M)=-1, B(N)=1, H=M: GOSUB 435
257 A=1, H=54: GOSUB 435: H=N: GOSUB 435
260 GCURSOR (36,15)
262 GPRINT "1C701C007050700070407000282828007878787800 28"
265 GCURSOR (38,22)
268 GPRINT "7C1830187C007C545C00282828007848487800 28"
269 RETURN


270 L=LEN C$(0)-K, C$(1)=LEFT$(C$(0),K-1)
275 C$(0)=RIGHT$(C$(0),L), C$(0)=C$(1)+C$(0): RETURN
280 GOSUB 140: PRINT "Checking your pass": K=1
285 S=ASC MID$(C$(0),K,1): IF ABS B(S) GOSUB 270: GOTO 300
290 A=1, R=1: GOSUB 95: IF N RETURN
```

BTW, in case any of you are interested, I'll make this program freely available online in the very near future, as soon as I get some free time to set up a web page for it. My original Othello program for the HP-41C was featured in PPC Technical Notes, circa 1981, and a 'version 2' appears in the PPC Journal as well, though you can find it online at Gene's excellent site.

Best regards from V.

Re: A fine machine, indeed [LONG]

*Message #12 Posted by **Veli-Pekka Nousiainen** on 4 Sept 2003, 9:45 a.m.,*
in response to message #11 by Valentin Albillo

I think I fot the Sharp PC-1261 on my hand, works ok, but I take the batteries out now, just to make sure they will not leak. http://pocket.free.fr/html/sharp/pc-1261_e.html

Re: I'm a nut for handheld computing devices

*Message #13 Posted by **christof (NoVA US)** on 4 Sept 2003, 10:31 a.m.,*
in response to message #9 by Valentin Albillo

I've got a few- a PC-1500, two 'reabdged' radio shack models (pc-1 and pc-2), In the 'not really programmable" department, I've also got a memosriter el-7001.

I have to say that Sharp has done some wonderful things- first in offering a continuous array of onboard BASIC programmables from the late 70s on right through the latest of the BASIC programmable wizards. Sadly, I haven't seen any of those on store shelves lately. (though the keyboard version of the linux-based zaurus is really impressive)

I do only have a few of the sharps- and several of the ones I really want I haven't found yet.

Sharp made a few decisions, also, that I think HP messed up. Onboard rs-232 serial, and mass storage in 'standard' tape formats, for example.

love em!

HP's allegedly wrong decisions [LONG]

*Message #14 Posted by **Valentin Albillo** on 4 Sept 2003, 11:40 a.m.,*
in response to message #13 by christof (NoVA US)

christof (NoVA US) posted:

"Sharp made a few decisions, also, that I think HP messed up. Onboard rs-232 serial, and mass storage in 'standard' tape formats, for example."

Here's a short list of the 'few' decisions Sharp got rigth and HP got wrong [of course, IMHO]:

- All Sharp handheld BASIC programmables, be they big (PC-1500A) or very small (PC-1262) did include onboard RS-232 serial I/O, plus interfaces to printer and/or 4-color plotter and mass storage (cassette or floppy drive).

  In contrast, a handful of HP machines did include serious I/O (and then, proprietary (read expensive) like HP-IL), mass storage or printing. Such powerful models as the HP42S (which really is begging for some I/O) have none. The tiniest, smallest SHARP can be connected to a much larger printer/cassette 'dockstation' right from the box. You can have hundreds of programs stored in inexpensive audio cassettes or micro-tapes, under remote control.

- All Sharp BASIC programmables feature a BASIC dialect 99.9% upward-compatible among them, such that your programs written for a model can be loaded (from tape !) and run on others. Automatic conversion of line numbers and incompatible statements is done, and the tape recorded by an earlier model can be read in the newer.

  On the other hand, just try to load (by hand) an HP-25C program in an HP-15C, say (with GTO label but no GTO 'line number' unless you do some fancy tricks with the I register), or an HP-15C program in a HP-41C, or an HP-41C program in an HP-28S or ... you get the point.

- Most Sharp BASIC handhelds are metallic (not metallic-painted plastic), very sturdy, quality built, consistently from the older models (PC-1211) to much newer ones (PC-1475). They will stand use and abuse, they have the same good keyboards and great displays, large or small as the machine may be. The theme here is consistent-quality throughout all of them.

  HP has such different builts and qualities as Classic models like the HP-67, Woodstock's like the HP-25, then the Voyagers, then the Spice series (were construction quality took a deep dive), then the completely different HP-41C, then the HP-28C/S and its abysmal battery door and compartment, then the HP49 and its rubber keys, etc, etc.

- Sharp BASIC handhelds tend to have large amounts of RAM (for their time), with 4 Kb being a minimum, 16 Kb being typical, and 64 Kb/128 Kb being possible. Apart from the very earliest models, all the rest are quite fast [FOR I=1 TO 100: NEXT I taking between 0.8 sec and less than 0.05 sec], and most are expandable, accepting

non-volatile extra RAM cards and even ROM application modules.

On the contrary, most HP handhelds have always been extremely lacking in RAM: 70 bytes for programs/data in the HP-10C, 203 bytes in the HP-16C, 448 bytes in the HP-15C, and about 2.3 Kb in the HP-41CX, even the commercially available HP42S had only 7 Kb at a time were any Sharp machine would come with at least 16 Kb built-in. Only a few HP's have accepted ROM modules or cards, and even HP-41C/71B RAM modules were completely volatile if removed from the machine.

- All Sharp BASIC handhelds but the very earliest have featured an extended version of 'standard' BASIC, including such niceties as two-dimensional arrays, string or numerical, string functions, long variable names, multiple statements per line, powerful I/O functions, and even comprehensive graphics functions in some models. All models featured the same BASIC plus their particular extensions, be they financial functions, statistic functions, computer science functions, all perfectly integrated: you can compute a sine on a financial model or a logarithm on a computer science model. All of them could be programmed in machine code right from the keyboard, via PEEK, POKE, CALL.

  In contrast, HP models featured RPN, which is obviously less high-level than BASIC, in various flavors. Many specialized models lacked general functions (like trigonometrics in financial models or trascendentals in computer science models), all had their particular version of RPN, with GTO-number versus GTO-label, GSB existing or not, indirect operations being allowed or not, whatever. None of them were programmable in machine code except by using some ridiculously expensive and/or mostly inconvenient external hardware, if at all.

- And last but not least, Sharp handhelds were always much more affordable than HP's, with a much greater quality/price ratio. For instance, the Sharp PC-1211, an HP-41C's contemporary, offered equivalent power, a full QWERTY keyboard, a 24-character dot-matrix display, metallic body, I/O, BASIC, and superior built-quality at 1/3 of the price. Same for the rest.

This list could go on an on, but I think anyone can get the point. This is not meant to be HP-bashing, I love my HPs as much as you do yours, thank you very much, it's only that the next time you boast that HP handhelds are the best in the world, lightyears ahead of the rest, you'd do well to think twice. At least it would save some heavy embarrassment if you happen to find a knowledgeable Sharp user.

Best regards from V.

Edited: 4 Sept 2003, 11:48 a.m.

Re: HP's allegedly wrong decisions [LONG]

*Message #15 Posted by **Veli-Pekka Nousiainen** on 4 Sept 2003, 12:34 p.m.,*
in response to message #14 by Valentin Albillo

After Saturn CPU was launched, the things changed quickly. Yoday you can write (using the latest Debug4x) software for both the 48 and 48 series. There is enough RAM and a standard serial/USB connection to a PC. You described HP machines from the past. How is Sharp today?

VPN

Re: HP's allegedly wrong decisions [LONG]

*Message #16 Posted by **christof (NoVA US)** on 4 Sept 2003, 2:21 p.m.,*
in response to message #15 by Veli-Pekka Nousiainen

How is Sharp today?

I'm writing this on my Zaurus 750. It's a different world now- this is more powerful a handheld than most of my old laptops. Really- I watch streaming video on this for demo purposes at work.

BASIC and machine code onboard? sure! And C, lisp, perl, shell programming- all installed right now.

Wireless networking, 64meg RAM onboard, 64meg flash onboard, 512Meg sd card installed (the CF slot is being used for wireless)

My first handheld

*Message #17 Posted by **Tizedes Csaba** on 4 Sept 2003, 1:33 p.m.,*
in response to message #14 by Valentin Albillo

Hello!

My first handheld was a CASIO FX-850P with plus 8K RAM-PACK. Everything was right on this pocket computer too, as Valentin write about SHARP's.

When I began the university, I used a HP32SII. And not my CASIO... I don't know why I forgot my favourite PC. It's got wery powerful BASIC, 116 built in application program, 10 progs in the memory parrallel, PEEKs and POKEs (yeahhh! I liked it!!!), and 13264 bytes of RAM.

But, when I want to solve or integrate an equation, calculate in polar coords or with complex numbers, the CASIO is not was really flexible.

Today, if I want to solve a problem, the order is the next:

1. thinking about it
2. paper and pencil
3. HP32SII (just tapping->equations->programming)
4. HP48SX (equations->graphs->progs, and the result's graphs)
5. table-PC with Maple (to give simbolic/general result, if it is possible)
6. table-PC with programming language (numerical method)

But I think, I will take back my old CASIO again...

Csaba

Sharp pockets

*Message #18 Posted by **Pierre Brial** on 8 Sept 2003, 5:39 a.m.,*
in response to message #9 by Valentin Albillo

Hello Valentin

I would like to discuss with you about Sharp Pocket computers, but as this is off topic here,

could you send me your email address ?

Here is mine : pbrial@guetali.fr

All the best

Pierre

Re: Sharp pockets

*Message #19 Posted by **Valentin Albillo** on 8 Sept 2003, 6:29 a.m.,*
in response to message #18 by Pierre Brial

Done. You can (and should) remove your message, I'll do the same with this one.

Best regards from V.

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HP prod support- 49g+

*Message #1 Posted by **Charles L** on 1 Sept 2003, 7:58 p.m.*

I noticed in HP's website product support section for calcs, they have a page for the HP49g+ This link may work

http://h20015.www2.hp.com/en/productTopicDocIndex.jhtml;jsessionid=3QQ0QTEV4PD43QEXGR3UNZQ?reg=&lc=en&cc=us&prodId=hp49ggraph351775&pagetype=use

I guess that makes things seem a little more definite.

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hp35 is magic

*Message #1 Posted by **hugh steers** on 1 Sept 2003, 5:34 p.m.*

the recent mention of csim (thanks jonathan) has got me reading the hp35 assembler again...

ive been trying to experiment with cordic calculation methods (as used in the 35). although theres several papers out there, there's not a lot of code (i couldnt find any). so i decided to try to write some.

im shifting and adding in binary, so i need 53 bits (for a double) and 53 constants (one for each mantissa bit). now, i assume the 35 worked in decimal right through, so it would need 10 ten digit constants but use each more than once (binary uses each constant for add or subtract just once).

worse, it would need to implement the hyperbolic iteration (for logs and square root), which means it needs the atanh constants as well as the atan ones. thats 20 constants.

i dont see those constants in the assember. where are they??

i read the original paper by j.s.walther of hp, "unified algorithms for elementary functions". here he describes some trickery for only storing half the constants. but i still dont see even 10 in the assember (and i know it works!). there are about 5 or so patches of "load constant X".

theres more. in my version ive separated the logic for linear, circular and hyperbolic iteration. i know you can combine them using more inner-loop tests, but, it gets quite cumbersome, and you have to do the hyperbolic 3k+1 malarkey otherwise your answers are wrong.

which brings me to the final question. why didnt early models have hyperbolic functions on keyboard, since internally hyp was used for log, exp and square root. i can understand the space restriction at first, but what about hp80 and hp55. perhaps they didnt think anyone wanted them. or was it because it didnt really do the 3k+1 correction internally but somehow log and sqrt could be extracted accurately.

or perhaps its voodoo magic ;_)

my code: http://www.voidware.com/cordic.htm

Re: hp35 is magic

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 1 Sept 2003, 6:41 p.m.,*
in response to message #1 by hugh steers

Can you describe this method (or point to some link) in "algorithmic" form (not C or other language)?

I'm planning to build a calculator with microcontrollers, initially as a emulator for HP ROMS and in the future a calculator of my own as a "compilation" of various algorithms and functions of my interest (as merging the functions of the HP-15C and HP-16C). I'll try to get the 15C ROM, but it isn't a easy task. In another way, I can use the HP-42S's ROM and modify the assembler to fit in my emulator (Saturn CPU) and 7-segment display (to fit in a HP-32E case with its display/keyboard).

Best regards,

Nelson

P.S. your scicalc for Palm OS is a beauty! I can't imagine such a precision on a real pocket calculator... Or can I? Building one from scratch is a lot of work, but as a hobby (read "open source" and "free") project, who knows...

Re: hp35 is magic

*Message #3 Posted by **hugh** on 1 Sept 2003, 7:01 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

google search for "crdcsrvy". i found that the most useful. j.s.walthers paper is here, http://www.voidware.com/uafef.pdf

btw, im currently working on scicalc v3. originally, i thought v3 would extent v2. but v3 is completely new. it will be able to handle symbolic expressions for solve, integrate, factorize and so on....

i reached this conclusion by reading the 15c advanced functions handbook. there are problems that no numerical method can touch (eg integrate sin(1/x) from 1 to inf). it has a value. what is it? the trick (as in the book) is to first transform it into another expression that can be handled numerically.

Re: hp35 is magic

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 1 Sept 2003, 7:22 p.m.,*
in response to message #3 by hugh

Thanks, I'll read that paper. I'm not a mathematician but I'm really interested in numerical algorithms (as I use many of them in my work as a Delphi programmer, now working on forest growing/planning software).

How is the compiler that you use for Palm platform? I'm really interested in porting the EMU42 to the PalmOS, but I'm not a C programmer, barely read it... If it was in assembler, no problem at all! (I think I'll put this task on my "hobby projects" list ;-)

Best regards!

Nelson

Re: hp35 is magic

*Message #5 Posted by **Bill Wiese** on 1 Sept 2003, 9:54 p.m.,*
in response to message #1 by hugh steers

Hi...

```
why didnt early models have hyperbolic functions on keyboard, since internally hyp was
used for log, exp and square root. i can understand the space restriction at first ... but
somehow log and sqrt could be extracted accurately
```

Well I'm guessing that they simply ran out of ROM space so hyperbolics were first to go. The HP35 did all its stuff in, what, 768 instructions? And that ROM was chock-full. As programmability was added (HP25, etc.) the extra ROM space would've gone to support these features. Also features were determined also by marketing folks so hyperbolics may have been down the list.

I don't think square root was done via CORDIC methods - more likely an algorithm very similar to division or

a Newton's method which works very well for sqrt(x).

Bill

Re: hp35 is magic

*Message #6 Posted by **hugh** on 2 Sept 2003, 8:22 a.m.,*
in response to message #5 by Bill Wiese

im thinking they didnt have the rom space *not* to do hyperbolic functions!

and then using exp(x) = sinh(x) + cosh(x) and log(x) = 2atanh((x-1)/(x+1)).

something im speculating on is that hyperbolic functions have always been, at least internally, present on calculators but they've chosen not to put them on keyboard.

does anyone know how early japanese makers like sharp & casio did their scientific functions. did they copy hp or a different technique altogether.

Re: hp35 is magic

*Message #7 Posted by **Bill Wiese** on 2 Sept 2003, 11:35 a.m.,*
in response to message #6 by hugh

Hi Hugh...

There are *direct* CORDIC shift & add methods (don't have the reference but I've seen 'em) for the hyperbolics, log funcs, etc. That is, the hyp funcs are not "derived".

This generally seems to allow better accuracy in the last place (digit or bit depending on radix). This 'ulp' issue is a big thing for floating-point engine designers.

There is even concern about rounding/last-place error dealing with scaling & range reduction preprocessing (i.e, bringing input into a range where actual calculations work properly, converge, etc.)

You might want to take a look at the books by: J. M. Muller, "Elementary Functions" (Birkhauser/Boston); Israel Koren, (paperbound, don't have title at hand); Cody & Waite,"Software Manual for the Elementary Functions";

You'll see a lot about last-digit concerns, rounding matters, etc.

Many many Japanese sci calcs of Woodstock vintage do NOT have the same accuracy on logs & trigs. Sometimes seem accurate to only 5+ dec places!

Bill Wiese

San Jose, CA

Re: hp35 is magic

*Message #8 Posted by **hugh** on 2 Sept 2003, 11:45 a.m.,*
in response to message #7 by Bill Wiese

thanks bill. i'll check out those references,

-- hugh.

Re: hp35 is magic

*Message #9 Posted by **David Smith** on 2 Sept 2003, 2:54 p.m.,*
in response to message #1 by hugh steers

In the old reference "Collected Algorithms of the ACM" there was a cute continued fraction routine. You ran a rather simple iteration a few times and got a couple of numbers. By combining these numbers in various simple ways you could got trigs, exponetials, etc. I always thought it was kinda neat.

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HP-25 internal Power Circuit Charger

*Message #1 Posted by **Albert** on 1 Sept 2003, 1:17 p.m.*

Hi all,

Could anybody bring me the HP-25 internal power circuit to charge NiCd batteries? I know is a little bit dangerous to charge batteries inside the machine (I put already the Zenner between contacts), this is the reason why I would like to make an external battery charger using the original HP AC adapter.

Thanks in advance,

Albert

Re: HP-25 internal Power Circuit Charger

*Message #2 Posted by **Tony Duell (UK)** on 1 Sept 2003, 4:21 p.m.,*
in response to message #1 by Albert

Sure. The chearger circuit is very simple, it consists of 4 components in series. They are : The AC adapter secondary winding; A diode (try a 1N4007 or similar), a 8.2 Ohm resistor (looks to be at least 1W, maybe 2W), and the NiCd pack. The diode's cathode (banded end) goes towards the +ve terminal of the battery. That's it. The actual 'reserve power pack' is a bit more complicated as it has an LED to indicate the batteries are on-charge, I can dig out a schematic of that if you like.

Re: HP-25 internal Power Circuit Charger

*Message #3 Posted by **Albert** on 2 Sept 2003, 12:22 p.m.,*
in response to message #2 by Tony Duell (UK)

Thanks a lot, I'll try to find out the components and a single-layer circuit.

Albert

Re: HP-25 internal Power Circuit Charger

*Message #4 Posted by **David Smith** on 2 Sept 2003, 2:57 p.m.,*
in response to message #2 by Tony Duell (UK)

I think they just put the LED/current limiter resistor across the 8.2 ohm resistor. Thats what I do when I modify Woodstock corpses to be external chargers.

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HP 41 worth more as collection?

*Message #1 Posted by **Quemazon** on 1 Sept 2003, 10:09 a.m.*

I have a 41CV with printer, card reader, manuals, and modules, all in excellent working condition. Is there any added value to the collection as a whole or should I split it up and sell it as parts? I plan to sell on ebay. Thanks.

Nathan

Re: HP 41 worth more as collection?

*Message #2 Posted by **Valentin Albillo** on 1 Sept 2003, 10:12 a.m.,*
in response to message #1 by Quemazon

In this particular case, and for the items you do mention, I think you'll make more money by auctioning each item separately, IMHO, though certainly it will mean much more hassle.

Best regards from V.

Re: HP 41 worth more as collection?

*Message #3 Posted by **Tom (UK)** on 1 Sept 2003, 12:55 p.m.,*
in response to message #1 by Quemazon

'Boxed sets' seem to fetch the highest prices.

If you sell the items grouped together as they would have been bought from HP you will probably make more money than lumping them in one package, even if some bits are missing (boxes seem to make the biggest price difference - it's the same with collectable toys). Some buyers only want the calculator + manuals, others may already have a printer or module and don't want to pay for another.

Re: HP 41 worth more as collection?

*Message #4 Posted by **Raymond Del Tondo** on 1 Sept 2003, 1:14 p.m.,*
in response to message #1 by Quemazon

Opinions vary, but I have another note.

Regardless if you sell the items 'en bloc' or separately, you'll have a value add of about 20 to 40 percent if the item is really complete, which means with its box, and all paperwork. For some items, the box alone may be worth the deal.

Regards,

Raymond

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Graphics with HP48SX in programs - HELP!

*Message #1 Posted by **Tizedes Csaba** on 1 Sept 2003, 7:49 a.m.*

Hello!

I use a HP48SX and I want to use it's graphic possibilties in programs. I want to make a program, what draws graphs to the LCD in real time, and not in the behind.

What is the simplest way to draw under a running program?

Thanks for answering! Csaba

Re: Graphics with HP48SX in programs - HELP!

*Message #2 Posted by **Raymond Del Tondo** on 1 Sept 2003, 1:06 p.m.,*
in response to message #1 by Tizedes Csaba

Hi,

just take a look at www.hpcalc.org . There you'll find many graphing tools for the HP-48, some of which are really fast.

Raymond

BTW: For a real time speed test, search for D3D on hpcalc;-)

Re: Graphics with HP48SX in programs - HELP!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 3 Sept 2003, 6:25 a.m.,*
in response to message #1 by Tizedes Csaba

Hi, Tizedes;

About what you want, the "worst" part of plotting from a running program is scaling. I remember I've done this when I bought my HP48SX (in the 80's) but I have not found my notes about his yet.

I remember I read chapter 17, 18 and 19 extensively and I tested all possibilities. At the end of the process, I thought it was fun to see and handle the curve as you zoom it in and out, and find its poles and zeroes as you work with it.

As I find the listings and check for their functionality I'm posting again.

Best regards.

Luiz (Brazil)

Re: Graphics with HP48SX in programs - HELP!

*Message #4 Posted by **Tizedes Csaba** on 4 Sept 2003, 3:08 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hi Luiz!

But I buyed my 48SX many years ago, I never used it's graphing possibilities IN programs. But sometimes I want to draw Function/Scatter plots in progs. (I used this method: I put the plot-coords in the matrix, and used the Stat-Scatter plot; it's not a very clever method, and eats the memory.)

Think I must to read the Manual... :)

> Quote:
>
> As I find the listings and check for their functionality I'm posting again

I hope it's not will stealing your time! Thanks for your helping!

Csaba

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CSIM (HP-35 emulator) ported to Palm OS (again)

*Message #1 Posted by **Jonathan Purvis (New Zealand)** on 1 Sept 2003, 5:14 a.m.*

Hi,

I have once again ported CSIM to Palm OS. Currently it's only emulating the HP-35. I hope to add emulation of the HP-45 soon and the HP-55 when i've drawn the buttons for it. You can download it from http://one-two-three-four-five.com/palm/csim/csim-0.3-alpha-1.prc. If someone could download it and tell me if runs on their Palm that would be much appreciated. I have only tested it on my Treo 270 (Palm OS 3.5).

To avoid problems like last time (my hard disk died and i lost the source), i have included the C source code (compressed with gzip) as resource 'c.gz' number 1. Use something like par to extract it.

Regards,

Jon

Re: CSIM (HP-35 emulator) ported to Palm OS (again)

*Message #2 Posted by **Julián Miranda (Spain)** on 1 Sept 2003, 8:32 a.m.,*
in response to message #1 by Jonathan Purvis (New Zealand)

It works in my Palm M515, OS 4.1 and also in my Palm Tungsten C (OS 5.2.1) running from a SD card. I have only tried "Calculator forensic" arcsin (arccos (arctan (tan (cos (sin (9)))))), the answer match the one listed for the HP-35 v3 at Mike Sebastian's data base.

Runs fine on my oldie Vx, OS4

*Message #3 Posted by **Renato** on 1 Sept 2003, 2:54 p.m.,*
in response to message #1 by Jonathan Purvis (New Zealand)

Good job !

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Inexpensive batteries on eBay

*Message #1 Posted by **Patrick** on 31 Aug 2003, 10:02 p.m.*

Has anyone here bought those packages of inexpensive batteries on eBay for Pioneer and Voyager models? What is your experience with them. I suppose they don't last as long but, even if they lasted half as long as name brand batteries, they'd still last, what, 9 years in my 15C??

Re: Inexpensive batteries on eBay

*Message #2 Posted by **Mike Sebastian (Texas)** on 31 Aug 2003, 11:02 p.m.,*
in response to message #1 by Patrick

Those batteries are alkaline batteries. They are great for devices that consume those types of batteries rather quickly like laser pointers or toys. But, alkaline batteries tend to leak after a few years, possibly causing irreparable damage to the device they are in.

Those alkaline batteries are fine for short term use in a calculator, but I wouldn't leave them in a valuable calculator like a Pioneer or Voyager. Spend the extra money on silver oxide batteries.

Re: Inexpensive batteries on eBay

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 31 Aug 2003, 11:49 p.m.,*
in response to message #2 by Mike Sebastian (Texas)

I think that thise batteries aren't so inexpensive... $3.33 plus $2.42 shipping is $5.75 for 10 units ($0.57 or $0.58 each). Here in Brazil I just bought 6 units of Maxell LR44 (original) silver-oxide for my HP11C and HP42S for about $0.84 (R$2,50) each in a common photo-store. I think that if you search for those Maxell LR44 there in the US you can find it for even lower prices.

Regards,

Nelson

I can't imagine why anyone would purchase

*Message #4 Posted by **Mike** on 1 Sept 2003, 11:04 a.m.,*
in response to message #1 by Patrick

those batteries on eBay.

First, there is such a thing as shelf life. These are likely ones that can't be sold retail any longer.

Second, why risk a valuable piece of equipment with old, possibly defective batteries.

Third, they are not that cheap in the first place.

Re: I can't imagine why anyone would purchase

*Message #5 Posted by **David Smith** on 2 Sept 2003, 3:06 p.m.,*
in response to message #4 by Mike

I suspect that they are fresh cards Vinnic batteries from China. I have not used the Ebay ones becuase I can get them locally for less. They work great and are a bargain... 25 cents a cell. Some places charge up to $2.00 each for an LR44! I had a set in a digital scale for 5 years and another in a 12C for the same amount of time. No leakage. I usually replace ALL my batteries (smoke alarms, thermostats, cameras, calculators, etc) yearly on "battery day", but these two items were lost in the back of a drawer.

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HP printer paper supplies (HP 82240B)

*Message #1 Posted by **Patrick** on 31 Aug 2003, 6:23 p.m.*

I just purchased an infrared printer (Model HP82240B) which comes with a few rolls of paper. My question is, where do I get additional supplies of paper for this machine? Is the only source eBay or is this a reasonable standard item that can be found in office supply stores?

I've looked under the Museum pages (learned my lesson) and couldn't find any mention of paper supply sources.

Re: HP printer paper supplies (HP 82240B)

*Message #2 Posted by **Richard Garner** on 31 Aug 2003, 7:29 p.m.,*
in response to message #1 by Patrick

Any office supply store, like Office Depot, will have paper for thermal printers. The last pack I got was a generic pack of 8 rolls for about $5.00. I have had no problems using the generic types of thermal paper.

Good Luck

Re: HP printer paper supplies (HP 82240B)

*Message #3 Posted by **David Smith** on 2 Sept 2003, 3:08 p.m.,*
in response to message #1 by Patrick

The NCR brand of paper at any office supply store works great. Even better than the original HP paper (which by now is all well past its prime). The modern stuff is much smoother and more sensitive than the old stuff. I know of HP97's and HP82143A's that have gone through over 50 rolls without any problem.

Printer paper for HP-85?

*Message #4 Posted by **Juergen (CH)** on 2 Sept 2003, 8:58 p.m.,*
in response to message #3 by David Smith

Anyone found paper for the HP-85? Seems to be a less common size...

Thanks, Juergen

Re: Printer paper for HP-85?

*Message #5 Posted by **David Smith** on 3 Sept 2003, 3:38 p.m.,*
in response to message #4 by Juergen (CH)

What is the width? NCR also makes the 3 (or is it 3.125) inch width rolls. Same stores that sell the narrower paper carry it. Some stores don't have it on the shelf and must order it from their warehouse... same as the 1.5 inch wide stuff for the 19C.

Re: Printer paper for HP-85?

*Message #6 Posted by **Juergen (CH)** on 4 Sept 2003, 5:30 a.m.,*
in response to message #5 by David Smith

The width is 4.25 inch.

Re: Printer paper for HP-85?

*Message #7 Posted by **David Smith** on 4 Sept 2003, 5:54 p.m.,*
in response to message #6 by Juergen (CH)

Buy 8.5 inch wide thermal fax machine paper and cut the roll in half using a good razor saw. I get a good square cut by wrapping a piece of adding machine tape around the roll, aligning the edges, taping it in place, and the using the edge as a guide.

There are places on the web that sell various widths of thermal paper. Also check the office supply store catalogs. The have a lot of oddball products that are not carried in the stores. That is how I get my HP19C paper.

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HP-11C Solutions Handbook Errata?

*Message #1 Posted by **Patrick** on 31 Aug 2003, 6:20 p.m.*

In my April 1981 version of the HP-11C Solutions Handbook (00011-90009) there is a formula for a Runge-Kutta solution for a second order differential equation that I think is in error. On the bottom of page 22, the formulas for k_2 and k_3 both include a factor of h/8 in the second argument. I have worked out these formulas myself and I always get h/4.

Does anyone have a later edition of this book? If so, could you tell me whether yours has an 8 or a 4 in those formulas?

As an aside, I have written programs based on the value 4 which provide correct results to 10 digits of accuracy with a step size of 0.01 while taking over one hundred steps, so I'm pretty sure the 4 is correct and the book is "buggy"!

Re: HP-11C Solutions Handbook Errata?

*Message #2 Posted by **Valentin Albillo** on 1 Sept 2003, 7:12 a.m.,*
in response to message #1 by Patrick

Hi, Patrick:

I don't have the Solutions Book at hand now, but if you've tried both values (the one in the book and the one you think is correct) in several test equations and yours provides the accurate answers while the one in the book does not, the conclusion is obvious, don't you agree ? Anyway, I'll check it within 10 hours, back home.

Now, here's a 'challenge' specifically for you (others may apply as well and are welcome to try, of course), your preferred algorithm (Runge-Kutta or whatever), and your preferred HP calculator (physical or emulated):

Given the 1st-order differential equation:

```
y' = x^2 + y^2
```

subject to the initial condition **y(0) = 0**, try and find **y(2)**, *accurate to 10 or 12 decimal places*, give or take a few ulps.

All correct answers will be rewarded with a pre-release copy of my "Long Live the HP-16C!" incoming article, in PDF format. All those people who do not have my previous articles will receive them as well, if desired. :-)

Of course the answer must be obtained using an HP calculator, so the program and/or procedure used to obtain it must be produced on demand.

Beeest regards from V.

Re: HP-11C Solutions Handbook Errata?

*Message #3 Posted by **dbrunell** on 1 Sept 2003, 5:37 p.m.,*
in response to message #2 by Valentin Albillo

I find a pole at x=2.

Sorry but no cigar :-)... Patrick ?

*Message #4 Posted by **Valentin Albillo** on 2 Sept 2003, 4:05 a.m.,*
in response to message #3 by dbrunell

There's *no* pole at x = 2, sorry. If your software says there is, chances are it was written by MS, but in any case you should definitely get a better one. :-) (joking, of course)

Patrick, are you listening ? Does the expert mathematician cum HP-15C programmer accept this simple 'challenge' :-) ?

What's the 10-digit-accurate value of y(2) ? Further, if this function has some pole, could any of you provide a 10-digit-accurate value for the corresponding x ? It's *not* 2.000000000, mind you.

Best regards from V.

Edited: 2 Sept 2003, 7:55 a.m.

Yes, I'm listening

*Message #5 Posted by **Patrick** on 2 Sept 2003, 4:29 p.m.,*
in response to message #4 by Valentin Albillo

But because it came from you, Valentin, I just knew there had to be a catch! I'm sure, knowing nothing but your reputation, that a 10 digit value for y(2) derived through numerical means will somehow turn out to be meaningless! I'm just trying to think of why...

Besides, differential equations was.... uh.... not my field. Yea, that's the ticket...

Re: Sorry but no cigar :-)... Patrick ?

*Message #6 Posted by **dbrunell** on 2 Sept 2003, 6:20 p.m.,*
in response to message #4 by Valentin Albillo

I tried to find a solution on my 97 using the R-K program in the Math Pac. For successively smaller values of h, I got successively larger results for y(2). Therefore, I concluded there was a pole at x=2. Then I ran it under Mathematica, and here is what I got:

http://www.cdinc.com/misc/mathematica.jpg

So what am I doing wrong?

Re: Sorry but no cigar :-)... Patrick ?

*Message #7 Posted by **tony** on 3 Sept 2003, 1:44 a.m.,*
in response to message #6 by dbrunell

Looks like the pole is just above 2

Re: Sorry but no cigar :-)... Patrick ?

*Message #8 Posted by **tony** on 3 Sept 2003, 2:37 a.m.,*
in response to message #6 by dbrunell

google on

euler maple x^2 y^2

gives a first hit on a pdf at oregonstate.edu which shows maple actually *solving* this in closed form using Bessel functions!!!

Their graph only goes to x=1 where it looks like y is about .35

This is a real challenge!! I wish I knew how to evaluate Bessel functions - the Y(2) that Maple gives is:

2*(BY(-.75,2)-BJ(-.75,2))/(BY(.25,2)-BJ(.25,2))

Re: Sorry but no cigar :-)... Patrick ?

*Message #9 Posted by **dbrunell** on 3 Sept 2003, 3:37 a.m.,*
in response to message #8 by tony

Here is the function you gave, calculated to 50 decimal places:

http://www.cdinc.com/misc/mathematica2.jpg

Are you sure you got the signs right? I have Jn on my HP-48 but no Yn, and I'm too lazy to key it in. ;)

Edited: 3 Sept 2003, 3:37 a.m.

A little BIG rant

*Message #10 Posted by **Valentin Albillo** on 3 Sept 2003, 4:58 a.m.,*
in response to message #6 by dbrunell

This is going to be a little BIG rant, and I most sincerely hope I don't offend anyone, that's certainly not my intention, at all. Also, though I'm particularizing somewhat on this challenge, most of my remarks actually apply to other such similar challenges I've issued in the past.

The question is, while I really thank those of you such as Patrick and drbrunell and other people who were interested in my 'challenge' and kindly took the trouble to investigate it, I actually feel *very* disillusioned at the approach taken, and I'm now fully convinced that I cannot attain my intended didactic goals no matter how hard I try. I'll explain:

My original message stated this:

*"Now, here's a 'challenge' specifically for you (others may apply as well and are welcome to try, of course), your preferred algorithm (Runge-Kutta or whatever),***and your preferred HP calculator (physical or emulated)**"

the intention obviously being to get some HP-programming wizardry in action, a novel approach on how to tackle very difficult problems with our marvelous HP calcs, and thus learning something on the way and appreciating our beloved machines that much more.

What did I get instead ? People absolutely ignoring the challenging side of the problem, and

instanly reaching for their top-gun, pc-based Mathematicas and Matlabs, and whatever, after they tried the most cursory approach on their HP calcs, if at all.

Now, I also own a copy of Mathematica, and my copy can detect that this is an instance of the Ricatti differential equation and provide an explicit symbolic expression for the solution in terms of BesselJ and BesselY functions, which can be evaluated to thousands of decimal places at x = 2, or at y -> infinite.

So what ? I'm *not* interested in the least in the actual, numeric solution, what I wanted to see was some clever thinking applied to the problem, in order to solve it in an HP-97, an HP-15C, or and HP-25C, say !! Yes, it *can* be solved on an little, puny, 49-step HP-25C !!

So, I'm terribly sorry for this rant, but it's simply that I'm somewhat fed up. Everytime I issue some challenge to be solved using some HP calc, no matter how clearly I state that people should solve it using their HP calcs, it does me no good. People *always* use their PCs do to the job and achieve some results I couldn't be less interested in. As they say, "It's the journey that matters, *not* the destination".

So much for my rant. I really hope noone feels offended, indeed no offence was intended and I heartily apologize if any was taken. Anyway, as this isn't gonna change, as it seems that noone can refrain from putting their HP calcs apart, as the useless toys they surely are, and reaching for their oh-so-wonderful Mathematica software running on a oh-so-marvelous 2.4 Ghz Pentium IV PC, I'll refrain myself from issuing any such numerical 'challenges' in the future, lest I receive yet another 300+-digit Mathematica-computed result I couldn't care less for.

Best regards from V.

Edited: 3 Sept 2003, 6:31 a.m.

Re: A little BIG rant

*Message #11 Posted by **Veli-Pekka Nousiainen** on 3 Sept 2003, 6:42 a.m.,*
in response to message #10 by Valentin Albillo

Can I use a HP 200 LX (with DERIVE student version)??

Re: A little BIG rant

*Message #12 Posted by **christof (NoVA US)** on 3 Sept 2003, 4:06 p.m.,*
in response to message #10 by Valentin Albillo

I've also been very interested in HP specific math elegance- partly because I do use them daily, nad partly because I keep a little notebook where I write keystroke programming 'bits' to use later. And they always do seem to get used.

I don't have an answer for this one, though :)

Re: A little BIG rant

*Message #13 Posted by **Wayne Brown** on 3 Sept 2003, 4:29 p.m.,*
in response to message #10 by Valentin Albillo

Is there any reason it can't be done *both* ways -- with an HP calculator and with a computer (or even by hand)? I don't see that some people giving a Mathematica or Matlab solution *prevents* anyone else from offering a calculator solution. Personally, I'd like to see both.

Re: A little BIG rant

*Message #14 Posted by **dbrunell** on 4 Sept 2003, 3:39 a.m.,*
in response to message #10 by Valentin Albillo

OK Valentin, you win.

The solution to the equation can be represented by:

http://www.cdinc.com/misc/riccati1.jpg

Where c is subject to initial conditions:

http://www.cdinc.com/misc/riccati2.jpg

Thanks to your initial condition of y(0)=0, we are simply left with y(2)=2*J(.75,2)/J(-.25,2).

Here is my 48S program for Bessel function of the first kind:

```
%%HP: T(3)A(D)F(.);
\<< \-> N X
  \<< 0 0 1.E99
    FOR K DUP '(-1)
^K*(X/2)^(N+2*K)/(K
!*(N+K)!)' EVAL +
      IF DUP ROT \=/
      THEN 1
      ELSE 2.E99
      END
    STEP
  \>>
\>>
```

I get an answer of 317.722460354.

I will leave it to you to write a Bessel function for the HP-25. :)

Re: A little BIG rant

*Message #15 Posted by **tony** on 5 Sept 2003, 1:18 a.m.,*
in response to message #14 by dbrunell

Thanks for the great HP48 program!!

FWIW this produces 317.722 460 675 750 307

I run it using powerbasic.

It requires rather great storage<G> but only really uses the four basic arithmetic operators. It just expands y(x) as a polynomial (I put dy/dx = x^2 + y^2 and match up coefficients. The same as a Taylor expansion about (0,0)).

```
defext a-z
dim a(6500)
t=6500
x=2
k=3
a(1)=(X^K)/K
S=a(1)
for i=2 to t
k=k+4
a(i)=0
```

```
for j=1 to i-1
a(i)=a(i)+a(j)*a(i-j)
next j
a(i)=a(i)*x/k
s=s+a(i)
print i,a(i);
print using "###.################";s
next i
end
```

If only I could spot a pattern in the coefficients it could be done with minimal storage and would be a candidate for a calculator.

It runs fine in quickbasic with defdbl in the first line.

Small HP calc versus MATHEMATICA ! [LONG]

*Message #16 Posted by **Valentin Albillo** on 5 Sept 2003, 6:48 a.m.,*
in response to message #14 by dbrunell

For those of you (if any) expecting a solution using just some tiny HP calculator, read on, I include a comprehensive one at the end of this post, but first some pertinent comments:

dbrunell posted:

"The solution to the equation can be represented by: [an explicit symbolic solution found using Mathematica]"

First of all, let me clearly state that I thank you very much for your interest in this informal 'challenge' I issued, and rest assured that none of my remarks are meant to be derogatory of your efforts to solve it. It's just that I am the kind of person that likes to abide by the rules of the game and expect others to do likewise, so I'm somewhat upset when someone disregards them, specially when it's totally unnecessary.

As you may guess, using Mathematica, MathLab, Derive, or whatever to solve one of my challenges is *utterly useless* as far as showing and learning new tricks with out beloved HP calculators is concerned, and as far as I'm concerned as well. As I said before, I also own a copy of Mathematica, and can easily achieve these results with no effort and to no purpose whatsoever.

Should you had found the explicit symbolic solution using some CAS or symbolic package in your HP48/49, that would be a thing. But finding it using Mathematica is breaking the rules big time. Now, once Mathematica has given you that weird-looking expression in terms of Bessel functions , you then go on:

"Here is my 48S program for Bessel function of the first kind: "

THIS is more like it !! That's what I want, some real code running in a real (or emulated) HP calculator, solving some difficult problem. What a pity that you chose to resort to that Mathematica of yours, instead of fully solving it with your powerful 48S from the scratch ! But you then end it all saying:

"I will leave it to you to write a Bessel function for the HP-25. :) "

What for ? WHO needs Bessel functions to solve this problem ? Mathematica needs them ? And WHO needs Mathematica for this problem ? Not anyone owning most any HP RPN or RPL calculators, for certain ...

In order to prove my point, here's a complete, reasoned solution to this challenge, using nothing more and nothing else than a vintage HP calculator. The solution is given for the HP-15C, for the one and only reason that it's the HP model I use routinely. A similar solution can be given for most other models, up to *and including* the HP-25 itself, but I don't have an HP-25 at hand right now. And yes, you *can* solve this challenge quite easily with a humble yet powerful HP-25, in a few minutes. Let's begin:

Given the equation y' = x^2 + y^2, with y(0) = 0, find an accurate value for y(2).

Step 1:

We need to use some algorithm and corresponding program to find numeric solutions for 1st order differential equations. Any will do, the HP-25C Application Programs does include one (Euler's method), the HP-41C Advantage ROM includes a better one (4th order Runge-Kutta method), and there are may others available.

As I'm going to use my everyday-use HP-15C, this is the program I wrote from scratch, ad-hoc for this task. It's unoptimized, hastily written, but it does the job. It implements Runge-Kutta 4th order method, in 45 steps. The 4th-order RK algorithm goes like this:

```
   Given  y' = f(x,y), with y0 = y(x0), we use a suitably
   small 'step' size, h, to compute additional values, (x1, y1), (x2,
y2), ...,
   like this:


      x1 = x0 + h
      y1 = y0 + (k1 + 2k2 + 2k3 + k4)/6


   where k1 = h.f(x0, y0)
         k2 = h.f(x0 + h/2, y0 + k1/2)
         k3 = h.f(x0 + h/2, y0 + k2/2)
         k4 = h.f(x0 + h, y0 + k3)


   once (x1, y1) have been computed, you then go on
   likewise to compute (x2, y2), etc.
```

and the resulting HP-15C implementation is this:

```
01  LBL A     13  STO 3     25  RCL 1     37  GSB 2
02  STO 0     14  GSB 0     26  PSE       38  STO+ 3
03  Rdn       15  GSB 0     27  RCL 2     39  RTN
04  RTN       16  RCL+ 2    28  PSE       40  LBL 2
05  LBL B     17  RCL 0     29  GTO 1     41  RCL+ 1
06  STO 1     18  GSB 2     30  LBL 0     42  GSB C
07  X<>Y      19  RCL 3     31   2        43  RCLx 0
08  STO 2     20   6        32   /        44  STO+ 3
09  LBL 1     21   /        33  RCL+ 2    45  RTN
10  X<>Y      22  STO+ 2    34  RCL 0     46  LBL C
11  GSB C     23  RCL 0     35   2        47  RTN
12  RCLx 0    24  STO+ 1    36   /
```

where you define your function f(x,y) under LBL C, assuming y is in the Y register and x is in the X register. Set User mode and specify the step value h, like this:

```
h, A
```

Then enter the initial condition (x0,y0) and proceed to compute (x1,y1), (x2, y2), etc, like this:

```
y0, ENTER, x0, B -> (x1) -> (y1) -> (x2) -> y(2)
```

press R/S to stop the program when done. By the way, this program *doesn't use any unique HP-15C features*, apart from recall arithmetic (RCLx 0) which you can easily

simulate (RCL 0, x), so *it will run* essentially unchanged on an HP-11C, HP-34C, and most any models having subroutine capability and labels. A version for the HP-25 and similar GSB-less machines is available as well.

Step 2:

Now, we need to define our equation, y' = x^2 + y^2. To this purpose, insert these steps after 46 LBL C

```
47  X^2
48  X<>Y
49  X^2
50  +
```

Step 3:

Let's try to find y(2). In User mode, FIX 7, using h = 0.1 (.1, A), and x0 = 0, y0 = 0 (0, ENTER, 0, B), we let the program run until it arrives at x = 2, duly noting the final result and several intermediate ones for x = 1, 1.7, 1.8, and 1.9. To check the accuracy of the result, we repeat the procedure a couple of times, halving the step size to h = 0.05, then to h = 0.025. This is what we get:

x	y (h=0.1)	y (h=0.05)	y (h=0.025)
0	0	0	0
1	0.3502337	0.3502320	0.3502319
1.7	2.9727649	2.9727984	2.9727975
1.8	4.6866510	4.6880373	4.6881254
1.9	9.5161319	9.5622688	9.5666582
2	71.5789968	124.2866329	194.9352142

Step 4:

Now, instead of blindly accepting the last value for y(2), we must evaluate the results. From the table above, it's obvious that while y(1) = 0.3502319 is accurate to 7 decimals, y(1.8) is accurate to no more than 4 decimals, y(1.9) only to 2 decimals at best, and y(2) isn't accurate to any given digits. Further, the y-values seem to be more than doubling for a small linear increase (h) of the x-values, and this exponential growth should make us suspect a pole (singularity) at or near x = 2.

Step 5:

If a singularity is present nearby, reducing the step size h further to h = 0.001, 0.00001, or smaller, will be no use. The running times will be astronomic and the accumulation of rounding errors to reach x = 2 after 200,000 steps or more will make the final result inaccurate anyway. Do we reach for Mathematica ? No way, it's just that a different approach is called for.

As it's well known, HP vintage calcs were *"designed by engineers for engineers"*. Though many people now tend to take the easy ride and use pure brute force (i.e., Mathematica's N[..., 100]) instead of neuron-power, engineers of old were expected to have some familiarity with Calculus, at least elementary Calculus, plus a fine intuition for difficulties. On suspecting a pole, a singularity, any engineer worth his/her salt would think along these lines:

"Aw, gee, we've got some nasty singularity nearby, which is spoiling our algorithm's accuracy. Let's remove it out of existence ! How ? Easy ... let's make some change of variable, such as to turn a singularity-ridden function, like this unknown y(x), into some smooth, singularity-free one ... how about the arctan(x) function ? It will return a finite

value, Pi/2 at most, for any argument x, even if it goes to infinity. Let's try !"

Step 6:

Lo and behold, let's make a change of variable:

```
[1]   y = tan(z)
```

so then we have:

```
[2]   z = arctan(y)
```

its derivative will be:

```
[3]   z' = y'/(1 + y^2)
```

isolating y' gives:

```
[4]   y' = z'.(1 + y^2) = z'.(1 + tan^2(z))
```

but the original equation says:

```
[5]   y' = x^2 + y^2 = x^2 + tan^2(z)
```

so equating both expressions [4] and [5], we get:

```
[6]  z'.(1 + tan^2(z)) = x^2 + tan^2(z)
```

which, after isolating z' gives:

```
[7]  z' = (x^2 + tan^2(z)) / (1 + tan^2(z))
```

which is the new differential equation (in [x, z, z'], instead of the original [x, y, y']) we must now solve, subject to the initial condition:

```
z(0) = arctan(y(0)) = arctan(0) = 0
```

and once we find z(2) using our HP-15C program, we'll simply have:

```
y(2) = tan(z(2))
```

Step 7:

The new differential equation is programmed under LBL C (after removing the original equation) like this:

```
47  X^2     52   1
48  X<>Y    53  LASTX
49  TAN     54   +
50  X^2     55   /
51   +      56  RTN
```

and now, in RAD mode, using h = 0.1, then h = 0.05, we get

```
  x       y (h=0.1)     y (h=0.05)
-----------------------------------
  0       0             0
  1       0.3368811     0.3368813
  1.7     1.2463033     1.2463031
  1.8     1.3606417     1.3606412
  1.9     1.4666491     1.4666485
  2.0     1.5676491     1.5676489
```

which clearly shows that the singularity has been effectively removed, so we've got:

```
z(2) = 1.5676489
```

and thus:

```
y(2) = tan(z(2)) = 317.7225457
```

which has *nearly 7 digits correct*, greater accuracy being possible by simply using a smaller step size, h. Further, the exact x value corresponding to the pole near x=2 can be found accurately with our little HP calculator using a single iteration of Newton's method, like this:

```
Xpole = 2 - (z(2)-Pi/2)/z'(2)
```

where we already have z(2) and can compute z'(2) by simply using the differential equation [7]. So, calling z(2) = 1.5676489 = k, we then compute:

```
Xpole = 2 - ( k - Pi/2) / z'(2)
      = 2 - ( k - Pi/2) / ((4+tan^2(k)) / (1 + tan^2(k)) )
      = 2.0031473
```

which *is accurate to all 8 digits shown*.

Thusly, we've succedded in finding both the value of y(2) and the singularity, to 7-8 digits accuracy, using just our small HP calculator and a little bit of the elementary knowledge and basic intuition any engineer should have in spades.

If any of you did find some of this useful or even learnt something, I think I will have proved my point and achieved my goal.

Best regards from V.

Re: Small HP calc versus MATHEMATICA ! [LONG]

*Message #17 Posted by **Werner Huysegoms** on 5 Sept 2003, 7:20 a.m.,*
in response to message #16 by Valentin Albillo

Thank you, Valentin. I liked it a lot, even if I had to look up the formula for Runge-Kutta again (it's been too long). (yes I was trying to solve it) Your comments are spot-on: having an all-powerful Mathematica on your PC is no substitute to a bit of careful analysis - for some problems will remain beyond even Mathematica's power - and then what?

Werner Huysegoms

Re: Small HP calc versus MATHEMATICA ! [LONG]

*Message #18 Posted by **Valentin Albillo** on 5 Sept 2003, 8:08 a.m.,*
in response to message #17 by Werner Huysegoms

Hi, Werner:

Werner posted: *"Thank you, Valentin. I liked it a lot, even if I had to look up the formula for Runge-Kutta again (it's been too long). (yes I was trying to solve it)"*

Thanks for your kind comments, much appreciated. I'm glad to know that you were giving it a try and liked my approach to solving it. I usually hesitate a lot to post such challenges and corresponding long answers, for it's been my (sad) experience that they get by and large ignored, or even worse, are interpreted in a bad light, and frankly, it's a lot of work ! :-)

"Your comments are spot-on: having an all-powerful Mathematica on your PC is no substitute to a bit of careful analysis - for some problems will remain beyond even Mathematica's power - and then what?"

Certainly, but sadly few people seem to realize that. For instance, re my 'challenge', Mr. dbrunell used Mathematica to find an explicit solution to **y' = x^2 + y^2** and Mathematica succeeded, producing one in terms of Bessel functions. So far so good.

But what if the problem were *slightly* changed to **y' = x^2 + y^2.00281** or **y' = x^2 + y^e**, say ? Though quite similar, they aren't Ricatti-equation instances anymore, and Mathematica thus **fails** to produce an explicit, closed symbolic representation. No Bessel functions you can evaluate on your 48S (what for, if you've got Mathematica ...), no nice closed-form representation for the constant integration factor. The slightest change in the equation completely changes the nature of the solution.

On the other hand, the approach I detailed, using a humble, small HP calculator, is absolutely *oblivious* to the fact that **y^2** has been changed to **y^2.00281** or **y^e**, and will work exactly the same, unaffected by the change, because it does not depend on such specifics but in a sound numerical algorithm and some sound judgment and professional proficiency on the part of the user. Brute force only goes so far, and will spend gigabytes and gigaflops to get results that a 49-byte handheld calculator and its knowledgeable user can get much more economically, while learning something in the process.

Thanks again and best regards from V.

Edited: 5 Sept 2003, 9:21 a.m.

Re: Small HP calc versus MATHEMATICA ! [LONG]

*Message #19 Posted by **tony** on 5 Sept 2003, 7:59 p.m.,*
in response to message #16 by Valentin Albillo

Valentin, thanks for taking the time to prepare and publish your elegant solution!

If TAN is not avaliable then y=z/(1-z) is the best substituion I can find. The equation becomes z'=(x^2)*(1-z)^2 + z^2, and we start from x=0,z=0. With h=.1 I end up with y(2)=318 and with h=.05 I get y(2)=317.73. So, it's not as powerful as y=TAN(z), but not a bad substitute.

Cheers, Tony

Re: Small HP calc versus MATHEMATICA ! [LONG]

*Message #20 Posted by **Tom Scott** on 5 Sept 2003, 9:37 p.m.,*
in response to message #16 by Valentin Albillo

Thanks Valentin. Very educational!

Tom Scott Lander, WY

Re: Small HP calc versus MATHEMATICA ! [LONG]

*Message #21 Posted by **dbrunell** on 6 Sept 2003, 12:45 a.m.,*
in response to message #16 by Valentin Albillo

Dear Valentin:

Thank you for taking the time to create that lengthy and educational post. Having taken differential equations over 20 years ago and never using the knowledge in my professional endeavors, I admit to being quite rusty. I would never have considered a change of variable.

Incidentally, the form of the solution I gave in my post (using Bessel functions) came not from Mathematica but from the book "Differential Equations and Linear Algebra" by Edwards and Penney.

I have printed out your post, and it will become a permanent part of my reference material.

Best regards,

David Brunell

Thanks to all of you. Best regards. [no text]

*Message #22 Posted by **Valentin Albillo** on 6 Sept 2003, 9:08 p.m.,*
in response to message #21 by dbrunell

Best regards from V.

Re: HP-11C Solutions Handbook Errata?

*Message #23 Posted by **tony** on 4 Sept 2003, 12:14 a.m.,*
in response to message #2 by Valentin Albillo

Valentin, I am trying a polynomial form for y(x)=(x^3)/3+(x^7)/63+(x^11)*2/(11*9*7*3)+terms in X^15,X^19 etc. If only I could get a manageable pattern in the coefficients, I reckon I could implement it on a calculator with minimal storage. As it is I think I need to remember each coefficient to get the next one. Am I getting close? My algeraic manipulation skills are not what they once were<G>. This is the only way I can see of doing it - following the slope from (0,0) in small steps does not help it is a long journey and one is not sure one is still correctly connected to (0,0).

- later - maybe you use TAN in the solution? I'm after a hint<G>. TAN could be handy because of the y^2 as d(TAN(x))/dx=1+TAN(x)^2

Yep, maybe better to start with TAN rather than the (x^3)/3 - looks like that polynomial will need a lot of terms for Y(2) and we maybe need the power of TAN?

Edited: 4 Sept 2003, 1:26 a.m.

Re: HP-11C Solutions Handbook Errata?

*Message #24 Posted by **Gordon Dyer** on 2 Sept 2003, 4:44 p.m.,*
in response to message #1 by Patrick

Hi, I have the original manual and an Addendum card with all of the corrections.
Send me an email and I can return scans of the addendum card, 2 sides, 389KB and 249KB .jpg files.

Re: HP-11C Solutions Handbook Errata?

*Message #25 Posted by **Gordon Dyer** on 3 Sept 2003, 4:46 p.m.,*
in response to message #24 by Gordon Dyer

Sorry, the Addendum sheet is for the Owner's Handbook, not the Solutions Handbook.

Re: HP-11C Solutions Handbook Errata?

*Message #26 Posted by **bill platt** on 3 Sept 2003, 5:03 p.m.,*
in response to message #1 by Patrick

I know I have the solutions handbook at home 2, from my orig. HP. And I remember addendum sheets. I'll take a look tonite and C what I find.

regards,

bill

Re: HP-11C Solutions Handbook Errata?

*Message #27 Posted by **bill platt** on 3 Sept 2003, 11:33 p.m.,*
in response to message #26 by bill platt

I found the same thing that Gordon found: yes, my copy has the same equation Patrick found:

k3 = hf{xi+(h/2), yi+(h/2)y'i+(h/8)k1, y'i+(k2/2)}

So, that is interesting. If anyone finds addendums to the solutions handbook, let us know.

-Bill

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QPI for the HP-42S

*Message #1 Posted by **Erik Ehrling (Sweden)** on 31 Aug 2003, 3:58 p.m.*

This is just a short note to tell that I have just uploaded the latest version of QPI for the HP-42S at the following URL:

http://w1.322.telia.com/~u32220482/qpi42s.html

Best regards, Erik Ehrling (Sweden)

Off Topic: Program Listing Font

*Message #2 Posted by **Juergen (CH)** on 1 Sept 2003, 3:58 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Where did you get the font you used for the program listing?

Regards, Juergen

Re: Off Topic: Program Listing Font

*Message #3 Posted by **Erik Ehrling (Sweden)** on 2 Sept 2003, 1:54 a.m.,*
in response to message #2 by Juergen (CH)

Hi Juergen!

The listing is just made up of a series of screen-shots from Emu42 (so in a sense the underlying font is the real HP-42S font, although it is not made using a font per se), however if anyone could recommend a good program to construct a font from bitmaps it would not be much work to convert it into a real font.

Best regards! /Erik

Re: Off Topic: Program Listing Font

*Message #4 Posted by **Gordon Dyer** on 2 Sept 2003, 4:48 p.m.,*
in response to message #2 by Juergen (CH)

Look in here for some nice fonts produced by Luiz:
http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=286

Re: QPI for the HP-42S

*Message #5 Posted by **Werner Huysegoms** on 2 Sept 2003, 2:56 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

```
Lines 381 and 383 should not be there; they cannot be correct.
```

```
  RCL "T_QPI"
  RCL "Z_QPI"
  RCL "Y_QPI"
  RCL "X_QPI"

fills the stack

Cheers, Werner
```

Program Encapsulation on a HP-42S (Was: Re: QPI for the HP-42S)

*Message #6 Posted by **Erik Ehrling (Sweden)** on 2 Sept 2003, 1:37 p.m.,*
in response to message #5 by Werner Huysegoms

Hi Werner!

Certainly the lines should be there! The lines 2-12 at the start of the program stores the contents of the stack (and all registers). The corresponding lines 376-391 at the end of the program restores the stack (and all registers). This way program encapsulation is achieved on the HP-42S! Further, this allows you to run QPI in the middle of a calculation and then continue the calculation after QPI has run!

Best regards, Erik Ehrling (Sweden)

Re: Program Encapsulation on a HP-42S (Was: Re: QPI for the HP-42S)

*Message #7 Posted by **Victor Koechli** on 2 Sept 2003, 8:04 p.m.,*
in response to message #6 by Erik Ehrling (Sweden)

No, Werner is right, I've noticed this too. The lines 381 and 383 are too much. Consider: If you do

```
RCL "T_QPI"
STO ST_T
```

you will restore the saved T register contents directly to T. But if you now execute

```
RCL "Z_QPI"
```

the stack is lifted and the contents of T are lost. Instead you should just do

```
RCL "T_QPI"
RCL "Z_QPI"
RCL "Y_QPI"
RCL "X_QPI"
```

as Werner suggests, and the entire stack will be restored.

Cheers, Victor

Oh yes, they are redundant! (Was: Program Encapsulation on a HP-42S (Was: Re: QPI for the HP-42S))

*Message #8 Posted by **Erik Ehrling (Sweden)** on 3 Sept 2003, 2:10 p.m.,*
in response to message #7 by Victor Koechli

Oh yes! The lines are redundant (even though the program works perfectly with the lines in place as well...). Thanks!

Regards, Erik

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Recap of HP calculators emulators for PDAs

*Message #1 Posted by **Vincent Weber** on 31 Aug 2003, 6:56 a.m.*

Hi all,

In these days where old HP calculators are missed, I would like to share my experience of HP calculators for PDAs, since I never found the posts on this subjects exhaustive. I hope the follwoing info will be useful. I think it is pretty complete, but please feel free to add to the list !

1) HP-41: -----

The queen of the 80's, still very useful today, especially with the Advantage ROM, making it one of the very few calculators on PDA supporting matrixes.

- For PalmOS: P41CX is a faithful, accurate and fast emulator for the 41CX (with time & extended memory functions). I use this program daily. It can be found on www.palmgear.com. What is remarkable of this emulator is that it allows hot-swap of nearly of the modules made for the 41. You have also printing to memo, 2-lines display, object loader - all this for a mere $10. A fantastic program. There was another emulator for PalmOs called Coconut... but the author has decided to discontinue it. It was good, but not as accurate and fast as P41CX. It integrated a full printer display, though.

- For PocketPC: eV41 is also a very good emulator. It does not support 2 lines nor printing, though. But the look and feel is very good.

2) HP-48/49--------

The queens of the nineties...

- For PalmOS: A fantastic emulator called Power48, totally free. It can be found at: power48.mobilevoodoo.com. Absolutely fast and accurate, with very realistic faceplates. Lucky owners of Sony Clie NX and NZ series with Hires+ mode (320x480) can enjoy a full size calculator without having to zoom the screen. Sadely, there is not (yet) emulation of port2 nor custumizable faceplates ("KML"s in Emu48 terminology).

- For PocketPC: There is Emu48CE V1.23 (web.jet.es/leobueno/emu48.htm). Sadely, this is not a vey good piece of software... not so stable, and can lag. A (not so good) adaptation of Emu48 for PocketPC, which has not been updated for a long time. Far less usable than its PalmOS counterpart, Power48. (Yet another) good reason to go for a Palm ?

- For EPOC32 (PsionOS): For die-hard Psion lovers (I used to be one), there is a recent very good emulator: Emu48E 1.4. It can be found on www.hpcalc.org.

3) HP-15C ------

A fantastic calc ahead of its time, the first one to integrate matrixes and complex numbers on the stack.

There is no actual emulator... The HP-15C is a closed system from which the ROM cannot be uploaded. However, there is fantastic SIMULATOR for PocketPC: Pocket15C (http://www.lygea.com/pocket15cdetail.htm). A simulator

of HP-41 and HP-48 calculators would be a little interest since the machine code programs would not work; but for a HP-15C which is not very "hackable", never mind. A simulator gives the opportunity to enhance the calculator. Pocket15C, unlike an atucal HP-15C, is able to display programs in alphanumeric form (this was the major complain against the very good 15C - programs were very hard to edit), is very fast (The 15C is very slow), has plenty of memory (999 registers + 64 registers per matrix). A must have for PocketPC owners. I really wished there was such a product for PalmOS... Of course the squarish screens of Palm devices make it a bit cumbersome to display the rectangular-shaped Voyager series, but the NX or NZ series should do this just fine. Wait and see...

4) HP-12C ------

The best selling HP calculator is also widely emulated. I will just quote two "emulators" (simulators actually).

- PalmOS: KK-12C (www.palmgear.com). A very nice product, very accurate able (unlike the actual 12C) to load external programs. It deals with the squarish screen of the Palm (vs. the rectangular shape of Voyager calcs) by cutting the screen into two possible views. Not perfect, but usuable.

- Pocket12C: The business counterpart of Pocket15C from Lygea, described above, with the same qualities. Note that Lygea also make a "10B+" simulator (extended 10BII) but I find this of little interest...

5) HP-16C ------

- PalmOS: Palm16C 1.0.0 (wwww.palmgear.com). A bit rough, does not look very sexy, but does the job.

- PocketPC: Nothing yet - but I heard from Lygea that they are preparing a Pocket16C ! Wait and see...

Now, what is missing:

1) HP-42S: ------

Probably the most complete (with no I/O, but this could be patched in an emulator) pre-RPL HP calc... and sadely, no emulator for PDAs. There is none emulator for Windows by Christoph Giesselink:

http://privat.swol.de/ChristophGiesselink/Lewis/Hp42demo.zip

It is quite fine, but the ROM is -not- included for obscure copyright reasons within HP (I fail to understand why 41/48/49 ROMs are available while the 42 is not !). Christoph has no intention to port it to PalmOS or PocketPC. I am trying to make a 42S -simulator- (with extensions such fractions & equations support from the 32SII, better (direct) alpha entry, user-redifinable keyboard, to address the (very few) weaknesses of the '42). It is still an early project, but I think it would be welcome... any interest ? :)

2) HP-32Sii: --------

Would be nice to have. Not as powerful as the 42, does not handle matrixes, handle complex numbers in a rather primitive way, limited to only 27 variables. But very easy to use and nice touches, such as equation and fractions support. Looking at the 'Power Rangers' look of the new 33S calculator supposed to replace the 32SII... There may be some room for developping a 32SII simulator / emulator :) But the 32SII is another 'closed' system, with no way to get the ROM other than asking HP...

3) HP-17Bii --------

Same remark as above: Looking at the new 17B+ '10Bii-syle- case... there may be some room for a 17Bii emulator !

4) Others ------

- 28C/S: I don't think an emulator would be relevant: No PDA has big enough a screen to emulator the double

keyboard, while a 48 emulator does most of the things better than the 28 (expect for the catalogs...) - 19Bii: Same remark (same case). - Pre-41 models: Would be nice for nostalgy, altough the 41 or even 15C can do most of the things they did. Nevertheless, a 65/67/25C/29C/34C emulator would certainly be sucessful :)

My 2 cents... Vincent

Re: Recap of HP calculators emulators for PDAs

*Message #2 Posted by **Patrick** on 31 Aug 2003, 5:14 p.m.,*
in response to message #1 by Vincent Weber

Excellent post, Vincent.

I am a pretty staunch supporter of the Palm platform, but I tell you that Lygea 15C emulator may someday force me to buy an (old?) PocketPC just for that one program, despite it being a Microsoft platform. I am a 15C fanatic and am always on the lookout for 15C related materials.

Thanks again.

Re: Recap of HP calculators emulators for PDAs

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 1 Sept 2003, 8:56 a.m.,*
in response to message #1 by Vincent Weber

While not exact emulators or simulators of HP models, MathU and MathUPro for the Palm platform (from creativecreek.com) are Voyager-like RPN calculators.

Also BizCalc for PocketPC (from odysseyinc.com) operation is based on the 12C.

There are many other RPN calculators for Palm or PocketPC, but not quite similar to the HP units.

Re: Recap of HP calculators emulators for PDAs

*Message #4 Posted by **christof (NoVA US)** on 1 Sept 2003, 11:01 a.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

Don't forget RPN by nthlab. It's not a direct emulator, but it's very good and really cusomisable/programmable.

I'd like to see more developments not tied quite as heavily to the exact operation of a specific calc. Given the capabilities and OS features of palmos and embedded linux*, A good calculator making the most of the capabilities and programmability of RPN machines should be possible.

nonetheless, don't forget nthlab :)

-Christof

* (I'm over the pocketPC stuff. MS has tries hard to make wure you can't get full effective use out of one of these devices with out a pc plugged in and I think they've done the job too well)

Re: Recap of HP calculators emulators for PDAs

*Message #5 Posted by **Mark Ordal** on 9 Sept 2003, 9:19 a.m.,*
in response to message #4 by christof (NoVA US)

I wanted to remind everyone that these emulators can be very slow compared with stack-based

calculator programs that are simply somewhat HP-like, rather than being exact emulations.

Obviously, if you only want to run programs already written for a particular HP model, then something like the P41CX emulator running on a PalmOS PDA is a very convenient thing to have.

On the other hand, if you plan to write your own programs, the difference in run time between a "modern" calculator program and an emulator can make the emulator seem like a waste of time.

A case in point: one of my programs takes 250 seconds to run on my rebuilt HP41CX; the same program runs in 120 seconds under the P41CX emulator on my Palm m505 (33 MHz Dragonball cpu); a program to do the same calculation under version 3.10 of nth Lab's RPN calculator program on my m505 takes 8.9 seconds; and finally, a program for Creative Creek's "MathU Pro" on my m505 takes just 3.1 seconds.

So 120 seconds versus 3.1 seconds: your choice.

--Mark

Re: Recap of HP calculators emulators for PDAs

*Message #6 Posted by **Sam** on 8 Sept 2003, 6:13 p.m.,*
in response to message #1 by Vincent Weber

PLEASE Please please finish your 42s emulator - I'm very interest!

Re: Recap of HP calculators emulators for PDAs

*Message #7 Posted by **Erik Ehrling (Sweden)** on 9 Sept 2003, 11:48 a.m.,*
in response to message #6 by Sam

I can only agree with the previous speaker... a port of Emu42 to either a Palm or a Windows CE/Pocket PC environment would be great. I would, personally, vote for trying to retain 100% compatibility with the real HP-42S...

Best regards, Erik Ehrling (Sweden)

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Gamma function differences?

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 30 Aug 2003, 11:40 p.m.*

Hi to all! I was just playing with my hp-42S and my newly arrived (and fixed!) HP-11C, and I found this difference: In the Gamma function (in HP-11C shared with factorial [n!]) I found these results:

HP-11C: n = 68.5, result = 2.056343638e97

HP-42S: n = 68.5, result = 3.0019615151e95

HP-11C: n = 67.5, result = 3.00196151e95

HP-42S: n = 67.5, result = 4.44735039275e93

HP-11C: n = 66.5, result = 4.447350392e93

Commodore SR4190: n = 68.5, result = 3.00196151995e95

Commodore SR4190: n = 67.5, result = 4.44735039501e93

I'm just curious (as I don't have the HP-11C user's manual): the argument for Gamma function in the HP-11C is added by 1 internally?

Regards,

Nelson

Re: Gamma function differences?

*Message #2 Posted by **Brandon Del Bel** on 31 Aug 2003, 1:21 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Dude, gamma(x)=(x-1)! To calculate gamma(68.5) on your 11c, you need calculate the factiorial of 67.5 to get 3.001961515*10^95 (which is what you got for for your "n=67.5" except for the last decimal; I multiplied the result of 67.5! by 1e-95 to display all the digits.) On a side note, the results of your 42s match my 48gx and 49g. I hope this clarifies the discrepancy.

Sincerely,

Brandon

Re: Gamma function differences?

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 31 Aug 2003, 2:08 a.m.,*
in response to message #2 by Brandon Del Bel

This is because the gamma function in HP-11C is "hidden" in the factorial function? The use of the same

key is clever, but as I said I don't have the manual, and I really forgot about the gamma(n) = (n-1)! equivalence...

Thanks!

Best regards,

Nelson

Re: Gamma function differences?

*Message #4 Posted by **Ellis Easley** on 31 Aug 2003, 4:24 a.m.,*
in response to message #3 by Nelson M. Sicuro (Brazil)

Viktor Toth has a good discussion of the gamma function at rskey.org:

http://www.rskey.org/gamma.htm

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ebay partial refund question / poll. RSVP

*Message #1 Posted by **db(martinez,california)** on 30 Aug 2003, 8:34 p.m.*

I bought a 19C a while back, just the calc, case, and battery. The seller described everything correctly except that he said the printer had worked when he last used it but it did not print at all when i got it. btw: the motor does run and the paper works well in another HP thermal. I have written to the seller and he asked me what i want to do. Thats a fair question but i don't know a fair answer yet. I know that i would like to keep it.

My question is; what percent of the total value do you all think the printer is? If i get 5 or 6 answers i could use my 19 to get a mean value and even a standard deviation to send back to him. Thanks in advance to whoever responds.

Re: ebay partial refund question / poll. RSVP

*Message #2 Posted by **Katie** on 31 Aug 2003, 12:57 a.m.,*
in response to message #1 by db(martinez,california)

db-

I'll get the ball rolling but reiterating my feeling that somewhere around 30-40% is the right amount of refund. Although this might be repairable (this seems to be a common fault on the 19C's, due to corrosion problems on the printer power supply board under the battery compartment) I still think that a refund is in order, it's a very difficult repair.

-kt

Re: ebay partial refund question / poll. RSVP

*Message #3 Posted by **Valentin Albillo** on 1 Sept 2003, 5:07 a.m.,*
in response to message #1 by db(martinez,california)

Both the HP-19C and its non-printing version, the HP-29C, were introduced in 1977-7-1, at $345 and $195 respectively, so the lack of a printer resulted in the non-printing model costing 44% less.

However, the 19C did include other benefits, printer-related but quite independent of it working, such as larger size, better keyboard, and more capable batteries, and all of them keep on improving the machine whether the printer itself works or not, so I guess that a 33%-40% refund would be Ok. If the seller doesn't agree and you like this particular machine very much, I would even go for a mere 25% refund, but not a cent less.

Best regards from V.

The printer "makes" the 19C

*Message #4 Posted by **Mike** on 1 Sept 2003, 8:36 p.m.,*
in response to message #1 by db(martinez,california)

Refunds are a funny thing. If the seller offers "as is" or "no refunds" then none should be expected. However, on the otherhand, if the seller deceives the buyer, he should offer a refund.

Phrases like "**work last time I tested it**" should be read as "**but it probably doesn't work now**." Anyone that knows how to test one, would actually test it. He may not tell you the results and might resort to wordsmanship. They are worth much more, when known to work.

As for how much, remember that the printer is what makes the 19C special. It is much more than just some incremental delta of the whole value. I'd say the printer is the "whole" calculator. I would expect that you should expect 40%-50% refund, IF he gives a refund.

PS: I know of one HP seller/collector that offers DOA guarantee but this would not qualify because it is not 100% dead. That is really deceptive advertizing.

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HP-01 spareparts

*Message #1 Posted by **Hans Pind** on 30 Aug 2003, 7:18 p.m.*

Can anyone tell me where in Europe I will find spareparts for my HP-01 watch ?

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windows driver for hp82240 printer

*Message #1 Posted by **luciano fernandes** on 30 Aug 2003, 11:50 a.m.*

does anyone knows one driver for printing thru pc/windows/ir to an 82240 printer? of from a pocketpc pda?

Re: windows driver for hp82240 printer

*Message #2 Posted by **Christoph Giesselink** on 1 Sept 2003, 1:19 p.m.,*
in response to message #1 by luciano fernandes

> does anyone knows one driver for printing thru pc/windows/ir to an 82240 printer? of from a pocketpc pda?

that will not work because of hardware reasons. On most PC hardware the Ir transmitter is somehow directly connected to an UART. This UART cannot be programmed to use the HP82240 Redeye protocol or have the ability to control the Ir-LED directly. So IMHO some sort of special hardware is necessary. But in this case you can also make an intelligent interface with a standard interface (COM, LPT, USB) transmitting data in the HP Redeye protocol. I don't know if someone made something so far.

Christoph

Re: windows driver for hp82240 printer

*Message #3 Posted by **luciano** on 3 Sept 2003, 12:02 p.m.,*
in response to message #2 by Christoph Giesselink

thank you! i´ll try a hardware redeye construction by pc/serial.

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New HP Calculator

*Message #1 Posted by **Garry** on 30 Aug 2003, 11:21 a.m.*

Looking to purchase new HP engineering, scientific, surveying,etc. calculator. With the current 48gx model being discontinued, do you recommend waiting for the new models or purchase the 48gx now?

Re: New HP Calculator

*Message #2 Posted by **Raymond Del Tondo** on 30 Aug 2003, 12:15 p.m.,*
in response to message #1 by Garry

Depends on your needs.

If you're used to something like the Pioneer Series, including the HP-48, then you should get a GX while you can.

If you don't mind rubber keys, less ergonomic keyboard layout, and eye-blinding color schemes, then you may want either the new 49G+, or the '48GII'. These both have some interesting features, namely the higher speed CPU, the bigger diplay (49G+ only) and the SD card slot (49G+ only...)

In fact the '48GII' is more a relabelled 49G.

I have to admit that the color schema of the '48GII' is MUCH better than that of the 49G/49G+.

Raymond

Re: New HP Calculator

*Message #3 Posted by **phreephly** on 30 Aug 2003, 2:33 p.m.,*
in response to message #2 by Raymond Del Tondo

Actually, according to the messages on comp.sys.hp48, the keys on the 49G+ (and I assume the 48GII) are plastic and the seem more like the 48GX. Apparently a few folks have gotten their hands on these new calcs and are not under a NDA.

Speed tests seem to indicate 3 times better performance than the 49G on average.

Check out the newsgroup and thread "HP49G+ is on my hands!!"

Now the question is how soon will it be available!

Sam

JUST my thoughts, Raymond !! (no text)

*Message #4 Posted by **R Lion (España)** on 30 Aug 2003, 4:14 p.m.,*
in response to message #2 by Raymond Del Tondo

.

Re: New HP Calculator

*Message #5 Posted by **Joseph** on 30 Aug 2003, 10:13 p.m.,*
in response to message #1 by Garry

I think you'd have to be nuts not to wait for the new calculators... they seem to have overcome almost every complaint with the HP49G.

You have (on the 49G+)

Bigger Screen, 48G style plastic keys, SD card slot (128mb of memory or more), 3 times the speed (with the potential for even more) and IrDA and USB

What's not to like?

Re: New HP Calculator

*Message #6 Posted by **fwbrown** on 31 Aug 2003, 10:18 a.m.,*
in response to message #5 by Joseph

> Quote:
>
> What's not to like?

The colors, the ugly face plate, the cursor keys, the tiny [ENTER] key in the wrong place...

Not being fair to the 49G+

*Message #7 Posted by **Gene** on 31 Aug 2003, 4:10 p.m.,*
in response to message #6 by fwbrown

The colors are NOT that bad. I think it will look fine along side a 12c with its gold and black color scheme. I think you have just decided not to like the new machine.

I think that's sad, because OTHER THAN the smaller out-of-place ENTER key, it looks like HP has addressed many/most of the user community's concerns.

I call that progress.

And, it's 3-5 times faster too.

Stay with the older calculator if you must, but it looks like it will be great! Gene

Re: Not being fair to the 49G+

*Message #8 Posted by **Wayne Brown** on 1 Sept 2003, 8:17 a.m.,*
in response to message #7 by Gene

Well, I never liked the 12C's color scheme either... and the **[ENTER]** key issue is enough by itself to keep me from buying a 49G+. I wouldn't buy *any* HP calculator without the double-size **[ENTER]** key.

As far as making progress goes: HP has screwed up so often for so long that I no longer cut them

any slack at all on new products. Either they get *everything* right, or I'm not interested.

Re: Not being fair to the 49G+

*Message #9 Posted by **Gene** on 1 Sept 2003, 10:32 a.m.,*
in response to message #8 by Wayne Brown

I know that is how you feel, Wayne. You should probably just resign yourself to living in the past. Don't get me wrong, I too like the double-wide ENTER key, but I don't believe it will come back. If that means you never buy another HP calculator, oh well.

The color scheme is a matter of preference or opinions, and I know you have strong ones. However, the majority of observers who see a picture of the 49G vs. the 49G+ like the 49G+ pictures better.

And, the 49G+ will look great on MY desk next to my 12c, particularly since 12c calculators are EVERYWHERE within the financial community (normally a very conservative community at that) and no one minds the black and gold color.

As I said, to each their own, but I believe HP has a winner on their hands with the new 49G+...particularly since they have solved so many of the user group complaints about the 49G with this new model.

Re: Not being fair to the 49G+

*Message #10 Posted by **Mark Hardman** on 1 Sept 2003, 11:22 a.m.,*
in response to message #9 by Gene

> Quote:
>
> I know that is how you feel, Wayne. You should probably just resign yourself to living in the past. Don't get me wrong, I too like the double-wide ENTER key, but I don't believe it will come back. If that means you never buy another HP calculator, oh well.

I hate to disagree, but the new HP-19II+ will have the double wide "Input" key and, I assume, a supported RPN mode like the HP-19II.

http://www.seodots.co.kr/hpcalc/hp19bii+.gif

Mark Hardman

Re: Not being fair to the 49G+

*Message #11 Posted by **Gene** on 1 Sept 2003, 2:08 p.m.,*
in response to message #10 by Mark Hardman

Quite right. Had forgotten about the pre-pics of the 19BII+ or whatever it will be called.

I still don't believe a new scientific calc will be made with a double-wide key. The inconsistency seen with the new 19BII+ is something HP should be asked about of course.

Thanks for pointing that out, Mark! :-)

HP and double width keys

*Message #12 Posted by **Tom (UK)** on 2 Sept 2003, 3:51 a.m.,*
in response to message #11 by Gene

There HAS been a recent HP scientific calc with a double width key! The calculator is the HP6(S).

Before you shout 'foul' because it's not RPN (or actually an HP design) it DOES show that it IS possible to design a modern calculator with double width key that is economical and aceptable to the buying public. I accept it's not quite in the 'correct' place and is an '=' key rather than 'enter'.

So it looks like HP just doesn't want to do this rather than there being a technical or marketing problem. Are they trying to create clear blue water between the new stuff and the RPN only past?

Re: Not being fair to the 49G+

*Message #13 Posted by **bill platt** on 1 Sept 2003, 2:53 p.m.,*
in response to message #10 by Mark Hardman

I wonder if that "INPUT" key will be just as it says: input. THe equals key has "enter" labelled on it, so I am afraid that RPL enter will be down in the lower right corner, just as with the 49G+ etc.

Regards,

Bill

Re: Not being fair to the 49G+

*Message #14 Posted by **Mark Hardman** on 1 Sept 2003, 3:23 p.m.,*
in response to message #13 by bill platt

In most situations on the HP-19BII, the INPUT and = (ENTER) keys are interchangable in RPN mode.

Reference: http://www.finseth.com/~fin/hpdata/hp19bii.html

Mark Hardman

Re: Not being fair to the 49G+

*Message #15 Posted by **dbrunell** on 1 Sept 2003, 6:26 p.m.,*
in response to message #10 by Mark Hardman

Any idea what kind of battery door that 19bII+ will have?

being fair to the49G+, BUT

*Message #16 Posted by **christof (NoVA US)** on 1 Sept 2003, 9:56 p.m.,*
in response to message #9 by Gene

Will HP be able to catch up?

I was recently scouting a store while the college folk do their shopping- Casio has some really CHEAP and *Good* stuff out there- and TI has gone so far as to offer a real keyboard for the 83/89/etc.

Think the 49G+ will make good use of that USB port?

Graphing tablet? Keyboard? Sensors?

I can't wait, but I'm a bit scared that Carly will shoot down anything that doesn't involve layoffs and personal salary increases at this point.

Re: Not being fair to the 49G+

*Message #17 Posted by **Wayne Brown** on 2 Sept 2003, 11:20 a.m.,*
in response to message #9 by Gene

> Quote:
>
> And, the 49G+ will look great on MY desk next to my 12c, particularly since 12c calculators are EVERYWHERE within the financial community (normally a very conservative community at that) and no one minds the black and gold color.

I'm not really concerned one way or the other about the 12C, since I have no use for a financial calculator. At least it has the classic Voyager styling going for it, so it's a good-looking machine, although I still think the other Voyagers look better.

I might be able to stand the 49G+'s color if it weren't for that stupid curved faceplate and the little round cursor buttons -- and, of course, the **[ENTER]** key, which as I said before is a deal-breaker for me. It's as much a matter of philosophical differences as of practicality. I still see no sign of remorse or hint of apology from HP for betraying their RPN tradition and those of us who rely on it. If I see signs of a return to the old attitude of "We're different because we're *better* and we don't *want* to look like our competition; if you like TI and Casio better, then we don't *need* you!" then perhaps I'll be willing to give them another chance.

Exclusiveness

*Message #18 Posted by **R Lion** on 2 Sept 2003, 1:55 p.m.,*
in response to message #17 by Wayne Brown

> Quote:
>
> "We're different because we're better and we don't want to look like our competition; if you like TI and Casio better, then we don't need you!"

Exclusiveness.
That was the way.
Some days ago somebody posted something about Harley-Davidson (perhaps it was in comp.sys.hp48)
Other example? Why to make very expensive mechanical watches, when cheap Quartz Casio's are much more precise?
Yes, Wayne, *that* was the way...

Raul

Re: Exclusiveness

*Message #19 Posted by **Wayne Brown** on 3 Sept 2003, 7:48 a.m.,*
in response to message #18 by R Lion

That's right. What if Ferrari started making cars that look just like Toyotas or Chevrolets? I don't think many Ferrari fans would want one.

Hey- casio is great!

*Message #20 Posted by **christof (NoVA US)** on 3 Sept 2003, 4:56 p.m.,*
in response to message #18 by R Lion

Casio makes a lot of watches, but they also have often been at the front of the market for introducing specialty electronics in wrist form.

The best wrist PDAs, the only IR remote temperature recording, Intelligent Remotes, data Sync, sat. time sync, GPS-

You may think of it as all toys, but I think Casio makes some of the best electronic watches there are.

grin

Re: Hey- casio is great!

*Message #21 Posted by **R Lion** on 3 Sept 2003, 5:39 p.m.,*
in response to message #20 by christof (NoVA US)

I don't think Casio's are "toys". What I mean is that some brands like Rolex, Breitling, Omega, IWC, Zenith, etc, etc, etc, etc... are making increidible expensive MECHANICAL watches (less precise than the cheap quartz watches) only because some people prefer an "exclusive" watch in his wrist...Luxury. Those brands are not trying to get more customers neither in schools nor in supermarkets ;-)

OT: Special case

*Message #22 Posted by **Raymond Del Tondo** on 3 Sept 2003, 9:58 p.m.,*
in response to message #21 by R Lion

Hi,

Rolex is a special case in your list. Other than the other brands, Rolex is a foundation, and thus more independent than the other companies. Moreover, Rolex is nearly the only brand in your list which develops *and* manufactures their own clockworks/calibers, whereas most of the others use ETA (NOT in the Spanish sense!) clock engines or alike. Don't get me wrong, ETA engines are very well, but the 31xx caliber(s) from Rolex are real hardcore, extremely durable, and nearly undestructable. One point which nearly no other clock engine can compare to is the 'Unruh-'bridge. Most automatic watches only have an 'Unruh-' arm.

Sorry I don't have the word for 'Unruh' handy here. It's the heart of the watch, and swings back and forth with a spiral feather contracting and de-contracting...

Regards,

Raymond

Re: OT: Special case

*Message #23 Posted by **R Lion** on 4 Sept 2003, 1:57 a.m.,*
in response to message #22 by Raymond Del Tondo

> Quote:
>
> Rolex is nearly the only brand in your list which develops *and* manufactures their own clockworks/calibers...

I knew, Raymond. But the idea is that those watches brands are selling "luxury&exclusiveness" and they have their own "brand image". They are not triyng to get thousand of customers...
BTW, I have not one of these master pieces. Mine is (a very good "Swiss Made") quartz Kronos. (With an ETA Cal 251.265)

Ragards
Raul

Edited: 4 Sept 2003, 2:19 a.m.

OT: and what about the good german Sinn? ;-) (no text)

*Message #24 Posted by **R Lion** on 4 Sept 2003, 3:30 a.m.,*
in response to message #22 by Raymond Del Tondo

Re: OT: and what about the good german Sinn? ;-) (no text)

*Message #25 Posted by **Raymond Del Tondo** on 5 Sept 2003, 6:29 a.m.,*
in response to message #24 by R Lion

Right, they had/have some special products.

But don't forget A. Lange, and Glashütte/S.A., which are manufacturers of their own clock engines. Way too expensive for me, but very nice and even innovative.

Regards,

Raymond

Quality (was Re: Exclusiveness)

*Message #26 Posted by **Frank Wales** on 3 Sept 2003, 5:45 p.m.,*

in response to message #18 by R Lion

> Quote:
>
> Why to make very expensive mechanical watches, when cheap Quartz Casio's are much more precise?

I don't know where you get your expensive mechanical watches, but mine keeps better time than any of my quartz watches.

Plus, mechanical watches' sweep second hands look much cooler than jumpy quartz ones.

Re:Quality

*Message #27 Posted by **R Lion** on 3 Sept 2003, 6:26 p.m.,*
in response to message #26 by Frank Wales

> Quote:
>
> I don't know where you get your expensive mechanical watches, but mine keeps better time than any of my quartz watches

I'm surprised. What bad quartz watches you have!
Quoted from Breitling catalogue:
Mechanical: 1 minute in a week
Quartz: 1 second in a week
Regards
Raul

Re:Quality

*Message #28 Posted by **Frank Wales** on 4 Sept 2003, 9:36 p.m.,*
in response to message #27 by R Lion

Maybe Breitling should give Omega a call, then. :-)

Re:Quality... about watches

*Message #29 Posted by **Julián Miranda (Spain)** on 5 Sept 2003, 10:07 a.m.,*
in response to message #27 by R Lion

If Breitling says that I don't know what to think about my 25 years old mechanical Orient 1 minute in a month.

Re: Quality (was Re: Exclusiveness)

*Message #30 Posted by **Thibaut.be** on 5 Sept 2003, 12:54 p.m.,*
in response to message #26 by Frank Wales

I have worked for nearly 4 years in a famous watches group, and I've never heard that mechanical watches were more reliable than quartz watches. An expensive coaxial Omega is about 100 times less accurate than the cheapest Swatch.

In addition mechanical watches are far more sensitive to their environment such as position, temperature, ... Only a few of them have a sufficiently accurate mechanism that enable them to be "CHRONOMETER" certified.

Not to be confused with the Chronograph, that you use for cooking your morning eggs...

That is!!

*Message #31 Posted by **R Lion** on 5 Sept 2003, 3:32 p.m.,*
in response to message #30 by Thibaut.be

Perhaps the Breitling numbers are exaggerated, perhaps not but as Thibaut.be has said, it all depends on MANY things. Some people choose very carefully the position of the watch in the table for the night: so, the inaccuracy of the day can be compensated in the night. But mechanical watches ARE LESS accurate than quartz watches. Among many other things, a watch with an inaccurate of +6 seconds per day (3 minutes per month) can be oficialy certificated as Swiss Chronometer.(My quartz Kronos: 25 seconds in a year)...

And talking about this, we are loosing the point... This was ONLY an example, so please, let's talk about calcs again. Neither about Harley-Davidson nor Breitling...

Edited: 5 Sept 2003, 3:55 p.m.

Re: Quality (was Re: Exclusiveness)

*Message #32 Posted by **Frank Wales** on 7 Sept 2003, 6:56 a.m.,*
in response to message #30 by Thibaut.be

Note that I made no claims about mechanical watches versus quartz watches in general; I stated that my mechanical watch keeps better time than my quartz watches, and it does. I set the watch about once a month, at which point I find that it's drifted by about 15-30 seconds from the actual time (usually slow). Both the quartz watches I wear with any regularity drift by more than that in the same time.

Of course, as I only have one data point, to me it's the average even if, to those reading the spec, it's highly untypical.

Re: Not being fair to the 49G+

*Message #33 Posted by **Veli-Pekka Nousiainen** on 2 Sept 2003, 7:44 p.m.,*
in response to message #17 by Wayne Brown

I take the ENTER key in wrong position any day! Why?

Because that's how it is possible to make the cursor keys to work in ALPHA mode, too!

Very good when you are programming.

Re: Not being fair to the 49G+

*Message #34 Posted by **Wayne Brown** on 3 Sept 2003, 7:44 a.m.,*

in response to message #33 by Veli-Pekka Nousiainen

If all that space hadn't been wasted around the cursor keys on the 49G+, there would be plenty of room for a larger **[ENTER]** key and still let the cursor keys work in ALPHA mode. Besides, I don't mind the way the cursor keys work on my 48GX because I rarely program on it, since I don't like RPL very much. When I want to program I reach for my 41CX.

Re: Not being fair to the 49G+

*Message #35 Posted by **Veli-Pekka Nousiainen** on 3 Sept 2003, 12:32 p.m.,*
in response to message #34 by Wayne Brown

You're right, B. Wayne: Two more keys could be easily squeezed in leaving just enough room for a bigger ENTER and the [/] key would slide back where it belongs when the small ENTER is removed from the lower right corner, but noooo...not HP way anymore.

So you're the only "old-school" (41-era) person not buying an ARM based super-49?

I DON'T want to be unfair to the 49G+...

*Message #36 Posted by **R Lion (España)** on 1 Sept 2003, 9:34 a.m.,*
in response to message #7 by Gene

...and I think that this will be a great calculator. But I've preferred to buy a spare 48GX.

Best regards
Raul

Re: I DON'T want to be unfair to the 49G+...

*Message #37 Posted by **Gene** on 1 Sept 2003, 10:34 a.m.,*
in response to message #36 by R Lion (España)

No problem. :-)

Just be sure to give the new 49G+ a try, because I know I will. I like what I see and I am encouraged for the first time in years with HP's responsiveness after the 49G problems.

SLIDE RULES!

*Message #38 Posted by **christof (NoVA US)** on 3 Sept 2003, 5:04 p.m.,*
in response to message #7 by Gene

What is with all this newfangled handheld calculator stuff anyway? The only proper keypad for calculating is the kind on a desktop calculator - with real keys in the right place!

And LCDs! and *alphanumerics*?? Calculators are supposed to have LED 7 segment displays and that's it.

What is this calculator stuff, in fact? The machining on a fine slide rule can't be duplicated- and they never run out of power, and they don't even have keys! HP won't be on top of things until they drop all this electronics stuff and get back to real mathematical tools.

(humor. yes, humor. I prefer a big enter key, too- but I won't say that that one thing alone will make me buy a TI)

Missing the point?

*Message #39 Posted by **Tom (UK)** on 1 Sept 2003, 8:28 a.m.,*
in response to message #1 by Garry

If you have used a HP48 or HP28 before then wait as the new hardware looks good (speed, display, memory) and OK (keyboard, battery use?).

HOWEVER if you have not used a HP28 or HP48 then it all depends on the manual available for the new machines. The manual for the HP49G is very very poor and a newbie to the HP49G (even if they know how to use a keystroke RPN like the 32 or 42) won't be able to use more than 10% of it. I know because I tried and had to buy a HP48 in the end - the HP48's manual is very good and there is an advanced user manual too.

HP's recent support in the way of manuals has been poor so don't be suprised if the new ones are bad.

P.S. Has anyone seen the manuals that go with the HP48GII or HP49G+?

49G+ manuals

*Message #40 Posted by **Gene** on 1 Sept 2003, 10:37 a.m.,*
in response to message #39 by Tom (UK)

I think hpcalc.org has some sample pages. Rumors indicate a 180 or so page paper manual and a second advanced manual with around 750 pages. There is confusion as to whether this will be available from HP in printed form or just as an electronic copy.

We'll have to wait and see.

However, I'm encouraged by the attempt to put together a manual that size. That's an improvement!

Some have so soured on HP that nothing will please them except the re-release of the HP-41c. From what I see, I believe that we are on the road back in the right direction.

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HP110/ 150 Systems

*Message #1 Posted by **Kinkaide Devereaux** on 30 Aug 2003, 10:12 a.m.*

Any users of these systems?

Re: HP110/ 150 Systems

*Message #2 Posted by **andy** on 30 Aug 2003, 11:00 p.m.,*
in response to message #1 by Kinkaide Devereaux

Hi,

I used to use my 110 to xfer programs to my 71b. I first transferred the programs to the 110 from my PC using hyperterm and then to the 71b using hpillink. It worked great but then I got an hpil isa card which makes the process easier.

Andy

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Port X-Tender

*Message #1 Posted by **Kin Kaide Deveraux, New Orleans** on 30 Aug 2003, 9:02 a.m.*

Any other owners/users of the HP 41 Port Xtender?

KD in NO

Re: Port X-Tender

*Message #2 Posted by **Wayne Brown** on 30 Aug 2003, 5:21 p.m.,*
in response to message #1 by Kin Kaide Deveraux, New Orleans

Yes, I have a Port X-Tender.

Re: Port X-Tender

*Message #3 Posted by **Steve B** on 30 Aug 2003, 8:07 p.m.,*
in response to message #1 by Kin Kaide Deveraux, New Orleans

I have one but don't use it.

Re: Port X-Tender

*Message #4 Posted by **Chris(FLA)** on 2 Sept 2003, 9:55 a.m.,*
in response to message #1 by Kin Kaide Deveraux, New Orleans

I have 2 of these. I used to have 3 but sold one.

They are great if you have a 41C. I can load up my 41C with Quad, Time, Cardreader then plug the X-tender into port 3 then I can add IL, Ext-Func. and 2 X-Mem, Ext I/O, wand and either PPC or games ROM(They conflict). I can switch between the modules quickly with the dip switches.

They also have a battery so when you unplug it from the calc it will hold your memory information.

I opened mine to change the battaries and noticed that they aren't that complicated. I'm sure somebody could make one easily. The only problem would be the case that holds it.

Anyway great item to have if you have a 41C and more modules than available slots.

Chris

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Luxury

*Message #1 Posted by **Kin Kaide Devereaux, New Orleans** on 30 Aug 2003, 9:01 a.m.*

Anyone have any luxury accoutrements for HP Calcs?

KD in NO

Re: Luxury

*Message #2 Posted by **Randy Smith** on 30 Aug 2003, 4:23 p.m.,*
in response to message #1 by Kin Kaide Devereaux, New Orleans

I have a keyboard overlay on my 41C. Is that the type of item you mean?

Re: Luxury

*Message #3 Posted by **db(martinez,california)** on 30 Aug 2003, 8:10 p.m.,*
in response to message #2 by Randy Smith

imho; Using any rpn is a luxury. I do have a leather educalc case for my cx. When it was still cutting edge i cut out foam to pad a small suitcase/large briefcase to hold the 41, cassette drive, thinkjet, and a small amount of paperwork. Does that count as luxury?

On Thursday the geologist on my job comented about the taped up baggie that i keep my 41 in and asked about humidity. I told him that it has never been a problem for me but that dust is. I added that i used to keep it in a condom but the calc kept slipping out of my hands and little thinger on the end would flap in the wind and annoy me. The last was a lie, of course, but i figured if he was the sort who wants straight answers then he wouldn't be using a TI.

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TVM calculations (again)

*Message #1 Posted by **Thomas Radtke** on 30 Aug 2003, 6:17 a.m.*

Hi,

a few weeks ago I complained about some miscalculations concerning TVM and a HP-18c et al. The method usually used to calculate the FV for payments that occur at a different period than the interest compoundings is to convert the interest prior to the TVM calculation. Thats not ok if payments are made more often than interest compoundings. I found by iterating over payments and a subsequent iteration over compoundings that

FV=PV*q^j+a*(q^j-1)/(q-1)

where

a=PMT*(n+p%*(n+1)/2)

if payments are made at the beginning of the payment period and

a=PMT*(n+p%*(n-1)/2)

if payments are made at the end of the payment period.

(q=(1+p%),j=interest compounding periods,n=payment periods per comp.period)

Note that the payment convention is strictly german i.e., the PV and PMT are signed (the germans are thinking in 'savings accounts' instead of loans;).

Well, I thought I had something to publish here as noone I asked could tell me anything else than to use the faulty method described first. Too bad, I recently found an older source which mentions equations similar to mine:(. Anyway, I did the same for the case where payments occur less often than interest compoundings and found for begin and end of period payments

FV=PV*q^(n*j)+PMT*q^j*(q^(j*n)-1)/(q^j-1)

and

FV=PV*q^(n*j)+PMT*q^j*(q^(j*(n-1))-1)/(q^j-1)

(n=payment periods,j=comp.periods per payment period)

respectivly. This is--probably by accident>:)--exactly what ICONV+TVM gives (You have to check this by hand as Maple refuses to validate it correctly:). It's just in a more compact shape and easier to use.

bye,

Thomas (Who is still seeking for (i) a job anywhere in the western world and (ii) a cheap 28C to accompany his 18C:)

Re: TVM calculations (again)

*Message #2 Posted by **Gordon Dyer** on 30 Aug 2003, 3:28 p.m.,*
in response to message #1 by Thomas Radtke

Thanks for your posting.
Do you have any comparison of the results and accuracy of your method against HP calculators?
I have a 12C, 10B, 10BII, 14B, 17BII, 38C, and a finance pac for the 71B. Also the HP finance program for the 11C.
If you would like any results from these let me know.

Re: TVM calculations (again)

*Message #3 Posted by **Thomas Radtke** on 30 Aug 2003, 5:57 p.m.,*
in response to message #2 by Gordon Dyer

Gordon,

I have to admit that the 18C is my only financial calculator. I've heard that the 11C and 17BII uses the same TVM equation as the 18C. Anyone else could most probably answer that better than me.

About the FV problem where payments are made more often than interest is compounded, the commonly propagated solution to convert the interest to an effective or nominal interest from an 'equivalent interest' and then to use the TVM equation is actually not just inaccurate but completly false. Therefore it makes no sense to compare results.

Some of your calculators offer a convenient solver (like the 18C) and I would recommend to just enter the equations I gave in case you need them.

Thomas

Re: TVM calculations (again)

*Message #4 Posted by **tony** on 31 Aug 2003, 6:57 p.m.,*
in response to message #1 by Thomas Radtke

Hi Thomas - good luck finding the job and the 28C :)

I finally found a savings example from HP where payment frequency > compounding frequency. It is Example 2 on page 48 of the HP-12C solutions handbook. They get $11.49 for the weekly payment in advance to fund $6000 over 8 years at 5.5% compounded quarterly. This assumes the compound interest operates as a continuous geometric process. If simple interest (an arithmetic process) applies over each quarter then I obtain the same PMT - rounded to the penny - 11.4942 as against 11.4944 for the compound assumption. Pretty close in this case.

On page 46 they state "Payments deposited for a partial compounding period will [usually?]accrue simple interest for the remainder of the compounding period. This is often the case, but may not be true for all institutions."

Cheers, Tony

Re: TVM calculations (again)

*Message #5 Posted by **Thomas Radtke** on 1 Sept 2003, 7:52 a.m.,*
in response to message #4 by tony

Hi Tony,

the example was probably choosen to give a result thats close to be correct:).

I personally think HP should do a better job to make their financial calculators of more general use. But ok, I'm not an expert and hundreds of thousands of users are apparently satisfied with what is offered.

Thomas

Re: TVM calculations (again)

*Message #6 Posted by **tony** on 1 Sept 2003, 9:46 p.m.,*
in response to message #5 by Thomas Radtke

Thomas, yes undoubtedly why they chose that example :)

I agree with you 100% - in none of the HP manuals I have and even Grapevine books is there an example of the simple interest FV of a series of payments, and how to use that.

I have seen it in one old book though - "Modern Financial Computation" published in 1983, by Tony Hutchins<G>. There is a chapter called "Simple Interest During Compounding Periods", from pages 115-135, together with 5 loan examples and 6 savings examples. This 270pp book (wirebound) is still available from the author but he has to charge about 50USD for it to cover cost and airmail postage from New Zealand. So, he doesn't sell many copies - keeps life simple<G>.

Re: TVM calculations (again)

*Message #7 Posted by **Thomas Radtke** on 2 Sept 2003, 6:43 a.m.,*
in response to message #6 by tony

Hi Tony,

Seems to be an excellent book;), I would buy it if I could effort it:).

Thomas

Re: TVM calculations (again)

*Message #8 Posted by **tony** on 2 Sept 2003, 7:04 a.m.,*
in response to message #7 by Thomas Radtke

Thomas, I did have a copy with me in Munich in May last year - would have been happy to trade it for a beer :)

Today I was surprised (and delighted) to receive three inquiries about it so I scanned the introduction and contents and put them at:

http://homepages.paradise.net.nz/th/mfc.htm

Cheers, Tony

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Strange serial number to HP48G+

*Message #1 Posted by **Iqbal** on 29 Aug 2003, 10:56 p.m.*

A friend just bought an HP48G+ and the serial number is ID52000241. If I were to use the serial number system it would mean that this was made in 2005 which isn't possible. Has HP changed their system of serial numbers?

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82033 Battery Pack replacements discontinued

*Message #1 Posted by **Philip** on 29 Aug 2003, 5:49 p.m.*

Hi, I received the following email from DigiKey regarding the discontinuation of the battery back that has been used to rebuild the 82033 packs that are used in the 82162 and the 82161 (among other things). I'm interested if anyone knows other sources.

You have purchased the following part number(s) from Digi-Key within the last two years. The manufacturer has announced this part(s) will become obsolete.

PANASONIC - BSG (VA) Description: BATTERY PACK NICAD 4.8V 1400MAH Manufacturer Part No: P-140SCRL2X2 Digi-Key Part No: P233-L022-ND Your Most Recent P.O. No:

Re: 82033 Battery Pack replacements discontinued

*Message #2 Posted by **dbrunell** on 30 Aug 2003, 12:19 a.m.,*
in response to message #1 by Philip

Choose one of these instead: P162-L022, 1300 mAh, $9.66; P175-L022, 1500 mAh, $10.06; P180-L022, 1700 mAh, $11.86.

Re: 82033 Battery Pack replacements discontinued

*Message #3 Posted by **David Smith** on 30 Aug 2003, 12:59 p.m.,*
in response to message #1 by Philip

Take your old pack down to your local Batteries Plus, Batteries, Etc or similar store. They will do all the work and rebuild it properly (welded contacts, etc) for a round $20-$25 depending upon the batteries. I use the highest capacity cells that they have.

Re: 82033 Battery Pack replacements discontinued

*Message #4 Posted by **Ellis Easley** on 31 Aug 2003, 4:45 a.m.,*
in response to message #3 by David Smith

I wonder if the message from DigiKey means that Panasonic is going to stop making NiCad's? The Eveready Energizer website indicates that they have stopped supporting NiCads - the only rechargeables they have data for are NiMH [, and AA, C and D are all rated 1850 mA-H - must be the same cell in all of them.] - this was the case a few weeks ago, now they are rated 2100, 2200 and 2200 mA-H.

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Strange blue outline in eBay picture

*Message #1 Posted by **Patrick** on 29 Aug 2003, 5:21 p.m.*

Can anyone explain the strange blue outline around the HP-15C in this auction?

Is it possible the picture is a composite?

Re: Strange blue outline in eBay picture

*Message #2 Posted by **Philip** on 29 Aug 2003, 5:45 p.m.,*
in response to message #1 by Patrick

It looks like a superimposed image to me.

Re: Strange blue outline in eBay picture

*Message #3 Posted by **Jim L** on 29 Aug 2003, 5:57 p.m.,*
in response to message #1 by Patrick

Sure. He took the HP museum picture and disguised it by moving a couple segments and scaling it down.

But the source is still obvious. Just look at the identical lighting on the background. Makes you wonder just how bad the one he's selling is if he thought the defects would be too obvious at that size.

Re: Strange blue outline in eBay picture

*Message #4 Posted by **M. Currie** on 29 Aug 2003, 6:59 p.m.,*
in response to message #3 by Jim L

You mean 15.15 isn't what comes up every time you turn it on?

Re: Strange blue outline in eBay picture

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 29 Aug 2003, 7:14 p.m.,*
in response to message #4 by M. Currie

No, the only "15" that it shows is a centered one when you finish the keyboard test. This "15.15" is some fancy thing the user typed... It doesn't show anything different on power-on than the number already on the X register.

I really think that is a (bad quality!) make up, I cannot imagine the real condition of the item... If it has an item, anyway!

Regards,

Nelson

Re: Strange blue outline in eBay picture

*Message #6 Posted by **M. Currie** on 30 Aug 2003, 12:28 a.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

I meant the above as a joke, because it is so obviously the same picture as the one on the MoHPC site.

Re: Strange blue outline in eBay picture

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 30 Aug 2003, 9:21 a.m.,*
in response to message #6 by M. Currie

Sorry, I'm used to see questions like this for real... ;-)

Regards,

Nelson

Re: Strange blue outline in eBay picture

*Message #8 Posted by **David Smith** on 30 Aug 2003, 1:01 p.m.,*
in response to message #1 by Patrick

It could just be sitting on a blue poly bag.

Looks at border spacings....

*Message #9 Posted by **Mike** on 30 Aug 2003, 4:41 p.m.,*
in response to message #8 by David Smith

The exactly match the HP Museum borders. Widest on Left, 2nd on top, 3rd on bottom and narrowest on right. Also, the right border is about 1/3 of the left border on both.

What are the odds of these border spacings coincidently matching the HP Museum site. I bet if you look around, you'll find another recent auction that has the same manual and cover.

Finally, look at the darker shadow at the top. Same in both photos. Same highlight on front two corners.

I think it's an HP Photo cut and pasted into another image.

Look at these two. Use the same photos. Be careful from whom you buy.

15C with case and manual

another 15C with same photo

Edited: 30 Aug 2003, 4:53 p.m.

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batteries, need more batteries!

*Message #1 Posted by **christof (NoVA US)** on 29 Aug 2003, 4:27 p.m.*

Anyone know the best sources for:

silver oxide sr44 type batteries?

Hi cap rechargeable N, AA, AAA, and subC

alkaline N

cells?

Preferably online or phone order.

-Christof

Re: batteries, need more batteries!

*Message #2 Posted by **dbrunell** on 29 Aug 2003, 4:36 p.m.,*
in response to message #1 by christof (NoVA US)

Try www.digikey.com. Great service. Just bought a 1700 mAh sub-C pack for my 97 for less than $12! Let me know if you need help figuring out the correct part number for battery packs.

Re: batteries, need more batteries!

*Message #3 Posted by **Tom Cox** on 29 Aug 2003, 7:51 p.m.,*
in response to message #1 by christof (NoVA US)

Try the site: WWW.SR44.COM

They have Silver Oxide Batteries at a very reasonable price. Have purchased batteries from them and was satisfied with price and quick delivery.

Re: batteries, need more batteries!

*Message #4 Posted by **db(martinez,california)** on 30 Aug 2003, 2:48 a.m.,*
in response to message #1 by christof (NoVA US)

A buck a piece including tax for Duracell n cells in Sacramento. Oops; you don't live there anymore. Traitor. :-)

You can ask this guy about sr-44's. i think that is what he is selling at $8.65/20 batts including shipping on ebay. Auctions@vFish.net

Re: batteries, need more batteries!

*Message #5 Posted by **David Smith** on 30 Aug 2003, 1:12 p.m.,*
in response to message #1 by christof (NoVA US)

I use Vinnic LR44 batteries, 10 for around $2.50. I think they also make a cheap SR44. For alkaline "N" cells, try Home Depot! For rechargeables try your local battery store (Batteries Plus, Batteries Etc). Frys sometimes has NiMH AA cells for super cheap. Also Harbor Freight Tools puts NiCads on sale for ridiculous prices.

I always have my battery store rebuild packs. They do all the work, properly weld the cells together, and recycle the old cells.

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Posting from wireless PDA

*Message #1 Posted by **Mike** on 29 Aug 2003, 1:11 p.m.*

One of the benefits of a forum like this is that it is very readable with a wireless PDA.

Had surgery yesterday and I'm limited to a PDA. At least I can still stay connected.

Anyone else using a wireless PDA?

Re: Posting from wireless PDA

*Message #2 Posted by **christof (NoVA US)** on 29 Aug 2003, 3:16 p.m.,*
in response to message #1 by Mike

Hi-

I regularly connect from two PDAs

I am phasing out my jornada 720- the problems with windows CE, lack of upgradability on core ROM, and the screen size are getting to me.

I'm phasing into my zaurus 750 (import from Japan). Very very very very nice machine. The english support is still a bit spotty, but it's a full unix and once you get a toolchain on it, you can port almost anything.

Anyone know where I can get a unixified 15C emulator? (I'm working on the 48 emulator port, and some of the java ports)

And it's the same size and my field notebook and 42S :)

-Christof

Re: Posting from wireless PDA

*Message #3 Posted by **Frank Wales** on 29 Aug 2003, 8:43 p.m.,*
in response to message #1 by Mike

I often browse the discussions here from my phone (SonyEricsson P800 with Opera browser), especially when I'm in a certain small room with a few minutes to kill...

[Also comes in handy when reading ./, watching stuff on eBay, checking prices on amazon, and looking up wine vintages in the supermarket on bbr.com . I hear it's also useful for looking up pub quiz answers on Google, but I wouldn't know about that.]

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HP 32S display screen dust

*Message #1 Posted by **jsrlnd** on 28 Aug 2003, 10:16 p.m.*

Does someone know how to remove the dust particles from the INSIDE of the display screen window on a HP 32S RPN? I own two of these with this problem.

Re: HP 32S display screen dust

*Message #2 Posted by **David Smith** on 29 Aug 2003, 4:36 p.m.,*
in response to message #1 by jsrlnd

Try blowing it with canned "air" from inside the battery compartment (about the only place to get the tube into the machine). Don't use shop compressor air. It always contains oil. Keep the can vertical and level so you dont blow the compressed liquid into the machine. It can leave marks on the display window.

Re: HP 32S display screen dust

*Message #3 Posted by **Randy Sloyer** on 30 Aug 2003, 9:01 a.m.,*
in response to message #2 by David Smith

Opening the calculator helps, but not enough to make it the first act. I would save that as the last resort.

You can try cutting the end of the air tube to make it fit into the seam on the sides of the calculator. Just make two diagonal cuts so it forms a v. Jam it in the side and give it a blast, just making sure the can is level as David Smith mentioned. It will take several shots from either side to get it all. Stubborn bits might need help from a small strip of stiff paper slid in through the side seam. Don’t use anything sharp as the window material and LCD polarizer are soft material and scratch easily. Plastic coated paper (backing paper from double sided foam tape) works quite well for this as it slides in easily.

Re: HP 32S display screen dust

*Message #4 Posted by **jsrlnd** on 2 Sept 2003, 7:24 a.m.,*
in response to message #3 by Randy Sloyer

This worked very well. Simple and effective. Thanks.

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HP48 SX and 48 GX

*Message #1 Posted by **Charles Miller** on 28 Aug 2003, 7:26 p.m.*

Could someone please tell me if the 48 SX was replaced by the 48 GX and well the serial cable to calculator cable the same for both? Next question I have well the equation library card for the 48 SX work in the 48 GX? Im looking to purchase a 48 GX for my daughter for school/ college and need to know as soon as possble. I currently own a 48 SX. Please help, Thank you.

Re: HP48 SX and 48 GX

*Message #2 Posted by **Harry (Germany)** on 28 Aug 2003, 7:39 p.m.,*
in response to message #1 by Charles Miller

I know the cables are the same. I don't know about the cards, but think they will work in either calculator, too.

Regards, Harry

Re: HP48 SX and 48 GX

*Message #3 Posted by **Jonathan Purvis (New Zealand)** on 28 Aug 2003, 7:42 p.m.,*
in response to message #1 by Charles Miller

The serial cables for the 48SX is the same as the one for the 48GX. I believe the equation library card for the 48SX will work in slot one of the 48GX, but not slot 2 (i don't have the equation library card, so i can't check it in my 48GX). However all the functionality of the equation library card is the ROM of the 48GX, except for Tetris and the Periodic Table, both of which can be downloaded from http://www.hpcalc.org

Some facts to consider

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 28 Aug 2003, 8:17 p.m.,*
in response to message #1 by Charles Miller

Hi, folks;

I want to point out some facts and risk my own conclusions sbout this.

There is a warning in the HP48G manual about sysRPL programs written for the HP48S-series. Some internal calls were changed from S- to G-series, and some programs may generate wrong answers or disrupt the system operation, mostly the ones using these internal features. And I believe the Equation Library card will use them.

I'd also consider the fact that if the Equation Library is already part of the HP48G internals and both Tetris and Periodic Table are available as download files for the HP48G, than I'd keep the card with the HP48SX and load the 48G with the available files so both calculators will show about the same resources. If you use the card with the 48G, the Equation Library will probably conflict with the existing Equation Lirary in the HP48G and you'll not be able to use it. And you cannot load Tetris and the Periodic Table in the HP48S because there are some resources available in the HP48G that are not available in the HP48SX, and they are probably used

by these programs.

My 2¢.

Re: Some facts to consider

*Message #5 Posted by **Chan Tran** on 28 Aug 2003, 8:57 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

If you want a 48GX you should try to buy it now because they don't make them any more.

Re: HP48 SX and 48 GX

*Message #6 Posted by **christof (NoVA US)** on 28 Aug 2003, 10:52 p.m.,*
in response to message #1 by Charles Miller

First: the cables work fine. (though with the current prices, i'd recommend getting two machines and backing them up to each other anyway)

Second: the EQ lib card will work in the 48GX, but it's pointless. Buying a 128K and 1MB card set from germany will let you have everything you will ever need in a 48GX. Start with Metakernel, then download whaver games and chemistry software you don't have (the equations from the EQ lib card are in ROM on the 48GX) and so on.

Third: There *are* some 48SX programs that won't run on a 48GX, but as HP put out public informational guides on how to avoid doing that, one would hope they avoided it themselves :)

Re: HP48 SX and 48 GX

*Message #7 Posted by **R Lion (España)** on 29 Aug 2003, 2:04 a.m.,*
in response to message #1 by Charles Miller

If you look at www.hpcalc.org, as Jonathan said, you will never be worried about software resources... Thanks to Eric Rechlin and all the guys who shared.

Raul L

Edited: 29 Aug 2003, 2:08 a.m.

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Recommended Reading (absolutely off topic)

*Message #1 Posted by **Hans Brueggemann [GER]** on 28 Aug 2003, 6:13 p.m.*

let me presume that all of us in this forum are interested in calculators, and in space flight as well... i just found this document revealing really breath taking insights to one of the very tragic events of this year.

http://lfd.streamos.com/caib/report/web/full/caib_report_volume1.pdf

hans

Re: Recommended Reading (absolutely off topic)

*Message #2 Posted by **Gordon Dyer** on 29 Aug 2003, 10:10 p.m.,*
in response to message #1 by Hans Brueggemann [GER]

Thanks for the posting, that is a fascinating report.

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32s

*Message #1 Posted by **D** on 28 Aug 2003, 4:09 p.m.*

does any one know when the replacement for the 32s will be out. I heard that maybe next month???

Re: 32s

*Message #2 Posted by **Raymond Del Tondo** on 28 Aug 2003, 4:43 p.m.,*
in response to message #1 by D

Hi,

the replacement for the 32S was the 32SII ;-)

I don't consider the 33S as an adequate replacement, given the lousy looking case...

Raymond

Re: 33s

*Message #3 Posted by **Paul Brogger** on 29 Aug 2003, 9:53 a.m.,*
in response to message #1 by D

In case you haven't seen it yet, this HP-33s Data Sheet (pointed out by someone in a previous post) gives some indication of what's to come.

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batteries

*Message #1 Posted by **Robert** on 28 Aug 2003, 10:26 a.m.*

Hi Guys. What is the best way to clean up the salts from the NiCads? Should special precautions be taken?

I have several NiCads that continue to function with some corrosion/ salts. Should I continue to use these batts?

Re: batteries

*Message #2 Posted by **Vassilis Prevelakis** on 28 Aug 2003, 10:47 a.m.,*
in response to message #1 by Robert

```
Robert wrote:
> I have several NiCads that continue to function with some
> corrosion/ salts. Should I continue to use these batts?
```

My advice is to throw them away.

**vp

Re: batteries

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 28 Aug 2003, 11:39 a.m.,*
in response to message #2 by Vassilis Prevelakis

I'll agree, throw them away. And to clean the terminals I use 1/2 lemmon juice with one tea spoon of salt (NaCl), this cleans the copper oxide.

Regards,

Nelson

Re: batteries

*Message #4 Posted by **Victor** on 28 Aug 2003, 1:14 p.m.,*
in response to message #2 by Vassilis Prevelakis

Don't throw them away; recycle them. Since NiCad's contain Cadmium, they are considered toxic waste and can damage the environment. Besides, it is illegal to throw them away.

To find a place where you can recycle them, see http://www.rbrc.org.

Re: batteries

*Message #5 Posted by **unspellable** on 28 Aug 2003, 11:15 a.m.,*
in response to message #1 by Robert

The compounds from a Ni-Cad are generally water soluble. In areas where it's safe to use water, just use warm

water. On plastics I wouldn't use water any warmer than I could put my finger in.

If you are getting into the elecgtronics it's dicier. It's possible to wash with water but requires careful rinsing and drying techniques and runs the risk of the water carrying salts to areas further away where you don't want them if you haven't controlled the washing and rinsing well enough.

PS. If you must use a leaking Ni-Cad, get a 99 cent flaslight to use it in.

Edited: 28 Aug 2003, 11:16 a.m.

Re: batteries

*Message #6 Posted by **Tony Duell (UK)** on 28 Aug 2003, 4:20 p.m.,*
in response to message #1 by Robert

The electrolyte in NiCd cells is alkaline (it used to be potassium hydroxide IIRC, no idea what it is now). So you want a (chemically) weak acid to clean it up. I normally use a dilute solution of citric acid, which seems to clean battery contacts, cases, etc with no further damage.

Re: batteries

*Message #7 Posted by **David Smith** on 28 Aug 2003, 4:39 p.m.,*
in response to message #6 by Tony Duell (UK)

One usually winds up with mostly potassium carbonate as the offending white powder. Cleans up well with vinegar, water, or isopropyl alcohol.

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HP41 key press delay (for NULL)

*Message #1 Posted by **Vassilis Prevelakis** on 28 Aug 2003, 7:24 a.m.*

On the HP41 if you hold down a key you will see the function that is assigned to it. If you keep holding it, the key press is cancelled and you see NULL on the display. This is very useful if you want to see which function is assigned to a key (in USER mode) or which program instruction will be executed by SST, etc.

Unfortunately the timeout value is a constant hardwired into the HP41 firmware. It is just a number, independent of the CPU speed.

So under certain HP41 emulators this timeout is extremely painful, as you have to press and release the keys very fast to avoid cancelling their action.

While looking around the HP41 sources I have found the relevant bit of code.

The VASM listing is on the MoHPC CDROM, file 41VASM.pdf, page 113 (in the PDF), 112 in the document.

The line is

```
1306   460   LDI
1307  1100   CON 576  INITIALIZE NULL TIMER
```

The timeout is 576 (decimal), or 1100 (octal), or 240 (hex).

So how does this help?

I have looked at the binary ROM dumps and I have found out that the timeout value is in ROM 0, offset 1D8E.

This offset is the same on the F, G, and N ROMs.

**vp

Can it be deactivated/changed in V41 ?

*Message #2 Posted by **Valentin Albillo** on 28 Aug 2003, 7:36 a.m.,*
in response to message #1 by Vassilis Prevelakis

I've suffered this very problem you mention and it is **incredibly** annoying !

Is there any short routine or 'patch' that would deactivate and/or increase this value in the V41 emulator, so that the problem would dissappear altogether ?

BTW, the HP-15C also has this NULL feature for some of its matrix functionality: when you press STO B/RCL B, say, the (i,j) indexes of the stored/recalled element are displayed briefly while you hold the 'B' key pressed. If you then release it within a certain lapse, the STO/RCL is performed. Else, NULL appears on the display and no action takes place, exactly like in the HP-41C. This is extremely useful when accessing a number of matrix elements if you forget what element is the current one. I thought I would mention this, as a further example of the vast amount of attention-to-detail used in the design of the HP-15C. Those were the

days ...

Best regards from V.

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Spice troubles

*Message #1 Posted by **dbrunell** on 27 Aug 2003, 10:48 p.m.*

I have a 33E which I acquired recently. It looks brand new, but that is about the only thing positive you can say about it. I got past the trauma of opening the case. Alas, it is a solderless beast.

Here is the trouble I am having. On DC power (2.4 V to the battery terminals), I get no display whatsoever. On AC, I get a flickering display of either all zeros or just a lone decimal point on the left side. Keys seem to have no influence. I tried pressing the flex sandwich this way and that with no noted effect. There is no corrosion on the ICs or flex circuit. It really does look brand new inside and out.

Any ideas? Does anyone have a schematic? I'm thinking it is perhaps a simple problem with the power supply.

One other thing...is the silver 8-pin IC only supposed to have 7 leads?

Thanks and best regards,

David

Re: Spice troubles

*Message #2 Posted by **Jon** on 28 Aug 2003, 10:14 a.m.,*
in response to message #1 by dbrunell

It is probably a problem of bad connection. Check the flex connector. If that is ok, you probably need spare parts for the circuit or ICs

Cheers

Jon

Re: Spice troubles

*Message #3 Posted by **David Smith** on 28 Aug 2003, 2:14 p.m.,*
in response to message #1 by dbrunell

Most liekly cause is a crack (often invisible) in on of the conductors in the flex cable from the battery board. Check them with an ohmmeter. Repair involves soldering a wire to replace the offending flex circuit. Often time just jiggling around the flex circuit to fix it will break another conductor. You may have to replace all three conductors.

Re: Spice troubles

*Message #4 Posted by **dbrunell** on 29 Aug 2003, 1:20 a.m.,*
in response to message #3 by David Smith

>Most liekly cause is a crack (often invisible) in on of >the conductors in the flex cable from the battery

board.

Bingo! You da man! Now I have a fully-working, mint 33E to add to the collection.

It must have failed on the original owner shortly after purchase, because the calculator looks like it sat unmolested in its box in a closet for 25 years.

Thank you and best regards,

David

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Algorithmically refined...

*Message #1 Posted by **eclectic_echidna** on 27 Aug 2003, 7:39 p.m.*

A recent post had this in it:

> the HP15C is a very algorithmically refined calculator

Later they lead me to believe that they would love it if those "special" algorithms would be perfect for use on a PDA. The HP15C algorithms are refined for its particular processor, memory size, and battery.

In this day and age of 200-400MHZ pocket PCs, wouldn't a more appropriate algorithm be one that utilizes modern day strengths, speed and memory size?

Wouldn’t an arbitrary precision floating point package linked with appropriate transcendental algorithms provide superior computation?

Am I missing something?

Edited: 27 Aug 2003, 7:40 p.m.

Re: Algorithmically refined...

*Message #2 Posted by **Randy Sloyer** on 27 Aug 2003, 8:04 p.m.,*
in response to message #1 by eclectic_echidna

> Quote:
>
> Am I missing something?

IMO, yes you are.

The algorithms already exist in Saturn machine code. Why re-write them for the processor du jour? Don't monkey with hand-tuned assembler. Any idea of how many man-years that code represents?

> Quote:
>
> Wouldn’t an arbitrary precision floating point package linked with appropriate transcendental algorithms provide superior computation?

Nope. Far better in BCD despite the speed loss. Just write an emulator for the processor, a far easier thing to do than starting to muck with proven algorithms.

Re: Algorithmically refined...

*Message #3 Posted by **Jonas Lööf** on 28 Aug 2003, 11:58 a.m.,*
in response to message #2 by Randy Sloyer

I would take IEEE binary floating point over BCD any time. Except when doing financial calculations, wich I never use a calcualtor for, the inability to exactly represent decimal fractions is not inportant. Proper rounding behaviour is specified in the (IEEE) standard; my guess is that common IEEE implementations are every bit as well tested as the HP BCD, despite beeing newer. When doing scientific computations there is absolutely no reason whatsoever to use BCD.

Re: Algorithmically refined...

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 27 Aug 2003, 8:05 p.m.,*
in response to message #1 by eclectic_echidna

This is the same thinking of the M$ people, "why do we need to refine our algorithms if the CPU is fast enough? If it wasn't fast enough, let the user buy a faster CPU!" As a programmer, I think that refined algorithm is that "plus" (= quality) of some product.

Regards,

Nelson

Re: Algorithmically refined...

*Message #5 Posted by **Bill Wiese** on 27 Aug 2003, 9:16 p.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

A lot of thought went into Solve & Integrate. (Apparently Wm. Kahan of floating-point math fame was deeply involved.)

There's more than just coding involved here: the parameters of these algorithms, search ranges, etc were prob more carefully chosen than for other calcs. This was at the peak of HP's calc dominance (in terms of quality/market positioning/etc.) and where HP would spend $$$ to differentiate from low-end competitors.

Of course these functions could be written better w/more memory, etc. But we DO know the limits of the 15C, bugs, etc. - we've had 15+ years now. Hell, doesn't the 15C even have its own Advanced Functions book?

If we want a 15C on a Palm-type unit, why not just emulate more than the keyboard layout? Start w/an exact match and improve - no more 12C Platinum debacles!

Bill

Well said...

*Message #6 Posted by **Pierre Brial** on 28 Aug 2003, 6:08 a.m.,*
in response to message #4 by Nelson M. Sicuro (Brazil)

Well said Nelson. I am happy there are still some guys who think like this. The lack of research of refined algorithms in modern programming is the reason why, despite having more and more power, modern computer are slower and slower to boot. Happy programming Pierre

Re: Algorithmically refined...

*Message #7 Posted by **Valentin Albillo** on 28 Aug 2003, 4:18 a.m.,*
in response to message #1 by eclectic_echidna

You posted:

"Am I missing something ?"

Indeed you are. But it's not easy to explain it in a few lines, nor is this exactly the proper place to do it.

If you really want to know and understand what you're missing, just get a copy of the HP-15C Advanced Functions manual, either spiral-bound for easy reading or in CD, and read it carefully. You don't need to have an HP-15C at hand to make the most of this wonderful book, which is more a treatise on accuracy and the techniques to achieve it than a 15C-only manual.

I'm pretty sure you'll be amazed at the many traps and pitfalls lurking out there when implementing sophisticated algorithms, and the ultra-clever ways in which HP engineers and consultants of the time (most notably Mr. Kahan who is a world-class authority on the subject) managed to succeed, thus making the HP-15C the very best pure calculator in the world, bar none.

Best regards from V.

P.S.: And don't let "multiprecision" computations fool you. I do own a vintage Sharp PC-1475, which can do computations in double precision (20 decimal digits) and believe me, it doesn't hold a candle next to the "13-digit internal precision of the HP-15C + the best possible algorithms" bundle. If you trust it blindly you'll end up with 20 digits, yes, but they might be 7-digits correct + 13-digits garbage, for all you know.

Edited: 28 Aug 2003, 4:20 a.m.

Re: Algorithmically refined...

*Message #8 Posted by **Pierre Brial** on 28 Aug 2003, 6:08 a.m.,*
in response to message #7 by Valentin Albillo

Hello Valentin,

I also own some Sharp pocket computers (including PC-1475) and I like them as much as my HPs, for their quality and usefullness. But I never tested them to compare with Hp about accuracy. Do you have some examples of calculations where the double precision PC-1475 could give less accurate results than the HP-15C ?

All the best

Pierre

Re: Algorithmically refined...

*Message #9 Posted by **Valentin Albillo** on 28 Aug 2003, 6:23 a.m.,*
in response to message #8 by Pierre Brial

Hi Pierre,

Pierre posted: *"I also own some Sharp pocket computers (including PC-1475) and I like them as much as my HPs, for their quality and usefullness."*

Exactly same here, I do own a large collection of Sharp PC pocket computers and they are every bit as good, if not better, than HP vintage handhelds, not to mention newer models.

"But I never tested them to compare with Hp about accuracy. Do you have some examples of calculations where the double precision PC-1475 could give less accurate results than the HP-15C ?

Yes, try the determinant or matrix inversion built-in functions of the Sharp PC-1475 versus the equivalent HP-15C ones when applied to Hilbert matrices of orders 5,6,7, etc. Just in case you've never seen Hilbert matrices before, have a look at this PDF document:

Hilbert matrices

Best regards from V.

Re: Algorithmically refined...

*Message #10 Posted by **Pierre Brial** on 30 Aug 2003, 2:06 a.m.,*
in response to message #9 by Valentin Albillo

Hello Valentin It seems that with Sharp PC the double precision is only available in RUN mode, and not in CALC or MATRIX. So matrix calculation are made with only 10 digits accuracy. I see recently in the local library a book about calculator use at school where they give some examples of simple calculations which give wrong results. I will look at this and try some tests on my machines. Cheers Pierre

Re: Algorithmically refined...

*Message #11 Posted by **Grant Goodes** on 28 Aug 2003, 11:23 a.m.,*
in response to message #1 by eclectic_echidna

Quote:

In this day and age of 200-400MHZ pocket PCs, wouldn't a more appropriate algorithm be one that utilizes modern day strengths, speed and memory size?

This is what I personally call the "Micro$oft Falacy": The delusion that problems are always better solved by a bigger box with (apparently) fancier software. In fact, as soon as you enter the realm of mathematics, rigour is more important than marketing, and "modern day strengths" as you call them, are but sirens singing you onto the rocks. The fact that this falacy sells more mother-boards/hard-drives/memory etc., is the explanation of why it is so pevasive, but that's another thread.

I would claim that having a heavily constrained platform to develop your algorithms on (say an 8-bit processor and 4k of memory) almost always results in better code than the bottomless memory/GHz pit of a modern PC. You end up having to think, and the tough constraints necessitate that the algorithm must be thoroughly understaood.

I hate to belabour the point (a lie: Actually I love to belabour this particular point), but the vast computing resources available to the average "modern" programmer means that few ever really bother to write anything more than a first hack at an algorithm, go through a cycle of bug-fixing, and release it to the unwitting customers. With a limited platform, coding inevitably goes through a cycle of think/write/refine/repeat. I don't think too many people would apply the word "refined" to the SW out of Redmond, but the HP-15C? Now there's refined!

I usually draw the analogy of the piano versus the syntesizer: Much music written for the piano (in some respects, the first "universal" musical instrument, much like a microprocessor is a universal calculating device) is far superior to that written for the far more flexible synthesizer (flexible in the sense that it can make basically any sound). The very versatility of the synthesizer ensnares many musicians in a net of infinite possibilities, most of which just sound bad. The extremely limiting constraints of the piano seem to result in a purity of form that often inspires the composer to greater art.

Just rambling now, I guess, so I'll shut up.

grant..

Re: Algorithmically refined... clarification on what I meant...

*Message #12 Posted by **Bill Wiese** on 28 Aug 2003, 1:50 p.m.,*
in response to message #11 by Grant Goodes

Before we really get into whose calcs are better at ln(x) or arctan(x), etc. I want to say I was NOT just referring to the basic accuracy of transcendentals & other funcs.

I was more referring to the elegant Solve & Integrate functions - which, BTW, were nicely done on the HP34C also.

Just because your formula to evaluate is calculated accurately to the Nth digit DOESN'T mean that a given iterative algorithm is suitable, stable, or will even find a root in a troublesome region!

I do think HP thought a lot about the transcendentals as they went on developing calcs - remember, they even included LN(1+x) and e^(1+x) functions for x values close to zero on the 41C, 42S (and maybe others).

I thought it was way cool when the 11C/15C were introduced (I was a Sr in high school) and they had the Gamma function! I'd spent a merry prev summer dealing with log(gamma(x)) on my TI58 and exploring "big factorials".

Bill Wiese San Jose, CA

Re: Algorithmically refined...

*Message #13 Posted by **hugh steers** on 28 Aug 2003, 2:45 p.m.,*
in response to message #1 by eclectic_echidna

although i agree with the other replies, there is a point here. a question i often ask myself is, whats now possible with 50-500MHz pocket devices, PDA or otherwise.

i was impressed by hps attempts to tackle symbolic calculation and would have liked to have seen this technology improve in their future calculators. it would have make proper use of more speed & memory.

the kinpo offerings meant two things to me. firstly that hp (amazingly) were chucking away those algorithms that had been refined, and secondly, that use of elementary algorithms translated to cheap chips.

the new range will be interesting. do they run their old algorithms or are they new like on the 12CP where we've seen real novice tvm results. i suppose they'll be flash upgradeable. i can see it now: hp49II sp1a.

on the subject of bcd. i am now convinced that we're seeing a phase change in the calculator industry where all units will go over internally to binary due to the availability of cheap, working fp cores. numerically, this will be interesting.

Re: Algorithmically refined... Matlab

*Message #14 Posted by **Bill Wiese** on 28 Aug 2003, 3:54 p.m.,*
in response to message #13 by hugh steers

Umm many PDAs now have enough horsepower to run at least a small version of Matlab.

While a calc is great for playing w/numbers, Matlab is great for playing with "sets of numbers". That along w/an integrated Maple symbolic engine would be very nice - though a handheld-appropriate UI might be necessary.

Yes, IEEE FP is prob better overall for math stuff than BCD FP. However remember HP calcs were 'do all' consumer products and they didn't want people to be puzzled why 3*(1/3) = 9.99999999999 instead of 10.

Bill Wiese San Jose, CA

Re: Algorithmically refined... Matlab

*Message #15 Posted by **W. Bruce Maguire II** on 28 Aug 2003, 5:25 p.m.,*
in response to message #14 by Bill Wiese

> Quote:
>
> ...However remember HP calcs were 'do all' consumer products and they didn't want people to be puzzled why 3*(1/3) = 9.99999999999 instead of 10.
>
> Bill Wiese San Jose, CA

Bill:

Did you use one of the "new" HP calc.s for that 3*1/3 = 10 example?

;-)

Bruce.

Re: Algorithmically refined... ooops!

*Message #16 Posted by **Bill Wiese** on 28 Aug 2003, 6:26 p.m.,*
in response to message #15 by W. Bruce Maguire II

whoops, yes, "10" should indeed have a dec. pt, 3x(1/3)=1.0

Bill

Re: Algorithmically refined... Matlab

*Message #17 Posted by **Daniel Diggelmann** on 28 Aug 2003, 5:30 p.m.,*
in response to message #14 by Bill Wiese

Yes Bill, I agree with you. I have a HP 200LX running MATLAB 3.5 for DOS on it. MATLAB is great for vectors and matrices. The 200LX screen allows highres plots. MATLAB includes proven algorithms which are very stable. If I need a symbolic CAS DERIVE 3.14 for DOS is good for me. Actually I like the HP 200LX very much as it is very small and can run a great choice of APPS. The keyboard might be a bit small though to enter large amounts of numbers.

Cheers Daniel

Re: Algorithmically refined... Matlab

*Message #18 Posted by **Rodger Rosenbaum** on 31 Aug 2003, 7:45 p.m.,*
in response to message #14 by Bill Wiese

Bill Wiese says: "Yes, IEEE FP is prob better overall for math stuff than BCD FP."

There is an IEEE floating point standard for radix-independent math. "Radix-independent" includes BCD math, and the HP71B was designed to adhere to the IEEE BCD floating point standard as it existed at the time. Thus, in the HP71B, IEEE FP is not different from BCD FP. The later calcs using the Saturn have the same basic algorithms, minus some of the niceties like NaN's, infinities, signed zero, etc. So, IEEE (binary) FP may be better than the BCD math in "other" brands of calculators, but the Saturn based calcs are doing IEEE BCD math. That's why they're so good.

Re: Algorithmically refined... Matlab

*Message #19 Posted by **Sean** on 1 Sept 2003, 1:18 a.m.,*
in response to message #18 by Rodger Rosenbaum

I have both Derive and Matlab on my Hp200LX - Cool as HE with two toothpicks!

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How Do I switch back to N. American Notation??

*Message #1 Posted by **Raf** on 27 Aug 2003, 6:10 p.m.*

How do I switch my HP 15C back to N. American notation?

It has suddenly started displaying numbers in the European format, like this:

1.000,0000 INSTEAD OF 1,000.0000

- Raf

FAQ Needed?

*Message #2 Posted by **Patrick** on 27 Aug 2003, 6:36 p.m.,*
in response to message #1 by Raf

Hold down the decimal point key as you turn the unit on.

Not your fault, Raf, but this question is asked here (usually in the context of the HP-12C) every week or two, it seems.

To our esteemed Curator: Perhaps you should consider adding a FAQ section to the site in which answers to questions like this might be put. It could be nothing more than a clone of the articles page with a different header?

Re: FAQ Needed?

*Message #3 Posted by **Dave Hicks** on 27 Aug 2003, 7:22 p.m.,*
in response to message #2 by Patrick

Like this? :-)

Ouch

*Message #4 Posted by **Patrick** on 27 Aug 2003, 7:29 p.m.,*
in response to message #3 by Dave Hicks

Sorry, Dave. My bad.

I guess I've seen no references to it in several months of forum watching so I assumed wrongly that there wasn't one.

On the other hand (*he says, furiously trying to recover some credibility*), part of what I suggest is still valid. It would be good if there was a "contributors" section where new items could be added by members, like for the articles section.

Re: Ouch

*Message #5 Posted by **Dave Hicks** on 27 Aug 2003, 7:34 p.m.,*
in response to message #4 by Patrick

Well besides the articles forum, a couple of people volunteered to somehow try to organize/FAQ-ize the forum and the archives.

I'll let them add something here if they haven't drowned due the volume of their task.

FAQs

*Message #6 Posted by **Ellis Easley** on 27 Aug 2003, 8:43 p.m.,*
in response to message #5 by Dave Hicks

For my part, at first I thought I would just accumulate links to the posts I found while searching the archives. I was primarily interested in hardware repair tips. A file of such links relating to a specific model or family would constitute an FAQ. Doing this on a casual basis is one thing but going through the archives rigorously is another! Also, Dave believes that at the rate posts are accumulating, he might not be able to keep all the archives online forever, so the relevant information in archive posts needs to be copied to a new FAQ file. To me, this suggests the need for editorial judgment and that's where I get bogged down. But as Patrick pointed out, how to switch the Voyagers' radix mark is a truly frequently asked question, along with what batteries the Voyagers use and how to change the number of digits displayed by Voyagers, and I have to admit that I was not conscious of the fact that these questions are all answered in the Museum FAQ! From time to time I have had the pleasure of answering questions in the Forum by pointing to answers that are stored in the "other rooms" of the museum, and at those times it strikes me how much the Museum is like the Doctor's TARDIS - we were always learning about additional rooms (in the earlier shows, before the Doctor had to jettison a lot of them to save the TARDIS).

Re: FAQs

*Message #7 Posted by **Pierre Brial** on 28 Aug 2003, 3:56 a.m.,*
in response to message #6 by Ellis Easley

Hello,

What surprise me is that this kind of question has its answer in the manual and in HP FAQ webpages. Furthermore most (if not all) questions in HP FAQ has their answer in the manual. People don't read manuals ?

All the best

Pierre

FAQs

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 28 Aug 2003, 6:15 a.m.,*
in response to message #5 by Dave Hicks

My turn;

hello, folks;

now from my part. I "talked" to both Ellis and Dave at the time this activity began, and I was

one of the guys that much suggested this sort of reference source.

As a pilot-text, a reference for my own, I collected a lot of posts related to daily use of many calculators and began to order them for each family and then for each model in family, so I could "measure" and decide for the final type of text I should have. I was also tracking daily posts so I could add the newest information. Suddenly, in one fatidic day, after lots of hours under current activity, I got home and found a very interesting post about calculator use. I collect it, cleaned it up, and saved it. About 8Kbytes of data overwrote almost 8Mbytes of text and I did not see it. I was tired enough. And I did not realize that till I tried to open it again about a couple of days later, when the "trash bag" was cleaned at least three time. No traces of more than five months of dedicated work...

I'm just finishing some other activities for now and I'm getting back soon to these files, I promise. I remember that one of my concerns was about credits, and I would like to listen from others. What I actually did was to concentrate everything in one text about the same subject at first, then I refined this text and try to make it as simple and easy to read as I thought it could be (another concern: do I know English enough to do it the best way?). But later I thought about some sort of documentary with "interviews", I mean, keep contributor's original text. Then I cut and paste the text from each post with their author's credits. Later I saw that many people said the same thing with a different approach, so I so I joined these "speakers" in one single mentioning with their names. After that, I returned to the original format and finished the one-text-only with many credits at the end of it, but I still don't know the best way of organizing this sort of data. Unfortunately this final text is the one I trashed at once...

I take this kind of task as fun and enlightening, believe me. But I think it must be well done, as all posts in here have their quantity of judgement sense, heavy tech knowledge and wisdom, and in many cases the author's style, and these are characteristics that should never be purged from original posts. As an example that I keep in mind, see db(martinez, ca) posts. Like a few others, he writes everything in lower case, no matter what. This must be kept if cutting and pasting parts of his posts, but I cannot see a way to keep this "format" in an integral text. See what I mean?

Best regards.

Luiz (Brazil)

Edited: 28 Aug 2003, 10:35 a.m.

What about Google "Advanced Search"?

*Message #9 Posted by **Paul Brogger** on 29 Aug 2003, 11:30 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Google's "advanced search" seems to have links to the FAQ as well as to the Forum, and results may be limited by domain. So, one may search for "commas points" and only view results from www.hpmuseum.com . I do note that neither "commas dots" nor "commas periods" return a link to the FAQ, that some of the links are obsolete, and that some of the linked-to pages seem to be stripped of the MoHPC header (???) Is there a way to "force" (encourage) Google to re-index a particular domain? This might be a way to search across the Forum archives, which can be problematic.

. . . or use the "Search" link?

*Message #10 Posted by **Paul Brogger** on 29 Aug 2003, 11:20 a.m.,*
in response to message #2 by Patrick

Maybe the Museum's "search" link could be more prominently displayed (for newcomers) on the Museum's opening page. Searches for "commas dots", "commas periods" and "commas points" each returned a link to the FAQ (among other things).

I do, however, wonder whether many 12c owners would recognize theirs as a "10C series calculator"? (One could also wonder whether the Museum's navigation should be geared more toward newbies or to enthusiasts?)

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Limit on number of static routes

*Message #1 Posted by **Eric Ashbaugh** on 27 Aug 2003, 3:40 p.m.*

Using HP-UX 11i on a J6700 series machine, what is the limit of static routes that can be reasonably maintained by the device? What is the physical limit?

Re: Limit on number of static routes

*Message #2 Posted by **Mark Hardman (Solaris Rules)** on 27 Aug 2003, 8:14 p.m.,*
in response to message #1 by Eric Ashbaugh

You might get a better response if you were to ask this question in:

comp.sys.hp.hpux

Mark Hardman

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Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #1 Posted by **Bill Wiese** on 27 Aug 2003, 2:53 p.m.*

Hi all...

[reference: http://www.pmonta.com/calculators/hp-35/index.html]

Anyone out there with a dead 15C and that has access to "chip peeling"/decap equipment? Maybe we can get a ROM dump. (15C ROMs are apparently not a separate standalone chip apparently. Dunno how to 'grab' the data electrically... but that may not matter this way.)

Decapping usu means use of a fuming nitric acid jet to debride the epoxy body/cap of a chip 'til the chip die & bond wires are exposed. (Then rinsed quickly so the acid doesn't hang around! :) BTW chips can work after this process!!

The chip MIGHT be directly (micro)photographable like Peter Monta did, unless the line widths are a great deal smaller. If that is the case, the glass passivation layer (outermost) may need to be removed too. [Late technology chips can be harder to photomicrograph given feature size vs. wavelength of light used are in similar ranges.]

Years ago I did this w/some automotive microcontrollers. A coupla chips still worked afterward for awhile - though the ones w/passivation layer ground down died shortly after.

If we can get nice photos of 15C ROM array areas we might be able to differentiate btwn '1' and '0' bits in ROM, letting us "dump" it.

Of course we'd have to figure out the array sense (that is, what is actually a '1' and '0' - or is it vice versa?) and array arrangement & interleaving (addr[n] is not necessarily next to or even near addr[n+1] or addr[n-1]).

But with a bit of help from other 'Nut calcs we prob can figure this out statistically (opcode/operand frequency analysis, positional information, etc.)

If someone can supply me with a GOOD noncompressed image(s) scan of photographs of these ROM dies I'm glad to try attempting this latter half of the work. I don't have access to the former services (decap/photograph...) anymore

Bill Wiese San Jose, CA

Re: Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 27 Aug 2003, 3:23 p.m.,*
in response to message #1 by Bill Wiese

I think that is much easy to read the ROM through eletrical means. I'm planning build one "ROM Ripper" to use it in the Voyagers. Their CPU is the SAME as the HP-41 (Coconut) and the technical description of their signals is well documented. If you can read the ROM by other means, that's great! But I think that is much harder...

Best regards,

Nelson

Re: Why Bother Really???

*Message #3 Posted by **Ron Ross** on 27 Aug 2003, 3:52 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Since there is no way to up or download software from this calculator, there is no software base to recover. Why bother??? Just use the symulators already out there. I think there is an 11c floating around, and an enhancement would be better than bothering to get an exact machine with warts and all.

Re: Why Bother Really???

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 27 Aug 2003, 4:17 p.m.,*
in response to message #3 by Ron Ross

The thing is create an EMULATOR not a SIMULATOR. And it helps to preserve the knowledge. There is many hours of work in those algorithms and this is no trivial to do in a simulator. Can you trust any simulator your sensitive data? Besides, it is a good challenge.

Regards,

Nelson

Re: Why Bother Really???

*Message #5 Posted by **Bill Wiese** on 27 Aug 2003, 4:36 p.m.,*
in response to message #3 by Ron Ross

Um, partially true... BUT:

the HP15C is a very algorthmically refined calculator, esp in root finding & integral work. Pretty nice setup.

It'd be great to run a true emulator of 15C ROM code. The emulator UI could, in PRGM mode, be setup to translate user keycode opcodes into text-like user instructions.

It'd be REALLY great to have this run on a palmtop :)

Bill Wiese San Jose CA

Re: Anyone w/dead 15C that can decap/peel chips w/ ROMs?? ROMs may be internal

*Message #6 Posted by **Bill Wiese** on 27 Aug 2003, 4:28 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Hi Nelson,

The 15C apparently has 3 chips. However I am not sure about partitioning of ROM on these chips. IIRC, the the main CPU chip may indeed have all the ROM and the others are just RAM chips (??) for user program area & data memories perhaps w/some extra I/O capabilities. Correct me if I'm wrong. It'd be nice to know...

Indeed, if *all* ROM could be readily dumped by electrical means that would be handiest. (Perhaps even a PC running good ol' DOS and toggling bits on its LPT: parallel port and then reading back data stream could do this.)

But as the paragraph below from The Museum's HP15C entry indicates, the CPU may have 61Kwords of mask ROM on it. This ROM may well NOT be 'dumpable' if all pins on this CPU are devoted to KB/LCD I/O - or the dumping action is a proprietary factory mode. And just because the external user prgm/data memory requires CPU to expose addr/data bus does NOT mean the internal ROM can be read out similarly - esp as we'd be using an external device as 'master'...

"The CPU for these new machines included 61Kbits of ROM, 2.2Kbits of RAM, an LCD driver and a low-battery detector on-chip. To improve on previous designs, HP developed a new CMOSC process...."

Bill Wiese San Jose, CA

Re: Anyone w/dead 15C that can decap/peel chips w/ ROMs?? ROMs may be internal

*Message #7 Posted by **Nelson M. Sicuro (Brazil)** on 27 Aug 2003, 5:24 p.m.,*
in response to message #6 by Bill Wiese

I think that the three chips are (left to right if you watch the picture of inside a 15c): 1) Display Controller (and RAM??) (the bigger chip) 2) Coconut CPU (pratically the same of the one on 41CX) 3) ROM (and RAM??) and keyboard scanning

I read in one HP internal documentation of the Coconut processor that it is really the same on the 41C, 11C and 12C (and consequently 15C), the only difference is the battery voltage monitor and the power down system (mask 7, CMOSV): 1LF5-301 on 11C and 1LF5-0002 on 41xx. Mine 15C have one marked "1LH1-302" (the other two: display ctrl. 1LH1-306, the ?ROM 1LM2-0001). This documment also describes the serial bus states (clock 1 and 2, sync, pwo, isa, data).

With some kind of logic analyser (or PC paralell port or a microcontroller) we may get the right pins of the serial bus and cutting it from the CPU we can drive the ROM simulating the serial bus and reading the data sequentially.

I'm thinking of try this approach on a less expensive HP-12C (vintage, not the new ones) and if I have any success I'll try on the 15C.

Any other information will be great.

Best regards,

Nelson

Re: Anyone w/dead 15C that can decap/peel chips w/ ROMs?? ROMs may be internal

*Message #8 Posted by **Bill Wiese** on 27 Aug 2003, 6:09 p.m.,*
in response to message #7 by Nelson M. Sicuro (Brazil)

Hi Nelson..

Unless they're referring to specific chips, that 'Coconut' term prob largely refers to a combination of instruction set & CMOS techology. I doubt the same chip was used in 41xx and 11C-15C.

Also later 15Cs as Randy Sloyer pointed out have 2 chip and 1 chip versions.

Regards, Bill

Re: Anyone w/dead 15C that can decap/peel chips w/ ROMs?? ROMs may be internal

*Message #9 Posted by **Nelson M. Sicuro (Brazil)** on 27 Aug 2003, 6:16 p.m.,*
in response to message #8 by Bill Wiese

I saw in one picture of the interior of some 41CX that the processor is at least the very same phisical layout of one in the 15C here.

Anyone have another picture of an opened 41CX to confirm this? BTW this information I get on a scanned document from HP describing the "coconut" CPU.

Re: Anyone w/dead 15C that can decap/peel chips w/ ROMs?? ROMs may be internal

*Message #10 Posted by **Vassilis Prevelakis** on 27 Aug 2003, 6:48 p.m.,*
in response to message #8 by Bill Wiese

```
Bill Wiese wrote:
> Unless they're referring to specific chips, that 'Coconut'
> term prob largely refers to a combination of instruction
> set & CMOS techology. I doubt the same chip was used in
> 41xx and 11C-15C.
```

Its not the same IC, the 41 series uses a different IC because it requires a higher voltage and runs faster.

Apart from such minnor differences the CPUs are the same, but the ICs used are different.

The 1xC series used the 1LF5-0301 while the 41 the 1LF5-0002

Having said that, the techniques for extracting the contents of the ROMs by manipulating the address and data buses would be very similar.

**vp

Re: Anyone w/dead 15C that can decap/peel chips w/ ROMs?? ROMs may be internal

*Message #11 Posted by **Bill Wiese** on 27 Aug 2003, 10:57 p.m.,*
in response to message #10 by Vassilis Prevelakis

```
Vassilis wrote:
>Its not the same IC, the 41 series uses a different
>IC because it requires a higher voltage and runs faster.
>Apart from such minnor differences the CPUs are the
>same, but the ICs used are different.
>
>The 1xC series used the 1LF5-0301 while the 41 uses
>the 1LF5-0002
>
>Having said that, the techniques for extracting the >contents of the ROMs
by manipulating the address and
>data buses would be very similar
```

Like many other microcontrollers, it sounds like the Coconuts are part of a 'line' - same

instruction set but different speeds, I/O, etc.

Generally speaking, for a given process technology, RAM takes up more space (chip area) per bit than ROM. So having 61Kwords of machine ROM in the CPU would not surprise me. Just because the Coconut can connect to external chips for KB/IO and user data storage does NOT mean the ROM can be dumped via these I/O lines!!!

Bill Wiese San Jose, CA

Re: Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #12 Posted by **Randy Sloyer** on 27 Aug 2003, 5:57 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

FWIW, the 15C was built in three, two and one chip versions.

I have an original 3 chip, 2 board version here that works but eats batteries in a week available for disection if someone can do the work.

I would love to see any technical documentation on the chips and their signals. Can you point me to a source?

Re: Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #13 Posted by **Diego Diaz** on 28 Aug 2003, 2:16 p.m.,*
in response to message #12 by Randy Sloyer

Hi all,

Nowadays I'm involved in HP-41 ROM Packs cloning, so I'm dealing on a daily basis with Clk1, Clk2, ISA, SYNC... lines.

Yes, the HP available info about 1LF5-0301 (11C, 12C) and 1LF5-0002 (41C Fullnut) clearly says that they both share the same funcionallity and pin-out, only differences are regarding Power supply voltage management.

So the task can be achieved, provided:

a) 15C's (at early versions) still "wear" the same chip or,

b) at least another functional compatible one AND Rom's were not masked inside the processor waffer if the former is true.

Further more, if a separate ROM chip of said processor is available, reading the internal code is as simple as provide it with the required lines: Clocks 1 & 2, SYNC, ISA, PWO, V+ and GND. That can be done with a PC parallel port and a +5v DC power supply. Of course it'd be better if done at ASSEMBLY language level. Remember MOV DX,AX?? :-)

Another way to work it out migth be placing the said ROM chip into a 41C module, and loading it with DAVID assembler. This will also allow the M-code mnemonics dumping to printer. Wouldn't be nice?? ;-)

Contact me if you're interested in the info regarding this CPU.

Cheers from the Canary Islands.

Hi Diego... Re: Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #14 Posted by **Bill Wiese** on 28 Aug 2003, 3:58 p.m.,*
in response to message #13 by Diego Diaz

Hi Diego...

Interesting. I have a 41C but it has a 40pin(?) DIP CPU. So later 41Cs/Vx/Xs have a small flat-pack CPU?

The disadvantage of dumping a 15C w/external ROM instead of a later 15C unit w/fewer chips is that you prob won't get the latest ROM & any bugfixes (offhand, I dunno what bugs are in or were fixed in 15C).

Yes, I'd like to see docs on this particular Coconut chip!! You can reach me at bill[at]bwiese[dot]org - despam my address appropriately :)

Re: Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #15 Posted by **Nelson M. Sicuro (Brazil)** on 28 Aug 2003, 5:02 p.m.,*
in response to message #13 by Diego Diaz

I'm very interested in any information I can get about the Coconut CPU as long with its ROMs and RAMs. I'm building a emulator in hardware (fisically, a microcontroller simulating the coconut in a body of a deceased HP calc.) in my spare time as a hobby project.

My email is in the header above.

Best regards,

Nelson

Re: Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #16 Posted by **Diego Diaz** on 28 Aug 2003, 8:28 p.m.,*
in response to message #15 by Nelson M. Sicuro (Brazil)

Hello everybody,

First my apologise, I've just realized I did an unforgettable mistake on my second approach to this issue, namely:

It's not possible to place an isolated 15C rom chip and try to fool the 41's CPU because:

- The main ROM of the 15C will try to respond at the same address space (i.e. starting at address 0x0000) than the 41 main ROM, and due to that conflict the CPU won't start at all.

- That main ROM can't be remaped (as normal 41's modules can via B3 & B4 lines) because it's address space is "firm-wired" inside the chip.

Nevertheless the first approach is still valid and, provided you can dump the ROM contents into a binary file this can be later burnt into an EPROM and placed in a ROM-BOX, then treated a separated re-addressable module, thus DISASSEMBLED and listed. Little bit more complicated but still fairly easy... er... well, at least I think so.. :-)

Regards.

Re: Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #17 Posted by **Nelson M. Sicuro (Brazil)** on 29 Aug 2003, 10:05 a.m.,*
in response to message #16 by Diego Diaz

I'm comparing two Voyagers, the 11C and the 15C that I have with me. The 11C have only 2 chips, from left: 1LH1-0305 and 1LM2-0001. The 15C have 3 chips, from left: 1LH1-0306, 1LH1-0302 and the same 1LM2-0001. I also read in one document (http://www.vcalc.net/hp-11.htm) that it has 2 chips, the bigger (1LH1-305 in my 11C) that is the multi-function and display chip and the CPU. The extra 15C chip I can only guess that is a RAM chip, as it have double the amount of RAM. I also guess that the multi-function chip (1LH1-030x) is also the ROM chip. My objective here is to dump the ROM, so I'll try to cut the traces between the chips and insert my own signals to read it (as soon I get the guts to do it in a working HP-11C!!). What do you think?

Best regards,

Nelson

Re: Anyone w/a dead 15C that can decap/peel chips w/ ROMs??

*Message #18 Posted by **Diego Diaz** on 29 Aug 2003, 4:49 p.m.,*
in response to message #17 by Nelson M. Sicuro (Brazil)

Hi Nelson,

I have no previous (neither current :-) knowledge about the Voyager series. I focus my interest in the 41 & related peripherals.

There is a picture in this site where you can see a 15C's (early model) guts with three chips. One of them is the 1LF5-0301 wich is, as stated in previous post, the same functional waffer as the 1LF5-0002 used on 41 Fullnuts series but inside a flatpack package.

On this basis it's possible to read 15C ROM using (or emulating) the same lines.

On later 15C models the chipset were substituded so the referred aproach is useless.

Nevertheless you can alwais try to take a look at the internal lines, though an oscilloscope probe shold be, in my opinion, a preferred tool instead an exact-o-knife ;-).

Anyway I wish you the best of lucks whatever the method you choose.

Regards.

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Anyone w/a dead that can decap/peel chips w/ ROMs??

*Message #1 Posted by **Bill Wiese** on 27 Aug 2003, 2:53 p.m.*

Hi all...

[reference: http://www.pmonta.com/calculators/hp-35/index.html]

Anyone out there with a dead 15C and that has access to "chip peeling"/decap equipment? Maybe we can get a ROM dump. (15C ROMs are apparently not a separate standalone chip apparently. Dunno how to 'grab' the data electrically... but that may not matter this way.)

Decapping usu means use of a fuming nitric acid jet to debride the epoxy body/cap of a chip 'til the chip die & bond wires are exposed. (Then rinsed quickly so the acid doesn't hang around! :) BTW chips can work after this process!!

The chip MIGHT be directly (micro)photographable like Peter Monta did, unless the line widths are a great deal smaller. If that is the case, the glass passivation layer (outermost) may need to be removed too. [Late technology chips can be harder to photomicrograph given feature size vs. wavelength of light used are in similar ranges.]

Years ago I did this w/some automotive microcontrollers. A coupla chips still worked afterward for awhile - though the ones w/passivation layer ground down died shortly after.

If we can get nice photos of 15C ROM array areas we might be able to differentiate btwn '1' and '0' bits in ROM, letting us "dump" it.

Of course we'd have to figure out the array sense (that is, what is actually a '1' and '0' - or is it vice versa?) and array arrangement & interleaving (addr[n] is not necessarily next to or even near addr[n+1] or addr[n-1]).

But with a bit of help from other 'Nut calcs we prob can figure this out statistically (opcode/operand frequency analysis, positional information, etc.)

If someone can supply me with a GOOD noncompressed image(s) scan of photographs of these ROM dies I'm glad to try attempting this latter half of the work. I don't have access to the former services (decap/photograph...) anymore

Bill Wiese San Jose, CA

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High Price for an HP42s

*Message #1 Posted by **Richard Garner** on 27 Aug 2003, 12:06 p.m.*

Folks,

7 Hours to go and this new in box HP 42s is at $520. Most bidders are newbes

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3041794558&category=11713

Re: High Price for an HP42s

*Message #2 Posted by **Randy Sloyer** on 27 Aug 2003, 12:16 p.m.,*
in response to message #1 by Richard Garner

Ah, newbies are so much fun to watch. IIRC, the last NIB went for less than $280.

I think it might be a new record?

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A spare black screen 48GX

*Message #1 Posted by **R Lion (España)** on 27 Aug 2003, 10:09 a.m.*

I have just received a 48GX from Samson Cables, as a spare unit. The black screen is slightly better than the old blue. Not a wonderful, but it is a better screen.

What I want to know is about the serial number. It is ID311xxxxx. Does this mean that this unit has been made this year?

Thanks in advance

Raul

Edited: 27 Aug 2003, 3:55 p.m. after one or more responses were posted

Re: A spare black screen 48GX

*Message #2 Posted by **Brandon Del Bel** on 27 Aug 2003, 11:52 a.m.,*
in response to message #1 by R Lion (España)

I purchased a 48gx from hp just before they were discontinued, and it has the black display as well.

Re: A spare black screen 48GX

*Message #3 Posted by **Randy Sloyer** on 27 Aug 2003, 12:05 p.m.,*
in response to message #1 by R Lion (España)

Yes, made in Indonesia this year. Looks like they pulled production back from China before killing it off.

The 48GX is no longer being produced by HP.

Re: A spare black screen 48GX

*Message #4 Posted by **R Lion (España)** on 28 Aug 2003, 7:20 a.m.,*
in response to message #3 by Randy Sloyer

I'm surprised: I thought they have discontinued it in 2001 or 2002...

Re: A spare black screen 48GX

*Message #5 Posted by **48 Lover** on 28 Aug 2003, 1:52 p.m.,*
in response to message #1 by R Lion (España)

So, R. Lion, you say that the screen is a bit better, but only marginally. I was wondering if you could elaborate?

I was thinking about buying a backup 48 and I was going to get one that has a black screen, but I can find

blue-screen used ones cheaper, and need some help to decide.

I'm very interested in your (and other people's) insights.

Thank you ver much!

Re: A spare black screen 48GX

*Message #6 Posted by **R Lion (España)** on 29 Aug 2003, 2:37 a.m.,*
in response to message #5 by 48 Lover

What I see when I put both calcs side by side, is a better contrast in the black screen. Although I wouldn't say a "much better" contrast, the black screen is certainly more readable specially with poor light.
Other thing I see is that the new screen reflects less, but I can be sure if the old one has lost some kind of covering along years...
That's for what I said "slightly better "... but I've seen other people's posts saying what a wonderful the black screen is... You can look for more opinions in comp.sys.hp48

Regards

Raul L

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Strange recurring HP41CX at $440 on eBay

*Message #1 Posted by **Sergio** on 27 Aug 2003, 4:59 a.m.*

Did anyone notice this "december" guy on ebay selling "new" hp41cx's one after another, at buy-it-now of $440, for several months? As soon as one is sold, another appears. Same photos and price and description. Is this a scam? Are the hp41cx's still manufactured?

Re: Strange recurring HP41CX at $440 on eBay

*Message #2 Posted by **Veli-Pekka Nousiainen** on 27 Aug 2003, 6:05 a.m.,*
in response to message #1 by Sergio

No - the 41 series has been discontinue a long time ago.

The "new" calculator could be in an unopened box.

VPN

Re: Strange recurring HP41CX at $440 on eBay

*Message #3 Posted by **hugh** on 27 Aug 2003, 6:51 a.m.,*
in response to message #1 by Sergio

i think he has a stash of them and selling one at a time. i bought one from him right at the start (when they were cheaper). they are indeed new in box with unopened manuals.

Yes, but SO many ?

*Message #4 Posted by **Sergio** on 27 Aug 2003, 8:00 a.m.,*
in response to message #3 by hugh

They are selling like hot cakes (of course); his selling history shows tens and tens of them. This guy discovered a pure stock of gold - governement sale? Ex repaired units? Hidden son of Mr Hewlett or Mr Packard? :-P

Yes, seems like...

*Message #5 Posted by **Raymond Del Tondo** on 27 Aug 2003, 8:12 a.m.,*
in response to message #4 by Sergio

Hi,

I also have one of these new units, and the person I got it from had at least *ten* of these new units from UK. It seems there's more than one seller, and if the eBay deals over the last months were real, the stock propably was many hundreds of units.

Raymond

Re: Yes, they are new in the box

*Message #6 Posted by **Randy Sloyer** on 27 Aug 2003, 8:59 a.m.,*
in response to message #5 by Raymond Del Tondo

The story I heard was a palette load was found somewhere in a storage facility in the UK. It went to auction and the entire load was sold to one buyer. They sold off some of the units in groups of 10 or 20 before they realized the value.

They've been selling one a week or so for the last year. I heard some where sold for as little as $50. The lowest I've seen was about $220 to a high of $660.

It's for real, get one while you still can...

Re: Yes, they are new in the box

*Message #7 Posted by **Michael Meyer** on 28 Aug 2003, 3:38 a.m.,*
in response to message #6 by Randy Sloyer

I bought two for $50 each. I was afraid to buy more then fearing a scam.

Oh well. I just bought a 42S for $225, used. Like everything else....

Michael

Re: Yes, but SO many ?

*Message #8 Posted by **christof (NoVA US)** on 27 Aug 2003, 8:59 a.m.,*
in response to message #4 by Sergio

There was a stash of them discovered in the UK a while back- like a warehouse lot or something. I also got one- and also at an earlier and lower price.

I'm curious to know when he will run out, but until he does, we are all assured of a way to get a new one if we can pay. (though I think he's scalping a bit, I can't blame him, really)

-Christof

Re: Yes, but SO many ?

*Message #9 Posted by **Iqbal** on 27 Aug 2003, 9:24 a.m.,*
in response to message #8 by christof (NoVA US)

I got two, though I wished I had paid $50 [the price he started out selling at]. One thing is sure though, if he wasn't a millionaire before he is one now. If he was making a profit selling at $50 and now he sells for $450+ well, I don't need any HP calc. to tell me he's making a huge profit. I am glad, though that somebody found these new units. I am saving these for my two daughters. Unless next 10 years HP comes out with something better [which I seriously doubt].

Re: Yes, but SO many ?

*Message #10 Posted by **John L Shelton** on 27 Aug 2003, 12:49 p.m.,*
in response to message #8 by christof (NoVA US)

"Scalping" is such an unpleasant term for a voluntary transaction between two parties who both get

something they value. Unless force is involved, there is no reason to criticize the price anyone else pays for something they want.

If you claim that you, yourself were "scalped", you are merely admitting that you regret your voluntary purchase. Auctions are designed to let emotions dictate price, yet you always have the option to consider your bids rationally.

Applause to the profit motive of such trades is due - without that motive, you'd have much more trouble finding the things you want.

Re: Yes, but SO many ?

*Message #11 Posted by **christof (NoVA US)** on 27 Aug 2003, 4:43 p.m.,*
in response to message #10 by John L Shelton

Scalping is something that happens. I've used scalpers more than once to get tickets to sporting events. There's nothing derogatory about it.

Profiteering- now that's a different story. Selling water at $5.00 per liter because you are the only one with a clean supply, now that i'd say was 'wrong'.

Scalping is something that happens- and it's a normal part of life. there was no bad intent with using the word.

-C

Whats wrong with profit?

*Message #12 Posted by **Randy Sloyer** on 27 Aug 2003, 7:17 p.m.,*
in response to message #11 by christof (NoVA US)

> Quote:
>
> Profiteering- now that's a different story. Selling water at $5.00 per liter because you are the only one with a clean supply, now that I'd say was 'wrong'.

I think there is a big difference between selling at a profit that which people need and that which people want.

I would agree selling water that cost you $0.25/L at $5/L would be morally wrong if you set up your stand in the desert.

Nobody "needs" calculators. The market sets the price because more than one person is willing to pay more than the next guy. I'm always baffled at why people think it is "wrong" to sell at a profit, no matter what the margin. For the seller, it's a once in a lifetime event. Doesn't everybody deserve a little good luck now and then?

Re: Whats wrong with profit?

*Message #13 Posted by **christof (NoVA US)** on 27 Aug 2003, 10:47 p.m.,*
in response to message #12 by Randy Sloyer

Well- that's why I made the distinction.

scalping calcualtors isn't the same thing as profiteering.

If I found a pallet of HP42s calcs NIB, I wouldn't insist on selling them at suggested rtail price. I'd scalp, sure.

Re: Strange recurring HP41CX at $440 on eBay

*Message #14 Posted by **Axel Poqué** on 27 Aug 2003, 10:06 a.m.,*
in response to message #1 by Sergio

I bought one from him, too. Actually "december64" is quite nice, because he promptly offered to send me a replacement when my CX developed contact problems (I posted about this about a month ago). He even let me the keep the non-working calc for parts (for a minor fee). The calcs are really brand new / mint and the manuals are still sealed. So even if the price seems a bit steep, you can be sure they have never been used, have no corrosion, and do actually work (unlike some other auctions, where used calculators of uncertain condition described as 'mint' are sold for not much less).

Axel

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MoHPC *The Museum of HP Calculators*

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9810 Power Problem?

*Message #1 Posted by **Katie** on 27 Aug 2003, 3:30 a.m.*

My 9810 has gotten flaky. The problem seems to be somewhere in the power supply circuit. There seems to be some sort of power-is-good-boot-the-CPU function in the calc because after you turn it on, it normally takes a few seconds before it comes to life. Recently my machine isn't getting this "boot" signal as it should, I think. Sometimes it does work, but then goes dead after a minute or two. Other times it just sits there with all LED's off or some of them on but with no keyboard response. But the fan always works and all 5 marked power supplies (+12, -12, +16, +20, +24) measure good and are clean (no noise).

Does anyone have any experience with this or any idea about where this supposed boot-up circuit might be located in the 9810?

Thanks,

Katie

Re: 9810 Power Problem?

*Message #2 Posted by **Tony Duell (UK)** on 27 Aug 2003, 3:10 p.m.,*
in response to message #1 by Katie

There is a power-on reset circuit, which pre-loads all the microcode PC flip-flops with 1's to start the CPU at the right point. The reset circuit is on the 5V PSU card (09810-66581), andis built round a '121 monostable chip. The A inputs are grounded, the B input comes from an RC network (3k3 to +5V, 1uF to ground). The monostable has timing components of 27k and 1uF. Finally, the Q output of this monostable is buffered by a simple transistor stage and is fed out of the rearmost pin of the front card edge connector.

Re: 9810 Power Problem?

*Message #3 Posted by **Achim Buerger** on 27 Aug 2003, 9:12 p.m.,*
in response to message #1 by Katie

Katie, I don't think that the Problem comes from the power supply since when e.g. an overvoltage is detected the 5V line is completely shut down. The same occurs when you switch the power off and on again too quickly. The symptom appears to come from a weak TTL IC. Some months ago I had a similar problem in my 9830: it hang up every time after a few minutes and did'nt start up when switched off and on again. I had to wait about 5 minutes before the machine worked again. I localized the thermic fault by means of cold spray. It was IC6 (74H74) on board 9810-66512.

Good look, Achim

Re: 9810 Power Problem?

*Message #4 Posted by **Katie** on 27 Aug 2003, 9:56 p.m.,*
in response to message #3 by Achim Buerger

Thank you both for that great information. I'll check out the monostable circuit that you described, Tony, to see if it's working correctly. If that's not the problem I'll try the cold spray technique, Achim.

Just one question for either (both of you)? How did you get access to the boards while the machine is running? Do you use card extenders? If so, how to you get to the boards in the stack positioned in front of the fan? Right angle extenders? HP must have made a special test jig for servicing these machines. Of course all that the field techs would do would be board swapping, but what did the real service techs use?

-Katie

Re: 9810 Power Problem?

*Message #5 Posted by **Achim Buerger** on 28 Aug 2003, 5:49 a.m.,*
in response to message #4 by Katie

Hi Katie, I did build two simple bus extenders for the 2*18 nad 2*15 connectors of the CPU boards. I made them from small PCBs with gold contacts, the matching PCB connectors, and ribbon cable. If you are interested, I can mail you some photos.

To access the boards in the memory cage is principically the same, but for some boards you need one more bus extender with 2*10 contacts. By using ribbon cable which is long enough you can bend it out of the card cage and lay the card under test on top of the calculator.

Achim

Re: 9810 Power Problem?

*Message #6 Posted by **Tony Duell (UK)** on 28 Aug 2003, 4:39 p.m.,*
in response to message #4 by Katie

Firstly a couple of points from your first message. The fan doesn't tell you a lot -- it's an AC fan running off the mains side of the transformer (in you case (120V), straight off the mains, in my case (240V), the mains transformer primary acts as an autotransformer). Secondly, you say you tested the 5 labelled PSU rails, but presumably you didn't test the 5V line (which is, of course, the supply for all the logic). There's a convenient capacitor to use for this on the display PCB (I think the ends are even marked!), or you can check it on any TTL IC in the unit. Of course noise on this line causes problems! I don't have a set of extenders -- I wish I did. One problem is that the CPU boards all have 15 and 18 pin DS connectors, but at different positions on the 4 boards. This is great for failed circus, who;d find it difficult to get the PCBs in the wrong slots (I won't say impossible, I've met failed servoids..). It does mean you either need a different extender for each PCB, or you need to use 2 little boards, one for each connector, which is not mechanically too rigid. I guess if you want to work on boards in the memory cage with extenders, you'd put the entire cage on an extender (you only _need_ the rear connecotr, the front one is for the expansion ROM cartridge signals only), and then use another set of extenders to put the boards outside the left side of the cage. If I was going to do this, I'd make up some metal rods that would screw into the memory cage mounting holes, aand which would then support the cage on the extender. Anyway, what I actually do is to either use the wonderfully slim probes of the LogicDart, which will get to wquite a few IC pins without extenders (!), or to pul lthe card in question, solder wires onto useful testpoints, put the card back in, and test the free ends of the wires. It's a bit slower than using extenders, but it does work. Tracing a 'no display' fault on a 98x0 is non-trivial. The display is scanned in software (well, firmware), so for the display to come up, the entire CPU, memory controller, ROM, RAM, I/O controller and display circuitry have to be working. I am trying to work out ways to really trace faults -- HP kindly provided a test connector on the CPU control card (09810-66513) which carries the microcode address signals, and connectors o nthe memory box/memory control cards (depending on the model) that carry the address/data bus. To use the latter, you'd want to trigger a logic analyser on a particular micrcode address -- say just after the instruction fetch. All this is

possible (and I have a lot of notes I've made on how it works), but it'll have to wait until after the HPCC mini-conference.

Re: 9810 Power Problem?

*Message #7 Posted by **Katie** on 29 Aug 2003, 3:34 a.m.,*
in response to message #6 by Tony Duell (UK)

Wow Tony, where do you find the time to do all this hacking? I don't know if I'd have the patience to do the the kind of debugging that you do with your Logic Dart and wires soldered to the boards. I really need to use the board extender approach so that I can move from circuit to circuit quickly. I also have a really hard time working on these large machines without schematics. It's one thing to fix the handheld HP's with 2 to 12 chips blindly, but the 9810 is impossible. I tried repairing a dead Wang 520 without a diagram and got nowhere. Luckily I found someone with a full set of schematics and it was a relative breeze with them. [The Wang 500 design seems a lot more straightforward to me than the 9810, but the Wang is a simpler machine.]

BTW, I forgot to mention that the 5V supply looks pretty clean in my 9810 so I figured that wasn't the problem.

Re: 9810 Power Problem?

*Message #8 Posted by **Achim Buerger** on 29 Aug 2003, 7:37 a.m.,*
in response to message #7 by Katie

Katie, there _is_ a full set of 9810 schematics. You find it in the original patent 3859635 available at USPTO. I downloaded the about 400 TIF pages and made a 35MB PDF of them for convenient usage. At the beginning it's a bit difficult to identify which schematics belongs to which board. If you like, I can tell you which figure corresponds to which board. Achim

Re: 9810 Power Problem?

*Message #9 Posted by **Katie** on 29 Aug 2003, 11:54 a.m.,*
in response to message #8 by Achim Buerger

Achim,

Thanks for that pointer! I'm printing it out now. It'll make for some wonderful bedtime reading :)

-Katie

Re: 9810 Power Problem?

*Message #10 Posted by **David Smith** on 29 Aug 2003, 4:39 p.m.,*
in response to message #9 by Katie

Don't you already have a set of 9810 schematics... your friend in Texas...

Re: 9810 Power Problem?

*Message #11 Posted by **Katie** on 30 Aug 2003, 12:51 a.m.,*
in response to message #10 by David Smith

Oh my, I completely forgot about those! Thank you, thank you. They are much more

readable than the fragments in the patent. However, the patent makes a nice complement to the schematic in that it explains the detail that's not noted on the drawings.

Re: 9810 Power Problem?

*Message #12 Posted by **Tony Duell (UK)** on 29 Aug 2003, 5:59 p.m.,*
in response to message #8 by Achim Buerger

The HP Patents for the 98x0 series are a wonderful resource, but do be careful. I've found differences between the schematics in the patent and production machines (the memory system in my 9830 is _totally_ different to that in patent GB144141). IMHO, use the patents for clues, but don't follow them blindly.

Re: 9810 Power Problem?

*Message #13 Posted by **Tony Duell (UK)** on 29 Aug 2003, 6:04 p.m.,*
in response to message #7 by Katie

Actually, I generally have a pretty good idea as to the problem area from testing on pins I can reach with the machine fully assembled. I then pull the probably bad card and solder up to 10 wires on it (I can't find more than 10 different colours of wire easily :-)). I then probe those. It rarely takes more than 2 attempts at soldering on 10 ways to find the bad chip. As regards time, alas I don't have much else to do (like a job), so I figure I might as well work out how to repair HP calculators. And then share any tips here. FInally, you didn't mention you'd checked the 5V line, so that's why I asked about it. OK, it's not the problem...

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Emmanuel at Xeq41@aol.com

*Message #1 Posted by **Jeff** on 26 Aug 2003, 9:26 p.m.*

Has anyone completed a successful purchase from Emmaunel? I am not trying to give him a bad name but, I purchased something two months ago and yet to receive it. Also, he is not responding to e-mails regarding the transaction. Has anyone else had the same problems. Is shipping from his country really this difficult? Jeff

Re: Emmanuel at Xeq41@aol.com

*Message #2 Posted by **andy** on 26 Aug 2003, 9:46 p.m.,*
in response to message #1 by Jeff

I made a trade with him once and everything went well.

I have been trying to email him a scan and he hasn't been responding to my emails either. I think that he may travel a lot.

Andy

Re: Emmanuel at Xeq41@aol.com

*Message #3 Posted by **Dave** on 26 Aug 2003, 10:50 p.m.,*
in response to message #1 by Jeff

Just be aware his equipment is usually very high priced for the quality received....

Re: Emmanuel at Xeq41@aol.com

*Message #4 Posted by **Don Davis** on 26 Aug 2003, 11:28 p.m.,*
in response to message #3 by Dave

I made a trade deal with him for a 16C which I am very happy with. He shipped promptly and the item was in great condition as described. He also sent me additional documentation which was not part of the original deal. I am assuming that he may be traveling or something, as another respondent suggested. My dealings with him were very good.

Don

Re: Emmanuel at Xeq41@aol.com

*Message #5 Posted by **Museum** on 27 Aug 2003, 12:51 a.m.,*
in response to message #1 by Jeff

I know Emmanuel very well and I promise you he will never cheat you. I also have a open deal with him. He sent out a parcel some month ago that never arrived to me. I will see him in a month and I'm absolutely shure he will manage this. His problem is, that several parcels didn't arrive at the same time, so it's logic that he wants to get informations an dmoney from "la poste", and this will take some time. Please do trust him, and I

promise you, you will be satisfied with your deal. I had several deals with him that were all positive.

Matthias

Re: Emmanuel at Xeq41@aol.com

*Message #6 Posted by **james (UK)** on 27 Aug 2003, 8:47 a.m.,*
in response to message #1 by Jeff

I bought a Panam module from him a couple of months ago and had no problems with the deal or with getting email responses from him. 'La Poste' can slow things up as the first time he tried to mail the module to me 'La Poste' returned it to him but the second attempt got through. However, I believe August is a big holiday month in France and therefore things may be quiet at the moment.

I would have no worries about dealing with him again.

Re: Emmanuel at Xeq41@aol.com

*Message #7 Posted by **Ellis Easley** on 27 Aug 2003, 10:43 a.m.,*
in response to message #6 by james (UK)

I wonder if the heat wave is affecting the mail service in France (or Emmanuel himself)?

Re: Emmanuel at Xeq41@aol.com

*Message #8 Posted by **Ted** on 27 Aug 2003, 3:34 p.m.,*
in response to message #6 by james (UK)

I can vouch for him also, I received a calc in great condition, just as he described.

No problem at all - He's a good guy

*Message #9 Posted by **Mike** on 27 Aug 2003, 2:35 p.m.,*
in response to message #1 by Jeff

I have had many transactions (both ways) over the years and find him very reliable and trustwothy.

2 months? I have had items to/from Europe take 6 months. I have had some items make the trip twice before delivery. Postal service in Europe sucks just like their politics.

But, Emmanual is a good guy. Lots of Europeans take vacations this time of year. Perhaps he's getting away from the heat.

Re: No problem at all - He's a good guy

*Message #10 Posted by **John** on 28 Aug 2003, 1:01 p.m.,*
in response to message #9 by Mike

Mike: This might be off topic, but since you made the statement "Postal service in Europe sucks just like their politics." Do you mean that this goes for all European countries?? Have you dealt with all of them? And, shouldn't the subject of politics be kept out of this forum?

No more than this topic altogether

*Message #11 Posted by **Mike** on 28 Aug 2003, 9:03 p.m.,*
in response to message #10 by John

This whole thread is completely off topic.

Did you make a comment about that? As far as I understand it, this forum is for discussion of HP calculators. Not eBay bidders. So, I guess my comment is just as "on-topic" as the thread.

Re: USA - Europe

*Message #12 Posted by **Ljad** on 30 Aug 2003, 11:11 a.m.,*
in response to message #9 by Mike

> Postal service in Europe sucks.

Anyway, our electric power stations are much better :-)

>just like their politics.

Well, perhaps but what do you think about yours?

> But, Emmanual is a good guy.

Nice to hear, but can we say the same about You?

Don't like to read such replies,they give me a bad feeling For the rest: splendid Forum

Ljad.

re:Emmanuel at Xeq41@aol.com

*Message #13 Posted by **Emmanuel, France** on 31 Aug 2003, 3:58 a.m.,*
in response to message #1 by Jeff

```
Hello,
I'm just back from vacation.
Sorry for the delay.
I wrote something before leaving home, please visit:
```

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=40204

```
Let you know all about your parcel.
Thanks.
```

Re: Emmanuel at Xeq41@aol.com

*Message #14 Posted by **Joseph Barrera** on 1 Sept 2003, 2:58 a.m.,*
in response to message #1 by Jeff

Reply from above message of negative criticism of Emmanuel Xeq41@aol.com: I recently purchased a Hewlett Packard graphic calculator HP 49g, their advanced model, in July. He was so concerned that I get it that when he found out that the first shipment did not arrive to my residence in California, USA, he shipped me a second one knowing that he was going to complete his transaction. We still don't know what may have happened to the lost shipment, but the second one arrive in perfect order. The calculator was well packaged, even more than I expected, in new condition as he stated. I am completely satisfied with his business and would rate him a 10 from a scale 1-10, 10 being the best. He is an honest man, who can be trusted in saling exactly what he says he will. I would do business with him again. Sincerely, Joseph Barrera Southern Calif., USA

Re: Emmanuel at Xeq41@aol.com

*Message #15 Posted by **Jeff** on 1 Sept 2003, 9:42 a.m.,*
in response to message #1 by Jeff

This thread was not intended to give anyone a bad name! I was just concerned about the package and wondering if the La Poste really stinks. I feel very comfortable that the package will arrive now that I have talked to everyone. Sorry Emmanuel, I did not realize that August was the vacation month, my apologies. Jeff

---

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3056DL software for the hp85 and the hp3421a

*Message #1 Posted by **Andy** on 26 Aug 2003, 8:22 p.m.*

HP once offerd a product called the 3056DL which consisted of an hp85 and 2 hp3421a's in "and attractive locking cabinet". The 3056DL came with two dedicated software packages to make communicating with the 3421a's easy.

Is anyone familier with the 3056DL's software?

Andy

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buying HP calculators

*Message #1 Posted by **Phil Jonker** on 26 Aug 2003, 8:06 p.m.*

due to the place where I live (Australia) how can I successfully and safely purchase a used HP calculator?

Re: buying HP calculators

*Message #2 Posted by **Patrick** on 26 Aug 2003, 9:37 p.m.,*
in response to message #1 by Phil Jonker

I regularly see calculators for sale from Australia on eBay. Some here would argue that eBay does not qualify for your "safe" condition, and they would be right. It is not safe, not like buying from a reputable electronics chain. However, electonics chain stores don't carry the kinds of HP calculators I think you mean (i.e., not 9s, 9g, etc). Moreover, I have made some 60+ transactions so far on eBay, the most expensive being $340, and I have had mostly good experiences and no outright bad ones (like non-receipt of the merchandise).

Of course, the items on eBay don't have to be from Australia for you to buy them, either. :-)

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that HP42sx thing again

*Message #1 Posted by **christof (NoVA US)** on 26 Aug 2003, 6:40 p.m.*

Reading old literature and journals, i've found out that there was some form of HP42sx prototype actaully present and publicly used by a Corvallis engineer. The I/O functionality had been burned to a larger ROM and a hole cut in the case to take the hand wired socket. But it worked, and was there!

A fully disassambled ROM image from a 42S would make building an IO/extended functions ROM this much easier. I'd also vote for strictly Infrared IO due to power and space.

A disassembled 17Bii ROM would also add the ability to get the code for some of the financial and statistics functionality into a second ROM.

I'm sure that it would be easy to get submissions sifficient to fill any ROM package that was made. (to preserve the 'pioneer-ness' of the calc, it would have ot be a small surface mount item.

Periodically, steps are taken by various people to try and get closer to this Holy Grail of Pioneer calcs.

So here I am, starting the next cycle :)

Maybe I can get a disassembler running on a 48 to handle this.

and- for anyone building an emulator, go for it! a good 42 emulator would make final builds of a ROM much easier

Re: that HP42sx thing again

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 26 Aug 2003, 8:47 p.m.,*
in response to message #1 by christof (NoVA US)

I'm actually building a emulator in hardware (with microcontrollers) in my spare time, and I'm planning to emulate the coconut processor (HP41CX, 11C, 12C, 15C). I can add later the ability to emulate the Saturn processor, it isn't so different. The part I'm thinking about is the graphical LCD of the 42S, it is 131x16... I may use a larger graphic LCD and use some part to display the status of the emulator and the annunciators.

Regards,

Nelson

Re: that HP42sx thing again

*Message #3 Posted by **Erik Ehrling (Sweden)** on 27 Aug 2003, 1:24 a.m.,*
in response to message #1 by christof (NoVA US)

We *do* have an extremely good HP-42S emulator for this purpose (Emu42 by Christoph Giesselink). And we also have a very suitable mechanism for it in the additional ROM (as used for the mulilanguage 17BII)...

Re: that HP42sx thing again

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 27 Aug 2003, 9:22 a.m.,*
in response to message #3 by Erik Ehrling (Sweden)

Yes, I have this emulator, and it is great! My hobby project is to build a mainboard replacement for some Spices, and using a matrix LED display (5x7, 12 char.) it is possible to run a HP-41cx emulation. I'm working to get the ROM of my HP-15C, as it uses the same CPU as the 41. I'm thinking of make a "blended" calculator using the most interesting functions from several others... (not a pure emulator; a CPU emulator running a new ROM image compiled from several sources). As I said, it is a hobby project. I have some microcontrollers and some non-working calculators, and why not?

Regards,

Nelson

Re: Getting HP to market an HP42sx

*Message #5 Posted by **Frank Travis** on 27 Aug 2003, 10:45 a.m.,*
in response to message #1 by christof (NoVA US)

I purchased an HP 42S in 1991 from the now defunct Educalc (not related to the current Educalc.net). I like it very much. A few years back I read in a Chip Chapter newsletter that HP was working on a prototype for an expandable HP 42S (what is here referred to as an HP 42sx). The newsletter stated that the HP 48SX put the HP 42sx idea on hold. If enough persons expressed an interest, could HP market an HP 42sx? I know some persons are skeptical, but with HP introducing several new models of calculators this year (the HP 49G+ of which I am eagerly waiting) it might happen. I am open to comments/feedback.

Re: Getting HP to market an HP42sx

*Message #6 Posted by **Jonas Lööf** on 27 Aug 2003, 11:03 a.m.,*
in response to message #5 by Frank Travis

As long as we are discussing 'dream' calculators, this is my take on it...

Introducing the hp 48c. Basicly a hp 48 in a pocket (pioneer) sized case with a smaller screen (131x32 ?) and perhaps ditching the serial IO, but keeping IR IO. Using IRDA would allow direct comunication with PC:s anyway...

Re: Getting HP to market an HP42sx

*Message #7 Posted by **christof (NoVA US)** on 27 Aug 2003, 11:26 a.m.,*
in response to message #5 by Frank Travis

Unfortunately, I don't think HP will do it. At least, not to a degree that would make anyone here happy.

it is *possible* that something in a 10bii case (ugh) with some of the capabilities of a 42, and maybe even IO, could happen.

i'm a bit skeptical about their actual *ability*, let alone willingness, to provide something of the hardware and software capability of the 42S. Look at the obvious and silly bug with program entry limits in the 12CP, the case durability of the 10bii.

Hence my desire to add on to my 42S further :)

Re: HP42sx emulation for the upcoming HP 49G+

*Message #8 Posted by **Frank Travis** on 27 Aug 2003, 1:13 p.m.,*
in response to message #7 by christof (NoVA US)

Maybe the HP 42sx will never become a calculator available to the general public. The next best thing might be HP 42sx (i.e., compatibility with HP 42S, HP 41C/CV/CX) emulation for the soon to be released HP 49G+. I remember that there was an HP 41CV emulation package for the HP 48SX about 10 or more years ago. After a while I no longer saw this package. The huge amount of programs written for the HP 41C/CV/CX and HP 42S could run on a much faster platform with the ability to add additional memory with the Secure Digital (SD) card that can be inserted. I do not know if applications can actually to burned to the SD cards as applications could for the HP 48SX/GX plug-in cards, as well as the HP 41C/CV/CX plug-in modules.

Re: Getting HP to market an HP42sx - comment to Christof's comment...

*Message #9 Posted by **Bill Wiese** on 27 Aug 2003, 1:24 p.m.,*
in response to message #7 by christof (NoVA US)

Hi..

[Christof wrote:] i'm a bit skeptical about their actual ability*, let alone willingness, to provide something of the hardware and software capability of the 42S. look at the obvious and silly bug with program entry limits in the 12CP, the case durability of the 10bii. Hence my desire to add on to my 42S further :)

I agree about the 42S :) Dream calc.

HP/Kinpo failed on the 12CP because they had a small time & cost budget and decided to do a rewrite from scratch. In situations like this it would've been faster & more reliable to write a 'Nut CPU emulation layer - poss w/a few 'hotspot' areas optimized - that runs on the 6502. Even if written in assembly code, this wouldn't take too long; not that hard to emulate a 'Nut in C or assembly macros.

Instead of a "code interpreter" the emulation could also be done as a machine translation (i.e, at "compile time") via macros/pseudoops & subroutine calls, taking into account ROM space use.

Since I/O setups would be different, you'd jump in & out of emulation for KB, display I/O.

Then the 12C code could could run in 100% conformity to a regular 12C. Once this is done, minor changes (# of program steps, etc) could be done incrementally.

Building a new-old calculator is not difficult these days software-wise if you can change/replace/reflash a ROM with your choice of firmware. The new ARM-based 49 would be WAY cool for this. (Linux on a 49 anyone? :) The hard part for small runs on consumerish widgets like calculators is finding/manufacturing keytops w/appropriate legends and keyboard overlays w/legends. This takes at least (guesstimating) $25K-$40K for even small runs because setup costs are the big thing.

Bill Wiese San Jose, CA

Re: Getting HP to market an HP42sx - comment to Christof's comment...

*Message #10 Posted by **Veli-Pekka Nousiainen** on 29 Aug 2003, 8:04 p.m.,*
in response to message #9 by Bill Wiese

"The new ARM-based 49 would be WAY cool for this. (Linux on a 49 anyone? :)"

I think it just might have a miniature Linux underlying there... VPN

Re: Getting HP to market an HP42sx

*Message #11 Posted by **Erik Ehrling (Sweden)** on 28 Aug 2003, 12:51 p.m.,*
in response to message #5 by Frank Travis

This is exactly what I hoped to see among the new calculators released this autumn: A HP42S compatible calculator with 32K (or more) memory, a faster CPU and *most* important - I/O. In a way the HP33S is a step in the right direction, at least HP are producing a keystroke programmable RPN calculator again! (Only future will tell if we are waiting in vain for the dream calculator I describe above...) However, in the meantime - I/O for the HP-42S!? - well, I would be delighted! :-)

Best regards, Erik Ehrling (Sweden)

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-+*/ -> /*-+
*Message #1 Posted by **tony** on 26 Aug 2003, 6:01 p.m.*

The HP41C and all HP calculators before it all seem to have had the vertical top-down ordering of -+*/ for those 4 keys.

Then came the Voyagers with /*-+, setting the tone for the future. Anybody know why this ordering was changed?

It looks like HP did a X<>Y RDN RDN, in 1981, on those 4 fundamental keys. Maybe it was around then that the numeric keypad appeared on PC keyboards?

Re: -+*/ -> /*-+
*Message #2 Posted by **bill platt (les Estats Unis d'Amerique)** on 26 Aug 2003, 6:07 p.m.,*
in response to message #1 by tony

tony,

I have always wondered this, too. I will merely note that just about all other brands of calculator seem to have the order and position on the right, and like the voyagers and pioneers. Perhaps HP was merely aligning with an industry "standard"?

regards

Bill

Re: -+*/ -> /*-+
*Message #3 Posted by **Gordon Dyer** on 26 Aug 2003, 6:41 p.m.,*
in response to message #1 by tony

I have always found the Voyager order much more logical and intuitive to use.
The first HP I used was a 9825 which has the same key order as Voyager, and an HP-11C was my own first HP calc.
Before that I had a Commodore 7919 with x / - + in order from top to bottom and I prefered the HP-11C (in all aspects!).
I also have HP-41 and find the arithmetic key order very awakward.

Re: -+*/ -> /*-+
*Message #4 Posted by **Raymond Del Tondo** on 26 Aug 2003, 7:05 p.m.,*
in response to message #1 by tony

Hi,

I think the 41 series had the arithmetic keys this way because of ergonomical and practical reasons.

Hold your HP-41 in your right hand, with only your right thumb beeing able to access the keyboard.

Imagine you don't have your left hand free for typing. Now you're in a situation like an engineer in the field, with one hand holding a paper or adjusting a total station, and the calc in your other hand.

Your thumb can describe a specific angle over the keyboard, and the keys near the middle of the keyboard are simply easier to reach for your thumb. It's harder to reach the outmost keys, like '*' and '/', and thus the most used keys moved towards the center of the keyboard.

And that's one of the reasons why the ENTER key is where it used to be before the 1999 machines, by the way.

Regards,

Raymond

Re: -+*/ -> /*-+

*Message #5 Posted by **hugh** on 26 Aug 2003, 8:33 p.m.,*
in response to message #4 by Raymond Del Tondo

interesting. i wonder why right handed people operate buttons with their left hand fingers. or do they?

Re: -+*/ -> /*-+

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 26 Aug 2003, 8:52 p.m.,*
in response to message #5 by hugh

I'm left-handed and use my left hand do operate and the right to hold... Do right-handed people the same???

Regards,

Nelson

Re: -+*/ -> /*-+

*Message #7 Posted by **Veli-Pekka Nousiainen** on 26 Aug 2003, 10:10 p.m.,*
in response to message #5 by hugh

Left hand to operate the calc, right hand to write with a pen(cil) VPN

One-handed use; WAS: Re: -+*/ -> /*-+

*Message #8 Posted by **W. Bruce Maguire II** on 26 Aug 2003, 10:37 p.m.,*
in response to message #7 by Veli-Pekka Nousiainen

> Quote:
>
> Left hand to operate the calc, right hand to write with a pen(cil) VPN

Correct. I believe that the *vast* majority of right-handed people hold the calc. with their left hand, and punch keys with their right. It was for this exact reason that I found the earlier post about one-handed operation to be very strange! A right-handed person will almost *always* hold the calc. in the **left hand**---keeping the **right hand free** for writing! Therefore, any design for one-handed use

should really be designed for **left**-handed use.

I'm not convinced that one-handed use dictated the position of the "Enter" key on early HPs. I think it just makes the most ergonomic sense. For a "portrait" orientation, it seems that you would want a somewhat-standard "ten-key" orientation of the numbers, and the arithmetic operators in a vertical column close to the numbers. Remember, adding machines and basic office-machine-four-bangers somewhat standardized that vertical column of arithmetic operators (near the numbers) *many* years before HP produced their first calc. Anyway, back to the point, for a portrait orientation, it seems that you would want nothing in the lowest rows but the numbers and four arithmetic operations. It just makes sense to put a big "Enter" key right above the numbers.

I don't know... Maybe it just seems common-sense *now*, because we've all become so accustom to the great ergonomics of the old HP calc.s!

Bruce.

Re: One-handed use; WAS: Re: -+*/ -> /*-+

*Message #9 Posted by **christof (NoVA US)** on 27 Aug 2003, 3:38 p.m.,*
in response to message #8 by W. Bruce Maguire II

Interesting. I hadn't thought of it much before, becausethe Pioneer and Coconut calcs just work so well for me as they are.

I'm left handed and almost always use a calc with my right hand, saving my left hand for important things like the coffee cup.

It doesn't seem as comfortable to use with my left hand, though that is very possibly due to my normal habits. The enter key definitely belongs shere my index finger can get at it

Re: One-handed use; WAS: Re: -+*/ -> /*-+

*Message #10 Posted by **Nelson M. Sicuro (Brazil)** on 27 Aug 2003, 4:25 p.m.,*
in response to message #9 by christof (NoVA US)

I also use my left-hand on computer mouse and the right on the HP42, on my desk. <off topic> It is curious that many left-handed people (like myself) likes mathematics. As an exemple, in one project I worked three of four people was left-handed (one mathematician, one engineer and one programmer [me]). </off topic>

Regards,

Nelson

Re: -+*/ -> /*-+

*Message #11 Posted by **bill platt (les Estats Unis d'Amerique)** on 27 Aug 2003, 11:37 a.m.,*
in response to message #4 by Raymond Del Tondo

Hi Raymond,

I am a leftie---and I use my calculator many different ways:

Sometimes it is on the desk--and I use it with either left or right hand, depending on whether I am sketching or something with my left hand,

Other times, the calc is in hand, and I use it three ways here:

Left hand, with thumb, Right hand, with thumb, and both hands, with two thumbs.

All of these methods are quite even in usage, too.

What I have noticed recently, is that going back to a voyager, after 8 years with pioneers, is that the voyager really is much more awkward for 1 handed use--though I remember being quite comfortable that way in the past. I think I used to be adapted to seeing the lcd at a cattywompus angle, and now I have lost that adaptation.

Regards,

Bill

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Pioneer Cases

*Message #1 Posted by **Patrick** on 26 Aug 2003, 4:37 p.m.*

I have some Pioneer class machines which I purchased without cases. Does anyone know of a source for cases other than eBay (where they seldom appear)?

Is there a common commercial case, perhaps not originally intended for these calculators, but which would otherwise make an acceptable substitute?

I would be happy to purchase the real leather HP cases if they are still available for sale somewhere.

Re: Pioneer Cases

*Message #2 Posted by **Richard Garner** on 26 Aug 2003, 5:15 p.m.,*
in response to message #1 by Patrick

Patrick,

CalcPro.com has cases or they did for the 32s and 17b.

yes

*Message #3 Posted by **hugh** on 26 Aug 2003, 5:24 p.m.,*
in response to message #1 by Patrick

i have one here you can have for nothing except the postage. its new! from a 20s with the cardboard still in it. there were two in the box. a mistake?

i am in london uk. airmail would be 1.20 uk pounds.

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Looking for magnetic-backed cardstock

*Message #1 Posted by **Andy** on 26 Aug 2003, 3:21 p.m.*

The 9100, 9810, 9820, 67, 97, 41, 71, and 75 all use magnetic cards made of seemingly identical material...a kind of flexible plastic with a magnetic coating on one side.

It seems like there must be a source for this type of media (maybe in sheets or rolls). If so, one could simply cut their own cards to fit their machine.

Any suggestions?

Thanks,

Andy

Re: Looking for magnetic-backed cardstock

*Message #2 Posted by **Victor Koechli** on 26 Aug 2003, 4:41 p.m.,*
in response to message #1 by Andy

The 71 and 75, with their hand-pulled card readers, use cards that are pre-recorded with a timing track so the card reader knowns at what speed the card is being pulled. Without this information, a card will not be usable on these machines.

The cards of the 65, 67, and 41, on the other hand, are simply blank. Don't know about other machines.

Just my 2 cents, Victor

Re: Looking for magnetic-backed cardstock

*Message #3 Posted by **Tony Duell (UK)** on 26 Aug 2003, 5:25 p.m.,*
in response to message #2 by Victor Koechli

THe 9100 and 9810 (and presumably the 9820, since the reader and interface are the same as for the 9810) use cards which are not 'pre-formatted'. There is no factory-written clock (timing) track for these machines.

Re: Looking for magnetic-backed cardstock

*Message #4 Posted by **andy** on 26 Aug 2003, 5:40 p.m.,*
in response to message #1 by Andy

I happened to have an old 8" floppy lying on my desk at work (don't ask why).

I think its big enough to cut 2 6x2" cards out of. I'll give it a try and report back.

Re: Looking for magnetic-backed cardstock

*Message #5 Posted by **David Smith** on 27 Aug 2003, 5:01 p.m.,*
in response to message #4 by andy

The floppy material is too thin for reliable feeding... been there, tried that. Back to gluing things onto thicker stock... by the way, the floppy envelope material may make a good cardstock.

Re: Looking for magnetic-backed cardstock

*Message #6 Posted by **andy** on 28 Aug 2003, 10:05 a.m.,*
in response to message #5 by David Smith

Do you mean the paper/fiber envelope or the plastic cover that you have to cut open to remove the disc?

Andy

Re: Looking for magnetic-backed cardstock

*Message #7 Posted by **David Smith** on 28 Aug 2003, 2:20 p.m.,*
in response to message #6 by andy

I mean the plastic housing of the magnetic floppy disk. This material seems to be close to the right thickness and flexibility of a magnetic card.

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HP48GX Websites

*Message #1 Posted by **James** on 26 Aug 2003, 1:29 p.m.*

Anyone know any good 48 websites?

Jim in Greenland

Re: HP48GX Websites

*Message #2 Posted by **bill platt** on 26 Aug 2003, 1:50 p.m.,*
in response to message #1 by James

comp.sys.hp48 (find on groups.google.com) hpcalc.org (amazing collection of downloadable software)

Re: HP48GX Websites

*Message #3 Posted by **Juergen Rodenkirchen** on 26 Aug 2003, 1:56 p.m.,*
in response to message #1 by James

Try www.hpcalc.org. Stuff for more than a life-time :-)

Have fun with your HP48,

Juergen

Re: HP48GX Websites

*Message #4 Posted by **Emmanuel Verbeeck** on 26 Aug 2003, 3:16 p.m.,*
in response to message #1 by James

Also http://www.area48.com

Re: HP48GX Websites

*Message #5 Posted by **James M. Prange** on 26 Aug 2003, 8:57 p.m.,*
in response to message #1 by James

http://m.webring.com/hub?sid=&ring=hp48&id=&hub

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HP 41 rubber feets

*Message #1 Posted by **Frederic** on 26 Aug 2003, 12:35 p.m.*

Hi, i just repair my HP-41C and fully clean it. To finish the job, i need all the four black rubber feet tht had been lost with time.

What material can i use to replace these rubber feets and what to use to glue them in place?

I think about using a old tire inside trip but nothing for the glue.

Re: HP 41 rubber feets

*Message #2 Posted by **Naim** on 26 Aug 2003, 12:50 p.m.,*
in response to message #1 by Frederic

"feets"? Anyway, I used a good quality tyre tube with much success.

Re: HP 41 rubber feets

*Message #3 Posted by **David Ramsey** on 26 Aug 2003, 1:03 p.m.,*
in response to message #1 by Frederic

To glue the feet in place, use automotive interior trim adhesive. It comes in a spray can and one can will be a lifetime supply-- easily enough for thousands of rubber feet. This stuff is available at any auto supply store and is normally used for things like repairing sagging roof liners.

Place the foot or foot substitue face down on wax paper. Lightly spray the foot with the adhesive. Carefully pick it up and stick it on the calculator.

Re: HP 41 rubber feets

*Message #4 Posted by **Renato** on 26 Aug 2003, 1:25 p.m.,*
in response to message #3 by David Ramsey

Double sided scotch tape is ok for me. It is also very easy to apply.

Re: HP 41 rubber feets

*Message #5 Posted by **bill platt** on 26 Aug 2003, 2:05 p.m.,*
in response to message #1 by Frederic

Bonjour Frederic,

try searching the current forum, as well as the most recent archive. There was quite a bit of activity on wht sort of rubber sheet material to buy.

Regards,

Bill

Re: HP 41 rubber feets

*Message #6 Posted by **Randy Sloyer** on 26 Aug 2003, 5:47 p.m.,*
in response to message #5 by bill platt

Double sided carpet tape works well as it has a high shear strength adhesive just like the original 3M stick-ums. I just wish I could find it in the original black color.

Re: HP 41 rubber feet

*Message #7 Posted by **Katie** on 27 Aug 2003, 9:49 a.m.,*
in response to message #6 by Randy Sloyer

Randy,

I use carpet tape as well and it's white. But since it's not visible under the rubber feet (if you cut it right) why do (would) you want to use black tape. Isn't that carrying authenticity a bit too far! ;-)

-Katie

Re: HP 41 rubber feet

*Message #8 Posted by **Randy Sloyer** on 27 Aug 2003, 12:13 p.m.,*
in response to message #7 by Katie

I'm into preserving perfection :^)

I have found a good way to hide the white. First, clean the rubber sheet, and apply the tape so you can cut both the foot and tape in the same operation. I then cut with a rotary wheel cutter on a resilient cutting pad using a small metal T-square. It makes for very smooth, straight sided cuts. Almost as good as...

Re: HP 41 rubber feet

*Message #9 Posted by **David Smith** on 28 Aug 2003, 2:24 p.m.,*
in response to message #8 by Randy Sloyer

3M makes all sorts of double sided sticky industrial adhesives. I had some samples of some that was an exact physical match for the stuff HP used. I think it was rated at around 2000 lbs per square inch of material... them footsies ain't gonna fall off.

Re: HP 41 rubber feet

*Message #10 Posted by **Randy Sloyer** on 28 Aug 2003, 5:02 p.m.,*
in response to message #9 by David Smith

Do you know what the 3M product number was? I went through their website for double-sided tapes but I never found any black carrier products.

Re: HP 41 rubber feet

*Message #11 Posted by **David Smith** on 30 Aug 2003, 1:07 p.m.,*
in response to message #10 by Randy Sloyer

I check the pieces that I have. They have no number on them. Only "3M Hi Performance"... The pieces were cut out of a larger sheet and any number was probably there. The earlier material I have was a dark grey color. The later was clear.

Re: HP 41 rubber feets

*Message #12 Posted by **Stefan Hauschild** on 27 Aug 2003, 7:01 a.m.,*
in response to message #1 by Frederic

Spare rubber feet for some case sizes are available at our local parts store (Conrad Electronic). If I needed some I would try to cut them down.

Best regards

Stefan

Re: HP 41 rubber feets

*Message #13 Posted by **Michael Meyer** on 28 Aug 2003, 3:49 a.m.,*
in response to message #12 by Stefan Hauschild

I just tonight stuck 4 new feet on a 62A printer. I used the "roll-on" adhesive tape method (the new press and roll dispensers). Works great on many things and allows simple, fast, complete coverage of surfaces.

Michael

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HP 59309A HP-IB Digital Clock

*Message #1 Posted by **Vassilis Prevelakis** on 26 Aug 2003, 1:05 a.m.*

The HP 59309A HP-IB Digital Clock allows access to a time of day clock via the HP-IB bus.

I have connected this thing to an HP-85 but have been unable to convince it to return a value.

I can send commends to the 59309A, (e.g. I can stop it and then restart it), but trying to read from it jams the bus, till I reset the bus (using the RESET 7 Basic command). The 59309A has a "ADDRESSED" LED that lights up when it sees its address on the bus. So when I send commands to it, the ADDRESSED LED briefly lights up, when I try to read from it, the ADDRESSED LED stays on till I reset the bus.

Assuming that the clock has address 17, the command I am trying is a simple:

```
ENTER 717; A
```

Behind an access cover under the display, are a few switches. The ones on the right serve to set the time and date, but the ones on the left are puzzling. There is a switch labeled INT/EXT, the clock works if it is set to INT, if the switch is set to EXT, the clock display goes out and the machine does not respond to commands sent over the HP-IB.

Another button labeled READ makes the display blink, but does not appear to do anything else.

BTW on the back of the machine there are 7 little switches, 5 are used to set the HP-IB address, and the other two are used to set the "MODE". On one setting the machine is configured only to talk (i.e. cannot accept commands over the bus). On the other setting the machine acts both as a listener and a talker. I have tried the ENTER command shown above in both modes (I even tried pressing the READ button), but so far the machine is mute.

Another thing that is strange with this clock is that the decimal dots of all the digits are always on. Does that mean something and how can I turn them off?

Any help really appreciated.

**vp

Re: HP 59309A HP-IB Digital Clock

*Message #2 Posted by **Vassilis Prevelakis** on 26 Aug 2003, 2:06 a.m.,*
in response to message #1 by Vassilis Prevelakis

Oops, typo

I guess I cannot even write a one line program without making a mistake. The correct command is:

```
ENTER 717; A$
```

Since the 59309A should send a string terminated by a linefeed character.

**vp

Re: HP 59309A HP-IB Digital Clock

*Message #3 Posted by **andy** on 26 Aug 2003, 11:17 a.m.,*
in response to message #2 by Vassilis Prevelakis

You're in luck. I recently scanned the entire 59309a operating and service manual. I'll look up the commands tonight and post them.

I use a 59309a with my hp85. In the startup program, I call the time from the 59309a and use it to set the 85's clock. It works great.

I think the command is:

output 7??; "C" input 7??;a

but like I said...I'll look it up tonight. There are also some dip switches inside the 59309a which set the format of data output.

Also, if you just got your 59309a, you should look inside and make sure noone installed an internal 9V backup battery since it could leak. I made a BNC-9V cable so I can utilize the 59309a's external 9V backup.

Its the perfect lab clock (except you need a magnifying glass to read it) 8^)

Andy

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HP-17BII+

*Message #1 Posted by **Tom Cox** on 25 Aug 2003, 8:26 p.m.*

I have seen the HP-17BII+ advertised. I believe that CalcPro has them in stock. Does anyone have any hands-on experience with that machine yet? Since it uses the same case as the 10-BII, which is known not to be very reliable, I don't want to be on the bleeding edge.

Any information would be appreciated.

Re: HP-17BII+

*Message #2 Posted by **d4days** on 27 Aug 2003, 1:16 a.m.,*
in response to message #1 by Tom Cox

I just bought one on Ebay.

Will let you know when I get it.

:-)

Re: HP-17BII+

*Message #3 Posted by **chi** on 27 Aug 2003, 6:21 a.m.,*
in response to message #2 by d4days

I owned a HP 17BII and just bought a new HP 17BII+. When I re-inputted the solver equations to my new HP 17BII+, specifically the Black Scholes equation, the calculator returned "INVALID EQUATION" and the cursor stopped at the first L of the equation. I wonder if the L caused the error. Both L and G were not documented in the HP 17BII and 17BII+ manuals but they worked well on my 17BII.

Anyone has any idea on this issue or any work around or else my HP 17BII+ will be useless!

BTW, anyone who wish buy the new calculator should beware of the keyboard feel of the new calculator. They are completely different (between the old 17BII and new 17BII+). If not the new calculator is equipped with more memory, I would prefer my old 17BII!!

Re: Interesting!

*Message #4 Posted by **Ron Ross** on 27 Aug 2003, 7:47 a.m.,*
in response to message #3 by chi

The Let and Get functions were not documented in any of the Hp17's literature (it was documented in an Hp19b/Hp27s advanced manual). Could it be, that it was overlooked and left out?

Recheck with a much simpler equation than the Black Scholes eq. (you could have easily FAT FINGERed an error since I would NEVER blame a QUAULITY HP keyboard for a missed key stroke).

Fat Fingers (off topic)

*Message #5 Posted by **bill platt** on 27 Aug 2003, 11:45 a.m.,*
in response to message #4 by Ron Ross

Hi Ron,

Have you ever seen Itzhak Perlman play violin? His fingers look too big--but he *never* misses a note. How can that be? ;^)

Regards,

Bill

Re: Fat Fingers (off topic)

*Message #6 Posted by **Ron Ross** on 27 Aug 2003, 11:57 a.m.,*
in response to message #5 by bill platt

Perhaps the quality of the violin is somewhat better than the keyboard of the Hp17BII+? (I only wish and hope this is a mild understatement) But the ORIGINAL Hp pioneers??? That is a different question!

8o)

Re: New HP 17BII+

*Message #7 Posted by **chi** on 27 Aug 2003, 11:11 p.m.,*
in response to message #4 by Ron Ross

I just wrote to HP asking for a fix. They reponded quickly to ask me to check my typo. But after half an hour they send me another email saying that they were taking up the issue and would advise me later.

Actually, I don't think it is a matter of typo as I have compared line by line with my two calculators for the equation input.

My concern is that HP is rolling out new or improved models of their once and still favoured models to the market but manufacturing process was outscouced. It really remains a question to the extent of involvement of HP in the development stage and how hard both HP and the Kinpo had done to preserve the goods and introduce new improvement in response to users' suggestions.

For those who wants to try new models especially the coming 49G+ etc should take note of the concern raised here.

Edited: 28 Aug 2003, 5:23 a.m.

recodign the new machines

*Message #8 Posted by **christof (NoVA US)** on 29 Aug 2003, 3:22 p.m.,*
in response to message #7 by chi

The BEST thing, IMO, that HP could do with the 49G+ and other new machines is to recode them from scratch- but that requires a real and fully functional ACO.

The ARM CPU is a wonderful beastie, but it's not a Saturn- and it shouldn't be treated like one.

By all means, keep RPN/RPL, continue to provide really good real world functionality- but improve and recode while you do.

With the 12CP and the 17Bii+ we have already seen this-- emulating the 17bii in a new machine with dissimilar hardware is hardly an improvement (except in RAM capacity)- and entropy creeps in when you do that.

Re: HP-17BII+

*Message #9 Posted by **Britt** on 28 Aug 2003, 9:51 a.m.,*
in response to message #3 by chi

I received my HP-17Bii+ yesterday. My initial impressions are:

PROS:

1. RPN mode.

2. Nice looking calculator.

3. The display is much more readable than the two-line Pioneers.

4. Surprisingly lightweight but the case has a good rigid feel to it.

5. Big, hard plastic keys that click.

6. The manual looks OK but I haven't read it yet.

CONS:

1. The key springs are a little too stiff. The key in the top-right corner requires extra pressure to activate.

2. There is no real "ENTER" key.

3. At $119 U.S. list price, it is way overpriced.

Although I like the calculator so far, I paid $75 on E-Bay and I'm thinking that may have been too much. I'll probably end up using it less than my Brazilian HP-12C but more than my HP-18C.

Britt

Re: HP-17BII+

*Message #10 Posted by **Frank Wales** on 28 Aug 2003, 1:01 p.m.,*
in response to message #9 by Britt

> Quote:
>
> The key in the top-right corner requires extra pressure to activate.

Hm. That sounds familiar.

Re: HP-17BII+

*Message #11 Posted by **tony** on 29 Aug 2003, 2:25 a.m.,*
in response to message #3 by chi

Try an equation like

L(A:1)-B

If it stops on the "L" we sure have a big problem with the 17BII+ - I wonder if they couldn't re-use the 17BII code?

Re: HP-17BII+

*Message #12 Posted by **chi** on 29 Aug 2003, 10:17 a.m.,*
in response to message #11 by tony

It stops at A.

Re: HP-17BII+

*Message #13 Posted by **tony** on 29 Aug 2003, 4:13 p.m.,*
in response to message #12 by chi

oh that is like my 18C - it stops with the cursor on the (before the A and says "INVALID FORMULA". The only work around is to solve for each otherwise local variable with a string of IF(S(D1):... or to make the equation much longer with lots of repeated stuff. if you use the BS from the hp website then you can get away with solving for D5. For the shortest formula you need to solve for D5,D6,D1,D2 - then CALLV, then PUTV. Still quite workable. But if L(.) and G(.) don't work it's like the old 17B and 18C.

Re: HP-17BII+

*Message #14 Posted by **tony** on 29 Aug 2003, 5:44 p.m.,*
in response to message #3 by chi

```
Chi the BS equation below doesn't use L(.) or G(.)
- so, it may be a work-around for you.
It uses the same notation as the HP 17BII Black-Scholes equation
available from their web site at:
```

http://www.hp.com/cposupport/mobile_computing/support_doc/bpia5179.html

```
It is twice as accurate as the HP 17BII Black-Scholes equation
and 15% shorter to code.


First page:   PS PE RF% T S    MORE
Second page:  D1 F1 D2 F2 CALL MORE
Last page:    PUTV             MORE


Input first page variables.
Solve for D1,F1,D2,F2 and CALLV in order.
Then MORE PUTV to solve for PUTV.


So, the cost of not having L(.) and G(.) is that we now have 4
extra variables to solve for manually, before solving for
CALLV.


I have separated the lines below just to make it easier to
follow.
```

```
BS:0*(PS+PE+RF%+T+S)+
IF(S(D1):D1-(LN(PS/PE)+(RF%/100+S^2/2)*T)/S/SQRT(T):
IF(S(F1):F1-1/(1+ABS(D1)/3.006):
IF(S(D2):D2-D1+S*SQRT(T):
IF(S(F2):F2-1/(1+ABS(D2)/3.006):
IF(S(CALLV):CALLV-PS*ABS(IF(D1<0;0;-1)+
EXP(-D1^2/2)*F1*((187*F1-24)*F1+87)/500)
+PE*EXP(-RF%*T/100)*ABS(IF(D2<0:0:-1)+
EXP(-D2^2/2)*F2*((187*F2-24)*F2+87)/500):
PUTV-CALLV+PS-PE*EXP(-RF%*T/100))))))


This is also based on the UTPN approximation in my article in
HPCC (www.hpcc.org) DataFile V22N3 pages 13-21.


Cheers,
Tony
```

Re: HP-17BII+

*Message #15 Posted by **tony** on 31 Aug 2003, 6:38 p.m.,*
in response to message #14 by tony

warning: on the 17BII+ it seems my B-S equation work-around needs extra brackets - the exp(-D1^2/2) needs (D1^2) and also a (D2^2) is required. This is the first HP solver I have seen that doesn't follow the usual precedence for an exponent.

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41CV turns off after 30 seconds

*Message #1 Posted by **Matt Kernal (US)** on 25 Aug 2003, 6:09 p.m.*

I picked up a good condition 41CV at a thrift store the other day (paid less than $1)! It has very slight indications of minor battery leakage, but no corrosion damage.

I took the N-cell batteries out of another 41 (which works perfectly BTW), and inserted them into the "new" 41CV. Everything seemed to worked great on the new one, but it shut off after 30 seconds of no activity.

Any thoughts/ideas about having it to stay on longer? I didn't think the shut-off time was programmable (I could be wrong, I don't have my manuals handy).

Thanks, Matt

Re: 41CV turns off after 30 seconds

*Message #2 Posted by **David Smith** on 25 Aug 2003, 6:44 p.m.,*
in response to message #1 by Matt Kernal (US)

Open it up and clean the circuit board, back of the display, connections, and keyboard with 91%+ isopropyl alcohol. Keep the alcohol off of the display window. It will leave a white stain.

If this does not work, there is a capacitor on the CPU card that controls the timeout system (actually the LCD module does the work). The HP41 service manual is on the HPMUSEUM CDROMS.

Re:42 repair -->alcohol damage to display lens

*Message #3 Posted by **Katie** on 25 Aug 2003, 7:31 p.m.,*
in response to message #2 by David Smith

If you do accidentally get isopropyl alcohol on the display window and it clouds it up, it can easily be removed using Novus Plastic Polish. Use their #2 to clean off light scratches and the #1 to polish with. #3 is too harsh for most circumstances. The best prices on this stuff seem to be from tanning supply companies (of all places!) like: http://www.tanforless.com/tansup.html

Re:42 repair -->alcohol damage to display lens

*Message #4 Posted by **Grant Goodes** on 26 Aug 2003, 10:46 a.m.,*
in response to message #3 by Katie

I concur that Novus is easily one of the best plastic polishes out there, and that #2 is the most useful. It has a very gentle abrasive, as well as cleaning compounds, and will remove ground-in dirt, restoring plastics to their original luster and colour. I use it for pinball restoration, and have sucessfully used it on the plastic cases of HP instruments that had yellowing due to age/dirt and possibly tobacco.

You can apparently find it in most Harley dealerships, and some box-stores. Us pinball types buy it in large jugs from pinball parts dealers.

grant..

Re: 41CV turns off after 30 seconds

*Message #5 Posted by **Daniel Diggelmann** on 25 Aug 2003, 6:45 p.m.,*
in response to message #1 by Matt Kernal (US)

Hi Matt,

I have experience the same problem on a fullnut HP-41CV. I actually was a bad contact between the CPU board and mainboard. After cleaning the contact with ISOPROPYL Alcohol the calculator switched off after the usual ~10 minutes. The reason for this is that the shut off timer is part of the display assembly and not of the CPU assembly.

Good luck Daniel

Thanks for the advice... I'll try it. (NT)

*Message #6 Posted by **Matt Kernal (US)** on 27 Aug 2003, 6:27 p.m.,*
in response to message #1 by Matt Kernal (US)

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Buying a Used HP

*Message #1 Posted by **Dave** on 25 Aug 2003, 5:21 p.m.*

I have an HP 15C that I've owned for twenty years and I really like it. I would like to buy a used HP to use exclusively at work, but I'm not sure which model to buy. (I work as an EE). I like the 15C, but they are ridiculously expensive, so I've been looking at the 28C or 48G because they can be purchased at reasonable prices. Of these two choices, which would you recommend for general-purpose usage?

Dave

Re: Buying a Used HP

*Message #2 Posted by **Raymond Del Tondo** on 25 Aug 2003, 5:44 p.m.,*
in response to message #1 by Dave

I'd take an 48G, if you don't plan to carry it around too often. Nearly all attributes of the 48G are larger/bigger/better than in the 28C: Display, RAM, speed, connectivity, and form factor.

The operating system is far more advanced, there is MUCH more software available for the HP-48 series, and one of the most important points is the ability to exchange data between the 48G and other machines, like a PC or other HP-48.

The only advantages of an HP-28 are their smaller form factor when folded, and the separate ALPHA keyboard.

From my current point of view, I'd never buy a clamshell (HP-28, etc) machine again, at least not for real usage.

From usability views, I'd suggest an 32S, 32SII, or even 42S.

Regards,

Raymond

Re: Buying a Used HP

*Message #3 Posted by **Jeroen** on 25 Aug 2003, 6:07 p.m.,*
in response to message #1 by Dave

I'd buy a 48G instead of a 28C (I own both a 48G and a 28S), at least if you're sure you don't need more than 32K (otherwise, buy a 48G+ or a 48GX).

The 48G: - has a better display - has more memory and functions - is easier to use in one hand than the clamshell model of the 28C - has a cable link

The 28C is slightly better for alpha entry and has a less cluttered keyboard.

Jeroen

Re: Buying a Used HP

*Message #4 Posted by **David Smith** on 25 Aug 2003, 6:45 p.m.,*
in response to message #1 by Dave

You get what you pay for... the old machines are expensive for a good reason.

Re: Buying a Used HP

*Message #5 Posted by **christof (NoVA US)** on 25 Aug 2003, 7:22 p.m.,*
in response to message #1 by Dave

except for collecting, I see no reason at all to gt a 28C. Of course, I tend to muck around and fill my machines up with more than 2k of programs, data, and working needs.

the 28S is a fine fine fine machine, on the other hand :)

The 48g is probably your best bet, though- unless you want the pleasure of the alpha keyboard (I personally love it). A new in box 48g can be had for under $60 quite handily.

while the 42S appeals to me slightly, more, you can pretty handily get a pair of 48Gs for half the price, and use them to back each other up.

You may also want to look at a 48S. they don't come up as often, but tend to be drit cheap when they do. My work desktop calc is a 48S I got for a $8 bid on ebay a while back :)

Re: Buying a Used HP

*Message #6 Posted by **Paul Brogger** on 25 Aug 2003, 8:21 p.m.,*
in response to message #1 by Dave

I think the 28C/S keyboards have a bit more of the Woodstock, Spice, etc "classic feel" to them than do the 48G keyboards.

The 28C/S is much less sturdy -- if you plan to squeeze or drop it, you'll rather want a 48 (given the choice offered).

The 28C/S battery compartment door is legendary for being very badly designed, and very toublesome in use. If you get one, try to make sure the battery compartment is in near-mint condition, and be VERY careful when changing batteries yourself.

The 28S, with 32K, is preferable to the 28C if you're going to store anything at all. (The 28C, with 30K fewer bytes, is, however, lighter. ;^))

As noted elsewhere, the 28C/S keyboard is less cluttered.

All in all, I'd take a 28C/S over a 48G -- it has more personality and a better feel. But if ruggedness or PC connectivity are significant, go for the 48G.

You really shouldn't be disappointed either way. (You might try to find both!) They won't compare to your trusty 15C, but they are good, usable RPN (or should I say, RPL) machines.

Re: Buying a Used HP

*Message #7 Posted by **Randy Sloyer** on 25 Aug 2003, 9:13 p.m.,*
in response to message #6 by Paul Brogger

IMO, while the 28 series may have a great alpha keyboard, it stinks as a general purpose scientific. Just try to find logs or 10^X without going through a menu pick. Doooaahh as Homer would say. At least the 48 series did that right.

Much too painful for me. I guess I shut down when the concept of X<>Y turned into a shifted function, aka swap, it was time for me to go...

Re: Buying a Used HP

*Message #8 Posted by **Vassilis Prevelakis** on 25 Aug 2003, 11:24 p.m.,*
in response to message #1 by Dave

Having used the HP-15C, be prepared for a culture shock when moving to a 28C/S or a 48. The reason is that the new machines have RPL. This means that the stack is no longer 4 deep (can be as big as there is memory), and that some things behave differently.

Personally I hate it. I hated my 28C and I hate my 48SX and 48GX.

On machines like the 15C everything is up there on the keyboard. On the RPL machines you have to go down various menus till you hit the function you want.

Having said that, I think that a more recent machine (like the 48) is a better choice because of the larger screen and generally decent quality.

**vp

Re: Buying a Used HP

*Message #9 Posted by **Veli-Pekka Nousiainen** on 26 Aug 2003, 2:51 a.m.,*
in response to message #8 by Vassilis Prevelakis

The HP 48 series has the USER Mode: a redefinable keyboard. They also have the serial link for PC and even a bi-directional Sir to exhange data between two 48 without cables. The HP 28C model had memory only on it's display drivers and that is around 2K free, which is not enough for anything. Also DEFining new user functions was restricted to algebraic syntax only. Minus (not plus) there was no decent file structure system with subfolders. It's more like the stupid TI 89 in that respect. (it get's not much respect from me [pun intended]). The lack of Input other than keyboard in the 28 series makes it more of a calculator than a real computer. I'd rather buy the new hp 49g+. It has SD card, real IrDA, USB, CAS software and a lot of other goodies, plus the speed! VPN

Re: Buying a Used HP

*Message #10 Posted by **Victor Koechli** on 27 Aug 2003, 3:02 a.m.,*
in response to message #8 by Vassilis Prevelakis

That could be good news for me: If you hate your 48's, you could just as well give them to me :-))). I actually love them!

Seriuosly: The large display is fantastic. Seeing multiple stack levels is very convenient, even if you just use it to crunch numbers. And with a stack replacement program like HPSauce (on the 48G/G+/GX, anyway), you'll always know how many stack levels you are using at the moment.

I agree, however, that the lack of simple LastX is nasty...

Cheers, Victor

Re: Buying a Used HP

*Message #11 Posted by **Veli-Pekka Nousiainen** on 27 Aug 2003, 4:02 a.m.,*
in response to message #10 by Victor Koechli

With Vectored ENTER and/or some other tricks, you can program the old LASTX behaviour to your 48/49 calculator. You may also do something like unlimited undo, etc. OR You could limit your stack size and duplicate the T-reg behavior. VPN

Re: LastX for HP-48

*Message #12 Posted by **Victor Koechli** on 27 Aug 2003, 7:39 a.m.,*
in response to message #11 by Veli-Pekka Nousiainen

Actually, it's not so difficult to do:

```
<< DEPTH -> d
  << LASTARG DEPTH d - ROLLD
  LASTARG 1. - DROPN >>  >>
```

Although it has one major flaw: It works only once, the next time it will return the number of dropped stack entries from DROPN, and subsequent executions will always return zero. I have yet to find a way to store the original LASTARG contents back into LASTARG before the program ends. If anyone knew of a possibility...

And if anyone could tell me how to increase the CMD-Stack. Type a few numbers, and gone is the last command you entered. 4 Levels is simply not enough.

Cheers, Victor

Re: LastX for HP-48

*Message #13 Posted by **Werner Huysegoms** on 27 Aug 2003, 7:58 a.m.,*
in response to message #12 by Victor Koechli

```
Simple.  Add
  DUP DROP
as last commands, and LASTX will be preserved
```

Werner

LastX for HP-48 THANKS!

*Message #14 Posted by **bill platt (les Estats Unis d'Amerique)** on 27 Aug 2003, 12:30 p.m.,*
in response to message #13 by Werner Huysegoms

Victor and Werner,

Thanks soooo much for your simple post! This is completely cool! Here I thought I was going to *need* the hp41 emulator running on the 48 in order to get this to happen.

(See my recent post:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=41322

Why didn't I think of writing a program myself?! It is so simple, elegant, and so far, seems absolutely robust to me.

Awsome!

Best regards,

Bill Platt

Edited: 27 Aug 2003, 12:31 p.m.

Re: LastX for HP-48

*Message #15 Posted by **Victor Koechli** on 27 Aug 2003, 6:25 p.m.,*
in response to message #13 by Werner Huysegoms

Genious as usual. Why couldn't I think of that myself? However, what I'd like even more: being able to restore *all* LASTARG arguments. I wonder if there is a way...

Cheers, Victor

Re: LastX for HP-48

*Message #16 Posted by **Matt Kernal (US)** on 27 Aug 2003, 7:03 p.m.,*
in response to message #15 by Victor Koechli

This is **IT**..=> lastcmd.zip <= Written by John H. Meyers.

48G Version: http://www.hpcalc.org/details.php?id=2821

also see => vecenter.zip <= http://www.hpcalc.org/details.php?id=2920

49G Version: http://groups.google.com/groups?hl=en&lr=&ie=UTF-8&selm=3AA768F2.F95FBC2D%40miu.edu&rnum=2 .

And even though you didn't ask for it, here is a review about "lastcmd" from Carsten Dominik: "Everybody: Go and install this program. It is one of the best I have running on my HP49G. Simply the perfect function for the HIST key in RPL mode.

- Carsten"

I couldn't agree more! Don't leave home without it ;-)

Matt

Re: LastX for HP-48

*Message #17 Posted by **Werner Huysegoms** on 1 Sept 2003, 5:28 a.m.,*
in response to message #15 by Victor Koechli

? what's wrong with ... LASTARG, then ?

Werner

Re: LastX for HP-48

*Message #18 Posted by **James M. Prange** on 1 Sept 2003, 6:45 a.m.,*
in response to message #12 by Victor Koechli

My program for this on the 48 series and 49G is:

```
\<<
  DEPTH \-> d
  \<<
    LASTARG DEPTH d -
    IF
      DUP
    THEN
      DUP2 2. + ROLLD DROPN
    END
    DUP DROP
  \>>
\>>
```

If you change the command LASTARG in the above to LAST, then it will also work in the 28 series.

If last arguments is disabled (flag -55 set in a 48 or 49G, or flag 31 clear in a 28), then the program errors out.

In the event that the last arguments buffer is empty, then the program returns the real number 0 to the stack and puts it in the last arguments buffer.

Regards,
James

Edited: 1 Sept 2003, 6:50 a.m.

Re: Buying a Used HP

*Message #19 Posted by **Ron Ross** on 26 Aug 2003, 7:43 a.m.,*
in response to message #1 by Dave

Buy the 48. It is much tougher and has a better keyboard layout for number crunching compared to a 28. If you still fancy a 28, skip the 28c and buy a 28s, 2K ram is veeery little on the 28c. The 48G with 32K RAM isn't much, but with a cable, you could download 2-3 really good programs (lite versions) and have room for serveral of your own. Check out www.hpcalc.org to see what I am talking about.

This resource alone actually makes it worth considering an Hp48G+ or Hp48GX (both have 128K RAM, the GX can be expanded to 3.5 Meg).

My first Hp was a 15c (which is still my favorite), but I wouldn't leave it at work. A 48? Who cares? (I am not quite that flipiant). But the 28/48's do have many feature you will really appreciate. Just look at the programs from www.hpcalc.org .

Re: Buying a Used HP

*Message #20 Posted by **dave** on 26 Aug 2003, 3:41 p.m.,*
in response to message #19 by Ron Ross

Thanks to all for the great suggestions. I am leaning towards the 48 and probably the cheapo G model. I don't typically use the calculator for anything complicated (i.e. running a program), but I would like some of the advanced functionality (i.e. complex math, matrix math, etc.) and RPN computations. I'm so accustomed to RPN entry that it's hard to explain. It's so logical. I bought a TI-36 solar calculator a few years ago to provide a backup and travel calculator (I travel a lot for work), but I hate using it. It's not a bad little calculator for the money, but I really would like to have another HP. I'd love to run across a

$1.50 HP-15C at a garage sale somewhere. :) Thanks again...

Cheapo RPN Scientific: No Such Animal

*Message #21 Posted by **Patrick** on 26 Aug 2003, 5:19 p.m.,*
in response to message #20 by dave

You know, even if you do come across a 15C for $1.50 at a garage sale, its not like you think of it as a cheap calculator once you have it. No matter what you paid for it, you know you could get a bunch of money for it if you sold it, and that's what drives your behaviour in how you use it.

I know, I have an HP-10C that I got for $20, but do you think I leave that baby hanging around unguarded on my desk or toss it non-chalantly into my briefcase at the end of the day? Not a chance. It is pampered every bit as much as if I had paid $150 for it.

The only solution to this is for there to be a cheap RPN that is simultaneously cheap and easy to replace.

Re: Cheapo RPN Scientific: No Such Animal

*Message #22 Posted by **Bill (Smithville, NJ)** on 26 Aug 2003, 8:18 p.m.,*
in response to message #21 by Patrick

Come on, people. It's just a calculator. I have my HP-11C, 15C, and 41CV laying around at work. They are MEANT TO BE USED!!!! I enjoy taking a different HP calculator to work every few days. But the HP-11C, 15C and 41CV stay at work, as well as another HP-11C that stays in my briefcase. I plan to pick up another 42S to keep at work also.

If we don't use them on a daily basis, how can we expect HP to make a quality replacement that we'd all love to use????

HP will NEVER make a calculator that we think they should make as long as we are only willing to collect them, admire them and put them on a pedastal. We have to be willing to USE them!!

HP is not in the business of making collectable calculators, but are in the business of making calculators that will be bought and used - no matter what we, as colletors, think.

I don't care how much I can get for my calculators - I carry them with me, I use them, and ... YES ... I will be sorry if they get stolen, but I will have used them for what they were intended for - TO CALCULATE!!

Sorry for the RANT, but I really love to calculate with them, and think we too often forget what they were designed for.

Re: Cheapo RPN Scientific: No Such Animal

*Message #23 Posted by **Patrick** on 27 Aug 2003, 3:53 a.m.,*
in response to message #22 by Bill (Smithville, NJ)

I don't remember saying anything about not using them? At work I have an HP-11C, an HP-12C, an HP-15C, an HP-42S, and an HP-48G. In my briefcase is another HP-11C and sometimes other ones.

While I *use* these wonderful machines, my point was that I don't *abuse* them, even when the purchase price was relatively small. I value them in spite of their original cost.

Re: Cheapo RPN Scientific: No Such Animal

*Message #24 Posted by **Bill (Smithville, NJ)** on 27 Aug 2003, 11:29 a.m.,*
in response to message #23 by Patrick

Patrick, Sorry - didn't mean to go off the way I did. I'm sure the majority of us do use their calculators. I just wanted to point out that the true value is in the using, not what it would sale for on e-bay.

After re-reading my previous post, I guess I must of had a bee up my bonnet when I wrote it... :)

NP!

*Message #25 Posted by **Patrick** on 27 Aug 2003, 2:20 p.m.,*
in response to message #24 by Bill (Smithville, NJ)

Hey, no problem, Bill. One of the attractions of this place for me is the passion people have about this topic.

At the end of the day, we seem to be in violent agreement: my main enjoyment is in using (specifically, programming) these wonderful devices. That is not to say that I don't also have a few rather minty devices that I keep tucked away for the occasional fondling session. Nevertheless, if I only had one sample of a particular type of machine, I would use it (carefully), even if it was mint! What's the point of a mint machine if it doesn't get used? Might as well have a picture of it instead.

Re: Cheapo RPN Scientific: No Such Animal

*Message #26 Posted by **db(martinez,california)** on 28 Aug 2003, 9:44 p.m.,*
in response to message #24 by Bill (Smithville, NJ)

Bill; It isn't a rant if it's not all in one paragraph. :-)

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PE exams, calculators, NCEES - PLEASE READ!!

*Message #1 Posted by **John Cadick** on 25 Aug 2003, 3:49 p.m.*

Hey all:

I have been in contact with the executive director of the Texas State Board of Registration - Victoria Hsu. (I live in Texas and am a registered PE here.) She tells me that the calculator issue was very contentious in the last general meeting. Originally the NCEES proposed to allow only certain calculators to be used. Eventually that was voted down and, according to the Exec Dir. they voted to disallow only communications devices like cell phones and pagers. She is of the opinion that NCEES acted beyond what the vote allowed.

The Texas Board is putting together a letter of protest to NCEES. Ms.Hsu does not believe that the calc communications issue is a real one; however, she would like to have some technical expertise to back her up. Key issues might include:

1. Short range of IR capabilities 2. Incredibly slow input of text. (No stealing questions) 3. Inability to comm with anything other than their own brand.

And so on. If some of you would be willing to lend your expertise to these issues, I would be glad to act as a clearing house to get the information out to her. I will also be calling the other state boards where I am registered which include Michigan, Indiana, and Louisiana.

John

Re: PE exams, calculators, NCEES - PLEASE READ!!

*Message #2 Posted by **christof (NoVA US)** on 25 Aug 2003, 5:05 p.m.,*
in response to message #1 by John Cadick

I'm not sure, but wasn't the IR removed on the 49G anyway?

Note that some RPL machines notably lack IR input (28 series).

Re: PE exams, calculators, NCEES - PLEASE READ!!

*Message #3 Posted by **John Cadick** on 25 Aug 2003, 8:08 p.m.,*
in response to message #2 by christof (NoVA US)

The IR was removed; however, the 49 is banned on the basis that the 49 has text editing. I believe they are concerned that someone might copy down questions and take them out. ???

Re: PE exams, calculators, NCEES - PLEASE READ!!

*Message #4 Posted by **Tom (UK)** on 26 Aug 2003, 7:33 a.m.,*
in response to message #3 by John Cadick

I thought they did not like text storage because it would allow students to take notes into exams and

'cheat' (perhaps you are talking about exams where notes CAN be taken in?)

Also in the exams I have taken in the UK the exam papers are usually available after the exam for revision for next year. Do you have access to past papers in the US?

At most schools and university exams calculators that can store text are not allowed. At Sheffield Uni the HP32 is banned, see their page at: http://www.shef.ac.uk/ssid/admin/calculator/

Avid readers may like to note that the HP42S IS approved - I think because letters are not printed on the keyboard (unlike the '32) they thought it couldn't store text!

Re: PE exams, calculators, NCEES - PLEASE READ!!

*Message #5 Posted by **John Cadick** on 26 Aug 2003, 8:58 a.m.,*
in response to message #4 by Tom (UK)

Thanks for your reply Tom. Our PE exam is a 16 hour examination. The first 8 hours is a fundamentals of engineering (FE) exam and is usually taken by recent graduates or, in some cases, by undergraduates in their last year. Currently, the FE exam is a "references provided" exam and participants are not allowed reference materials. I suppose that something like the equation library in the 48GX or the 49G could be a problem.

The second 8 hours is the professional portion (PE). This is usually taken by engineers who have been in practice for some time. The actual requirements vary with the level of education obtained; however, most with undergraduate degrees have to wait four years. In this test the participant is allowed to take as many reference books in as he/she can lug.

The NCEES ban applies to both portions of the exam.

John

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Eigenvalues on 42S?

*Message #1 Posted by **Steven Soto** on 25 Aug 2003, 2:11 p.m.*

Does anyone know how to find all of the eigenvalues for a 3x3 matrix on a 42s? I know you can find ONE using the solver, but I'd like to be able to find all three, like on a 48g. Can this be done with "standard" matrix operations like inverse, determinant, etc.?

Re: Eigenvalues on 42S?

*Message #2 Posted by **Patrick** on 25 Aug 2003, 2:49 p.m.,*
in response to message #1 by Steven Soto

I can't think of a direct method.

Since you are only interested in a 3x3 (not nxn) you could go back to first principles. Take an arbitrary 3x3 matrix, A =[a_{ij}], and expand the expression det(A-xI) as a cubic polynomial in x. The roots of this cubic are, of course, the eigenvalues. The coefficients of the cubic should be readily expressible in terms of determinants of various sub-matrices of A (you could probably even find this written out explicitly in a beginner's book on eigenvectors).

Write a program which computes the cubic's coefficients using the sub-matrix and determinant capabilities of the 42s, then feed the resulting cubic into the solver.

Re: Eigenvalues on 42S?

*Message #3 Posted by **Steven Soto** on 25 Aug 2003, 3:12 p.m.,*
in response to message #2 by Patrick

Exactly my problem. I already knew I could get one from the solver: I want to know how to get all three. I guess I'll have to manually factor out the one result from the solver and then put the remaining result into the quadratic equation. Any ideas on how to write a program to do this that will simply output three values?

Too late in Hungary

*Message #4 Posted by **Tizedes Csaba** on 25 Aug 2003, 5:03 p.m.,*
in response to message #3 by Steven Soto

Hi Steven!

If you can wait to next day, I will help you. Too late here, and the PC's keyboard is clicking, and my girlfriend not like that in the night.

I haven't got 42S, I'll write a little program for 32SII, what can solve ANY REAL roots of an equation. (I'm hoping... :))

A part of it is ready to run, the solver part I'll make tomorrow morning...!

Good night! Csaba

Algorithm

*Message #5 Posted by **Patrick** on 25 Aug 2003, 7:52 p.m.,*
in response to message #3 by Steven Soto

The cubic equation

$p(x) = \det(A-xI) = c_3x^3 + c_2x^2 + c_1x + c_0$

has the following coefficients:

$c_0 = \det(A)$

c_1 = -(sum of all 2x2 determinants obtained by deleting the same row and column from A)
$= -((a_{11}a_{22} - a_{12}a_{21}) + (a_{11}a_{33} - a_{13}a_{31}) + (a_{22}a_{33} - a_{23}a_{32}))$

c_2 = sum of all 1x1 determinants obtained by deleting the same two rows and columns from A
$= a_{11} + a_{22} + a_{33}$

$c_3 = -1$

Now, if a cubic, p(x), has 3 real roots, then they occur between successive extrema of the cubic. If the extrema are located at $x=x_1$ and $x=x_2$, with $x_1 < x_2$, then the roots of the cubic are in the three ranges:

(-inf, x_1)
(x_1, x_2)
(x_2, +inf)

You can compute x_1 and x_2 as the roots of a quadratic:

$p'(x) = 3c_3x^2 + 2c_2x + c_1$

Once you have these roots, you can feed the ranges above into the solver as guesses. Of course, you'd have to do something intelligent in place of the infinities.

Nth order solver

*Message #6 Posted by **Tizedes Csaba** on 26 Aug 2003, 5:26 a.m.,*
in response to message #3 by Steven Soto

Hi Steven,

this is a solution for your problem. This program can solve polinom-equations ANY of order (limited by mem). It's not too long, only 92 byte ;). It work fast with built-in solver, and use Horner-method:

Only one problem with it, it's solve JUST REAL ROOTS... But in the real problems, like mechanical stress calculations, the roots are reals.

This is the HP32SII version:

```
E01 LBL E        #prepare of 'i'
    FIX 3
    RCL N
```

```
    1
    add
    1E3
    div
    1
    add
    RND
    STO i
    0
E13 RTN


P01 LBL P        #the 'dinamical polynom'
    XEQ E
H01 LBL H          #Horner's method
    RCL mul X
    RCL add (i)
    ISG i
    GTO H
H06 RTN


X01 LBL X        #polynom solver
    SOLVE X
    GTO R          #if found root goto 'R'
    SF 0           #no real root, set flag 0
X05 RTN


D01 LBL D        #decrement polynom order,
    XEQ E
J01 LBL J          #use a little modified Horner method
    RCL mul X
    RCL add (i)
    STO (i)        #overwrite coefficients
    ISG i          #with decremented polyn.'s coefficients
    GTO J
J07 GTO X


S01 LBL S        #start-routine
    CF 0
    CF 1
    INPUT N
S05 XEQ E
I01 LBL I         #coefficient input-routine
    INPUT (i)
    ISG i
    GTO I
    FN= P
I06 GTO X


R01 LBL R       #we found a root
    VIEW X
    1
    STO sub N
    VIEW N       #number of roots, what we dont found yet
    RCL N
    x<>0?        #more root?
    GTO D        #go decrement order, and solve again
    SF 1         #no more root, and all was REAL: set flag 1
R10 RTN



'add', 'sub', 'mul' and 'div' mean 'add', 'substract', 'multiply' and 'divide' in
this order.



The checksums:


E:CK=0BE8 27.5 byte
P:CK=E452  3.0 byte
H:CK=3E78  9.0 byte
X:CK=3894  7.5 byte
D:CK=11DF  3.0 byte
J:CK=C765 10.5 byte
```

```
S:CK=BB8E  7.5 byte
I:CK=32B5  9.0 byte
R:CK=E775 15.0 byte


An example:

solve this polynom with this program:


-2*x^6 -6*x^5 +82*x^4 +174*x^3 -800*x^2 -888*x +1440 =0

 A*X^6  +B*X^5 +C*X^4   +D*X^3   +E*X^2   +F*X    +G=0


In the program the coefficients are A, B, C, ... The limit of order N=12, because
the 14th variable is N, and we use this variable for the order of solved polynom. If
you replace it with Z, you can solve the 24th order of polynomials. And it's not a
joke...


Now, start the program: [XEQ S] the calc prompting for order of polynom:

N? type 6 [R/S].

Then the program prompts for all of coefficients, type it in decrease order:


A? -2 [R/S]
B? -6 [R/S]
C? 82 [R/S]
D? 174 [R/S]
E? -800 [R/S]
F? -888 [R/S]
G? 1440 [R/S]


Then you will see the 'RUNNING/SOLVING' message, and the program stops with one of
six roots: for example X=1. Press [R/S], and you'll see N=5 this mean, the polynom's
got 5 root yet. Press [R/S] and repeat this method until all of roots founded.


When N=0 press [R/S], the 'flag1' anunciator set and program end. 'flag1' set mean,
all of roots was real.


This polynom got 6 real roots: 1, -2, 3, -4, 5, -6, and the simplyfied form is: -
2*(x-1)*(x+2)*(x-3)*(x+4)*(x-5)*(x+6)
```

I hope it help to you and anybody, who want to solve polynomials. The roots are 'more exacts' if the round off error is not a very big.

Csaba

Re: Nth order solver

*Message #7 Posted by **Steven Soto** on 26 Aug 2003, 8:01 a.m.,*
in response to message #6 by Tizedes Csaba

Tizedes,

Thanks. Very helpful and useful. I'm still amazed by the power of the pioneer series. I have used these calculators since 1988 starting with a 32s my freshman year in high school. I got a 42s as a

senior in high school, and I still use that calculator today. I have a spare that I have tested, and never used which sits in a hard case without batteries. I have used this calculator all through undergraduate school and graduate school while everyone else seemed to migrate to TI's, I have yet to find something that I cannot get my 42s to do that I need it to.

And yes, this eigenvalue problem was to solve three dimensional stress states.

-Steven

Pocket calculators forever

*Message #8 Posted by **Tizedes Csaba** on 27 Aug 2003, 2:09 a.m.,*
in response to message #7 by Steven Soto

Steven,

don't mention it! I made it with pleasure! :) My friends said I'm crazy for that what haven't got more keys than 50 and LCD resolution less than 160x160 with 1 colour. :)

And it's true!

Csaba

I am adding and subtracting I'm controlling and composing

Re: Eigenvalues on 42S?

*Message #9 Posted by **Valentin Albillo** on 26 Aug 2003, 10:57 a.m.,*
in response to message #1 by Steven Soto

If your matrix is symmetric (which is usually the case in many real-life engineering problems), the eigenvalues will all be real, and Jacobi's method will produce them all at once, to full precision. Jacobi's method uses 2x2 rotation matrices applied iteratively to any arbitrary symmetric NxN matrix, till it reduces it to a diagonal matrix. The eigenvalues are then precisely the diagonal elements, and the corresponding eigenvectors are produced as well as a side effect.

This algorithm is very straightforward, always converges without requiring any input from the user other than the NxN matrix itself, and converges very quickly, producing accurate results (great stability as well). Further, the transformation is made *in-place*, thus requiring a minimum amount of memory.

I wrote such a program for the barebones HP-41C, which should run unchanged, as is, in any HP42S. It was published in the PPC Journal, circa 1980 or so, a little search will find it. It is only 100+ program steps, so you can key it in effortlessly.

Else (or also), have a look at this excellent paper (PDF format):

Eigenvalues of a symmetric matrix: Jacobi's method

which includes a full, detailed description of the method, as well as a program listing.

Best regards from V.

Re: Eigenvalues on 42S?

*Message #10 Posted by **hugh** on 26 Aug 2003, 12:06 p.m.,*

in response to message #9 by Valentin Albillo

the method is also coded for the 15c in the advanced functions handbook page 148.

however, i do like csaba's program as a good programmatic use of the solve feature.

something ive been doing recently is the same problem the other way around. ive been finding it much better to use an eigenvalue approach to polynomial roots rather than the reverse. you also get the complex roots a lot easier this way too.

Re: Eigenvalues on 42S?

*Message #11 Posted by **Veli-Pekka Nousiainen** on 26 Aug 2003, 10:45 p.m.,*
in response to message #10 by hugh

"for the 15c in the advanced functions handbook page 148"

Can you send it here or to me directly?

VPN

Re: Eigenvalues on 42S?

*Message #12 Posted by **Veli-Pekka Nousiainen** on 26 Aug 2003, 10:47 p.m.,*
in response to message #9 by Valentin Albillo

"I wrote such a program for the barebones HP-41C"

Can you send it here or to me directly?

VPN

Re: Eigenvalues on 42S?

*Message #13 Posted by **Valentin Albillo** on 27 Aug 2003, 4:29 a.m.,*
in response to message #12 by Veli-Pekka Nousiainen

Thanks for your interest re my "Eigenvalues for an NxN symmetrical matrix: The Jacobi Method" article and program for the barebones HP-41C .

I initially thought it was published in "PPC Journal", V7 or V8, but a cursory search in the PDF pages available online failed to locate it, which means it was published in "PPC Technical Notes" instead, which alas, has no online presence as far as I can tell.

If you've got the first 10 issues or so of "PPC Technical Notes" (circa 1980 or 1981), you'll find it there for sure.

I remember it was heavily optimized, took just 100+ steps or so (thus fitting in a single card, maybe even in just one side of a card), and could handle very large matrices as it made use of the fact that the matrix was symmetrical, so it only needed to store N*(N+1)/2 elements (i.e: only 120 elements for a 15x15 matrix) instead of N*N (i.e: 225 elements for said 15x15 matrix). The N eigenvalues were found all at once, simultaneously (not one by one), and very quickly.

Best regards from V.

Edited: 27 Aug 2003, 4:39 a.m.

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49 blues

*Message #1 Posted by **Harry** on 25 Aug 2003, 6:32 a.m.*

Whenever I turn on the 49 it requires that I press the on button a few times in rapid succession. A splash screen pops up for a brief period that advertises something about being "Powered by the ---kernel" (I cant make out the whole name) and also I have to adjust the contrast each time.

Is there a way to turn the thing on by just pressing the on button only once and is it possible to store the contrast setting? Also what is the purpose of the splash screen?

Any help would be greatly appreciated.

Re: 49 blues...

*Message #2 Posted by **Raymond Del Tondo** on 25 Aug 2003, 9:30 a.m.,*
in response to message #1 by Harry

The splash screen has no real purpose. It's only a banner for the 'MDG MetaKernel', MDG meaning 'Maubert Development Group', AFAIK.

Since you see the splash screen, this means your machine does a warmstart. After a normal off-on cycle you don't see the splash.

Make sure you don't have a strange STARTUP program, which could set your contrast.

If you don't have valuable data in your machine, you could do a reset, pressing ON+A+F, then the NO softkey. For more details on this procedure, please consult your manual...

You should also check your installed ROM version. The current version is 1.97 (beta) or alike, but nearly all machines were shipped with older, unstable versions. If you have such an older version, you should urgently upgrade to the latest one. Again, please consult your manual...

If that isn't the cause, you could check if your calc is still under warranty. If yes, just return the thing to your dealer.

After all, it's just a 49G (sorry;-)

Raymond

ROM upgrade

*Message #3 Posted by **Matt Kernal (US)** on 25 Aug 2003, 2:33 p.m.,*
in response to message #2 by Raymond Del Tondo

Raymond> The current version is 1.97 (beta) or alike.

I realize you meant 1.19-7, but is it available? I just checked JYA's site, which is still 1.19-6. I remember

reading he was beta-testing 1.19-7 with close associates. If you know where I can d/l this new one, I'd be most appreciative of finding out where to get it. Thanks Raymond.

Matt

Re: ROM upgrade

*Message #4 Posted by **Raymond Del Tondo** on 25 Aug 2003, 4:36 p.m.,*
in response to message #3 by Matt Kernal (US)

Yes, you're right. I meant 1.19-7 ;-) And no, I don't know if that version did find it's way to the public. At least I never saw it, and don't have it.

My 49G still has ROM 1.14+-xyz@+... or maybe 1.16 something, the other unit has a 1.05 ROM, and thus you can imagine how long I didn't use that door stopper;-)

Regards,

Raymond

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48GX /SX Observation

*Message #1 Posted by **Ted** on 25 Aug 2003, 4:04 a.m.*

As a regular reader of this forum, I thought it might be interesting to 'report' on some actual users of HP calculators in practice: During a trip in Switzerland last week, I came across several people using HP 48 series machines in the world of engineering/fine mechanics. They were surprised at my interest in their HP's (all sitting next to their computers with CADCAM software), and I asked each one why they had a 48 next to their computers. Virtually all answered identically:

'I NEVER use the graphing capability'; 'The 48 is quicker and easier to use than the computer when dealing with formulas and requiring quick results'; 'Seeing the stack levels during computations is really handy and useful';

Not earth shattering news of course- but a slice of real 'HP' life in actual practice.

Low-resolution graphics

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 25 Aug 2003, 12:37 p.m.,*
in response to message #1 by Ted

Hi, Ted;

I agree with the fact that having a high-resolution graphics device in front of you, like a 1024×768 dots monitor with 16-bit per pixel, color images, with a graphics O.S. is far better than having a tinny 131×64 dots, 1 bit per pixel LCD screen.

BUT... if you want your high resolution device to produce high-resolution graphics, you'll need specific SW. And if you have only the HP48, you can do graphics without extra packages, almost everything you need is already there. Of course, if you need to see a curve or parts of a surface so you can have a general idea about it, then the HP48 will probably fit your needs. Otherwise...

For me,the best of all is that you can order a complete Memory Clear, dettach all libraries and you still have all graphics resources in an HP48/49. A computer, even most portables and palms, will ask for extra SW to be downloaded so you can achieve graphics. And you see, even when compared to a computer, some HP48 math resources, mostly symbolic, are hard to beat...

My 2¢.

Luiz (Brazil)

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Calculators vs Adding Machines

*Message #1 Posted by **Katie** on 25 Aug 2003, 12:42 a.m.*

When talking about my calculator collection, I often get asked "what's the difference between a calculator and an adding machine?". It seems like a naive question and usually comes from people that don't much about calculators, but I've come to think that it's a good question that's not so easy to answer.

According to at least one dictionary an adding machine is:

> Quote:
>
> a machine capable of adding numbers and sometimes capable of performing the other arithmetic functions of subtraction, multiplication, and division: such machines are now obsolescent, having been replaced in most applications by electronic calculators.

Which is not particularly satisfying to my mind as it doesn't distinguish it from a calculator and implies that we would not encounter them often, yet modern business are filled with what people still call "adding machines".

I don't really have a good answer to this question, but I think it should be more along the lines of who the intended user of the machine is. To me, an adding machine is a calculating device intended to be used primarily by accountants. Along with this definition comes the usual adding machine entry logic, sort of half prefix/half postfix operators -- but not always. Early mechanical machines only added, some subtracted and still later ones did multiply and divide and even square root but they all used difference operator orders and they were/are all called adding machines.

So, what's the right definition?

Re: Calculators vs Adding Machines

*Message #2 Posted by **Vassilis Prevelakis** on 25 Aug 2003, 1:34 a.m.,*
in response to message #1 by Katie

I would have thought that an *adding machine* is a mechanical calculator.

So at one stage we had mechanical and electronic calculators, but as the former became obsolete, the term calculator evolved to imply electronic.

Of course people will come up with examples that blur the distinction, but like in the case of calculators vs computers there is no clear cut distinction.

E.g is an HP-34C a calculator or a computer? If you say a calculator, then what if I now replace its ROM so that I can enter machine code via the keypad. Now its a computer for sure.

If you insist on input/output devices, then consider an HP-97. This one has both. Is it a computer?

**vp

Re: Calculators vs Adding Machines

*Message #3 Posted by **Pieter Botha** on 25 Aug 2003, 2:17 a.m.,*
in response to message #2 by Vassilis Prevelakis

Interesting Issue. I've always wondered when a calculator crosses the "great divide" to become a computer.

Let's try to define what a computer should look like, then measure the HP-97 against those requirements:

(*) Input: Yes - Keyboard, Magnetic Cards

(*) Output: Yes - Display and hardcopy

(*) Processing: Yes - Maths primarily, I'd say too weak on strings :^)

(*) Programmability: Yes

(*) Decision making: Yes - Several conditional branchings

(*) Long-term storage: Yes - Magnetic Cards

Looks like, apart from scale (more is better), the Pentium 4 on my desk offers nothing that the HP-97 doesn't. Oh, sure, it can do fancy-schmancy graphics (windows etc), but that doesn't make it more of a computer. Or does it ?

Something like the TI-58, though, I would hesitate to call a "computer", simple because of the lack of off-line storage facilities, though it can produce hard copy with the optional printer. Guess that one straddles the line...

What do other people think ?

Cheers Pieter

Re: Calculators vs Adding Machines

*Message #4 Posted by **Katie** on 25 Aug 2003, 2:19 a.m.,*
in response to message #2 by Vassilis Prevelakis

To keep this discussion relevant to the HP world (and this forum), Dave has called the HP-10 an adding machine on this site:

> Quote:
>
> HP-10 Handheld Printing Adding Machine

So, it's not a moot point by any means nor does "adding machine" just refer to mechanical devices. There is a blur between computers and calculators, I agree and there is no doubt a blur between calculators and adding machines. But why do (we) experienced (very experienced in Dave's case) collectors call some devices calculators and others adding machines when they are similar in many ways (e.g., HP-10 and HP-19C).

Dave, how come you called the HP-10 an "adding machine". Did HP use that term in their advertising literature? In the manual they call it a "handheld printing calculator".

Re: Calculators vs Adding Machines

*Message #5 Posted by **Vassilis Prevelakis** on 25 Aug 2003, 6:38 a.m.,*
in response to message #4 by Katie

So should we call the HP-10 an adding machine?

Well if I was trying to sell a printing 4-function calculator to people used to buying adding machines, I'd sure call it an adding machine. It is *functionally equivalent* to a mechanical adding machine, so you might as well call it an adding machine.

Doesn't this discussion remind you of the horseless carriage?

I'd be tempted to say that 4-function non-RPN machines are adding machines, but Dave calls the HP-01 "The Hewlett-Packard Calculator Watch" so that one is not considered an adding machine.

So, since the 19C is a calculator, your (electronic) adding machine should be both brain-dead and print.

**vp

Re: Calculators vs Adding Machines

*Message #6 Posted by **Masao Kinoshita** on 25 Aug 2003, 10:44 a.m.,*
in response to message #5 by Vassilis Prevelakis

I believe the term calculator originally referred to somebody who performed calculations. Then there were adding machines and then electronic calculators.

Horseless carriage, automobile, car and ride all can mean the same thing.

Therefore, the first "personal computer" was an aid who performed computations for somebody, e.g., king or astronomer, a long long time ago. :-)

Re: Calculators vs Adding Machines

*Message #7 Posted by **Dave Hicks** on 25 Aug 2003, 1:05 p.m.,*
in response to message #4 by Katie

That's my attempt to capture the "essence" of the 10 and distinguish it from others on the front page in a short caption. It's not precise but I don't know what is. In the article I use "adding machine logic" but that's a term I invented. It seems that people who sold/sell these machines don't feel a need to label the logic system. They just evolved and everyone expects them to be as they are.

The HP10 is called an adding machine. (?)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 25 Aug 2003, 2:17 a.m.,*
in response to message #1 by Katie

Hi, folks;

this was extracted form the MoHPC page dedicated to the HP10:

> Quote:
>
> The HP-10 was modeled after a standard desktop "10 Key" adding machine. Adding machines use their own style of logic. To add numbers on an adding machine, the user clears the machine (either by an explicit clear command or a previous total command,) enters the first number, presses the + key which adds it to zero, enters the second number and presses + again to add it to the previous result. For adding and subtracting, an adding machine is much like RPN, except that the first number is added to zero rather than Entered.

And about being a calculator or a computer, it has a printing device. Is it a unique adding/calculator/computer machine in one single package?

I agree with Katie that there is a lack of definition for adding machines, and I also have my belief, like Vassilis posted, that it is supposed to be a mechanical device as well, but if we take the word "adding" as it is, then addition is what every computer does when performing any arithmetic operation, exception made to inverting (NOT) a number or comparing it (XOR). Before any complains, I know NOT and XOR are logical operations and should not be considered in this case, but logical operations are the heart of a classical computer and I thought I should mention them.

Babbage developed and created the difference machine; was it an adding machine as well? Based on operands and reasoning over the answer, it may perform additon, too.

Another point: should an adding machine be considered as an analog-based device, while calculators should be considered as digital machines? This way, ENIAC was an electronic version of an adding machine. Or not?

No answers from me, I know. Anyway, "add" my name to the list: I'm curious and I'll wait for a reasonable answer.

Thanks.

Luiz (Brazil)

Edited: 25 Aug 2003, 3:03 a.m.

Addign Machine -- Calculator

*Message #9 Posted by **Randy Smith** on 25 Aug 2003, 4:49 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

To me the difference between the two is in the output. I call it an adding machine if it has only a printed output and no display of the answer on the machine. It is a calculator if there is an output of the answer on the machine itself exclusive of having the answer on a paper tape.

Re: Calculators vs Adding Machines

*Message #10 Posted by **Andrés C. Rodríguez (Argentina)** on 25 Aug 2003, 9:04 a.m.,*
in response to message #1 by Katie

Just my $ 0.02:

Adding machine:

Main function is add-subtract, perhaps with some kind of memory for totals. It may have multiplication and division functions, but they look as later "additions" (pun intended), usually not well integrated with the main function. Paper tape output is convenient to check both results and sequence (completeness of input).

Computer:

User-programmable device, must have some kind of "open" Input/Output capability (i.e.: peripherals, RS232) AND the ability to process (at least) two types of data: numeric and character-based.

The HP41 qualifies (to increase its qualification, just add HP-IL), as the HP48, HP75, HP71 do.

The HP42S is not a computer, due to the lack of enough I/O capabilities and openness.

The HP 97 and TI 59 are "almost computers", the HP 97S just fall a little short of my yardstick to be considered a computer.

Calculator:

Specialized device, oriented to mathemathical, financial, statistics, computer science... calculations. May be programmable or not, the preprogrammed functions go from the basic four operations to much many and very complex ones. The HP42S and the HP15C are examples of calculators.

By the way, the HP01 watch can use the real time as a variable for calculations, which sets it far from an adding machine. MoHPC definition "In a class by itself" is the best I can think about.

Re: Calculators vs Adding Machines

*Message #11 Posted by **Paul Brogger** on 25 Aug 2003, 10:56 a.m.,*

in response to message #1 by Katie

Generally speaking . . .

Most of the things that I encounter in the thrift stores and that I call "adding machines" have a combined "plus-equals" key, and seem to be optimized for serial summation ("adding").

The things I call "calculators" have separate "plus" and "equals" keys.

. . . except, of course, for RPN calculators, which have separate "plus" and "enter" keys. (But then, I don't encounter *those* very often -- neither in thrift stores nor anywhere else!)

I don't suppose this is a *definition* so much as an *observation*, but it may point in some useful direction.

Re: Calculators vs Adding Machines

*Message #12 Posted by **Mark Glusker** on 25 Aug 2003, 11:08 a.m.,*
in response to message #1 by Katie

I think you have to go back fifty years to answer that question, when calculators were all mechanical.

There were rotary calculators, like the Friden STW in the MoHPC collection, that performed all four functions (+ - x ÷) and adding machines that performed addition and subtraction only. Rotary calculators had mechanical displays and adding machines usually had a paper tape.

After WWII, several manufacturers enhanced their adding machines to enable them to multply and divide, giving them the name "printing calculators" to distinguish them from adding machines. Articles from that era are clear about this distinction, because it was a big deal back then.

My definition is that a calculator can add, subtract, multiply and divide. An adding machine can only add and subtract. However, I have heard the term "adding machine" applied to anything that has a paper tape.

Here are the distinctions that I make

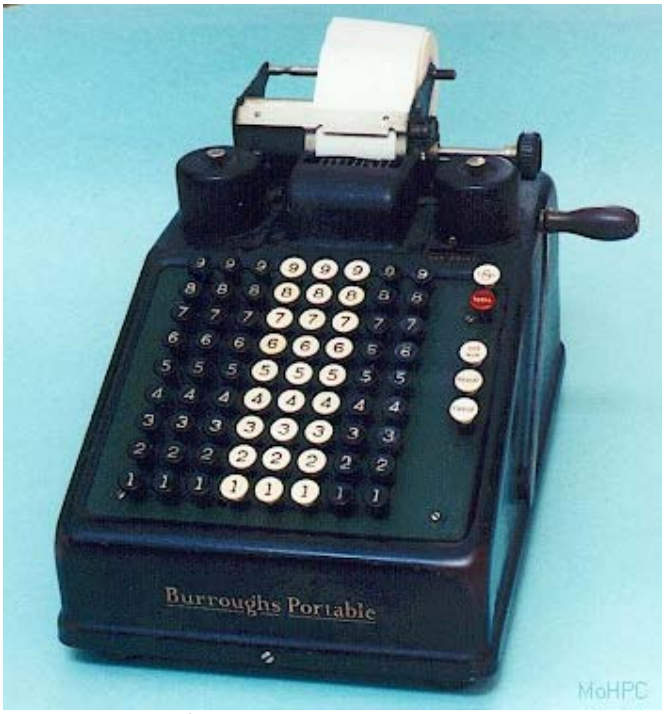
*Message #13 Posted by **Dave Hicks** on 25 Aug 2003, 12:30 p.m.,*
in response to message #1 by Katie

Machine vs. Electronic
This is pretty simple. Although many people will refer to computers as machines, I think you know the distinction I'm making here. Some machines are electrically driven though the logic is mechanical.

Adder vs. Calculator
This is a little more fuzzy but there are devices that make division and multiplication "easy" and those that don't. Mechanical calculators usually have a carriage that can be shifted. For example to multiply a number by the number 1024, you would enter the first number, then turn the crank 4 times, shift the carriage, turn twice, shift the carriage twice (skipping the zero) and then turn the crank once more. Electrically driven machines can do all this at the push of a button. Even the basic adding machine sometimes provides at least a *little* support for multiplication however. For example, you enter your number and press the repeat button down and pull the lever 3 times. Push the repeat button back and pull the lever again (number * 4 is now entered). Now enter the number times 10 and you can figure out the rest...

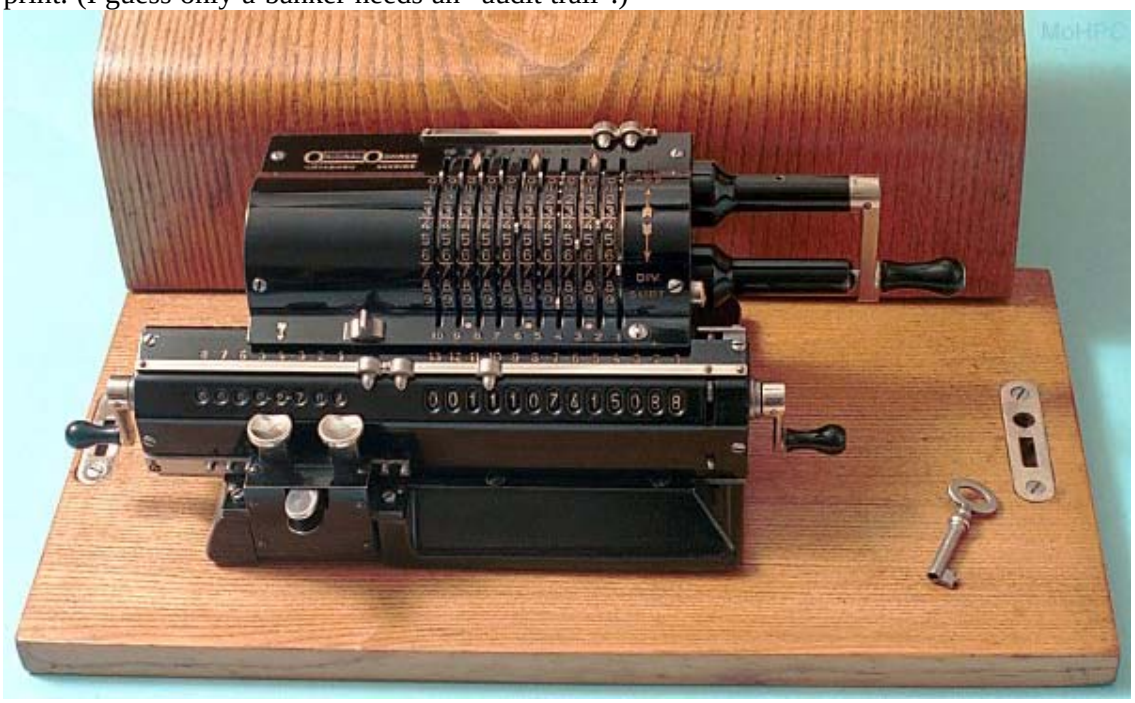
These distinctions form a 2x2 grid with the boxes being

Mechanical Adder (or Adding machine.)
There are many examples of these for example...



These devices frequently (but don't always) print.

Mechanical Calculator
There are many examples of these too but the general public is almost completely unaware. These devices usually don't print. (I guess only a banker needs an "audit trail".)



Electronic Adders.
While theoretically possible, I can't think of a good example. Because electronics are so cheap and calculator functions are now generally a matter of software, there seems to be little reason to leave multiply and divide out. Having said that, someone's probably got one for sale on ebay. Perhaps built into a ruler, keychain or a mouse ;-)

Electronic Calculators.
I'm sure you know what these are.

The above distinctions are different than the question of what logic system is used (though there's a lot of overlap in practice.) Most machines are essentially postfix with around two to three registers (not really a stack). One of the registers is frequently the keyboard or the key levers.

Electronic calculators come in Algebraic (a term covering many logic systems), RPN/L, and what I call "adding machine logic". The latter refers to electronic calculators for accountant-type functions. These calculators (usually with printers) do + and - in a postfix way (clear x + y +), * and / in an infx way (x * y =) and are usually now electronic though with a mechanical impact print head that produces more or less the same printout that adding machines have produced for centuries.

As for computers vs. calculators, I assert that almost all modern calculators are computers which are programmed to behave like calculators. This trend began when Busicom contracted Intel to build the chips for an early electronic calculator. Intel thought the design was too complex (27 different chips) and counter-proposed a 4 chip design (ROM chip, RAM chip, I/O chip and... the first microprocessor that would later be called the Intel 4004.)

Re: Does anyone remember the link to the "minimum calculator"?

*Message #14 Posted by **Paul Brogger** on 25 Aug 2003, 9:48 p.m.,*
in response to message #13 by Dave Hicks

I'm trying to chase down an example of **"Electronic Adder"** to complete the table implied by Dave's analysis (above).

It seems to me that, not too long ago, there was a discussion thread that devolved to a topic something like: "What is the minimum number of keys ever implemented in an electronic calculator?"

Someone posted a link to a checkbook-balance tracker that had VERY few keys -- maybe as few as fourteen. I remember something like plus, minus, clear and ten digits . . . Anyway, I've been searching the Forums for an hour and haven't found the post -- maybe someone remembers?

Re: Does anyone remember the link to the "minimum calculator"?

*Message #15 Posted by **Katie** on 25 Aug 2003, 10:28 p.m.,*
in response to message #14 by Paul Brogger

Here's the device that you're referring to, I think:

http://datamath.org/Related/Corvus/CheckMaster.htm

Not quite a calculator, not quite an adding machine either.

Edited: 25 Aug 2003, 10:30 p.m.

Thank you, Katie.

*Message #16 Posted by **Paul Brogger** on 26 Aug 2003, 1:06 a.m.,*
in response to message #15 by Katie

Yezzz, that's it.

I picked up a TI-2500 "Datamath" a few months ago -- four operations and no memory, but at least it could multiply & divide. Just recently got a Litronix "Checkmate 1700" -- same story.

But that Checkmaster thingy is about as simple as they can come.

Thanks for remembering!

Re: Does anyone remember the link to the "minimum calculator"?

*Message #17 Posted by **Victor Koechli** on 26 Aug 2003, 2:57 p.m.,*
in response to message #14 by Paul Brogger

Out of the buttons of my Nokia cell phone, only 13 are used to accomplish the four basic functions. Quite minimal, don't you think? Let's see if someone can come up with even fewer...

Cheers, Victor

Re: Calculators vs Adding Machines

*Message #18 Posted by **christof (NoVA US)** on 25 Aug 2003, 1:44 p.m.,*
in response to message #1 by Katie

I've been thinking about this off and on all day.

I think, growing up, that there are a few related differences-

Adding Machine was something my father use for accounting. paper tape, LED display, desktop, generally no carrying system. It stayed on a desk.

From the time my unlce started buying me cheap radio shack pocket calculators in the late 70s, 'calculator' meant a pocketable machine, sometimes with programming capability, almost always with 'special' functions (statistics, 'scientifics', and business were the distinctions I made then. many models had combinations of those)

When I first saw a desktop scientific, I knew it wasn't an adding machine- it was a calculator. I had not codified the differences at the time, but I knew.

Printing alone doesn't make an adding machine, nor does financial functions. Even the desktop form factor doesn't do it. All three together do, though.

regarding computers- I disagree that a computer must have rs-232 and/or a card reader to be a computer.

The HP42S is most defintiely a computer. It has all the requisite parts, and they all work quite well. Lest anyone forget- keyboard entry, videographic display, and printed paper output via IR *are* all forms of input or output.

It may be slower to recover your backups from printed paper than from a magnetic card, sure. That doesn't mean it doesn't exist as output.

I'm not arguing that the 42S wouldn't be better with serial IR bidirectional. If I could get my hands on a properly disassembled 42 ROM image, I'd be tracing code to help find a way to get a good serial IR addition. But that's not this thread :)

-Christof

Re: Calculators vs Adding Machines

*Message #19 Posted by **Andrés C. Rodríguez (Argentina)** on 25 Aug 2003, 7:15 p.m.,*
in response to message #18 by christof (NoVA US)

The HP42S is perhaps the nicest machine I have (I like my 41C and my 25 too). Certainly it has some interface capabilities, but (in my humble opinion) it lacks some kind of OPEN I/O to be considered a computer.

RS232, USB, HP-IL, IrDA, SCSI, IEEE 488, an Ethernet port, a Compact Flash slot, etc., etc., are just some examples of OPEN I/O: a place where SOMEBODY else could connect an external device. The proprietary infrared stream HP uses for its printer (in my humble opinion) does not qualify as open enough.

Sure, there are forms we have discussed here to use these IR pulses, decode TONEs, and simulate keyboard operation to get some I/O, but I think that is not enough.

Again, it is just my opinion.

Re: Calculators vs Adding Machines

*Message #20 Posted by **christof (NoVA US)** on 25 Aug 2003, 7:26 p.m.,*
in response to message #19 by Andrés C. Rodríguez (Argentina)

I understand the need and importance of open standards. But I must say I disagree that an OPEN input/output system or lack thereof determines whether or not a device is a computer as opposed to a not-computer.

And i've worked on several other computers that lacked everything you mentioned :)

(how much more open you can get than english text on thermal paper, I don't know- HOw the data gets to the text isn't the important part. the printed output is.... output)

Trivial, perhaps. But I'm occasionally frightened by the One True Way approach to defining *all* computing using only *one* set of standards (OPEN)

Cheers- Christof

Re: Calculators vs Adding Machines

*Message #21 Posted by **Andrés C. Rodríguez (Argentina)** on 26 Aug 2003, 9:26 a.m.,*
in response to message #20 by christof (NoVA US)

Perhaps I hadn't found the proper way to express it in English, but I was not supporting any *one* set of standards. In fact I mentioned various interfacing methods, some more standarized (RS232, USB, IEEE

488), some more proprietary (HP-IL)...

I think (and that is just my opinion) that a computer is a general purpose, programmable digital device; and as such the ability to connect to external devices, even from other manufacturers, is an important feature. A proprietary I/O bus, well documented, may be enough. The user hands and eyes are not sufficient (in my humble opinion). Of course, there will always be "border" cases.

Again, I was just trying to suggest one criterium; and my intention was far from suggesting there is only *one* way to look at *all* things.

While I am surprised because of such unintended side effect of my posting, I apologize if my comment produced a "frightening" effect.

Re: Calculators vs Adding Machines

*Message #22 Posted by **christof (NoVA US)** on 26 Aug 2003, 6:22 p.m.,*
in response to message #21 by Andrés C. Rodríguez (Argentina)

You have to tak einto account that I work in a field populated with large numbers of religious folk who overcapitalize words like OPEN, SOURCE, STANDARDS, GPL, and etc. Many of these people would like to make illegal any form of computer or software they disapprove of based on their spec ific value of sufficient 'openness'

So that probably explains it part of it :)

The other part is- well, the CS definition of a general purpose computer *sodes* include a requirement for input and output, but all the old CS classes also stress that printouts and text entry are valid forms of input and output.

True- making a computer networkable generally requires more, but networkable isn't a defining characteristic of a general purpose progammable computer. (special purpose and non programmable computer exist) Actually- let me state that it wasn't in 1988. Nowadays, maybe it is.

I'm just being a computer nazi. It's my job, actually. :)

no worries-

Christof

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(deleted post)

*Message #1 Posted by **deleted** on 24 Aug 2003, 1:56 p.m.*

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP32SII repair

*Message #2 Posted by **Iqbal** on 24 Aug 2003, 2:00 p.m.,*
in response to message #1 by deleted

http://www.fixthatcalc.com/

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41C ROM versions

*Message #1 Posted by **Randy Sloyer** on 24 Aug 2003, 11:35 a.m.*

An easy one for you 41 experts out there: How does one tell which version rom is in a 41C?

I have an early unit (D/C 1943A) but I can't find a way to list the rom version. The keyboard bezel is a flat finish with a very flat 2 key. The 0,1 and 3 feel different, but the 2 is really bad.

Re: 41C ROM versions

*Message #2 Posted by **Jeff** on 24 Aug 2003, 11:50 a.m.,*
in response to message #1 by Randy Sloyer

In the book "Extend Your HP-41" pg 642, ROMs - Date Codes - Comments, DDE - 1926-1940 - All Classic Bugs, FDE - 1936-1952 - Bug 3 removed, FEE - 1951-2034 - Bugs 1,2,4 removed as well, GFF - 2035-84?? - Bugs 5,7,8 romoved too. HP-41CV 1st ver., HFF - 84??-Present - Current version of the HP-41CV, NFL - 2329-Present - Current version of the HP-41CX, Hope this helps. Jeff

Re: 41C ROM versions

*Message #3 Posted by **Randy Sloyer** on 24 Aug 2003, 12:21 p.m.,*
in response to message #2 by Jeff

The unit has an HP service sticker inside - maybe they update the ROM or just changed out the processor board?

Is there any way to verify which ROM you have through keyboard entry?

Re: Classic KBs over current 49g

*Message #4 Posted by **Raymond Del Tondo** on 24 Aug 2003, 12:52 p.m.,*
in response to message #3 by Randy Sloyer

Not directly. You need to read the last word of each system ROM block, which together gives the three chars ROM revision.

If you have an RSU loaded with appriorate ROM images, or CCD or ZENROM, then this is an easy task.

Raymond

Sorry, wrong title;-) NT

*Message #5 Posted by **Raymond Del Tondo** on 24 Aug 2003, 4:42 p.m.,*
in response to message #4 by Raymond Del Tondo

see above

Re: 41C ROM versions

*Message #6 Posted by **Tony Duell (UK)** on 24 Aug 2003, 3:04 p.m.,*
in response to message #3 by Randy Sloyer

The easiest way is with the service ROM, but I guess few people have that (the image is available, so if you have an EPROM box or MLDL that can be addressed as page 4, then it's possible to run this code). There is a keyboard procedure in 'Extend your HP41', but it's somewhat complicated. However, I can look it up if you need it. Actually, if you're using an HP41, buy this book (or get it from the MoHPC CD-ROMs, or whatever). It's full of useful information. It's not a particularly technical book, but it's the place I look first for user-level information, synthetic programming stuff, etc.

Re: 41C ROM versions

*Message #7 Posted by **Veli.Pekka Nousiainen** on 26 Aug 2003, 7:03 a.m.,*
in response to message #3 by Randy Sloyer

Referring to Jeff's post: "In the book "Extend Your HP-41" pg 642, ROMs - Date Codes - Comments, DDE - 1926-1940 - All Classic Bugs, FDE - 1936-1952 - Bug 3 removed, FEE - 1951-2034 - Bugs 1,2,4 removed as well, GFF - 2035-84?? - Bugs 5,7,8 romoved too."

You may be able to fork it out using the Bugs as a guideline! VPN

Re: 41C ROM versions

*Message #8 Posted by **David Smith** on 24 Aug 2003, 6:02 p.m.,*
in response to message #1 by Randy Sloyer

There is a way to do it if you have the PPC ROM. It uses synthetic programming tricks, is very cumbersome, and is based upon a technique listed in the back of some very thick (800 page) book (I can't remember which right now).

Re: 41C ROM versions

*Message #9 Posted by **christof (NoVA US)** on 24 Aug 2003, 9:22 p.m.,*
in response to message #8 by David Smith

I've noted a couple of times references to making a ROM.

I realize that with the current market prices for something like the Advantage or PPC ROM that making them- in addition to any copyright issues, would decrease the value of holdings for some merchants.

so I expect that there will be some resistance, but- how do I do this? (I lack a way to burn bits, but I am sure I have access to someone who can)

More to the point- specific to the PPC ROM- si there any way to get permission to do so? I dont' want to sell them, but I'd love to have 3 (I'm a bit paranoid about spares).

I'm kind of sick of reading the manual and not getting to use it :)

Re: 41C ROM versions

*Message #10 Posted by **Vassilis Prevelakis** on 25 Aug 2003, 6:43 a.m.,*
in response to message #9 by christof (NoVA US)

christof (NoVA US) wrote:
> I've noted a couple of times references to making a ROM ... how do I do this?

Just search for MLDL in the MoHPC archives.

**vp

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HP Forum Archive 13

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41C & 15C

*Message #1 Posted by **Vincent Weber** on 24 Aug 2003, 6:37 a.m.*

Hi all,

I am just curious to know how 41C users welcomed the 15C in 1982. The 15C was,overall, not as an ambitious machine as the 41C: No alphanumerics (even in program listing), no expansion ports, less memory, no global labels, no user-defined keyboard, and poor performance (about half the speed of the 41C). Nevertheless, the 15C introduced new features that the 41C did not have: a clever complex stack (making full use of the 4-level stack), smooth matrix integration (matrix could even be recalled on the stack), native SOLVE and INTEG support, recall arithmetic, and all 12 conditionals. All this in a much smaller package, with every function accessible directly thanks to a well-organized keyboard with two shifted keys. At the time of the 15C introduction (1982), only the MATH module was available for the 41C. This module could do basic matrix operation, but no proper matrix arithmetics which were natively supported by the 15C. Only in 1985 was introduced the Advantage module. IMHO, this module (finally) outperformed the 15C in terms of matrix support, especially with complex matrixes. The 41C' alphanumeric capabilities made it easier to enter an review a matrix than the 15C, even if the matrixes could not be recalled on the stack. But the complex integration was not as good as the one of the 15C (the complex stack was limited to 2 levels). However, it was possible to use the CA application on the PPC ROM to work with an 'infinite' complex stack. Only the 42S would bring the best of both '41C and '15C worlds (without the expansion and I/O, though - nothing is perfect !) in 1988. Overall I think the 41C is a better machine than the 15C, but that 41C users must have been frustrated that a mid-range, cheaper model could outperform it in quite a few areas, at least before the Advantage module was released. That's why I think it today we have a 41 emulator for Palm (P41CX) while we still do not have a 15C emulator (only a simulator for PocketPC, Pocket15C by Lygea).

Thanks for sharing your thougts on the above :)

Best regards,

Vincent Weber

Re: 41C & 15C

*Message #2 Posted by **Patrick** on 24 Aug 2003, 12:16 p.m.,*
in response to message #1 by Vincent Weber

I bought a 41C/card reader in 1980, within a week of them first becoming available at my local college book store. I still have both. That machine replaced the HP-25 that I had been using since 1976.

The Spice models came out after the Woodstocks and I was somewhat unimpressed with them. It appeared that HP had taken a step backwards in build quality and I was disappointed with them for backing off of the quality heritage of the Classics and Woodstocks. Of course, SOLVE and INTEGRATE were quite fascinating on the 34C (there, Norm), but the looks and apparent quality still threw me off. Besides, my 25 showed no signs of deterioration so I had no appetite for another battery-hungry LED model (nor did I have enough money in those lean college days to splurge on a *third* calculator).

When the Voyagers came out, the disappointment of the Spices was still with me. I therefore gave the 11C just a quick perusal. I did like the looks of them, although you have to remember that they looked very, very odd in

those days. People like me came to think of the Classics as what a calculator *should* look like (the 41C certainly didn't disappoint in that respect). So, I went into the bookstore to try out a Voyager, to measure the mettle of which they were made. The 11C sure felt good in the hand. The build quality had certainly returned, and the display was great. Then I pressed the ENTER key. Yikes! It doesn't click! Well, it does, but nowhere like it should! That lone low-tactile key really turned me off. It was bad enough that they had oriented it up and down (horrors!), but damn that weak key click!! I decided right then and there not to buy one and never even followed the Voyager series after that. Despite being an HP fanatic even then, it hardly made a difference to me when the 15C and 16C were announced.

Thinking back on this, it strikes me that I was looking to find fault in these devices. I was certainly very happy with the 41C and used it on a daily basis, either for useful stuff or for exploring the then new area of synthetic programming. Probably I realized I didn't have enough money to justify another purchase and found a reason not to indulge my passion.

People who remember my previous postings here know that I am now a **huge** fan of the Voyagers, and particularly of the 15C. I agree with you, Vincent, about the extremely well engineered keyboard and features. It is a wonderful little machine. I lament not giving them more of their due back when they were available. Every Voyager I own -- all 22 of them -- were purchased on eBay. However, to this day, I remain very unhappy with the click on the ENTER key, and probably always will.

Re: 41C & 15C

*Message #3 Posted by **Bill Smith** on 24 Aug 2003, 1:08 p.m.,*
in response to message #1 by Vincent Weber

actually, it was the other way around for me.

my first calc was the 25 in my freshman year of 1977. when the 34C arrived, i upgraded primarily for the increased program space and continuous memory. i couldn't really justify the 41C, but when the 15C arrived, i just couldn't resist. it is still the best calc ever made, IMHO. i finally got a 41CV during my first job in 1985; alas i still have the coupon for the free Advantage module, and can't quite stomach the ebay prices to obtain one now. the 41CV was my desktop PC through the remainder of the eighties, and i still occasionally use a couple of analysis programs too long, complex and infrequently used to port to another platform. They work on Calc41 on my 200LX without modification.

Have a look at these articles

*Message #4 Posted by **Valentin Albillo** on 25 Aug 2003, 4:57 a.m.,*
in response to message #1 by Vincent Weber

Hi, Vincent:

Have a look at these articles, recently published in Datafile, which discuss at length *exactly* the topics you raise in your message. Both articles form a matched pair, discussing and comparing the HP-41C vs. the HP-15C matrix capabilities, and including a thoroughly commented program implemented in *both* machines, with appropriate remarks about the relevant differences:

DatafileVA007.pdf

DatafileVA008.pdf

Hope you'll find them interesting, any comments welcome :-)

Best regards from V.

BTW, should you want to have a look at some of my former Datafile articles:

DatafileVA001.pdf

DatafileVA002.pdf

DatafileVA003.pdf

DatafileVA005.pdf

DatafileVA006.pdf

Edited: 25 Aug 2003, 6:32 a.m.

Re: Have a look at these articles

*Message #5 Posted by **Vincent Weber** on 25 Aug 2003, 6:59 a.m.,*
in response to message #4 by Valentin Albillo

Hi Valentin,

Thanks a lot ! I really appreciated your article. Very accurate and informative. I have just two comments:

1/While the matrix operations on the Advantage are clearly better than the ones on the 15C, for complex numbers handling the 15C has an edge (full complex stack); although one may argue that what is useful with complex numbers is matrix operations (much better done on the 41C as you pointed out) and basic operations on complex numbers are not that useful, especially when it is quite cumbersome to deal with polar form on both machines; I think the makers of the Advantage ROM should have included the CA implementation from the PPC ROM (infinite complex stack). 2/In the end, when you say that a 41C will never look at a 15C or 42S with envy again... this is true of the 15C, but I am not sure that it is true of the 42S, which has a really fantastic matrix integration ! 3/Advantage ROM, to be complete, should have included hyperbolics and hex/bin arithmetitics.

What do you think ? Cheers, Vincent

Re: Have a look at these articles

*Message #6 Posted by **Valentin Albillo** on 25 Aug 2003, 8:05 a.m.,*
in response to message #5 by Vincent Weber

Vincent posted:

"While the matrix operations on the Advantage are clearly better than the ones on the 15C, for complex numbers handling the 15C has an edge (full complex stack)"

Agreed, no machine handles complex numbers better than the HP-15C (not even the HP42S), save the HP-71B/Math ROM bundle, but that's not RPN and lacks some functions that the HP-15C has defined for complex arguments (such as inverse trigonometrics). Anyway, as stated in my article, the intention was to "commemorate" the Advantage ROM so as it wasn't a full review, I focused on just one important topic: matrix handling and compatibility.

"I think the makers of the Advantage ROM should have included the CA implementation from the PPC ROM (infinite complex stack)."

Disagree. I'm not very fond of "infinite" stacks, *a la RPL* because I think the disadvantages (variable size which can result in less than 4 stack registers or even none, no automatic replication of the upper

level, 'garbage collection' frequently necessary, lots of memory used by the stack, slower, cumbersome LAST functionality, etc) do not pay off for the advantages. To me, it's just a book case of 'diminishing returns', i.e.: 2 or 3 levels are too few, 4 levels are much better, even ideal, 5 levels would perhaps be marginally better, but 6, 7, or 'infinite' levels do not really improve things appreciably and can even detract from usability.

In the end, when you say that a 41C will never look at a 15C or 42S with envy again... this is true of the 15C, but I am not sure that it is true of the 42S, which has a really fantastic matrix integration !

Yes it does, but it completely lacks I/O ... and that's extremely important and that's the way it is. If you can point out some particular strength of the HP42S, such as its 'fantastic matrix integration', it's only fair that I should be allowed to point out and remind you of the greatest strenght of the HP-41C system, namely its I/O and expandability, right ?

You can bet that if I have my HP-41CX with a double X-MEM module attached (i.e: nearly same RAM as a 42S), with an Advantage ROM and a PPC ROM plugged in, and a beautiful card reader ready to download any program from a small card holder full of them, in seconds, and you're next to me with an HP42S, you're probably the one that's going to feel envious as soon as we began to do something serious with them, or simply show off each other our latest tricks.

In short, the HP42S may be a fine machine, etc, etc, but next to the HP-41C described above, the fact that you can't plug any ROM modules into it to expand its capabilities, and the fact that you have to key in every program you intend to use, and can never backup anything on external media, make it a non-contender, actually. No way any 41CX user is going to feel 'envious'. What wouldn't any HP42S user give for being able to use a card reader, uh ? :-)

Advantage ROM, to be complete, should have included hyperbolics and hex/bin arithmetics.

Agreed. However, I would have preferred that all its many functions were machine-coded, complex functions in particular. Also, a better TVM section, *a la HP-12C*, would have been nice as well.

Thanks for your interest and kind comments, and best regards from V.

Re: Have a look at these articles

*Message #7 Posted by **Vincent Weber** on 26 Aug 2003, 7:54 a.m.,*
in response to message #6 by Valentin Albillo

Hi Valentino,

I agree with you on the I/O on the 42S. I just think that the 42S has a lot of valuable features: the complex and matrix integration is neat, the variables is a nice touch, the menus are nice, the solver makes it easy to solve for different variables (without the equation feature of the 32S, too), and the speed is great. Sadly the lack of I/O limits its interest, but a lot of features are alreayd on-board, and when I praised it I was more talking from an emulation point of view: a emulator/simulator for Palm of the 42S would be great, and would allow to enter programs. I am actually working on such a simulator, rather than emulator: I gives me more freedom to correct some flaws of the 42S (the worse alpha entry method ever, the lack of equations and fractions from the 32SII, the lack of direct polar/rect entry without changing the complex display mode); furthermore, the 42S ROM is not available from HP (unbelievable, when you know that the 41, 48 and 49 ROMs are available !); emulating the Saturn processor is complex, and does not bring benefits as the 42S had no ML/Synthetics available.

Would anybody would be interested in such a simulator, btw ? I am trying to see whether there is a "market" :)

I am actually quite happy with P41CX, the 41 emulator for Palm by Charles Lee. It is loaded with full extended memory (600 register) and leaves the 4 ports free, so I can have the Advantage ROM (with great matrix support), the PPC ROM (bringing part of the 32SII functionality, such as fractions and random numbers), the CCD (improving the catalogs: I never understood why you cannot XEQ or ASN a function directly from the catalog !!), and the Finance module. Actually I prefer the TVM program from the Advantage to the one of the Finance module (better presented, IMHO). Why don't you like it ?

Cheers, Vincent

Re: Have a look at these articles

*Message #8 Posted by **Valentin Albillo** on 26 Aug 2003, 11:05 a.m.,*
in response to message #7 by Vincent Weber

Vincen posted:

"Hi Valentino,"

Hi, Vincento.

"Actually I prefer the TVM program from the Advantage to the one of the Finance module (better presented, IMHO). Why don't you like it ?"

I didn't say that I don't like it, only that it is very basic. It should have included more of the advanced financial functions present in the HP-12C. As it is, financially-aware HP-41C users can still be envious of the HP-12C's capabilities, as the Advantage ROM financial functionality is no match for it (unlike the matrix functionality or even the complex-numbers functionality, up to a point).

Best regards from V.

Re: 41C & 15C

*Message #9 Posted by **Ron Ross** on 25 Aug 2003, 9:07 a.m.,*
in response to message #1 by Vincent Weber

I had just that choice in 1985. The Hp15c was $50 ($100) cheaper than an Hp41cv (cx). And then I would need to fork over another $50-100 for a software package ROM to get the features that came standard with the 15c. I wanted to replace my trash Ti-55 (I liked the calculator and its functions and feature, just the keyboard was worthless after 6 months of use and I was on my second one). Well an Hp15c was definitely going to be less expensive and do everything I needed.

The Hp15c could easily have been my last HP (and I mean this in the very best way!) 8o)

Later I bought an Hp42s (which I feel is better than a 15c, but I still like my stylish 15c better). I also have a 41c and a math module. I use my 42s (now expanded to 32K), but without real input, I acknowledge, the 41c series is a better calculating machine. But that is also why I often use a 48 or 49 as they are superior to a 41c in this regard. But a 41c, 42s or 15c are all able to fit is a pocket or take up minimal space in a breifcase. That isn't true of a 48/49. Also, I don't like the idea of pulling out a cannon in a meeting to do a simple calculation (simple is a relative term) and would rather use a much less obtrusive calculator such as a 41, 42 or 15.

The 41c series certainly had their time and place and were never really replaced by any equilivent calculator. The 42s was meant as an upgrade to the 15c user (which it did very well). As such, no real I/O wasn't considered all that much of a hinderance. The 28/48/49 is the upgrade path of the 41 series, but the 41 user had

to give up small one hand portability and the established I/O of the 41 series (which wasn't always acceptable). If the 42s had been released with 32K and real I/O, I do not think any 41c user could ridicule a 42s (I believe Hp had such an animal in the planning as an Hp42sx). But that never happened, probably since Hp wanted the 48 to do so well and feared robbing sales from the more estemed model.

In comparison MBA's and business types never had to give up their cherished toys, since Hp still makes the 12c (15c equavalent) and the Hp17b (Hp42s equavalent) in the lower end line of calculators. That doesn't seem fair. 8o(

I'll end my rant here.

Re: 41C & 15C

*Message #10 Posted by **Veli-Pekka Nousiainen** on 26 Aug 2003, 7:28 a.m.,*
in response to message #9 by Ron Ross

"The 42s was meant as an upgrade to the 15c user (which it did very well). As such, no real I/O wasn't considered all that much of a hinderance."

BULL. The 42S is code compatible with the 41 and even the HP model numbering refers to that. YOU may think it's an upgrade of your 15C, but that's not what HP made it for. VPN

Re: Your Wrong!!

*Message #11 Posted by **Ron Ross** on 26 Aug 2003, 7:52 a.m.,*
in response to message #10 by Veli-Pekka Nousiainen

Refer to the literature of the time when the calculator was released. The Hp32s was the upgrade for the HP11c. The Hp42s was the upgrade for the 15c, and the 28c/s was the upgrade for the 41c (poor upgrade path for 41c users).

This is documented by HP's own sales literature (for what that is REALLY worth).

That the code was 41c compatiable was a nice bit of bait, no 41c user would go for a calculator with no I/O. And that is why the 28 was probably replaced with a 48 series after only a couple of years. A 42sx was on the drawing boards (from what I have heard), but was scrapped (and I am guessing here, because it would rob sales from the 48 line). 42sx specs will make quite a few somewhat irritated: 32K RAM and serial I/O like the 48G.

Re: Your Wrong!!

*Message #12 Posted by **Vincent Weber** on 26 Aug 2003, 8:05 a.m.,*
in response to message #11 by Ron Ross

All what you say is perfectly correct. It is amazing to see that the 41C has been constantly under attack since its birth: - In 1980, by the first basic pocketcomputer (Sharp PC1211). - In 1982, by the Casio fx-602p (less impressive but faster), and from HP by the 15C (less powerful but with nice extra features as discussed in this thread). - In 1984 by the HP-71B that could simulate the 41C in a much faster way. - In 1985 by the first graphic calculator (Casio fx-7000G). - In 1987 by the first HP RPL calculator (HP-28C). I understand why 41C users did not take the 28C seriously: Its punky 2K memory did not allow to take advantage of its amazing features, and you could actually have much more elaborated programs on the '41 - let alone the major flaw of the 28, i.e the lack of I/O. - In 1988 by the 28S (which started to undermine it seriously because of its huge memory for the time and its revolutionnary features), and then the 42S (much improved in many ways, but the lack of I/O did not allow to take it a a serious rival). Interesting enough, the sales brochures of the time

showed the 41 and 28 on equal grounds: the 41 for exandability, the 28S for build-in capabilities. Amazingly, HP was still pricing the 41CX more expensive than the 28S ! - Finally, in 1990 by the 48SX. It is interesting to note that *only then* after 11 years (1979-1990), HP decided to discontinue the '41 series, which is a acknowledgement that no calc until the 48 could actually replace it. And the '41 fans (among which your humble servant) will still say that they prefer the '41 to the (super-powerful, but bulky, and with less flexible I/O) '48 :)

It is impressive that the '41 survived all these treats without a problem. That shows how flexible and well design this calculator was - to be able to compete with supposely much more powerful machines.

My 2 cents. Cheers, Vincent

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19c record on ebay?

*Message #1 Posted by **Gene** on 23 Aug 2003, 9:49 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3041109533

Over $600. Anyone seen a 19c higher than this?

Wow. Gene

Re: 19c record on ebay?

*Message #2 Posted by **Vassilis Prevelakis** on 24 Aug 2003, 6:02 p.m.,*
in response to message #1 by Gene

HP 19C calculators used to be quite rare, and this has been driving prices up. However, the past 2 months quite a few 19Cs were auctioned off so I would guess that will drive prices down.

**vp

Re: 19c record on ebay?

*Message #3 Posted by **Erik Wahlin** on 25 Aug 2003, 1:20 a.m.,*
in response to message #1 by Gene

I think having the "box" doubled the normal auction price.

Re: 19c record on ebay?

*Message #4 Posted by **David Smith** on 25 Aug 2003, 6:50 p.m.,*
in response to message #1 by Gene

I know of a truly mint condition unit in a really nice box that sold for over $1200... I sold it. Both buyer and seller are quite happy. It would probably bring more these days...

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12C Platinum: Better/Worse than Original?

*Message #1 Posted by **tomk** on 23 Aug 2003, 8:20 p.m.*

I searched the forum and found surprisingly little direct testimony on the 12C platinum versus 12C. I read elsewhere that the buttons don't feel the same...anything else? what about 360 day based bond calculations?

Re: 12C Platinum: Better/Worse than Original?

*Message #2 Posted by **tony** on 23 Aug 2003, 11:39 p.m.,*
in response to message #1 by tomk

There is a thorough review of the 12CP by Jordi Hidalgo in HPCC Datafile V22N3 pages 8-11. Kinpo intended the 12C platinum to have the same functionality as the 12C - the 30/360 Day basis Bonds are covered by a program in Section 16 of the manual,which is basically the same as the old 12C manual.

Re buttons I suggest to try before you buy, if possible. I have found it very usable. It has a great battery life, and this is needed as it takes longer than the 12C to solve for i and IRR. Also the unit I have is limited to 253 usable programming steps.

Re: 12C Platinum: Better/Worse than Original?

*Message #3 Posted by **Don Shepherd** on 24 Aug 2003, 8:48 a.m.,*
in response to message #2 by tony

Tony is right about the programming step problem. I just bought one from Amazon.com a week ago and the problem is still there. If you try to use most of the programming space, then the GTOs won't work. I wrote HP about this and they verified the problem, but I don't know what they will do about it.

Performance for programs is faster. It has a nice leather case. I think the keys are OK. The programming model is the same as the 12c, unfortunately (GTO line numbers and you cannot insert/delete lines).

Re: 12C Platinum: Better/Worse than Original?

*Message #4 Posted by **Patrick** on 24 Aug 2003, 12:29 p.m.,*
in response to message #3 by Don Shepherd

When you say "nice leather case" do you *really* mean leather? The case that comes with the legacy 12C is vinyl but there is an upgraded Voyager case that is real leather. You don't mean you get one of those with the 12CP, do you?

It's leather looking not real

*Message #5 Posted by **Gene** on 24 Aug 2003, 1:14 p.m.,*
in response to message #4 by Patrick

But better than the plastic cases the 10B used to ship with.

Re: 12C Platinum: Better/Worse than Original?

*Message #6 Posted by **Don Shepherd** on 24 Aug 2003, 3:08 p.m.,*
in response to message #4 by Patrick

Heck, Patrick, I don't know if it's real leather or not, but it is a step up from the standard vinyl slipcases that the original Voyager's shipped with back in the 80's, and the 12c's shipped with a year or so ago.

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copying 9815 tapes

*Message #1 Posted by **db(martinez,california)** on 23 Aug 2003, 8:18 p.m.*

Can someone give me and my partner in crime some beta on how to copy one of the "general utilities and test routines" tapes that hp supplied with the 9815 ? She says : "There are a mix of regular and binary programs on the tape which (I think) are impossible to copy -- at least I don't know how. Most (all?) of the regular programs cause binary programs to be loaded in order to do their thing. So just copying the regular programs doesn't work (I've tired it).

Also: does anyone have all three of these tapes?

thanks - d

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NCEES Banning of 48GX, 49G, TI83, TI89, Etc

*Message #1 Posted by **John Cadick** on 23 Aug 2003, 6:20 p.m.*

Gents:

As a simple matter of fact, a calculator is a tool for a technologist - whether an engineer or otherwise. I wrote to the NCEES and asked why they had done this. The reply was that they have had a rule banning devices with comm capability for some time. Since they have heard about mods to the (now) banned calculators that would allow cheating, they decided to enforce the rules. This is my response to them:

> Quote:
>
> Thank you for your reply. I had actually thought that it might be something of that nature. As a PE for thirty years, I certainly am among those that want to maintain integrity in the examinations. Having said that, I wish to make a few points if you would take the time:
>
> 1. With today's technology, a cheater can communicate with a wristwatch. 2. The existing infrared comm capabilities of the various calculators that you are banning are short range and probably useless unless they are modified. 3. If someone is going to the trouble to modify an Hp49g or TI89, they could just as easily modify a TI35 or HP9 or Casio whatever. In fact, an hp42s (obsolete but still available) has infrared capability and could be modified quite easily. 4. Entering text into any of the calculators that your are banning, even the QWERTY keyboard models like the Ti92+, is a long laborious process. Anyone entering anything of value would surely be noticed by the proctor. 5. Including college and professional practice I have been working with technical tools for forty years. I am trying to imagine how I would prepare for the PE exam now when I was told that I was not allowed to use the tools of my trade.
>
> I do not believe that banning these calculators is the correct approach. For what it is worth, based on the communications that I have had with a number of registered engineers, I am far from alone in this belief. I would suggest the following alternative approach.
>
> 1. All calculators that are to be used in the exams must be submitted for examination by the proctor(s). 2. All applicants using calcs with comm capability should be seated in the same general area to make the job easier for the proctors. 3. When students leave the test site, they must submit their calculators to the proctor for a hardware reset.
>
> Closer proctoring and monitoring is the correct answer not taking the engineer's tools away from him/her just when they are most needed.
>
> John Cadick, PE

I suggest that everyone (pro or con) contact NCEES and let them know of your position. The gentleman that I correspnded with is j carter @ ncees . org. Remove the spaces for email.

John

Re: NCEES Banning of 48GX, 49G, TI83, TI89, Etc

*Message #2 Posted by **christof (NoVA US)** on 23 Aug 2003, 7:04 p.m.,*
in response to message #1 by John Cadick

John-

You might also suggest the simple procedure of taping infrared ports.

I'd also note that anyone who did successfully modify the 42S would have some cash coming from me if he'd be willing to do mine, and would definitely have to have some reasonable knowledge base to do so.

:)

Re: NCEES Banning of 48GX, 49G, TI83, TI89, Etc

*Message #3 Posted by **John Cadick** on 23 Aug 2003, 7:49 p.m.,*
in response to message #2 by christof (NoVA US)

;-} Yeah, modification of the 42s might be more than a chore. I hope that NCEES realizes my meaning is that he who wants to cheat, will figure a way.

John

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Math(s) class is a calculator tutorial

*Message #1 Posted by **bill platt** on 23 Aug 2003, 12:46 p.m.*

Hello all,

I am going to bring up something which I hope will stir controversy and discussion regarding education, learning, and the "correct" HP-Compaq market positioning for the educational market.

Having graduated from HS in 85 and College in 91, I never experienced the use of a calculator in math(s) class. Sure, we were allowed to use them in physics class, but math was MATH!

Reading some posts here, I am amazed to learn that teachers "build lesson plans around the TI-xxx" and "HP does not provide support for the educational market" and "Daddy will buy the child the Ti, because that is what the teacher uses".

Am I alone in thinking that this is a horrendous travesty?! Shouldn't the valuable time spent in maths be spent learning math? Shouldn't the calculator be a tool that is chosen and learned outside of the curriculum? (like for instance typing!) As technology marches on, doesn't the student who learned on a particular machine become dependent on it? (Aren't we even "dependent" on RPN!)

On the other hand, what are the positives? Does the calculator somehow make it possible for the teacher to provide better quality in the same time frame? Or do the children understand the concepts sooner? (Somehow I totally doubt that the latter is true.)

I for one am skeptical. Sure, the children may be able to learn to be proficient at producing *answers* using the calculator, but are they *understanding* any faster-better-deeper?

Ideally, we should hear some anecdotes from the younger set here---those who have actually experienced classes that were taught with a calculator. Like, I can't even imagine how this would go. Is it like, "OK everybody, find the f-shift key. Got it? Ok, now, you are going to press 'f-shift', 'solve'. Your screen should show a curve. OK, now push 'roots'. See the highlights....."

Regards and looking forward to commentary.

Bill Platt

Re: Math(s) class is a calculator tutorial

*Message #2 Posted by **GS Leong** on 23 Aug 2003, 2:03 p.m.,*
in response to message #1 by bill platt

Your right Bill, this is a horrendous tragedy! They are teaching these kids a process and not teaching them to think independently. The current teaching philosophy is geared at getting higer scores on federal test to obatain money. It will kill us in the long run. I agree that the calculator is mererly a tool and the better the tool the more efficient the user. I feel we need to get back to teaching fundamentals! I have had an hp since my high scool days I graduated HS in '79 and college in '86 and have alwas been a loyal hp fan. My $.02 worth.

Re: Math(s) class is a calculator tutorial

*Message #3 Posted by **Tom Scott** on 23 Aug 2003, 2:39 p.m.,*
in response to message #2 by GS Leong

Maybe I'm just getting old (graduated from high school in 64) but when I heard that my grand-daughter had to get a calculator for her kindergarten class starting this year, I was highly concerned for the reasons mentioned earlier (i.e., learning process over substance). On the other hand, maybe the instructors (kindergarten through college) spend most of the time on the actaul subject and use the calculator to maximize that time.

Tom Scott Lander, Wy

Re: Math(s) class is a calculator tutorial

*Message #4 Posted by **bill platt** on 23 Aug 2003, 3:11 p.m.,*
in response to message #3 by Tom Scott

My son is starting 1st grade this fall. Last year, he had a great time in kindergarten. The teacher did use 1 computer a little bit, but really she seemed to be in agreement that technology should not be stressed.

Now, when we go on road trips, I sometimes give my son a calculator to play with. I feel strange about this--like am I encouraging the very thing I don't want to! Yet it seems to be OK. I'll give him a 20s, and he'll type in numbers. Then, I'll give him a 48, and he'll put numbers in it. And then he'll ask me question, like "why is this one have more numbersOr, "they are shaped differently" or "they are smaller." Once, he mamaged to get an exponent into the system, and that was fun--he wanted to know what htat did, so I showed him a huge pile of numbers and said that the exponent merely counts how many numbers. Then I show him how to make letters, and letters on the 20s by turning it upside down etc. Note that all ofthe good stuff was easier and more direct to do on paper--like showing the exponent thing. So the calculator is a "failure" in many teaching respects.

The result of this play has confirmed in me that at kindergarten, the calculator is not a serious teaching tool, but a fun diversion once in a while. At least he isn't playing with a gameboy?:~/

Regards,

Bill

Re: Math(s) class is a calculator tutorial

*Message #5 Posted by **christof (NoVA US)** on 23 Aug 2003, 4:21 p.m.,*
in response to message #4 by bill platt

Last year I gave a pair of HP38G and a pair of 48G machines to a friend and her daughter. Said daughter was 8 at the time.

Is this a travesty? Is it so horrible? Did I suddenly reduce her brain mass by 30% and her effective IQ by 60 points?

Yeah yeah- anyone who graduated after 1970 or is horribly uneducated and *every* student in the old days could solve a quadratic in his head while simultaneously reciting the cubes of the Fibonacci series. While walking uphill both ways to and from school in the rain during an ice storm in May. Or something. Fine.

The problem isn't the *calculators*. My friend's daughter is doing quite well with her calculators - outside of school. She's figured out how to structure most of the measurements involved in making

a grape arbor, she knows what fourier series means, she's fine. the calculator is not sucking her brains out through her nose. Oh- maybe it makes things a bit more fun since the machine will do the boring bits of adding and subtracting. Granted- she's a special case, but her in school math bores her to tears. The only thing keeping her interested at this point seems to be her favorite calculator (alas, it's the 38G, not the 48G)

And I've yet to see a teacher allow a calculator for anything that hadn't already been taught (the way the high schools in one part of CA I'm familiar with do it- first, you learn trig. THEN, you learn trig on a TI).

Learning is a lifelong process. If using a calculator rots your brain in school, it rots your brain now. Fess up- how many of you are going to sell me all your HPs cheap because of this?

Another issue- and a fairly important one- is the need for students to adapt to technology early. Oh- it may not matter if we get bombed back to the stone age, but given the structure of our society right now, technophilia is a trait that is likely to improve your prosperity.

I find the influences that try to prevent children from gaining skills in the use of computers harmful. (And when you get past 4 * 7, a calculator is a computer and can teach you a lot about how to think about them.)

If you believe that having a calculator automatically means a child will never learn to add, that's your prerogative, of course. As for me- I'm hoping the son will go for the 32Sii instead of the 20s, but who knows :)

Christof (accept that there is humor in this, along with the grit)

Re: Math(s) class is a calculator tutorial

*Message #6 Posted by **Ernie Malaga** on 23 Aug 2003, 5:25 p.m.,*
in response to message #5 by christof (NoVA US)

Bravo! I was going to post something like this, but you beat me to it -- and did it better than I could have. I only wish to add a bit more:

What matters (or what _should_ matter) in education is building the ability to analyze a problem: take it apart, see its components, and then come up with a solution. If you don't have that ability, the spiffiest calculator in the world won't make up for the lack. If you already have it, it makes no difference whether you employ paper and pencil, a slide rule, or a graphing calculator to get the answer.

One way or the other, then, calculators should NOT be banned. Banning them is equivalent to forcing students to walk in a thunderstorm when they could be riding their cars.

Another 2Â¢.

-Ernie

Re: Math(s) class is a calculator tutorial

*Message #7 Posted by **christof (NoVA US)** on 23 Aug 2003, 6:57 p.m.,*
in response to message #5 by christof (NoVA US)

hrm, I seem to have written fourier in one spot when I should have written Fibonacci again.

ah well.

and the current approach to introducing, selling, and manufacturing calculators- and computers- really does suck. I'm in full agreement. But I think they *do* need to be there, and early.

-C

Basic arithmetic skills

*Message #8 Posted by **Frank Wales** on 23 Aug 2003, 10:44 p.m.,*
in response to message #5 by christof (NoVA US)

> Quote:
>
> If you believe that having a calculator automatically means a child will never learn to add, that's your prerogative, of course.

Well, I don't think it's automatic; I can add, and I had a load of calculators at school, but only in later years (15+), so my experience isn't directly germane. (Plus, in Scotland in the 1970s, arithmetic was a separately-taught subject from mathematics, and attempted to provide a reasonable education in day-to-day number work for those who weren't studying maths proper.)

However, here is a story from the other day which might be a small data point that tells us something about something.

I was buying a calculator on eBay (no surprise there), and had to get a money order to pay for it. I went to the closest Western Union agent to my home, which happened to be a bureau-de-change in a travel agent. The total cost of the money order was £27.49 plus a £12.00 fee.

The manager had to get a calculator to add these two numbers together.

Once he'd figured out that I owed him £39.49, I gave him £40 in cash. He then asked me if I had a penny, to make the change he had to give me easier.

A puzzled look must have come over my face, because he clarified that he didn't have any pennies. So I thought: "ah, he's going to give me fifty-*two* pence, so he wants a penny back."

So I gave him a penny. He then gave me a fifty pence piece in return, and indicated he was done.

I pointed out that he had owed me 51 pence in change.

After a few moments looking at me, he then looked at the penny in his hand, and the fifty pence piece in mine, smiled the smile of a problem well solved, and handed the penny back to me.

At this point, I thought I was in one of those splitting-the-bill puzzles where a dollar "goes missing" between the waiter and the diners, and really didn't fancy having to draw diagrams to explain what was going on.

So I repeated that I'd been owed 51 pence, and that so far, I'd only been given 50. After an even longer period of looking at me funny, the guy said it had been a long day, took a penny from his cash drawer (which previously he'd claimed he didn't have), and handed it to me.

Now, I would just like to point out, for those who didn't spot it the first time, that this guy RUNS A BUREAU-DE-CHANGE! Yet, apparently he can't add small currency values, nor

correctly reckon change, in his head.

Thank goodness that he can work a calculator, eh?

Re: Math(s) class is a calculator tutorial

*Message #9 Posted by **Tony Duell (UK)** on 23 Aug 2003, 4:28 p.m.,*
in response to message #1 by bill platt

Sure it bothers me. It bothere me a lot. School (and university) classes should be about learning concepts, not how to use particular tools!. When I was at school, we were allowed to use calculators, but we were never taught how to use them. We were expected to read the instruction book and figure it out. In UK schools, it appears, 'computing' classes consist of learning how to use the current versions of Word and Excel. Ouch!. No matter what your views on Microsoft products (and mine are not repeatable in a public forum!), schools should not teach what keys to press. They should teach the _concepts_ behindword processing (how to correctly format various types of document, when to use particular types of font, etc) and spreatsheets. Learning what keys to press is something you find out for yourself in an afternoon with the program's documentation. Incidentally, I once read something that I strongly agree with. It basically said that OK, calculators are here to stay, and therefore most students probably don't need to do endless long division examples any more. But if you are going to let school students use calculators, then they have to learn how to use said calculators correctly. THey have to learn about truncation and rounding errors. They have to learn that because a statement is mathematically true it does not mean it's a useful method for calculation. They should learn about iterative processes, and so on. In other words, let students use the 'new' tools, but make sure they understand the concepts relating to said tools.

Re: Math(s) class is a calculator tutorial

*Message #10 Posted by **Richard Garner** on 23 Aug 2003, 5:30 p.m.,*
in response to message #9 by Tony Duell (UK)

I agree with you. My nephew had to get a TI-83 for junior high this year. The manual was on a CD. No printed manual other than here is where the batteries go. I had to spend 2 days over a weekend printing out over 800 pages so he could start learning how to use it. So if a number of students don't have a way to print out the manual that is on the CD or if they buy their calculator in a pawn shop to save money, there is no manual for them. The teacher will have to spend most of the class time telling all of them press this key, them that key. The fundamentals need to come first then the calculators can be used as aids not crutches.

Re: Math(s) class is a calculator tutorial

*Message #11 Posted by **J.C. Randerson** on 23 Aug 2003, 5:09 p.m.,*
in response to message #1 by bill platt

At the grade/middle school level, calculator usage should be minimal. At the high school level, calculator and computer usage should be encouraged with the proper (hard to do) balance between old time skills and machine use.

A good example of what happens when the old fashioned diehard Luddite types take over is being argued several threads down, with the banning of calculators for national PE tests.

Trying to reason with the Luddites is like trying to talk with religious fundamentalists, it can't be done. In a nutshell: if you don't like calculators and computers, don't use them - but when you infringe on my wish to use them, @#$%!

J.C. Randerson

Re: Math(s) class is a calculator tutorial

*Message #12 Posted by **gifron** on 24 Aug 2003, 5:04 p.m.,*
in response to message #11 by J.C. Randerson

Let's be sure to bring religion into the discussion. Anyone care to make a political issue out of it?

Re: Math(s) class is a calculator tutorial

*Message #13 Posted by **gifron** on 24 Aug 2003, 5:27 p.m.,*
in response to message #1 by bill platt

My HS son just took a trig class at the community college, in which he was required to use a TI-83+. This fall, he is taking calc at the same college, and is required to use an 86. He was told that an 89 would do, but that the 86 was better suited to the course. I suppose that for his calc 2 course, he will need to buy an 89, and then a 92 (or whatever) as he continues on. I graduated HS in 82, and used a sharp 506H until my senior year in engineering school, which is when I received a 41CV as an anniversary gift from my sweet wife.

I don't have a problem with the use of calculators in class, once the concepts and processes involved have been learned. I do have a problem with the use of the calculator in performing the work, when the student has not learned to do the work w/o the calculator. I also don't appreciate fact that the classes are structured around specific calculators, as I can't afford to buy every TI calculator. More importantly, we should be able to do the work if the calculator we learned on dies, and we have to use a different model, or (no, don't even think it) a pencil.

Re: Math(s) class is a calculator tutorial

*Message #14 Posted by **bill platt** on 24 Aug 2003, 5:57 p.m.,*
in response to message #13 by gifron

This is exactly the sort of baloney I was afraid of--just making mathematics class into a seminar for appliance operators. Ughhhhh. I think the teach needs a pep talk--actually, the faculty board or whathaveyou.

regards,

Bill

Re: Math(s) class is a calculator tutorial

*Message #15 Posted by **christof (NoVA US)** on 24 Aug 2003, 11:55 p.m.,*
in response to message #13 by gifron

That is odd, and disturbing.

I'm very much in favor of technology in the classroom, but requiring different machines for different math courses - especially at a community college- seems very bad.

I'd suggest having some discussion with the college, or local newspaper. I can accept suggesting one calculator, but not requiring multiples!

and there is still the statement "first you teach trig, then you teeach trig on a calc"

-C

Re: Math(s) class is a calculator tutorial

*Message #16 Posted by **bill platt** on 24 Aug 2003, 7:09 p.m.,*
in response to message #1 by bill platt

I just want to say that I think this thread has been really good--I certainly have learned some interesting and useful ideas! Thanks to all (past and future) for posting!

Regards,

Bill

Re: Math(s) class is a calculator tutorial

*Message #17 Posted by **Juergen Rodenkirchen (GER)** on 25 Aug 2003, 2:41 a.m.,*
in response to message #1 by bill platt

Personally, I do agree with the opinion of e.g. Tony (see his post above). But still, I'm thinking that calculators -- espec. graphing calculators -- can be reasonably and sensible used for supporting and complementing teaching (at least) undergraduate math classes. I sincerely believe that graphing calculators can enter math classrooms for the benefit of both, the learning folks to delight them for math in a "playing" manner and for the mathematics itself to make she -- right, I'm mathematician and I do love her :-) a lot -- more attractive in modern, technology driven world. By the way, I'm currently reading a textbook titled "HP48G/GX: Investigations in Mathematics" which IMHO clearly shows that and how calculators can be used to actually teach mathematics. The "instructors" at the college mentioned there use calculators for teaching math since the advent of the HP-28 and so do have a profound experience in that matter. If someone would be interested in the book, I can post information on the authors, the publisher and where one probably can get a copy.

Jürgen

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HP15C

*Message #1 Posted by **Hans** on 23 Aug 2003, 9:34 a.m.*

I changed the batteries on my HP15 calculator. Now I have only illegible characters on the display. Is my calculator defect or what's the problem? Is there anyone who knows abaout this problem? Thanks: Hans

Re: HP15C

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 Aug 2003, 9:59 a.m.,*
in response to message #1 by Hans

Hi, Hans;

sometimes it happens that old batteries have a voltage difference to the new ones that's enough to "hang" the calculator. You may start with the [ON]&[y^x] pressed together: this is the first attempt to get the calculator back to normal operation after a [ON]&[-] memory clear.

If you get your Owner's Handbook and search for the Battery replacement text (appendixes) you'll also find some information about resetting calcualtor's memory. One of the most simple procedure is the hardware reset: a single, brief shorten in batterie's terminals. Yes, you get a piece of wire or any conductive material (a paper clip, as mentioned in the manual, may give you some trouble if bending it to fit in) and briefly, very briefly, connect both (+) and (-) poles of the batteries. As for safety precaution, do not remove the batteries: they will ensure no more than 4.5V will be present in their terminals, even if you have electrostatic charges in yor body, what could dammage your calculator. To be even safer, touch some GROUNDED metal parts before doing this.

Hope this helps.

Luiz (Brazil)

Re: HP15C

*Message #3 Posted by **bill platt** on 23 Aug 2003, 12:22 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hello Luiz,

About this short the terminals thing: If you leave the batteries in the compartment and then short the terminals, you will send a large current through the shorting wire, and trash the batteries. Or am I missing something?

Regards,

Bill

Re: HP15C

*Message #4 Posted by **David Smith** on 23 Aug 2003, 12:54 p.m.,*
in response to message #3 by bill platt

Those tiny batteries can't supply enough juice to heat anything up with just a one second short. It is HP's recommended proceedure.

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HP Forum Archive 13

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HP Calculators in movies ??

*Message #1 Posted by **Norm** on 23 Aug 2003, 3:58 a.m.*

Are there many HP calculators seen in Hollywood movies ??

Probably not, its kind of like spotting an HP microwave network analyzer in a movie .....

HOWEVER I know of at least one such, its "Andromeda Strain".

This is a classic "engineers movie" from when engineers ruled the earth (not MBA's) U know that early 1970's timeframe, when even the average 12-year old knew his algebra (now they just watch beevis & butthead) .

Now, help me out here folks, but along with all the spectrum analyzers, oscilloscopes, electron microscopes, and chemical equipment featured in "Andromeda Strain" did U not clearly spot the outlines of a "classic" HP scientific calculator in the white Ford econoline van (the one with the radar dish on top, near the beginning).

U know, one of those calculators the size of a suitcase. No, I dont know the model number, maybe somebody else does?

Heyyyyy which movie has got an HP-34C in it ????? With Reeeeeeed LEEEEEEED's ..... oooo aaaaahh hubba hubba

Re: HP Calculators in movies ??

*Message #2 Posted by **Richard Garner** on 23 Aug 2003, 10:16 a.m.,*
in response to message #1 by Norm

It's not a calculator but the movie "Real Genus" showed the HP-71B. It was used by the backstabbing suck-up Kent. I you ever watched any of the first episodes of "This Old House", Bob Villa used an HP-35.

Re: HP Calculators in movies ??

*Message #3 Posted by **Ed Martin** on 23 Aug 2003, 11:37 a.m.,*
in response to message #2 by Richard Garner

I need to watch it again to be 100% sure, but in "Two Weeks Notice", when Sandra Bullock cleans out her office after quitting, at the top of her box appears to be a silver bezel Voyager. My question is, what would an attorney be doing with a 10C/11C/15C ???

- Ed

Norm!

*Message #4 Posted by **bill platt** on 23 Aug 2003, 12:49 p.m.,*
in response to message #1 by Norm

Norm, you are a genius. Just when we have all gotten off track, worrying about a bunch of new trash coming

out of carly-copaq-land, you put us back to our roots. I remember when I saw a HAM radio station in a movie--that was totally cool---(being a HAM you soemtimes wonder if the WHOLE world thinks you are a commitable nerd). Now for calculators.

Next time we go to Blockbuster to rent a movie, I am going to override my wife's choices. We are on the hunt!

-Bill

Blockbuster

*Message #5 Posted by **Norm** on 23 Aug 2003, 1:57 p.m.,*
in response to message #4 by bill platt

you would not likely find "Andromeda Strain" at a Blockbuster, they only have got modern dumb stuff like Vin Diesel starring in "XXX" etc etc

However U can get anything U want on eBay .....

DONT watch "Solaris" dumbest piece of modern trash I ever seen in my life, dumber even than Tom Cruise in "Vanilla Sky".

LETS WRITE A SCRIPT for our own movie.....

"KICK 'EM OUT" starring Norm, gang of angry teeth-gnashing HP calculator users storms Carly Fiorina's board of directors. We pelt the board of directors with rocks and bottles and old HP calculator parts, they run from the building, we kick back in the chairs and drink from beer bottles to celebrate our victory.....

script needs to feature a hp calculator

*Message #6 Posted by **hugh** on 23 Aug 2003, 3:08 p.m.,*
in response to message #5 by Norm

scientists discover an asteroid on COLLISION course with the earth and no one can stop it. world leaders cant agree on a solution so scientists get together all over the world to think of something themselves.

after some subplots and a love triangle (goes here) the scientists come up with a missile that could deflect it, if programmed correcltly.

however, microelectronics today is too small and would be hit by cosmic rays in space and malfunction. norm, our hero, in a long shot but it might just work fashion, programs his own hp 34c whose large retro electronic could withstand the rays to guide the missile and fits it inside the unit just in time to save the world.

hmm...

*Message #7 Posted by **Hans Brueggemann [GER]** on 23 Aug 2003, 3:28 p.m.,*
in response to message #6 by hugh

...it has been a long time waiting for the sequel to plan 9: PLAN 34. (lord, help us & let's go for it)

cheers hans

Re: script needs to feature a hp calculator

*Message #8 Posted by **db(martinez,california)** on 23 Aug 2003, 6:51 p.m.,*

in response to message #6 by hugh

In the book "Lucifers Hammer" by Jerry Pournell, which is about that same asteroid, some U.S. and Soviet astronauts have a short discussion about algebraic vs rpn calculators. btw: The author is some kind of engineer who worked at the JPL among other early high tech places in southern California.

Re: script needs to feature a hp calculator

*Message #9 Posted by **r. d. bärtschiger.** on 23 Aug 2003, 8:49 p.m.,*
in response to message #8 by db(martinez,california)

Jerry Pournell also wrote a column for 'Byte' Magazine for a number of years.

rdb.

Jerry Pournelle

*Message #10 Posted by **Andrés C. Rodríguez (Argentina)** on 24 Aug 2003, 2:43 p.m.,*
in response to message #9 by r. d. bärtschiger.

Indeed, apart from many Sci-Fi books, Jerry Pournelle wrote the monthly "Users Column", later renamed as "Computing at Chaos Manor", for many years in Byte magazine (I think he still publishes a column at byte.com)

/www.jerrypournelle.com/ is where to read lots of Jerry

*Message #11 Posted by **Gene** on 24 Aug 2003, 9:19 p.m.,*
in response to message #10 by Andrés C. Rodríguez (Argentina)

One of my regular sites to visit.

Confusing at Catastrophy manor (Parody of Pournelle's Chaos Manor)

*Message #12 Posted by **Vassilis Prevelakis** on 27 Aug 2003, 7:46 a.m.,*
in response to message #11 by Gene

Since this is a forum for collectors, I thought I'd post this message posted to the net.micro newsgroup in **1985**. (notice the .UUCP address and the references to 6502 vs 68000 -- ah, those were the days :-)

It parodies Gerry's column in Byte Magazine (then called User's Column).

**vp

```
---------
From: garey@ut-ngp.UUCP (riggs, austen)
Newsgroups: net.micro
Subject: Confusing at Catastrophy manor
Message-ID: <1530@ut-ngp.UUCP>
Date: 31 Mar 85 06:03:52 GMT
Article-I.D.: ut-ngp.1530
Posted: Sun Mar 31 00:03:52 1985
Date-Received: 5 Apr 85 02:40:37 GMT
Organization: U.Texas Computation Center, Austin, Texas
Lines: 63
```

I ran across this in the April issue of Microcornucopeia:

Confusing at Catastrophy Manor

Alas, it has been yet another sleepless month here at Catastrophy Manor. My faithful Z80, Beulah, began spitting out 'not ready' errors two weeks ago and my in-house technician didn't discover until yesterday that I had not put a disk in the drive.

During that time I was forced to use Zimblefield J. Rothschild, the Cray 1 that normally monitors the odor level from the kitty box. What a frustrating machine! I certainly wish someone would enlighten the Cray people on how to design a proper keyboard. The left shift key is positioned at least a sixteenth of an inch from the standard position on the Selectric! I call their customer service department to complain but it doesn't do any good. This is the fit}ih Cray they've given me, and they still haven't gotten the left shift right.

WORTHLESS SOFTWARE

Now that my latest novel, 'Stumblefeet' is completed, I have refocused my attention on eating, and insulting anyone who markets a product I have not already recommended in my column, along with those who program in anything other than Pascal or Modula-2.

This month I received a program for the IBM-PC that guarentees to find enough tax loopholes to reduce your income tax to nothing. Every year. How ludricous. I have never seen that in my column. I even went back and looked (plus, I paid taxes last year, so I must not have reviewed it). To make things even more ridiculous, it is written in C. And they expect me to open the box? Come now fellows, how much effort do you expect me to make?

HIGH TECHNOLOGY

I have been saying for years that the only way for a computer company to be successful is to design a Timex-Sinclair compatible S-100 board. I must have said that to at least 50 people. Nobody listened. But finally, Say Co. Computers came out with exactly what I have been waiting for, and it is truly a tribute to high technology. It can add 200 numbers (some of them large) in under a second, it has a real time display, and it is water resistant.

I am considering using one here at Catastrophy Manor to replace the Crays if something isn't done about that appalling keyboard.

FREE POURSMELLE SOFTWARE

A while back I was thunbing through the truckloads of mail, free copies of Burpo Pascal and free Honkubro hardware that all of us famous overweight computer columnists get, when I found a request for another incredible Modula-2 Star Trek game. Since I don't want to write another Star Trek game, and I don't reallu pay any attention to my mail anyway, I decided to write a Pascal to Lisp translator.

I have been laboring over it for several months and it is finally done. I was planning on selling it for $99.95 through The Software Foolworks, but due to a momentary affliction of divine benevolence, I have decided to publish it here in the hallowed pages of OVERBYTE.

This translator avoids all the usual problems of converting infix to prefix notation

and of moving from the domain of a sequential language to that of a procedural language. In fact, my translator is very unusual because its output precisely mimics the original Pascal (The process is known as LISP Sync).

My son Smartalex doesn't think that anyone WANTS to convert Pascal to Lisp (but then he thinks that the 68000 is more powerful than the 6502).

By VERRY POURSMELLE

(As compiled by Laine Stump)

Re: Confusing at Catastrophy manor (Parody of Pournelle's Chaos Manor)

*Message #13 Posted by **Wayne Brown** on 27 Aug 2003, 9:23 a.m.,*
in response to message #12 by Vassilis Prevelakis

Vassilis,

Very good! I used to read Pournelle's column way back in the "Olden Days" :-) and this captures the flavor nicely. The only thing missing is a smug reference to some "inside info" he read on ARPANET or, in later columns, complaints about losing his (unauthorized) ARPANET account.

Intentional use of HP gadget on screen, number one

*Message #14 Posted by **Frank Wales** on 25 Aug 2003, 2:50 p.m.,*
in response to message #6 by hugh

There is an episode of 'The Six Million Dollar Man' where, following an unexpected problem with an experimental aircraft he is test-flying, Steve Austin is fooled into thinking that he has accidentally travelled into the future.

How did the bad guys persuade Our Hero? While he was unconscious after the aircraft problem, they altered his HP-01 to show that the year was 1984 instead of 1978. Steve seems happy to believe that, somehow, his HP-01 would detect time travel, and keep its clock accurate, and so he goes along with the deception for most of the episode.

Now, is this a good or a bad use of an HP gadget? On the one hand, it's a testament to the watch's durability and engineering that a test pilot trusts it over common sense. On the other hand, it shows that an HP product can be abused for nefarious purposes, making Our Hero look like a dork.

Re: Intentional use of HP gadget on screen, number one

*Message #15 Posted by **David Smith** on 25 Aug 2003, 7:00 p.m.,*
in response to message #14 by Frank Wales

Ahh, but Stevie WAS a dork...

True cost of $6e06 man

*Message #16 Posted by **Tom (UK)** on 26 Aug 2003, 2:34 p.m.,*
in response to message #14 by Frank Wales

Was the cost of the HP01 taken into consideration when they calculated the 6 million dollars?

Should he be the 5.998 million dollar man? Perhaps the $6 million was partly to fund the HP01 so is he more like the 4 million dollar man?

q8-)

Notification

*Message #17 Posted by **S. Spielberg** on 23 Aug 2003, 4:14 p.m.,*
in response to message #1 by Norm

Gentlemen,

This is to inform you that private information belonging to myself, my associates, and/or affiliated companies, has been disclosed to this forum. You are notified that any further transmission or usage of such information is declared illegal and perpetrators will be prosecuted to the fullest extent of the law.

Thank you , please keep watching movies and buying merchadising products. Do not forget your popcorn/soda combo.

Rubbish

*Message #18 Posted by **G. Lucas** on 23 Aug 2003, 6:11 p.m.,*
in response to message #17 by S. Spielberg

This material was all my idea to begin with.

Jealousy is a green monster.

What about Mars ?

*Message #19 Posted by **Norm** on 24 Aug 2003, 12:14 a.m.,*
in response to message #18 by G. Lucas

Mars is supposed to be about as bright as it gets, on August 27th. Like, the brightest in recorded history ???? Your next chance is in about 225 years and by then U might be getting old and have to squint.

Maybe the movie should be like this: the asteroid came from Mars and we were going to send a missile, but all the MBA's had smashed and destroyed all the engineering and technician's equipment, so we could not launch any missiles and the earth was destroyed and everybody dies. The end.

HEY SERIOUS now, why is it that the whole space program (brainchild of Werner Von Braun) is in ruins and got by replaced by a national agenda of illegal Mexicans with nail guns pounding together 6000 sq. ft. homes (on small lots) for the MBA's ???

As a result, nobody goin' to Mars ?? Hell we can't even make a decent MOVIE about goin' to Mars, much less actually go there..... what's wrong with this picture.....

Re: Rubbish

*Message #20 Posted by **S.S.** on 26 Aug 2003, 8:37 a.m.,*
in response to message #18 by G. Lucas

HAHAHA. It is a known fact that you steal ideas. The readers at this forum know for a long time that the idea for the weird talk of Master Yoda was stolen from the weird usage of HP calculators.

Re: HP Calculators in movies ??

*Message #21 Posted by **Silvio** on 24 Aug 2003, 12:41 a.m.,*
in response to message #1 by Norm

I know of at least two movies where an HP-41 has some brief part. Unfortunately I can't remember the names of the movies or any actor, but the plots go something like....

Movie 1: A British movie, very early 80's. A guy works in Life Insurance and has tons of statistical data on accidental deaths. He finds out that the most common way to 40 years old women to die is to slip on the tub, after trying to pull themselves up using the small bar so common on many tubs. He kills his wife with the help of a computer (I can't remember how the computer could control things in the real world, but…) At the end, the guy is committed to a hospital for mentally unstable people. A reporter finds out the whole plan and confronts him, telling that the story will go public the next day. The last scene is her car exploding at the hospital's gates, after a count down on a calculator the mad guy has on its hands gets to ZERO. Well, the calculator is a 41C, with a program to count down to zero. I'm just about 80% sure about this movie, because I did not own a 41 at the time.

Movie 2: An American movie, mid 80's. A group of Engineering Students develop a computerized system to break a Casino. They use what I believe is the first Wearable Computer, the main player has a 41 (C/CV/CX??) on his pocket, connected to an electric device on his shoes, and he receives the numbers by electric impulses on the shoe, as it would be illegal to look at the calculator's results while playing the Roulette. I don't remember if the calculator was used to predict the results, or if it just received the values from another computer by microwaves or something like it. I'm 100% sure about this HP 41 appearance.

Silvio

Re: HP Calculators in movies ??

*Message #22 Posted by **M Currie** on 24 Aug 2003, 11:50 p.m.,*
in response to message #21 by Silvio

The second movie sounds like a fictionalized version of the story told in "The Eudaemonic Pie," by Thomas Bass. An interesting read.

Re: HP Calculators in movies ??

*Message #23 Posted by **Bert K** on 24 Aug 2003, 5:08 a.m.,*
in response to message #1 by Norm

I spotted a team member in Junkyard Wars calculating his way out of trouble using a Voyager.

Voyager in a Junkyard?

*Message #24 Posted by **Patrick** on 24 Aug 2003, 12:31 p.m.,*
in response to message #23 by Bert K

It was probably a 10C and he probably *found* it there! ;-)

Re: Voyager in a Junkyard?

*Message #25 Posted by **Bert K** on 26 Aug 2003, 3:49 a.m.,*
in response to message #24 by Patrick

No it wasn't a 10C, it had yellow and blue shift keys. The 10C (I have one) only has a yellow shift key.

Sorry Norm

*Message #26 Posted by **Michael F. Coyle** on 24 Aug 2003, 11:54 a.m.,*
in response to message #1 by Norm

The Andromeda Strain came out in 1970, predating the HP-35. But the props guys should have gotten a 9100 + plotter -- that would have been nice.

It's probably the only movie where an ASR-33 Teletype played a small but crucial role.

Interesting thread though...Bob Vila used an HP-35???? Cool!

- Michael

It must've been an HP-9100

*Message #27 Posted by **NH** on 24 Aug 2003, 12:47 p.m.,*
in response to message #26 by Michael F. Coyle

It' must've been an HP-9100 in the white ford Van in "Andromeda Strain".

It says that calculator was 1968; you say the movie came out in 1970 .

If you check this, better do it with a DVD (not VHS) because you will need the extra resolution to decide.

Re: It must've been an HP-9100

*Message #28 Posted by **Ellis Easley** on 26 Aug 2003, 4:31 a.m.,*
in response to message #27 by NH

I don't remember the scene, but I think there was a 9100 in Andromeda Strain because of the display that is shown - three rows of digits painted on a green CRT. It seems like the display belonged to a system that determined the location of something.

Boom...!

*Message #29 Posted by **Tizedes Csaba** on 24 Aug 2003, 4:18 p.m.,*
in response to message #1 by Norm

I'm not sure, but I think, in The Specialist Stallone's got a HP48 on the table, when he making a bomb in half-darkness...

Csaba

Stallone ... The Specialist

*Message #30 Posted by **Norm** on 25 Aug 2003, 12:34 a.m.,*
in response to message #29 by Tizedes Csaba

Is that a good movie ???

I like to collect good movies. How good is Stallone in "The specialist".....

U can get anything on eBay ..... maybe I should get a copy?

Sly and Dallas

*Message #31 Posted by **Tizedes Csaba** on 25 Aug 2003, 1:44 a.m.,*
in response to message #30 by Norm

>Is that a good movie ??? >How good is Stallone in "The specialist"..... >..... maybe I should get a copy?

I'm wash one's hands of about it... :) I just saw it about 7-8 years ago...

The calc was great not Stallone ;) !

Csaba

Ps.: The Ewings never used a financial calc?

Re: Calculators in movies ??

*Message #32 Posted by **Paul Brogger** on 25 Aug 2003, 11:09 a.m.,*
in response to message #1 by Norm

I remember one wasted moment (among many) watching a probably-made-for-TV movie about some hotshot rocket scientist. During character development, in order to demonstrate just how far this guy was beyond his peers, some situation arose with a presumably nuclear-tipped missile on a collision course with New York (or whatever), the anti-missile is launched, and it is off course, and the ground-based course correction computer won't work. (Cue the tense, dramatic background music . . .)

The protagonist goes to work on a (Litronix, I think) four-banger, keying in values and operators in fast-forward at a rate the calculator's key de-bouncing algorithm would render all but meaningless. After the requisite delay until the final possible second, he announces the course correction value, the anti-missle hits the warhead, and the world is saved!

What a tragic waste of youthful minutes of consciousness (and potential for *real* drama), and of aging, ever-diminished memory!

Re: Calculators in movies ?? - Jonesy

*Message #33 Posted by **Juan J** on 25 Aug 2003, 5:31 p.m.,*
in response to message #32 by Paul Brogger

In The Hunt for Red October, the book, Jones, aka Jonesy, the sonar officer, after doing some unusual signal processing of the Red October's caterpillar drive acoustic signature, plotted the curse in a map (which contained the Soviet submarines known patrol courses that he kept on the Dallas for security reasons) and calculated the Red October's probable course through subsea canyons and then to North America. When he presented his results to Captain Mancuso he pulled out an HP calculator. Alas, Tom Clancy did not mention the model, and the calculator was omitted in the movie. But since Jones is a very smart character, it was probably a 41.

There are also some references to series 9000 computers for submarine officers' traiuning in The Sum of All Fears.

Re: Calculators in movies ?? HP-71B

*Message #34 Posted by **Michael Meyer** on 26 Aug 2003, 1:12 a.m.,*
in response to message #33 by Juan J

There's some movie my kids were watching on disney about a genious kid invited to go to college. They end up building some laser system.

Anyway, the engineering guys are using an HP-71B as a calculator.

Michael

Re: Calculators in movies ?? - Jonesy

*Message #35 Posted by **Happy Holden** on 26 Aug 2003, 1:09 p.m.,*
in response to message #33 by Juan J

Tom Clancy was just relaying an old secret known by all nuclear sub and Orion P3 Sonar men...That their final backup on identifiying Soviet Nuclear subs' fourier-series accoustic signatures was a group of magnetic program cards for their HP67 calculators. I have a set of the cards that I picked up off the floor of the HP Print Lab in Palo Alto in 1978. These were defective and unprogrammed, but the good ones soon would be headed for the only "spy-froof room (is it Tempest?)" HP had at the time to be programmed by a Navy DOD officer. I doubt many people knew about the number of HP67 calculators in critical Government roles including the Apollo Program. Astronauts had a "HP Pocket" for their 67 on the moon program-they could run the capsule from the HP67 and the magnetic cards if the $50 million triple-backup computer aboard failed.

HP and Apollo

*Message #36 Posted by **Grant Goodes** on 26 Aug 2003, 1:27 p.m.,*
in response to message #35 by Happy Holden

As the HP-67 came out in 76, it is not likely that it was used on Apollo missions! AFAIK, the HP-65 _was_ part of the Apollo/Soyuz (ASTP) mission, and HP-35's were present on Skylab, but the moon missions did NOT use any of these calculators.

The first significant "integration" if you will of an HP calculator and a manned NASA program was the well-known (to us!) use of the HP-41C for backup landing software on the early Shuttle (and for all I know, to this day).

Cool information about the HP-67 in sub detection!

grant..

Re: HP the Military

*Message #37 Posted by **bill platt** on 26 Aug 2003, 3:27 p.m.,*
in response to message #36 by Grant Goodes

A few months ago I was on a commercial flight out of Ft walton Beach, and happened to share the aisle with an active duty KC-130 navigator on his way home from Afganistan and Iraq. He saw my HP-48 and so at some point we did discuss navigation and computing and yes, it was quite common to have an HP-41 on board, though less often now. I do not remember whether or not it was a govt issue or official tool.

Re: HP the Military

*Message #38 Posted by **Joshua Belsky** on 28 Aug 2003, 2:37 p.m.,*
in response to message #37 by bill platt

It is my understanding that the USMA issued HP48GXs to cadets until about four years ago. Now they get TI-92s or something along those lines.

-Joshua

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HP33S

*Message #1 Posted by **Iqbal** on 22 Aug 2003, 5:04 p.m.*

http://www.hpcalc.org/images/datasheet33s.pdf

If you look at the dimensions of the 33S the metric dimensions doesn't correspond to the Imperial. 16.1 mm is definitely not equal to .06 inch [width] at least not on my GX. I wonder if they used the 33S to do this conversion. If in fact they did, then I think I just discovered the HP33S's first bug :)

You're mean...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 22 Aug 2003, 5:14 p.m.,*
in response to message #1 by Iqbal

Hello, Iqbal;

long time no see... are you well?

I sent you an e-mail for these days; did you receive it?

About the HP33S: you're mean... It's not yet born and you're slapping it already!

Best regards!

Re: HP33S

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 22 Aug 2003, 6:16 p.m.,*
in response to message #1 by Iqbal

I think that 16.1mm IS 0.06 inch. 0.161cm / 2.54 = 0.0063385826 inch

I'm just curious how do you have converted it.

Best regards.

Nelson

Re: HP33S

*Message #4 Posted by **bill platt** on 22 Aug 2003, 6:37 p.m.,*
in response to message #3 by Nelson M. Sicuro (Brazil)

1 inch = 25.4 mm

1 inch = 2.54 cm

the calculator is 16.1 mm = .634 inches

I am trying to see if the mistake was made by confusing centimeters with millimeters. Seems that's what happened! (my 32sii is 1/2" thick).

regards,

Bill

Re: HP33S

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 22 Aug 2003, 10:16 p.m.,*
in response to message #4 by bill platt

Ops!!! My mistake. Just messed up in the conversion mm <> cm... What a shame! And I'm surrounded with calculadors.....

Best regards

Nelson

Re: HP33S

*Message #6 Posted by **Torsten Hartwig (Germany)** on 23 Aug 2003, 1:15 a.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

1 inch = 25.4 mm

But when you take the dimensions of the HP-33S you get

158.0 mm / 6.2 inch = 25.48387097

83.0 mm / 3.2 inch = 25.9375

16.1 mm / 0.06 inch = 268.3333333

Best regards,

Torsten

Edited: 23 Aug 2003, 1:38 a.m.

Round-off error

*Message #7 Posted by **bill platt** on 23 Aug 2003, 1:23 p.m.,*
in response to message #6 by Torsten Hartwig (Germany)

Hello Torsten,

Let's 1st assume that the device was "designed" in metric. So,

158/25.4=6.2204.....round to 6.2 ok

but:

83.0/25.4=3.267717.....so should round to 3.3. So, this one is goofy.

The 16.1 case is obvious in the decimal slip (hmmmm-maybe the text writer used a slide

rule!!!!!)

But this all brings up an interesting point: If you want to design something that has an exact conversion to exact (non-repeating decimal) in another unit system, you have to bear in mind the conversion.

So, if you design in inches, and you make all your dimensions rational and non-repeating, then all the dimensions will scale to perfectly clean millimeter (centimeter, meter) dimensions. But it does not work in reverse--and that is part of the wonder, beauty and mystery of numbers:

All finite place decimals, when multiplied by a finite decimal place factor, produce finite decimal place products.

BUT

A finite decimal place number, when divided by a finite decimal place number may or may not produce a repeating or infinitely long decimal dividend.

So, the real result is that ALL good designs should be carried out in INCHES, or FEET (1 meter = 0.3048 feet exactly) ;^}

Example, a standard "NATO" round is known now as a "7.62" but what it really is is 30 caliber (3/10 inch). But 9mm does not convert cleanly.....

So much for metric.....!

Edited: 23 Aug 2003, 1:27 p.m.

Re: Round-off error

*Message #8 Posted by **Torsten Hartwig (Germany)** on 23 Aug 2003, 6:28 p.m.,*
in response to message #7 by bill platt

Hello Bill,

When I posted my last message I felt an uneasiness with the numbers (in cm and inch) describing the dimensions of the calculator. But I did not really know what it was.

While reading your posting I had this idea: The number of decimal places do not correspond.

Example: When you enlarge the length of the calculator (6.2 inch) for the smallest amount representable (0.1 inch) you get 25 (rounded) units of the last decimal place of the metric number:

6.2 inch * 25.4 = 157.5 mm (rounded)

6.3 inch * 25.4 = 160.0 mm (rounded)

But when you do it the other way round, the last decimal place is unchanged:

158.0 mm / 25.4 = 6.2 inch (rounded)

158.1 mm / 25.4 = 6.2 inch (rounded)

So, my suggestion for HP is to have two instead of only one decimal places to represent the

number of inches.

BTW a minor correction to your posting (1 meter = 0.3048 feet): It should be 1 feet = 0.3048 meter as 12 * 2.54 cm = 30.48 cm.

Best regards,

Torsten

Re: Round-off error

*Message #9 Posted by **r. d. bärtschiger.** on 23 Aug 2003, 7:34 p.m.,*
in response to message #7 by bill platt

But don't forget, there is both land diameter & groove diameter when refering to calibers and bullets. 7.62 NATO is the land dia. = 0.30000". The groove dia is 0.3080" same as .30-06 Govt. or .308 Win. for example. The actual bullet dia. is 0.3080" or 7.8232m.m. As to the 9mm, I'm not sure what your point is. Also the word 'caliber' has two different meanings depending on use. That is 30 caliber is not the same as caliber 30. For instance the 'M1 Garand' is a 'United States Rifle Caliber 30 Model M1' and uses a .30-06 cartridge. 30 caliber on the other hand means the barrel length is 30 times the diameter of the projectile. This is used mainly for large sized Naval guns.

See the following:

http://www.chinfo.navy.mil/navpalib/ships/battleships/missouri/mo-may86.jpg

This shows photo of a gun turret of the Missouri, with a caption which alludes to this meaning.

and this:

http://www.britannica.com/eb/article?eu=18955&tocid=0&query=caliber&ct=

Which gives the various definitions of caliber.

rdb.

Edited: 23 Aug 2003, 7:47 p.m.

Re: Round-off error

*Message #10 Posted by **Frank B. (Germany)** on 24 Aug 2003, 11:27 a.m.,*
in response to message #9 by r. d. bärtschiger.

Hi,

I might be wrong but I think the bridge mentionend on the first photo is _not_ the Golden Gate Bridge, but the Bay Bridge.

Frank.

Re: Round-off error

*Message #11 Posted by **r. d. bärtschiger.** on 24 Aug 2003, 1:14 p.m.,*
in response to message #10 by Frank B. (Germany)

Yes, it is the bay bridge.

rdb.

Re: Round-off error

*Message #12 Posted by **Nelson M. Sicuro (Brazil)** on 23 Aug 2003, 8:36 p.m.,*
in response to message #7 by bill platt

Why do the world isn't yet using just one unit system? I think that new designs should use the international metric system. Here we allways used metric (decimal) unit systems and we hadn't no problem of this kind as I remember. The problem is when we have some product that is in inches or feet or miles or (name it), and need to do several conversions.

Just my 2 cents (or R$0,05?)...

Regards,

Nelson

Re: Round-off error (Long)

*Message #13 Posted by **bill platt** on 24 Aug 2003, 7:01 p.m.,*
in response to message #7 by bill platt

Hi Torsten, r.d., Nelson et al:

Well, I did wink when I said, "All good designs should be done in INCHES." Though it still is an interesting irony that it is "easier" to work in inches if you know you will need two unit systems in the end.

Also on this topic, I worked for a EU shipbuilder for some time, and as it was a new start-up yard in the US, the Euros set us up to take a number of classes as training: AutoCAD, various ship design programs, German language (this was actually a great benefit--it made the business trip to Deutchland much more interesting, fun and meaningful), and: "metric"! The teachers were all americans (yes, one was Canadian) and really quite good; but what we learned in "metric" class (we all rolled our eyes when we heard we had to take this one!), what we learned was that contrary to popular belief, Americans ARE bilingual---that is to say, inches, and Metric! (We all used SI units in school, grew up in the 70's when the Carter administration had put wheels in motion to switch over, and then the first things I remember in the Reagan epoch were: 1: can metric, 2: bring back the (already obsolete) B-1 bomber program, 3: eliminate federal funding for Solar Energy (and probably wind etc), 4: remove sound decibel rating/warning stickers from lawnmowers). Never mind all the other good things that did come along.....(too off topic!)

So, yes, metric is, well, too EASY! like, you never have to play games with the factor 12 or .083333333333333333333333333333333.....

Another couple good tidbits: the first is that in conversion, there are two concepts: "hard" conversion, and "soft" conversion. I am sure I will mix the terminology up as I remember it being counter-intuitive, but the idea is this: an "exact" conversion is "soft", e.g. a 4" flat bar converts to a 101.6 mm flat, whereas a "hard" conversion rounds (to some predetermined pseudoprecision) to 100 mm. This sort of stuff is important for concept and preliminary design, and for picking "equivalent" parts etc.

A lucky coincidence:

In ship design ("naval architecture"), we design in "long tons" not in little mass units like slugs or lb-m or kg. A "long ton" is 2240 lb, (a "short" ton--the landlubber's ton--is 2000 lbs). By wonderful happenstance, a metric ton (or tonne to make it sound all frenchie--the frenchiness of international standards is a whole 'nother topic, like in radio Morse code, N3LPX DE F1FRE FBOM, 73 F1FRE SK) is 2204.623.... lbs. And so it is both confusing (metathasizing the "4" from the 1's column to the 10's column) yet also simplifying---because 2240/2204 = only 1.6% difference, and so for general design concept comparisons stuff, they (metric and long ton) are the same.

The last tidbit is that all U.S. Federal highways are engineered in meters----and have been ever since the Carter administration. Evidently, they (the DOT) made the switch early on, and when Reagan said, "we quit" the DOT said "not us--we're sticking with it!"

Regards,

Bill

Edited: 24 Aug 2003, 7:05 p.m.

Re: Round-off error (Long)

*Message #14 Posted by **Nelson M. Sicuro (Brazil)** on 24 Aug 2003, 9:00 p.m.,*
in response to message #13 by bill platt

Well, I'm not an engineer, I'm a computer analyst/programmer and I doesn't have any fancy experience in such proportions. I just think that new designs have to take in account the other countries as well (unless it is only a local product). Yes, the metric system is easy, and it is used in all distance measuring using only decimal multiples, from sub-atomic proportions to interplanetary distances. I know that the north-americans doesn't like much the french and the metric was create by them, but it was accepted as an universal system. It is a question of accepting the ideas from others, not only your own (as an example: Santos Dumont [brazilian] having the first airplane to fly with its own propulsion, in Paris [France]).

Excuse my ranting, I'm just tired of see north-americans (not all, of course) thinking that they are the Center of the Universe and just ignoring the rest of the world, or paying attention to the other countries having in mind only selfish interests.

Please don't take it personally. I don't have anything against the american people (as a people) as I don't have anything against any other people. I'm an american too, but from the south half of the America. Here in Brazil we are a much more "blended" people, with persons that came from different cultures from all five continents. I just think that the world is bigger than only one nation.

Ok, i'm way off topic... Let's talk again about HP calculators! Yes, they are a great north-american design and I use a HP-42S in a daily basis (before was a HP-15C), and I really feel sorry when HP took it both off production line. I just hope that the HP-33S fill the gap despite its ugly keyboard.

Best regards

Nelson

Re: Round-off error (Long)

*Message #15 Posted by **Ellis Easley** on 26 Aug 2003, 4:46 a.m.,*
in response to message #14 by Nelson M. Sicuro (Brazil)

Don't say "north American" when you mean the US - Canada and Mexico are metric, and they don't like being lumped in with US!

Re: Round-off error

*Message #16 Posted by **unspellable** on 25 Aug 2003, 4:28 p.m.,*
in response to message #7 by bill platt

Example, a standard "NATO" round is known now as a "7.62" but what it really is is 30 caliber (3/10 inch). But 9mm does not convert cleanly.....

You don't get off that easy. The Nato 7.62 mm bullet is 0.308" in diamter and in its civilian guise is known as the 308 Winchester...

Re: Rounds

*Message #17 Posted by **bill platt** on 26 Aug 2003, 4:19 p.m.,*
in response to message #16 by unspellable

Unspellable et al,

Well, you are right-----my general ingorance (a little learning is a dangerous thing) on this topic has been exposed.

Now, how about a real off-topic issue: I have heard it said that the Soviets had their own caliber, which was slightly larger than the 7.62, and that the purpose of this difference was so that the soviet rifles could use 7.62 rounds, but the other side would be unable to use the soviet rounds. Is this true?

Re: Rounds

*Message #18 Posted by **r. d. bärtschiger.** on 26 Aug 2003, 4:39 p.m.,*
in response to message #17 by bill platt

Basically, yes. I will try to find a reference if you would like to see more information about this.

rdb.

Re: Rounds

*Message #19 Posted by **r. d. bärtschiger.** on 26 Aug 2003, 5:11 p.m.,*
in response to message #17 by bill platt

This may be what you are looking for.

http://www.bertsoer.nl/sniper/sniperrifls/SV-98i.htm

7.62x54mm r russian.

7.62x51mm nato.

The length of the 7.62 nato is 51mm from head to shoulder, whereas the russian is 54mm. Thus the russian round is 3mm longer and thus it would not fit the chamber of a 7.62 nato firearm.

Also the 'r' may mean that it is rimmed, whereas the nato is rimless.

rdb.

Edited: 26 Aug 2003, 9:36 p.m.

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Old other HP products

*Message #1 Posted by **Pierre Brial** on 22 Aug 2003, 8:36 a.m.*

Hello all

I read that at the time of the HP-35, Hewlett-Packard was a manufacturer of scientific instruments. But what kind of instruments ? Is there somewhere a list of their productions ?

All the Best

Pierre Brial

Re: Old other HP products

*Message #2 Posted by **Laurence Carr** on 22 Aug 2003, 10:40 a.m.,*
in response to message #1 by Pierre Brial

I used to be a salesperson for the HP instrument group back in the late 70's. There was a huge range of instruments available. In fact the instrument business was HP's main activity, although sales of HP computers (1000 series, 3000 series etc)was rapidly catching up.

The instruments sold were signal generators, spectrum analysers, scopes, rf, microwave, DVMs, logic analysers, power supplies, and some strange items like atomic clocks, borehole loggers, surveying equipment, laser systems, process contol systems etc etc. The instrument catalogue was a huge book about 1 1/2" thick!

Hewlett and Packard started their business as manufacturers of instruments in 1939 and only expanded into other things like medical systems (now owned by Philips) in the 1960s. They also had an analytical insturments group and a components group, and of course the calculator group!

All HP instruments were taken by Agilent Technologies when this company was spun off by HP a few years ago.

Re: Old other HP products

*Message #3 Posted by **Dave Shaffer** on 22 Aug 2003, 10:50 a.m.,*
in response to message #1 by Pierre Brial

Pierre,

In the 60's and 70's, HP was THE manufacturer of all sort of electronic test equipment: signal generators, frequency counters, oscilloscopes (but Tektronix was the acknowledged leader in this field), spectrum analyzers, frequency standards, power meters, volt/amp/ohm meters (originally analog, but digital, too) etc. Most with HPIB interface (for computer control and data access) A properly-equipped test and measurement lab had many shelf's worth of this stuff!

Every electronic engineer (real or imagined - I come closer to the latter) had the annually-issued HP catalog prominent on his bookshelf. This legendary hard cover book contained hundreds of pages of product

description, as well as many technical notes and discussions of all sorts of matters relevant to the hardware that HP was selling. You NEVER threw one of these catalogs away - they contained so much useful information. I still have a dozen of them. Nowadays, I think they still issue the hardbound version, but you can also get the CD (for Agilent, of course - another monsterously stupid move by HP - they gave up decades of number one name brand recognition to pursue their computer addiction).

Re: Old other HP products

*Message #4 Posted by **jimc** on 22 Aug 2003, 4:49 p.m.,*
in response to message #1 by Pierre Brial

I remember that, as a student of Chemistry in University in the early 80's HP's gas chromatographs were state of the art. While my memory is foggy now, I recall that they incorporated some advanced features such as programmable oven set temperature for multiple temperatures, heat ramp up or down, integration of component concentrations, and a choice of which component column you wanted to utilize all via a keyboard interface. If I recall correctly, you could also select the type of carrier gas you wanted as well. The other thing it had built in was a printer that printed the concentration graphs, and broke out the components automatically.

While it may seem simplistic today, back then EVERYONE wanted to use the HP as it was the best and easiest lab instrument. Every other manufacturers required way too much work to get a useful result from. I also recall feeling proud about setting my HP on top of the HP-GC. (I know, I know - a little brand showoff). Other students knew that the HP calculator was made by the same company who produced some real world instrumentation.

Re: Old other HP products

*Message #5 Posted by **Renato** on 22 Aug 2003, 6:17 p.m.,*
in response to message #1 by Pierre Brial

Pierre,

A good source for information on old HP scientific instruments is the Scientific American Magazine. HP ads in that magazine were a pleasure to read. Here in Brazil many university libraries keep all the issues since the 60s.

If you don´t find it there, please tell me what you want, and I´ll look for them at Unicamp when i can (it may take sometime...), scan and email you.

Renato

Re: Old other HP products

*Message #6 Posted by **Pierre Brial** on 23 Aug 2003, 6:40 a.m.,*
in response to message #5 by Renato

Thank you all very much for these informations. Thank you Renato for your proposal, but I don't want to bother you with this. There is some "Scientific American" in my local university library so I will have a look. Then my next deal is to find the famous HP catalog ! All the Best Pierre

Re: Old other HP products

*Message #7 Posted by **Gordon Dyer** on 23 Aug 2003, 10:28 a.m.,*
in response to message #6 by Pierre Brial

Try browsing through the HP Virtual Museum on this page...

http://www.hp.com/hpinfo/abouthp/histnfacts/index.html

You will find lots of information there.

Re: Old other HP products

*Message #8 Posted by **db(martinez,california)** on 23 Aug 2003, 7:28 p.m.,*
in response to message #7 by Gordon Dyer

Gordon; I just looked around that link and i noticed two omisions:

They didn't mention the very popular 48 series but did feature the 49. I wonder if this means that the 48 is now "calculadora non grata".

They also blew off HP's impressive line of surveying instruments. The 3800 distance meter was a groundbreaking unit and was still being used in the 90's when someone wanted a long distance measured. The 3820 was the worlds best surveying instrument for about eight years running, till Wild of Switzerland came out with the T2000 - long after HP had gone on to other things.

I can see why they covered the 41 but did not mention that tens of thousands of us are still using it, 24 years after it's introduction, while we wait for the "something better" that they will no longer "invent". HP sure is proud of evry little throw away computer and printer though.

Re: Old other HP products

*Message #9 Posted by **Gordon Dyer** on 24 Aug 2003, 11:23 a.m.,*
in response to message #8 by db(martinez,california)

I agree the site is far from complete. What is there is good, except for some disappointing pictures of tatty poor condition samples of the calculators!
HP should be encouraged to add many more of the missing items...

Re: Old other HP products

*Message #10 Posted by **db(martinez,california)** on 24 Aug 2003, 9:15 p.m.,*
in response to message #9 by Gordon Dyer

"HP should be encouraged to add many more of the missing items..." ....or just post a link to http://www.hpmuseum.org

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This Will Boost R & D, Sales of Scientific Calcs

*Message #1 Posted by **J.C. Randerson** on 22 Aug 2003, 8:20 a.m.*

The Luddites have struck again: all calculators with memory/text editing have been banned from national EIT exams:

http://www.ncees.org/exams/registration/8-20-2003_press_release.pdf

banning all calculators with extended memory/text capabilities. I sold 3 HP32s last fall thinking I'd never need them again. About a month ago, when moving, I found another HP32 in its unopened package in a drawer I'd completely forgotten about! What a relief...

J.C. Randerson

Re: This Will Boost R & D, Sales of Scientific Calcs

*Message #2 Posted by **Jeffrey_G** on 22 Aug 2003, 12:31 p.m.,*
in response to message #1 by J.C. Randerson

I took my Electrical PE exam armed with two HP48S's. I was able to work all the problems with time to spare. This is because the HP48 is an excellent tool. It was test preparation, not my calculator which determined my exam outcome (BTW I passed).

Banning these HP calulators is an outrage. The NCEES has done a disservice to future EIT & PE test takers.

Jeff

Re: This Will Boost R & D, Sales of Scientific Calcs

*Message #3 Posted by **Tony Duell (UK)** on 22 Aug 2003, 6:28 p.m.,*
in response to message #1 by J.C. Randerson

ARGH!!! IMHO, when an exam bans a tool (like a programmable calculator), it simply means the examiners are too lazy to set proper questions. If I was setting an exam, I would allow _anything_ apart from a person or a communcation system to another person to be used. You could take in any calculator, computer, notes, books, whatever. And you'd still have problems with it :-) What really annoys me is that a person's perfomance in an exam is used to judge their ability to solve real-world problems, but at least around here nobody cares what tools I use to solve a problem. I don't, for example, get handed a 9810 for repair and get told 'BTW, you can't use your LogicDart, and you must do the soldering with a screwdriver heated in a blowlamp flame rather than using your fancy temperature-controller iron'. People are just glad that I fix their machines, no matter how I do it. Selecting the right tool, and being able to use it correctly, is part of the process.

Re: This Will Boost R & D, Sales of Scientific Calcs

*Message #4 Posted by **bill platt** on 22 Aug 2003, 6:50 p.m.,*
in response to message #3 by Tony Duell (UK)

I generally agree with Tony on this, merely on the basis that many of the best (or worst!) exams I sat for in college were "open book." The profs understood the material, understood how to ask questions which required one to think, regardless of the tool, etc.

But there are exceptions, of course. For instance, my verbal matriculation examination in materials engineering was sort of like a stand-up thesis defense, but without the thesis. No materials at all, except the chalkboard. The panel of distinguished professors asks, "could you discuss the concept of the stress-strain curve?" And then once that is charted out, "why is it drooping over there?" to which you answer, "ah, good question! This is an engineering stress-strain curve referenced against the original cross sectional area...etc." And so you are feeling smart, but then they just dig deeper. So then, why does the curve curve over? (Yielding). And then with some more prodding, they expect you to get to the atomic stress-strain curve, and to dislocations, and defects, and Griffith energy....

But note that in the latter case, if you have no knowledge of the topic, or very little, you are sunk! Whereas in the open-book exam, if you are organized, and a quick study, you might just find what you want... (I did this in freshman Physics on my first exam and got an A, but then the prof got smart and by the end I was getting D's!). But still, if the professor structures the exam with some skill, you will have no way to "cook-book" the answer.

I think perhaps it is the multiple choice aspect that kills the open book concept. When the student is required to show work and to describe her understanding in words, then there is a good exam.

Just my 5 guineas worth.

Exam cheats must die

*Message #5 Posted by **Richard** on 23 Aug 2003, 9:42 a.m.,*
in response to message #4 by bill platt

During WWII, the Enigma machine and it's code was solved by brilliant mathematicians who used only their brains and a piece of paper - no computers and no calculators - they probably passed their exams by using only their brains too. What a bunch of wet-weaks we've all turned into. The decision to ban cheat potential calulators is an excellant move.

Re: Exam cheats must die

*Message #6 Posted by **J.C. Randerson** on 23 Aug 2003, 3:48 p.m.,*
in response to message #5 by Richard

This is bull$@#$! Who says anyone was cheating? What this really about is the age old contest of arguments between those who hate technology and those who love it: Luddites vs. Geeks.

On one side you have the diehard mathematician types, remember your instructors from the calculus series, no calculator whatsoever allowed? On the other side you have the Steven Wolfram,(creator of Mathematica) types who say you get nowhere without technology.

I tend to agree with Wolfram: after a certain level, without technology you can't do much. And to ban a certain calculator on an engineering test, where you are supposed to bring all your skills to bear (including use of technology) to solve real world problems is unbelievably stupid.

We've all taken tests where you could have brought in all your notes, the text, even a pc, but without understanding the material, you couldn't even start a problem. Having technology does not mean you understand anything. It's just a tool to speed the computation process. And no machine can replace the human brain to set up the process. That's what makes an engineer.

This current NCEES decision wins a round for the Luddites. I'd take them more seriously if they gave up their computers, cars, insulated homes, electric lights, eyeglasses, modern health care, etc... But of course they're not, and that's what makes them and those defend them phony. In short, all they're trying to do is make it as hard as possible. To that I say with emphasis: bull$@#%!

J.C. Randerson

Re: Exam cheats must die

*Message #7 Posted by **Tony Duell (UK)** on 23 Aug 2003, 4:21 p.m.,*
in response to message #5 by Richard

Err, wait a second. Yes, enigma was cracked using brainpower, but I will bet that had computers been available then, they would have been used. The codebreakers would _not_ have artificially limited the tools they could use. No sane person would do that. I once read a book which said 'It is good for students to overcome difficulties, but those difficulties should be real, not artificial'. This is a view I strongly agree with. Sure calculators make _calculations_ easier, but they are not a replacement for understanding the subject -- and that's what exams should be testing. To comment on an earlier message in this thread, when I did my Ph.D. viva, I did ask if I could look up something in a databook (I think it was whether a signal was inverted or not). The examiners said 'sure'. I don't think it counted against me either (I passed :-)). Had I been an examiner, then I would have been happy for a candidate to look something like that up -- it was clear he understood the subject, clear he knew there was a possibilty the signal was 'upside down' and clear he knew how to check. Which is what a real-world designer would do. Better that that get it wrong in a complex design and have to sort it out later! To go back to the example of a stress-strain curve -- if I'd asked the candidate to discuss the stress-strain curve of a particular steel, then I would be happy for him to look it up in a databook. Nobody can, or should, remember details like that. But then he should be able to make intellegent comments about it from memory, without just reading sections out of the book. That's a test of _understanding_.

Re: Exam cheats must die

*Message #8 Posted by **Richard** on 24 Aug 2003, 5:09 a.m.,*
in response to message #7 by Tony Duell (UK)

The point here is that the Enigma Code wasn't solved by a computer or a calculator, it was solved by the brilliance of someone's brain - a testimony to the ability of the individual who has proved his skills a million times over. Even now most people are in awe of this and how they achieved it - without computers or calculators (that's the point).

If he can use his own skills and resources to solve the complex enigma code, it goes without saying that if there had been computers available it would have been solved infinitely more quickly by the same brilliant individual, or by a million other non-brilliant individuals whose only great shill is being able to press a button on a keyboard to demonstrate the use of technological aids, to activate a computer program to solve the porblem. In this case the only brilliant one would not be the millions of non-impressive individuals who demonstrate their skill by using tools such a computer (my 5 year old does that now), but would be the single brilliant person who spent hours using his BRAIN to devise and construct the computer program that is utilised by millions of others who supposedly show questionable initiative and skill to solve the problem by choosing HIS program. Of course "the others" will try to impress the pants off everyone by boasting how they solved major complex problems using the available technological aids such as a computer and a program (yawn!) - but this doesn't prove or establish their abilities or "manhood".

By the way, it makes sense to me that if computers did exist back in WW2 , the Germans would

have devised an Emigma code simulation by computer that was more complex by a factor of 1,000,000,000 (probably), it would have had 10,000 rotors, 100,000 symbols on each rotor and it would have been ENCRYPTED to boot, plus it probably would have had 1,000 other safety measures the brilliant german mathematicians would have added (don't forget Einstein was a German!!!). Give the old original Enigma code to some of the current "brilliant!?" college graduates (assuming a level playing field), and see how they go trying to solve the problem. You will soon hear, "Mommy I want my computer- it can't be done without the use of technological aids - after all I passed all my exams using my ability to use and demonstrate my ability to use computers and my excellent ability to select the right program off the shelf to solve the problem instantly".

The bottom line is..... if you've proved yourself without the need to pass exams using advanced aids then it goes without saying that you're capable of pressing a button on a calculator or a computer to do same brain functions infinitely faster - the point is you've proved you're able to use your brain in the first place without artificial prosthetic devices like PC's and calculators.

Of course we can go to the other extreme and embrace the use of all technological aids to help pass examinations. In 100 years from now when the human brain is hardwired to plug-in module in the back of the brain, all you will have to do when you sit for your "ADVANSED STRESS ANALYSIS" exam is plug the data module into you brain socket and hey presto you've demonstrated your immense initiative and abiltiy to use the available design tools available around you to solve the problem and pass the exam - the whole class would pass with A+++ results - even the local street drunk would get an A++++ in "ADVANCED STRESS ANALYSIS" - good on him for using all available technological aids and devices. Mind you, if these aids and devices were banned in examinations - then we'd really see who the real brains are!!!!!

THE BOARD's DECISION TO BAN HIGH TECH CALCULATORS IN EXAMS IS AND EXCELLENT DECISION - SHOULD HAVE BEEN DONE AGES AGO - WELL DONE AND ABOUT TIME.

Re: Exam cheats must die

*Message #9 Posted by **Patrick** on 24 Aug 2003, 12:50 p.m.,*
in response to message #8 by Richard

Due to the extreme importance of the task, the people who worked on the Enigma problem were hand picked throughout the entire allied population as being the most brilliant and appropriate to the task. Making a public education policy decision based on the fact that this *elite* group of people were brilliant and successful is nothing short of obtuse.

I have been on the exam-giving end of this equation. I think the onus should be on the instructors to set an exam for which technology cannot play a key role. For example, if I was teaching numerical integration techniques, it would be stupid of me to ask in an exam to numerically approximate some integral. A calculator of the HP-34C vintage could do that with the press of a few buttons. What I should ask is for the student to explain which numerical integration technique(s) should be used given the circumstances (smoothness of the function, existence of poles, required accuracy, time available). I might even ask for the student to show one step of the process (x -> x+h) in its entirety, just to see if the student understands what all the formulas mean. I, as an instructor, wouldn't care less what the numerical value of the integral over the entire region of integration actually was, which is all the 34C could really tell me.

Re: Exam cheats must die

*Message #10 Posted by **bill platt** on 24 Aug 2003, 4:05 p.m.,*
in response to message #9 by Patrick

Hi Patrick,

One of my preofessors said, "yes, you can bring your calculator if you like, but it won't do you any good." He was right. His questions required one to answer for the understanding, not the numerical answer. But he let us bring our calculators--because I suppose he was both confident in his questions, as well as perhaps mildly entertained when watching furious buttonpressing.

-Bill

advanced stress analysis

*Message #11 Posted by **christof (NoVA US)** on 25 Aug 2003, 12:39 a.m.,*
in response to message #8 by Richard

Leaving aside the enigma machine (enigma was only decrypted in the first place due to samples of the hardware- the machine itself)-

Advanced Stress Analysis. - I really don't think that anything beyond a multiple choice exam cna be successfully passed simply by loading software into your hp48/49 or TI89/92. Even to do *that*, you have ot know enough to structure the problem. Even if the program you use is cribbed from the web, you have to be able to apply it. That requires at a bare minimum, the ability to think about the problem to some degree.

Beyond that, i'd like to point to the brain rotting experience of my last chemistry refresher course, where I was allowed to use any calculator I cared to bring. i was encouraged to use it, in fact- as the professor said that if you coldn't get accurate results in the real world, knowing the formulae wouldn't mena much.

She also required that you provide intermediate steps on the exam. Kind of hard to fake it with a downloaded 'brain plug' or whatever.

All of your supposed plug in modules for the brain model 41CX (I want the time module built in, after all) miss something very important. The ability to solve problems.

'who the real brains are' - while quite an ego booster, is not actually determined by who can memorize the most stuff. it's how you use it that counts, not what lists you've memorized.

Now, I realize that you disagree, and I accept that. But I'm a bit put off by the idea that one extremist view should hold sway.

The use of 'high tech calculators' allows a test giver to increase the quality of testing dramatically by structuring tests for understanding, for reasoning ability, for problem solving application- instead of worrying about who memorized a log table best, or who dropped a decimal point in an otherwise perfect pencil calculation. If the tests are not increased in quality, and you aren't able to show 'who the best brains are' without list memorization, that isn't the fault of the calculator- nor of the person who owns and uses the calculator.

another nickel, another post :) -Christof

Re: Exam cheats must die

*Message #12 Posted by **Geoff H.** on 25 Aug 2003, 7:27 a.m.,*
in response to message #11 by christof (NoVA US)

Surely people can manage without their "security blankets" - their professional aids and devices for 2 hours in an exam. After all, it's the process that matters and the abiltiy to understand the process and demonstrate that they understand the process(as has already been mentioned by others). Once you've proved your ability for 2 hours in an exam room in a TOTALLY AND COMPLETELY LEVEL PLAYING FIELD without the aid of these tehnological devices, you can then proceed to use anything and everything you want to use to solve all subsequent problems for the rest of your life - no restrictions whatsoever.

The pressing of a button on a machine is irrelevant and is the easiest part of the process. After all, computers, calculators and other technological aids are only GIGO (garbage-in-garbage-out) devices - they have no intelligence, no initiative - that ability comes from you and your demonstrated abilities - and that's what the exam is trying to establish. These devices are only prosthetics to enhance your abilities - they're not needed in the exam room to prove your ability to solve the problem or demonstrate your ability about how to solve the problem - therefore what's the point of having calculators in the exam room in the first place - if you know the process, that's what you're there to prove and you have nothing to worry about, calculators are not needed and are not necessary in the exam room.

The complexity and scope of the type of the exam questions has nothing to do with whether calculators should be allowed into the exam room. After all, as has been mentioned previously by others, the ability to solve the question depends solely on your skills and ability - you still have to derive the solution about how to resolve the problem no matter how complex or challenging it is - the calculator won't do that and having a HP48, HP49 or a PC won't resolve that delema for you - remember, they have no initiative, no intelligence they're just prosthetics - GIBO devices.

However when the HP4200Sii calculator (ii = double artificial intelligence) comes out in a hundred years from now with RBT - Reverse Robot Notation, then that will be a different story. The guy next to you in the exam room will be using one of these calculators and he will look like something out of TERMINATOR: JUDGEMENT DAY - so if he wants to use a calculator in the exam room the Board of Studies is going to have real problems telling him.

Speaking of "security blankets"

*Message #13 Posted by **Dave Hicks** on 25 Aug 2003, 8:41 p.m.,*
in response to message #12 by Geoff H.

A certain poster has used at least three names within this thread alone and many more names though-out the forum.

Please note that the forum rules require the use of a consistent identity. Please don't make up people who agree with you.

Re: We're in Total Agreement

*Message #14 Posted by **Paul Brogger** on 26 Aug 2003, 1:11 a.m.,*
in response to message #13 by Dave Hicks

I wanted to sign this with a pseudonym, but *we* wouldn't let me.

BTW, did you know that 3 out of 2 people suffer from multiple personality disorder?

;^)

Express a view - don't whinge obout the views of others

*Message #15 Posted by **M.F.** on 26 Aug 2003, 9:38 a.m.,*
in response to message #13 by Dave Hicks

Chill out man. You'll blow an artery. Don't be so serious just because you don't agree with a point of view. I don't have a problem with another point of view nor should you.

M.F. = Mathias_R = RODGER H =

*Message #16 Posted by **Dave Hicks** on 26 Aug 2003, 11:12 a.m.,*
in response to message #15 by M.F.

Roy Van Nygen = Geoff H = Richard = Orlando W. = Alexander = Scott = William = brian = Renard = max = daniel... etc.

These are all names for one person. (He's used a bunch more too.)

I noticed him because a long-time poster here told me he was leaving the forum because of some frequent trolls who had appeared recently. They turned out to be this person using other names.

Re: Speaking of "hyper-sensitive"

*Message #17 Posted by **Mathias_R** on 26 Aug 2003, 9:59 a.m.,*
in response to message #13 by Dave Hicks

RUN FOR YOUR LIVES

THIS GUYS GOING TO SEND THE BOYS AROUND. :)

LOOKS LIKE SOMEONE HIT A RAW NERVE.

MUST HAVE AN EXAM TOMORROW AND FOUND CALCULATORS ARE

BANNED. :)

Dear Dope...

*Message #18 Posted by **W. Bruce Maguire II** on 26 Aug 2003, 4:39 p.m.,*
in response to message #17 by Mathias_R

Dear Mr. Name-of-the-Minute:

You have succeeded it making it *perfectly* obvious to everyone that you are nothing but a troll, with some sort of mental problem...*ahem..."special-ness"*.

To the one or two people who are still wasting their time with this thread---a reasonable subject, ruined by Mr. Chicken-Sh*t---I suggest **immediately ignoring** any post by a troll who doesn't even bother with a *fake* e-mail address, much less his real one!

And to Mr. Troll:

I feel sorry for you. We should *all* pity you. You *are* a special person! Now go away.

Bruce.

Re: Speaking of "security blankets"

*Message #19 Posted by **Paul Brogger** on 26 Aug 2003, 10:30 a.m.,*
in response to message #13 by Dave Hicks

Kidding aside, I don't think the objection is to alternative views, but to outright misrepresentation in the expression of any view. In a cool medium such as this discussion board, much is inferred from relatively few clues. It is patently deceptive to surreptitiously create "artificial pluralities" around issues by posing as several different people who happen to be in agreement.

That said, I appreciate the humor when someone emphasizes irony by signing a note with the name of a well-known individual. But in such cases, while the perpetrator's identity isn't necessarily clear, the fact that something is being perpetrated *is*.

Re: Speaking of "hypersensitive"

*Message #20 Posted by **RODGER H. (jnr)** on 26 Aug 2003, 10:48 a.m.,*
in response to message #19 by Paul Brogger

Who Cares?

Answer: No-one (well... maybe one solitary

irrelevant irate security blanket guy). (LO_very_L)

I'm still waiting for a message from ELVIS - I can

feel his presence in the room.

Re: Speaking of "hypersensitive"

*Message #21 Posted by **bill platt (les Estats Unis d'Amerique)** on 26 Aug 2003, 12:53 p.m.,*
in response to message #20 by RODGER H. (jnr)

Let it be duly noted that the multiple identity post-maker does not attach an e-mail address--is it because he is too chickens*** to give away any REAL identity?

That being said, I'll just ignore him. I don't think his duplicitous commentary causes any real harm---just consternation (perhaps a bit

more even than the HP48 does).

regards,

Bill Platt

Re: Speaking of "hypersensitive"

*Message #22 Posted by **Wayne Brown** on 27 Aug 2003, 8:48 a.m.,*
in response to message #20 by RODGER H. (jnr)

> Quote:
>
> Who Cares?

Well, I care, but only to the extent that when I see something like you on the sidewalk, I take care not to step in it.

> Quote:
>
> Answer: No-one (well... maybe one solitary
>
> irrelevant irate security blanket guy). (LO_very_L)

In case you're not aware, Dave Hicks *owns* this Web site and this Forum, and when he tells you not to use multiple names, you'd better listen. I appreciate him letting the rest of us know the names you've used, and I hope he will continue to do so if you decide to continue your dishnoesty. Better yet, perhaps he can block your worthless presence from the Forum altogether, you ungrateful jerk.

Re: Exam cheats must die

*Message #23 Posted by **Veli-Pekka Nousiainen** on 26 Aug 2003, 6:15 a.m.,*
in response to message #12 by Geoff H.

My dis/agreements:

1) tests should be made so that calculator doesn't "solve" your problems, you do!

2) I would ban calculator capable of solving the problems in question (at that level of education) because not all teachers can comply with 1) eg. TI 89/HP 49 banned on graduation test, but not in the university level. Graphing banned when functions are teached so that you're required to hand draw some graphs. etc.

3) Related to 2) there should be different levels of calculators allowed for different levels (grades) of education. Also math/physics/chemistry/etc. might have different restrictions. Global Guidelines should be given and national guidelines enforced.

VPN

Re: Exam cheats must die

*Message #24 Posted by **Roy Van Nygen** on 26 Aug 2003, 9:18 a.m.,*

in response to message #23 by Veli-Pekka Nousiainen

I'm in total agreement Veli-Pekka - but watch yourself the thought police are patrolling this site to exclude anyone expressing free speech and anyone who expresses a point of view different from his!! WOW this guy is FRIGHTENINGLY serious - I think he got upset that someone found out that he needs his securtiy blanket HP4200Sii to sing him a lullaby at night before he go to sleep. Probably also uses a HP49 to tally up his grocery shopping - WOW impressive guy (LOL).

Thank God I'm a TI fanatic - some HP fanatics are a real worry!!!

The Turing Bombe

*Message #25 Posted by **christof (NoVA US)** on 23 Aug 2003, 4:29 p.m.,*
in response to message #5 by Richard

If you mean the Poles, they broke Enigma in the 1930s. Probably without the aid of machines.

After the Germans improved the Enigma, when the Allies were breaking it, a guy named Alan Turing built a machine to do the job. A computer of sorts.

Alan Turing is dead, yes. Whether or not his use of a machine makes him a cheate risn't really relevant- there was a war to win :)

Re: The Turing Bombe

*Message #26 Posted by **Alexander** on 24 Aug 2003, 5:39 a.m.,*
in response to message #25 by christof (NoVA US)

Regarding the first computer(calculator)???? during World War 2 ....Yeah right!! ... and the Wright Brothers first air plane was an AIRLINE!!!!! capable of Trans-Atlantic flight and solving world travel problems. My child's basic calculator has more power than the first supposed computer/calculator during WW2.

Re: The Turing Bombe

*Message #27 Posted by **David Smith** on 24 Aug 2003, 6:16 p.m.,*
in response to message #25 by christof (NoVA US)

Actually the Poles also designed and built the first Bombes... They realized that they needed a machine to break the Enigma machine.

Re: Exam cheats must die

*Message #28 Posted by **r. d. bärtschiger.** on 23 Aug 2003, 4:34 p.m.,*
in response to message #5 by Richard

Didn't the personel at Bletchley use something called a 'Bombe' to help crack the Enigma codes? And was it not revealed not too long ago that the first computer was developed at Bletchley? A title which heretofore had been claimed by Univac. Research the site

http://www.bletchleypark.org.uk/

for further information. The recent film Enigma, (2001) has a few scenes of a 'Bombe' at work. It may not look like a computer, however it sure seems to be computing something.

rdb.

Re: Exam cheats must die

*Message #29 Posted by **Ernie Malaga** on 23 Aug 2003, 5:35 p.m.,*
in response to message #5 by Richard

Excuse me for saying so, but your attitude reminds me of the classical Greeks (Pythagoreans) who insisted that all numbers were rational and that all geometrical constructs be made with compass and straightedge alone.

This (equally narrow-minded) attitude resulted in 2000+ years of fruitless toil for circle squarers, angle trisecters, and cube doublers.

Technophobia is plain irrational. If you start rejecting technology just because it is technology, where do you stop? Are we to give up cars, air conditioning, vaccines, the internet, and so on?

-Ernie

Re: Exam cheats must die

*Message #30 Posted by **David Smith** on 24 Aug 2003, 6:15 p.m.,*
in response to message #5 by Richard

I think that anybody taking a professional exam should be allowed to bring anything and everything they would have access to in the real world to the exam. You want to see if they can solve problems using the tools that they would have available to them in real life. Testing their ability to remember some equation, etc is just plain ridiculous.

Calculators became "available" my senior year in high school. Our physics teacher debated whether to let us use them on exams. After playing with one a while he realized that he could give real world problems instead of ones contrived to be answerable with a slide rule, etc. His only concern was what if some poor (financially) student did not have one. That was not a problem since everybody in the class had access to one. All the people taking that high school class also placed out of college level physics courses.

Re: This Will Boost R & D, Sales of Scientific Calcs

*Message #31 Posted by **db(martinez,california)** on 23 Aug 2003, 8:05 p.m.,*
in response to message #1 by J.C. Randerson

One thing for those of you who have not sat for one of these exams: you can take in as many books, tables, drafting supplies, and notes as you want, including the correct answers to years of earlier tests.

As i remember; NCEES did something like this once before, by banning programmable calcs (although i know they were allowed when i passed the LSIT in '86). Does anyone else remember the test from that era and the most common sound in the hall: the "BEEP beep BEEP beep - aw SHIT!" from us 41 owners who forgot to put it back in user? They now try to write many of the questions so you cannot just plug and crank using the common programs or at least to force you to lie to the program to get the right answer.

The second half of the questions on the L.S. exam (and i guess the P.E. too) come from practicing professionals. They require judgment and the ability to describe your thought process - not just a numeric answer. It might be possible to get the wrong answer on the majority of the questions and still pass the test by showing a mastery of the theory, law, history, and logic involved - but i wouldn't bet on it.

Re: This Will Boost R & D, Sales of Scientific Calcs

*Message #32 Posted by **Todd G** on 23 Aug 2003, 10:53 p.m.,*
in response to message #1 by J.C. Randerson

I think one area of concern here is that a lot of new calculators can communicate with each other via infrared. I believe it is these features, and not the programmable aspects of the calculators, that have the engineering exam folks in an uproar.

My wife is a university professor (biochemistry), and she does not allow calculators with communication functions, text pagers, beepers, or the like. People have used these devices to share answers with their friends. It's sad, but most of the good, high performance calculators that engineers use have these functions.

Re: Exam cheats must die

*Message #33 Posted by **Orlando W.** on 24 Aug 2003, 9:15 a.m.,*
in response to message #32 by Todd G

If you were to decide which potential employee to hire for your high tech company, which person would you be likely to employ - the person who solved a highly complex exam paper using no technological aids such as calculators, computers or other devices ... or the one who solved exactly the same complex exam paper using all technological aids available with no restrictions whatsoever.

I would be hiring the first - if he can solve the complex problem without technological aids, there's a fair chance he also has the abilty to solve the same problem USING technological aids and devices. The reciprical situation in most cases is unlikely to be the case i.e. the person dependent on using available technological aids is usually incapable of coping without the aid of these devices to solve the problem.... there available "YA JUST GOTTA USE THEM" mentality.

Who's the more capable - the young 8 year old school kid who can do maths in his head to solve the problem, or the younger 7 year old school kid who uses a calculator to add up!!! The 8 year old must be an idiot and should know better because he doesn't take advantage of the available technological devices at his disposal like the "smart" and absolutely "brilliant" 7 year old. The "smart" 7 year old has proved his perceptive skills and demonstrated how "ingenious" and "brilliant" he is by using an available advanced technological device or tool to do the work for him to solve the problem ...yeah right... The 8 year old has proved how stupid he is by not using a calculator to do the problem....what a Dumb-***se!

Believe me, I work with idiots who believe everything has to be done using all available technological devices ... most can't wipe their own ***ses unless a technological device is available to assist them to do it (in most cases their wives come to the rescue ... the "use all resources available" philosophy... why do it by your own means).

Re: Exam cheats must die

*Message #34 Posted by **Stephen Sester** on 25 Aug 2003, 1:11 a.m.,*
in response to message #33 by Orlando W.

Orlando,

I beg to differ with you.

A student must understand a problem and it's correct solution methodology if he/she is to program a calculator to solve the problem. I have done this many times and usually I learn several different ways to solve the problem that would not have been evident if I had just worked the problem once on paper. This type of programming is also a very valuable skill for an engineer.

Another HP calculator feature that I really value is unit conversions...I understand units and their inter-relationships but under time pressure, one is susceptible to making careless errors and the calculator unit conversions enable a quick double check. Judging from the past mistakes of some very prominent scientists and engineers, even the best of us make simple mistakes sometimes. Calculators help us to catch these errors in the office or at the exam table not in a catastrophic failure or an unexpectedly bad grade. NCEES should understand and appreciate this!

For yourself, perhaps this isn't an issue...but I doubt it. At any rate, I wish you the best of continued perfection, :/

sjs

programming

*Message #35 Posted by **christof (NoVA US)** on 25 Aug 2003, 5:03 p.m.,*
in response to message #34 by Stephen Sester

The statistics course I learned the most from was the one where the professor looked at my 28s and told me that if I was capable of programming what I needed to pass tests, I deserved to pass the tests.

It worked. I learned a a *lot*

-C

Re: Calculators and exams-- students hate me.

*Message #36 Posted by **Michael Meyer** on 26 Aug 2003, 1:02 a.m.,*
in response to message #35 by christof (NoVA US)

I don't know, but there may be some students in one of my classes who still hate me 20 years later.

During a college statistics class (1981), calculators were allowed and really required for exams. I shared with the professor that I'd programmed all of the statistics on my TI-59. I proudly showed him the programs with each new concept learned. I understood the concepts better having programmed each of them.

On the day of the final, he passed out the exam and then announced: "I wrote this final exam with Mr. Meyer in mind."

There wasn't a single problem to work! It was all questions about theory!

I scored 100%, but there just may be some fellow former classmates who hate me for that day.

Michael

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Hpcalc info Updated

*Message #1 Posted by **Frank** on 22 Aug 2003, 1:17 a.m.*

http://www.hpcalc.org/hp49gplus.php

Has more photos, info and some of a manual (very early draft).

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Any Interesting HP 3421A applications out there?

*Message #1 Posted by **Tracy Vermeyen** on 22 Aug 2003, 12:54 a.m.*

I was wondering if anyone wanted to share some interesting HP 3421A applications using the HP 41C calculator as the controller?

I've heard of someone using this system to run a sprinkler system and I want to know more.

Tracy

Re: Any Interesting HP 3421A applications out there?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 22 Aug 2003, 2:44 a.m.,*
in response to message #1 by Tracy Vermeyen

Hi, Tracy;

some contributors in here have 3421A units, and I'm about to get one myself. Do you know what I'm actually interested on after taking it? Build custom boards. Anything, since collecting specific data to external actuators.

The unit I'm about to take has only an input 10-ch board (or would it be 8-ch?). Anyway, do you know if there is any documentation about how to design custom boards for it? is there any information about internal bus and the like?

Just curios about.

Another thing: it seems that the HP41 becomes a fine controller for the 3421A when the specific 3421A ROM is installed. Do you have it? I plan to use mine (to come soon, I hope) with the HP71B or, if and when is delivered, an HP75. I think these are better controllers, not because I take as better than the HP41, but because they have a bigger display and bigger internal RAM, allowing more data to be recorded without the need for external mass storage access so often. Are you interested only in applications with the HP41?

Best regards.

Luiz (Brazil)

Edited: 22 Aug 2003, 4:04 a.m.

Re: Any Interesting HP 3421A applications out there?

*Message #3 Posted by **Tracy Vermeyen** on 23 Aug 2003, 1:07 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luis,

Yes, I do have the 3421A ROM module and it makes using the 3421A quite simple. For now I am only

interested in 41C applications because that is the only system I have (for now anyway).

I have access to a full line of documentation for the HP 3421A in paper form only and it would be alot of work to convert it to PDF. Sorry, I do not have any specific information on creating custom boards. I can look for information on the internal bus, do you have any specific questions?

Regards, Tracy

Re: Any Interesting HP 3421A applications out there?

*Message #4 Posted by **Christoph Klug** on 22 Aug 2003, 5:15 a.m.,*
in response to message #1 by Tracy Vermeyen

Dear Tracy,

some weeks ago I sold a HP-IL/PC interface card to Technologie Center in Karlsruhe/Germany. They use some HP3421 - controlled by PC (not HP41) for water quality measurement. But I have no detailed informations about the sensor systems they use.

I have also an HP3421 - but for measurement,data logging and interfacing applications I prefer my modular I/O-Board and my new IL2000 system. This include some more features and less space than the HP3421. As system controller I use the HP41CX including EXT-I/O Module and CCD-Module. Applications are audio measurement, temperature measurement....

Best wishes - Christoph

Re: Any Interesting HP 3421A applications out there?

*Message #5 Posted by **Christoph Klug** on 22 Aug 2003, 5:25 a.m.,*
in response to message #4 by Christoph Klug

Dear Tracy and Luiz,

some details about the HP4321 including service manual you find on the webpage of Warren Furlow. Including a describtion of the 8 bit input-output option board.

Have anyone practical knowledge about calibrating a HP3421. Please give details about this procedure to the forum .

Best wishes from Germany - Christoph Klug

Calibating 3421

*Message #6 Posted by **Renato** on 22 Aug 2003, 6:29 p.m.,*
in response to message #5 by Christoph Klug

Christoph, I have no practical knowledge, but I know that the DC and AC reference voltages are not so easy to get. Also, a 6 digit voltmeter is quite a rare animal.

Renato (with one 3421 to calibrate, to send to a great friend).

Re: Calibating 3421

*Message #7 Posted by **Lawrence** on 23 Aug 2003, 8:10 a.m.,*
in response to message #6 by Renato

Agilent Technologies (former HP Instruments Div.) will calibrate a HP3421A. I had them calibrate mine. It was determined one of my three multiplexer boards was faulty. Given the age of the unit they could not offer a replacements. The cost of calibration is $US 275 which included domestic shipping to and from my location.

Their phone number is 800-403-0801 if you're interested.

The best source of info on the unit is Warren Furlow's 3421A CD-ROM. It includes numerous example programs with barcode.

I control my unit with a Data Acq / Control ROM image within my HEPAX ROM.

Good Luck.

Re: Any Interesting HP 3421A applications out there?

*Message #8 Posted by **Tony Duell (UK)** on 22 Aug 2003, 6:44 p.m.,*
in response to message #1 by Tracy Vermeyen

I have an HP3421 (great instrument!), but I normally use it with the HP71. That machine has more memory than the 41, which is useful for storing and processing whatever data I measure with the 3421. One application I use it for is testing the HP chargers. It is well-known that the chargers for the Woodstock, Spice, and Topcat series are just transformers, but they're transformers with deliberately high internal resistance. So i decided to do the stand school experiment with said chargers -- connect various resistors to the output and measure the voltage, then plot the V-I curve. Of course I've got better things to do than measure voltages all day long. So I connected 8 relays to the digital outputs of the 3421 (I actually used a ULN2803 chip to drive them, this is probably not necessary, the 3421 could do it directly), and used said relays to switch in the resistors in a 7 stage chain (1, 2.2, 3.9, 8.2, 15, 33, 68 ohms IIRC, with a 10 ohm in series with the lot). The last relay disconnected all the resistors from the charger so i could measure the open-circuit voltage. I wrote a little HP71 program to cycle through the 129 possible resistances (128 settings of the chain, and open-circuit), and record the AC voltage at the output of the charger. These readings were stored in a text file that was then uploaded to my 95LX palmtop (one of the few machines I have with a spreadsheet) to plot the graph. On other thing I did was to use the resistance ranges of the 3421 to measure the resistance of the chain in each of the settings, and saved that on the 71. That way I could get away with cheap 10% power resistors.

Re: Any Interesting HP 3421A applications out there?

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 22 Aug 2003, 11:58 p.m.,*
in response to message #8 by Tony Duell (UK)

Hi, Tony;

you know what? That's what I think is one of the best examples of what can be done (amongst lots and lots of things) with an instrument like the 3421A. I thought about charging/discharging battery curves as well; also, Simultaneous/multipoint measuring would be a lot easy.

In my previous post in this very thread, I asked about internal 3421A specs. Do you have (or know where I could find) this sort of information? I would like to know if it is possible to build custom boards with ordinary, commercially available components, to be used with the 3421A.

Best regards and thank you.

Luiz (Brazil)

Re: Any Interesting HP 3421A applications out there?

*Message #10 Posted by **Gordon Dyer** on 23 Aug 2003, 10:33 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Have a look here for info on the HP3421A.
Best wishes...

Re: Any Interesting HP 3421A applications out there?

*Message #11 Posted by **Tony Duell (UK)** on 23 Aug 2003, 4:12 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

I believe the 3421 service manual is on the web somewhere -- that includes full schematics. I do know that the digital I/O card is all standard components -- it's a bit unconventional since all the inputs and outputs are isolated, but you should be able to make a card that looks the same to the 3421 without all the transformers (!). The mux is a bit harder -- there's a temperature sensor IC for cold junction compensation on that board, so if you homebrew that one you'd have to calibrate it. Not impossible, but not trivial. Again, AFAIK there are no custom chips on that board either.

Re: Any Interesting HP 3421A applications out there?

*Message #12 Posted by **Gordon Dyer** on 24 Aug 2003, 11:30 a.m.,*
in response to message #11 by Tony Duell (UK)

Sorry but the link I thought I had included to the website was missing, it includes the manuals and brochures for the HP3421A.

Re: Any Interesting HP 3421A applications out there?

*Message #13 Posted by **Vassilis Prevelakis** on 24 Aug 2003, 2:47 p.m.,*
in response to message #12 by Gordon Dyer

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Gordon Dyer wrote:
> Sorry but the link I thought I had included to the HP41 website was missing,
> it includes the manuals and brochures for the HP3421A.
```

Its bad manners to ignore the wishes of your host.

Since David does not want this site to be mentioned here, I think we should all respect his decision.

You can always send this info via email. A person who asks for advice but does not include an email address only has himself or herself to blame.

**vp

Re: Any Interesting HP 3421A applications out there?

*Message #14 Posted by **Gordon Dyer** on 24 Aug 2003, 4:51 p.m.,*
in response to message #13 by Vassilis Prevelakis

You are right.
I send my apologies to Dave for mentioning the site, although I do not really understand what the problem is.

Re: Any Interesting HP 3421A applications out there?

*Message #15 Posted by **Ellis Easley** on 26 Aug 2003, 4:06 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

My 1986 HP catalog lists an option for the 3421A, "Option 040 Breadboard Assembly [HP44464A] - The breadboard assembly is convenient for constructing custom circuitry. It comes complete with a manual describing the circuit that enables the HP3421A to communicate directly with an 8-bit microprcessor." That manual would probably be quite useful! I wonder if it is on that other website?

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HP48 Calcs banned from NCEES FE & PE Exams

*Message #1 Posted by **Stephen Sester** on 22 Aug 2003, 12:51 a.m.*

http://www.ncees.org/exams/registration/8-20-2003_press_release.pdf

Incredible!

sjs

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HP 3421A actuators

*Message #1 Posted by **Tracy Vermeyen** on 22 Aug 2003, 12:43 a.m.*

I have a HP 3421A that I have repaired and I have a question about the 10-CH multiplexer assembly (Option 20)boards. What applications are there for the actuator's channels (channels 0 and 1)?

Tracy

Re: HP 3421A actuators

*Message #2 Posted by **Andy** on 22 Aug 2003, 5:51 p.m.,*
in response to message #1 by Tracy Vermeyen

I have used the actuators to activate relays so I can turn higher voltage devices on and off.

For example, I once hooked a humidifier up to a relay controlled by channel 0 on the 3421a. Then I had two thermocouples to measure both wet bulb and dry bulb temperatures. I used my hp75 to calculate relative humidity from the two temperatures (and a known air pressure) and then had it turn the humidifier on or off to control humidity.

Also, I have a freind who uses his 3421 and his 41cx to control his home sprinkler system (I think he has the digital card option though which gives you more on/off channels). He uses a repeating alarm on his 41cx to call a program which opens and closes valves.

The possiblities are endless!

Enjoy,

Andy

Re: HP 3421A actuators

*Message #3 Posted by **Tony Duell (UK)** on 22 Aug 2003, 6:23 p.m.,*
in response to message #1 by Tracy Vermeyen

OK, the 10 channel input board has 10 (electromechanical) relays on it. 8 of them (channels 2-9 IIRC) are connected to the input of the ADC section, and can only be used as 'multiplexers' -- to switch different signals to the ADC so that you can, for example, measure input and output voltages of a circuit. The other 2 can be set by links on the input board to either be multiplexer channels, or 'actuators'. The latter means the contacts are not connected to anything inside the 3421 (apart from protection networks IIRC), so you can use them to switch external circuits. Be warned the contacts can't handle much current or voltage -- use them to switch a larger relay if necessary.

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HP 48GX Expansion cards

*Message #1 Posted by **Arthur Coons** on 21 Aug 2003, 10:50 p.m.*

Help, I have looked everywere and can not find anybody who sells the expansion cards (chemistry and calculus) for the hp 48gx. If you know were I can find some let me know. I also buy used ones if you have them (even if they are not chem or calc) Thanks Art

Re: HP 48GX Expansion cards

*Message #2 Posted by **Erik Ehrling (Sweden)** on 22 Aug 2003, 12:52 a.m.,*
in response to message #1 by Arthur Coons

Before you buy any Calculus card, try Erable + ALG48. I once had the Sparcom Calculus card but stopped using it after having discovered Erable...

Best regards, Erik Ehrling (Sweden)

Re: HP 48GX Expansion cards

*Message #3 Posted by **R Lion (España)** on 22 Aug 2003, 3:35 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Yes, I agree with Erik. Buy RAM cards and look for good software in www.hpcalc.org

Regards
Raul

Re: HP 48GX Expansion cards

*Message #4 Posted by **bill platt** on 22 Aug 2003, 8:54 a.m.,*
in response to message #3 by R Lion (España)

Hi Raul,

Good to see your post. I just bought some RAM cards from Klotz ysterday! I decided that I needed to "take the plunge" as it were. My curiosity regarding some of the programs on hpcalc.org, and my interest in trying out the hp41 emulator on the 48, finally convinced me that I needed to get extra memory.

Some time back, you gave me some pointers on RPL programming and it was a great help. I re-coded my simple little RPN keystroke 3-D centroid solver to RPL using lists, and it is very cool! Even my co-workers like it.

Best regards,

Bill

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question re: 12C HP

*Message #1 Posted by **Debi** on 21 Aug 2003, 8:09 p.m.*

I was wondering if someone could help me. I have a HP 12C and cannot locate my manuel, so I can fix this problem. The calculator has a comma instead of a period, and it's driving me crazy. I know this is a simple problem to correct, but can't seem to find the right keys to press so I can get the period to replace the comma. I have searched on the internet and I am still having no luck, with this simple problem. I would soo appreciate it..if someone could help. Thank you.

Re: question re: 12C HP

*Message #2 Posted by **Randy Sloyer** on 21 Aug 2003, 8:41 p.m.,*
in response to message #1 by Debi

1. Turn the unit off.
2. Press and hold the "." key.
3. While holding down the "." key, turn the unit on.

Doing this again will toggle it back to a comma.

Re: question re: 12C HP

*Message #3 Posted by **Debi** on 21 Aug 2003, 9:27 p.m.,*
in response to message #2 by Randy Sloyer

OMG Thank you so much.. this has been driving me crazy and I couldn't find our how to fix it. I know it was a stupid question, but thank you for your help.

Re: question re: 12C HP

*Message #4 Posted by **Randy Sloyer** on 21 Aug 2003, 10:18 p.m.,*
in response to message #3 by Debi

It is just as obvious as changing the number of displayed decimal places...

1. Turn on.
2. Press the gold "f" key.
3. Press the number of desired places on the numeric pad.

It's another one of those things that you'll never remember when you need it most. The manual is available online here: http://h20015.www2.hp.com/content/common/manuals/bpia5184/bpia5184.pdf

is 12C platinum better than old 12C?

*Message #5 Posted by **tomk** on 23 Aug 2003, 2:34 p.m.,*
in response to message #1 by Debi

anybody use the 12c platinum yet? is the old 12c better?

Re: is 12C platinum better than old 12C?

*Message #6 Posted by **bill platt** on 23 Aug 2003, 3:14 p.m.,*
in response to message #5 by tomk

Search on "platinum" and 12cp and 12c etc in both the forum, and the latest archive, and you will find LOTS of info.

Regards,

Bill

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HP 32E Display Question

*Message #1 Posted by **Harry (Germany)** on 21 Aug 2003, 7:59 p.m.*

I have a HP32E, wich has a display problem. When I switch it on, all the upper left segments are missing. This problem disappears after a few seconds. But pressing a key sometimes produces the same thing, but only in the first 2 minutes of operation.
Does anybody know what that is?

There is also another problem, one of the dots is missing, I changed it to comma as radixmark, so its not a big deal now. I think it has to be the led itself that is bad, could it be anything else?

Regards, Harry

Re: HP 32E Display Question

*Message #2 Posted by **Nelson M. Sicuro (Brazil)** on 21 Aug 2003, 11:28 p.m.,*
in response to message #1 by Harry (Germany)

I have a HP32E too, and when it arrives (I bought it through eBay) its display was horrible, digits missing, half-digits. I begin the restoration, and I found that my 32E is that version that the chips isn't soldered (as its display). I disassembled it and begin restoration, cleaning the contacts with a soft pencil eraser. When I assembled it again it was working as new!

Look at http://www.hpmuseum.org/tech30.htm

As your 32E is showing the same simptoms as mine I guess that it is the solderless version too.

In less words: bad contacts, a good cleaning will fix it. But take care, the case is tricky to open, and the chips just jump away when you take the holders off!

Good luck.

Nelson

Re: HP 32E Display Question

*Message #3 Posted by **David Smith** on 22 Aug 2003, 2:22 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

Before working on any HP calculator record the positions of any wires (HP65/67 card readers) or chips (unsoldered spice series machines). A few closeups with a digital camera can come in really handy.

Mine is the soldered version

*Message #4 Posted by **Harry (Germany)** on 22 Aug 2003, 2:41 p.m.,*
in response to message #2 by Nelson M. Sicuro (Brazil)

I also resoldered all the contacts.
I don't think it is a bad contact, as the problem only appears in the first minutes of operation.

Regards, Harry

Re: Mine is the soldered version

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 22 Aug 2003, 5:10 p.m.,*
in response to message #4 by Harry (Germany)

Hi, Harry;

have you also soldered all terminals in the mani chip? As the display connections end there, maybe you have a bad contact in the main chip itself instead of the LED assembly.

Anyway, if you look carefully, you'll see that the soldering tabs in the LED assembly are pressed to it, not soldered. I once applied solder material to each connecting point in the LED assy and the display worked fine again. I consider this a "last alternative", because when a complete set of segments is missing, I consider a bad connection. Have you also gently "twisted" the case when it happens? If it is indeed a bad connection it will probably restore their normal operation at the moment you do it.

If you still need help, let us know.

Luiz (Brazil)

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48 series memory cards

*Message #1 Posted by **unspellable** on 21 Aug 2003, 1:09 p.m.*

In the 48SX and 48GX, if a RAM card is merged with user memory, it presumably will stay in place and not be taken out and put back in like a card used for backup, storage, or moving programs from one calculator to another.

In this case, is there really any purpose in having the backup battery in the card? Other than it keeps the low battery warning shut off?

Re: 48 series memory cards

*Message #2 Posted by **Ron Ross** on 21 Aug 2003, 1:19 p.m.,*
in response to message #1 by unspellable

You would probalby lose all memory on a battery change also (the capacitor barely keeps the original memory intact, much less extra).

Just my thoughts, not proven one way or the other.

Re: 48 series memory cards

*Message #3 Posted by **unspellable** on 21 Aug 2003, 6:09 p.m.,*
in response to message #2 by Ron Ross

I don't know about the 48 series, but I have an HP 28S here that was intermittent. It had been dropped once too often. Thinking there might be a crack somewhere I took it to our failure lab and had it X-rayed. All during this examination it had no batteries in it. Went twenty minutes or so. Upon replacing the batteries there was the entire memory intact!

Just as an experiment I might try to see how long a 48 will hold up without batteries.

I suppose one should have a cell in the RAM card just to avoid the nuisance of a low battery warning if nothing else.

Re: 48 series memory cards

*Message #4 Posted by **R Lion** on 21 Aug 2003, 4:18 p.m.,*
in response to message #1 by unspellable

If I'm not wrong, the card NEEDS its battery for keeping the stuff stored when the calc is off. The three main AAA batteries only "feed" the card when the calc is on.

Raul

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48 series memory cards

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Voyager Back Metal Plate Repair

*Message #1 Posted by **bill platt** on 21 Aug 2003, 12:28 p.m.*

Hi all Voyager fans,

So, I have a 15-c which has the back plate peeling up on one end. Because the (aluminium) plate is plastically deformed, I have been unsuccessful with superglue--there is too much stress on the glue, (the plate springs back against the glue) and of course I cannot clean the faying surface.

So, the other option would be to carefully remove the entire back plate, then make it perfectly flat, (taking care not to damage the silkscreened areas) then reinstall.

Has anyone tried this? Does anyone have photos showing the faying surface between the plate and the plastic calculator chassis?

Best regards,

Bill

Re: Voyager Back Metal Plate Repair

*Message #2 Posted by **Randy Sloyer** on 21 Aug 2003, 9:04 p.m.,*
in response to message #1 by bill platt

Yeah, I've done it. Not fun, but the results justify the effort.

Go to your local Wal-Mart. Head for the craft section. Look for a bottle with a yellow label marked "The Scrapper's Solution". This is the jumbo-economy-sized container of the product called UN-DO, aka heptane. $5 will get you a full four ounces. The same thing sells in most hardware stores without the scrappers moniker at $5 for one ounce.

Find a well ventilated area to work and a six inch thin metal scale. Working with the back off of the calculator, apply the UN-DO to one edge of the metal label. Keep it wet with UN_DO for about thirty seconds for the solvent to work. Slide the scale under the plate and work it free. Where the UN-DO soaks in, the adhesive lets go. You work your way under the entire plate, slide the scale under the plate and applying more UN-DO. It will take at least ten minutes to free the plate from the calculator back as the acrylic adhesive has a death grip on both sides. Don't deform the plate any worse than it already is, this is the artsy part of the equation.

Great gooey, sticky fun with noxious vapors to add to the enjoyment of the moment.

Once off, remove the adhesive from the back of the calculator using denatured alcohol. The black carrier film will probably be left on the metal plate. Peel it off and then remove the residual adhesive.

Now comes the fun part. Find yourself a really good rolling pin and flat, hard surface. I have a marble rolling pin and board used for making pasta. It works well. Just roll the plate flat. Press too hard and it curls. Flip it over, roll it again, bend to suite, warp to fit, etc, etc. Just knock yourself out until your happy with the flatness.

Get some double sided carpet tape, peel one side and cover the back. Trim it 1/16" from the edges. Cut out the two spots where the ESD springs from the front make contact with the back. Peel off the other protective film, line it up, press it down and enjoy.

Re: Voyager Back Metal Plate Repair

*Message #3 Posted by **bill platt** on 21 Aug 2003, 9:24 p.m.,*
in response to message #2 by Randy Sloyer

Hi Randy,

Thanks for your reply!

I have a few questions:

1. You say to "work with the back off of the calculator". Does this mean I first need to remove the rubber feet and unscrew the screws?

2. What are the "ESD Springs"?

Thanks again!

Best regards,

Bill

Re: Voyager Back Metal Plate Repair

*Message #4 Posted by **Randy Sloyer** on 21 Aug 2003, 10:24 p.m.,*
in response to message #3 by bill platt

Yes, take the feet off, then the four screws, then the back comes off. This is so the UN-DO doesn't work its way into the calculator through the two holes under the plate.

Once the back is off, you'll see two small springs that connect the front metal plate to the rear metal plate which all goes to the negative battery terminal. This is part of the electrostatic discharge protection for the unit. The longer one goes near the battery area.

Alternative backplate "fix"

*Message #5 Posted by **Larry Corrado, USA (WI)** on 21 Aug 2003, 9:57 p.m.,*
in response to message #2 by Randy Sloyer

Randy:

I, too, have a 15C with the same kind of peeling back plate. Since I was afraid of damaging it worse if I tried to take the plate off and reglue, I used a different kind of "fix." I made a frame for my machine out of 12 mm thick wooden molding glued to an 11 x 16 cm piece of thin fiber board. The 15C just fits inside, and is held hard against the back by two plastic tabs pressing down from the top. The result is of course bulkier than the calulator by itself, but it works for me since I only use the machine at my desk at home.

If I get ambitious, I may try your technique, Randy, but for now, this is working well.

Regards. Larry

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Pics

*Message #1 Posted by **Pierre Brial** on 21 Aug 2003, 10:37 a.m.*

Hello How it is possible to add a picture to a message ?

All the best Pierre

Re: Pics

*Message #2 Posted by **bill platt** on 21 Aug 2003, 11:52 a.m.,*
in response to message #1 by Pierre Brial

Pierre

http://www.hpmuseum.org/artfmt.htm

Regards,

Bill

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The RPL family

*Message #1 Posted by **jose goncalves (brasil)** on 21 Aug 2003, 7:59 a.m.*

Mr Curator

It was an important addition to the Museum site, Dave. This reorganization of the calculator families and the addition of the new data brought us a new source of understanding of HP calculators. But you know very well that you still have lots of work to do regarding the "other" group.

Cheers !

Jose Goncalves

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Meeting in Basel - Youthhostel

*Message #1 Posted by **Christoph Klug** on 21 Aug 2003, 3:11 a.m.*

Dear friends,

as Matthias told me the Youthhostel Basel is a very nice and low price place to stay at night before and after the meeting on 20. September. Please refer to the webside www.youthhostel.ch/basel or contact them by email basel@youthhostel.ch

There exist two bed rooms (42,-CHF per night) four bed rooms (32,30CHF per night) and six bed rooms (31,50CHF per night). Non-members of the youthhostel organisation have to pay additional 6,-CHF per night. The youthhostel is placed 10 walking minutes beside the center of Basel. I can send you a entry-form document for the youthhostel by email...

Best wishes - Christoph

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Classic KBs over current 49g

*Message #1 Posted by **Charles L** on 20 Aug 2003, 9:43 p.m.*

Hi all,

Just a comment on a remark about one poster's *fast* number crunching abilities on a classic hp keyboard, YES! I agree with you, I am furiously fast at computing long equations with my 32sii, because the kb buttons are responsive and the *BIG* (are you reading HP?) ENTER KEY!!

Conversely, have you noticed that when you key in numbers quickly on a 49g, it MISSES SOME?? For example, keying in 333 quickly gives you 33, and 4444 gets 444 at best if not just 44. It's pretty pathetic...I'm venting in concerned anticipation of the new 33s and 48/49 series...It is really a joy to flick in a bunch of numbers on my 32sii knowing that I don't need to repeat and divide to make sure it's the same (it would give '1' of course if both results are equal, it's something I used to resort to when learning the real depth that rpn lets you go to)

Best regards, Charles

Re: Classic KBs over current 49g

*Message #2 Posted by **Raymond Del Tondo** on 20 Aug 2003, 10:28 p.m.,*
in response to message #1 by Charles L

Hi,

at least the 49G has some kind of keyboard bounce adjustment (KEYTIME or alike). I don't know how good it works, but it was a bad sign that the machine even needs this feature, due to the bad keyboard...

The '48GII', which is in fact more like a relabelled 49G, seems to have the same or similar keyboard as the old 49G.

I admit that's one of the reasons I'll stick to the REAL HP-48 (GX), which deserves the classification '48 series', whereas the 48GII doesn't seem to have much to do with an HP-48 (OMHO).

Raymond

Re: Classic KBs over current 49g

*Message #3 Posted by **Vassilis Prevelakis** on 21 Aug 2003, 12:56 a.m.,*
in response to message #1 by Charles L

go and buy an HP-97 on eBay -- best keyboard by far

and the led display is unbelievable

**vp

Re: Classic KBs over current 49g

*Message #4 Posted by **Bill Wiese** on 21 Aug 2003, 1:09 a.m.,*
in response to message #1 by Charles L

Yep...

>[Charles wrote:] >Just a comment on a remark about one poster's >*fast* number crunching abilities on a classic >hp keyboard, YES! I agree with you, I am >furiously fast at computing long equations with >my 32sii, because the kb buttons are responsive >and the *BIG* (are you reading HP?) ENTER KEY!!

I was the guy that posted that. Key spacing is relevant too. HP41s have a nice key spacing - so do Woodstocks, as well as 11C/15C/16C. I can live w/32S as well. There's something about the 'click' on the older calcs that's satisfying, that you know you've entered it by feel even without looking at the display.

I couldn't tell you about 48/49. I had a 48 for a few days and got rid of it - I wanted a 4-level stack!

Some times I rest the calc in my fingers and use both thumbs on both hands to work the keys. Sounds inelegant, but works nicely for me. (I'm slightly dextrous, piano lessons when younger helped.)

Bill Wiese San Jose CA

49G KEYTIME adjustment

*Message #5 Posted by **Victor Koechli** on 21 Aug 2003, 5:01 p.m.,*
in response to message #1 by Charles L

Hi,

you can (and you actually have to, as your experience shows) adjust the debouncing time on the 49G by entering a number in level 1 of the stack and executing ->KEYTIME. -> is the arrow character. I think the unit is ticks, i.e. 1/8192th of a second, and the value determines how long the calc will wait before another keystroke is accepted

The default ist something around 1300, which is far too long because it causes the calc to miss keystrokes on rapid entry, just as you describe. Try values around 500 - 600 for a start, and experiment a bit with it.

Cheers, Victor

Re: 49G KEYTIME adjustment

*Message #6 Posted by **Charles L** on 22 Aug 2003, 4:01 p.m.,*
in response to message #5 by Victor Koechli

Remarkable, I am so very glad to read your post about the keytime adjustment feature! You have made my day with that one. I'm off to dig up my 49g and put it to work!

PS. How can I access the AJDUSTENTERBUTTONPOSITION feature lol...

Best regards, Charles

Re: 49G KEYTIME adjustment

*Message #7 Posted by **Victor Koechli** on 23 Aug 2003, 3:59 a.m.,*
in response to message #6 by Charles L

Hmm... You would also have to use ->ENTERBUTTONWIDTH to make it double-wide. The units

will probably be 1/131-Angstroms. And if you don't pay attention, increasing the width will simply push the rightmost button off the keyboard. Because this would be a permanent damage (resetting the width to original will simply fill the missing space with a correctly labeled black hole), HP has not made these functions publicly available.

Better just live with a tiny ENTER in the wrong place, then ;-)

Cheers, Victor

Enter Key Position

*Message #8 Posted by **bill platt** on 23 Aug 2003, 1:05 p.m.,*
in response to message #7 by Victor Koechli

Hi Victor,

You know, I am not so sure I dislike the position of the "enter" key in the proposed 33s, and the 49 position isn't so bad, either, and here is why:

When using my 48, I frequently "enter" numbers using the "space" key instead of the "enter" key. As the machine treats the results the same way, it really does not matter. So, I have inadvertently acclimated myself to the new system!

Regards,

Bill

Re: 49G KEYTIME adjustment

*Message #9 Posted by **Charles L** on 23 Aug 2003, 12:54 p.m.,*
in response to message #5 by Victor Koechli

Hi,

I tried to perform the keytime adjustment ->KEYTIME after entering a 500 into the stack, but so far it doesn't seem to take...I'll keep hacking, but if I'm missing something would someone point it out please?

This is really going to cause me to log serious time on this machine for a change!

Best regards, Charles L

Re: 49G KEYTIME adjustment

*Message #10 Posted by **Victor Koechli** on 26 Aug 2003, 10:00 a.m.,*
in response to message #9 by Charles L

Try executing KEYTIME-> after setting it with ->KEYTIME. You should get back the value you just set it to. Also, make sure you are using the Arrow-Character for ->, it's on right-shift zero.

Of course, if you're a *very* fast hacker, you'll probably need a value less than 500. However, at some point, keyboard debouncing will suffer...

Tell us if it works. Cheers, Victor

PS Sorry that it took me so long to reply, but I have he calc at work. Yes, that's right: I am one of the very few people actually *using* a 49G!!! ;-)

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El-Cheapo Wally-World Four-Banger

*Message #1 Posted by **W. Bruce Maguire II** on 20 Aug 2003, 7:01 p.m.*

Hello all:

I just dropped by for a respite from work, and got to reading the Forum posts (as usual!). Much too much fun, and much too much temptation to join-in!

Anyway, I accompanied my wife and two kids to Wal-Mart the other day to buy some school supplies for our second-grader and fourth-grader. The school-supply list for my fourth-grade daughter included a calculator. I---being the good HP-of-old guy---said *"nothing but old HP RPNs for my kids!"* That is, until my wife talked some sense into me; these calculators would be *left* at school, and some things have been known to "disappear" (from a Catholic school, no less!). Well, I decided to give-in, and figured that I could always wait until later in their school "careers" to introduce them to RPN and the quality of the older HPs---what the heck, ***I*** didn't start using HPs until my HP-11C in 10th grade.

OK, to make a short story long, ;-) Wal-Mart had a *huge* selection of these "LeWORLD" calculators: four-bangers and basic scientifics. The basic four-bangers were **$1.00** (and there were probably a half-dozen or more colors to choose from)! My daughter opted to shoot-the-moon, and wanted the translucent pink "Dual Power" *solar* four-banger. It was **$2.00**. The basic scientifics were **$3.00**!

Now, granted, these "El-Cheapos"---oops, I mean "LeWORLDs"---are blister-pack fare, but are they really any worse than the "Kinpos" over which HP is brimming with pride?

One dollar basic. Three dollars scientific. At least a dozen colors and styles. ***This*** is the market in which HP sees itself making money? I'm glad it's not *me* running that division!

Bruce.

Re: El-Cheapo Wally-World Four-Banger

*Message #2 Posted by **Mike Sebastian (Texas)** on 20 Aug 2003, 8:05 p.m.,*
in response to message #1 by W. Bruce Maguire II

...but are they really any worse than the "Kinpos" over which HP is brimming with pride?

You need buy one of those "El-Cheapo" LeWorld $3.00 scientific calculators to fully appreciate the Kinpos. I did. In comparison to the LeWorld, the Kinpo feels like a solid HP classic.

I like to buy calculators and take them apart to see how well they are built. Again, in comparison, the Kinpo is a masterpiece of engineering and workmanship. (IMHO, in the sub-twenty dollar category, Casio makes the best quality calculators. TI is a close second on quality. Sharp is about equal with the Kinpos.)

Now, don't get me wrong, I didn't feel cheated by the $3.00 LeWorld scientific. For three dollars, it is a tremendous bargain. I just wouldn't sent my kids to school with one.

Re: El-Cheapo Four-Bangers and RPN for Kids!

*Message #3 Posted by **Dwight L. Myers** on 20 Aug 2003, 10:48 p.m.,*
in response to message #1 by W. Bruce Maguire II

I also wanted to start out my kids on RPN, so when the HP32SII looked like being discontinued, I bought one for each of my daughters (6th grade and 12th grade this year), one for my wife, and one for me. We have liked them rather well. If they aren't quite the quality (physically) of the old HP34C/HP32E calculators, they are miles ahead of the older TIs of keyboard bounce fame. I have gotten used to their touch and like them pretty well.

I decided the investment was worth it, since they aren't too likely to be lost at school... one advantage of home schooling. (On second thought, we lose a lot of things around here!)

On the subject of the Le World calculators I was tempted to buy one for a spare for students who forget theirs on exam day. (I teach college chemistry.) I am interested to read Mike Sebastian's take on them. I suppose at $3.00 it's hard to go wrong for a spare for students, though.

Dwight

Give them a slide rule

*Message #4 Posted by **bill platt** on 20 Aug 2003, 11:58 p.m.,*
in response to message #3 by Dwight L. Myers

Then if they make it through the test, you know they are worthy ;-0)

Re: el cheapos

*Message #5 Posted by **unspellable** on 21 Aug 2003, 8:21 a.m.,*
in response to message #4 by bill platt

On the subject of el cheapos, I think I paid the princely sume of $4.95 for a Tevion at Aldi's. This is fairly standard, fairly full featured scientific algebraic entry, but it has a neat feature in that above the entry line there is a smaller line that displays a complete running account of your entry formula, making it much easier to keep track of what you are doing. (After all, if it's algebraic entry instead of RPN, we need some help.)

Edited: 21 Aug 2003, 8:22 a.m.

Re: el cheapos

*Message #6 Posted by **christof (NoVA US)** on 21 Aug 2003, 7:02 p.m.,*
in response to message #5 by unspellable

But you can get the modern 6s for the same rough price range.

Not that I am a serious fan of modern HP calcs, but if there's a chance they will deliver with the 33S and 17Bii+ (which, aside fromt he case, looks REALLY good), then i'd rather support them.

if you want a serious deal, look at the 9G

if you want RPN of couse, life is a bit rougher.

Re: el cheapos

*Message #7 Posted by **unspellable** on 22 Aug 2003, 7:57 a.m.,*
in response to message #6 by christof (NoVA US)

But where do you buy the HP 6S? Sure I can mail order it, but that hardly counts for a low end calculator. I don't see them in Target, Kmart, Wally World, et al, and that's what counts for a low end calculator.

Re: Another el-cheapo

*Message #8 Posted by **Paul Brogger** on 22 Aug 2003, 12:11 p.m.,*
in response to message #4 by bill platt

I mentioned once before the Spectra SSC-200 that I got for $5-$8.00 at Target. It's a nice, small, two-line unit with rubber keys that feel halfway-decent, and 27 memories -- a feature I appreciate. (One memory is just not enough.)

Here again, my reaction to its features/price combo was, "How can HP make money in this market?"

you guys are wrong ... same as HP MBA bozo's

*Message #9 Posted by **Norm** on 22 Aug 2003, 1:47 p.m.,*
in response to message #8 by Paul Brogger

Greetings:

You guys are wrong because you keep saying that HP has to compete against the $2.00 calculators at Wal-Mart.

That simply is not true!! And by the way, when do we start calling them "Agilent calculators" as a matter of protest against HP MBA babboons still holding the HP calculator heritage, like holding a cluster of bananas hostage while they swing from the branch of a tree.

The calculator lineage and heritage belongs at AGILENT. The HP bozos are mentally retarded millionaires. They have long since deserved to be fired. They can be fired in effigy if we start calling them "Agilent Calculators".

ANYWAY, during the glory days of HP calculators, they did NOT compete against the cheap-junk that existed at that time also (TI-30 for example). The HP would have been a hundred dollars or more higher in price !! :o)

Is that to compete? Not hardly!!!

A superior product does not compete with cheap junk.

HP is idiots from top to bottom because they think they are competing against $3 calculators. And then they try to build $3 calculators.

THEY ARE SUPPOSED TO BE BUILDING $100 - $300 calculators !!!!!!!!!!

They pay MBA's 7 figures in order to come up with the idiotic idea that they need to satisfy the $3 calculator niche market.....

that's about as smart as HUMVEE paying an MBA 7 figures so that the MBA can spout off that the "REAL MARKET" that they must target is to supply the world with a cut-down Yugo with a pickup bed welded onto the back. And some fuzzy dice hanging from the mirror.

Yah right.

Re: 6s and 30s indicat that HP is trying . . .

*Message #10 Posted by **Paul Brogger** on 22 Aug 2003, 3:21 p.m.,*
in response to message #9 by Norm

We're not so far apart.

I don't think we're saying H-P *should* be competing on the low end. Quite the contrary, the evidence seems to indicate that there's LOTs of competition down there, with product prices at or below $5.00 .

Yet, H-P produces the 6s, 9s, and 30s, indicating that they do, in fact, want to compete for the entry-level market. Very confusing.

Perhaps if those models were RPN (or at least, RPN-selectable), they'd be differentiated somewhat, and would have a secondary market in the RPN-initiated. The latest announcements (12CP, 33S, 48GII and 49G+) seem more in line with H-P's traditional place in the calculator market (as so evocatively described above). Hopefully, their quality will place them somewhat above the competition as well.

OK.

*Message #11 Posted by **Norm** on 23 Aug 2003, 12:33 a.m.,*
in response to message #10 by Paul Brogger

OK.

Re: you guys are wrong ... same as HP MBA bozo's

*Message #12 Posted by **Mike Sebastian** on 23 Aug 2003, 10:44 a.m.,*
in response to message #9 by Norm

You guys are wrong because you keep saying that HP has to compete against the $2.00 calculators at Wal-Mart.

No, we are not saying that at all. Producing an absurdly cheap calculator, IMHO, only cheapens the reputation of that manufacturer. HP really cheapened their reputation when they put the 6S on sale. TI's functional equivalent at that time, the TI-34, cost twice as much.

After I first posted this response, it dawned on me that TI doesn't compete on price. TI competes on features. Although, they do target specific price points, and the price point to some degree does dictate the features that will be offered. In any category, I doubt you will find that TI has the cheapest calculators. HP and Casio each offer cheaper graphing calculators. Sharp seems to have the lowest price "name brand" scientifc calculators, but this price advantage comes with a cost - cheaper materials (e.g. phenolic PCBs) and shorter lifespan (e.g. higher failure rate of the heat seal - the ribbon-cable-like connector between the PCB and LCD).

I can see HP wanting to compete with TI in the lucrative educational market. The 38G was clearly designed for the educational market. The HP-30S was clearly an attempt to compete with the TI-30 series of low-end scientific calculators. The 39/40G and now the 9G are more recent educational offerings. But, HP still really isn't a viable competitor in the educational market. HP is now only offering "me too" scientific and graphing calculators. TI provides a lot of supporting materials for educators, which HP isn't doing. And now, teachers have built lesson

plans around specific TI calculators (I've been told that is why the TI-82 is still in production), so it is going to take a product that is significantly better (e.g. something radical like the Xpander with lots of supporting educator materials) to get teachers to switch.

Meanwhile, HP still seems to be producing calulators for the MBAs, which is why the 12C is still in production and why HP still has a wide selection of high-priced financial calculators. (This suggests to me that HP could still produce high-priced calculators for technical professionals.)

Edited: 23 Aug 2003, 11:42 a.m.

Re: you guys are wrong ... same as HP MBA bozo's

*Message #13 Posted by **Les Bell [Sydney]** on 24 Aug 2003, 3:26 a.m.,*
in response to message #12 by Mike Sebastian

If HP was to do an RPN equivalent to the 6S, at twice the price, they'd be selling like hot-cakes.

I bought a 6S for my son, who was in elementary school at the time, thinking it couldn't be so bad. The build quality isn't so bad, to be honest, but it's the usual horribly inconsistent mess of prefix and postfix notation, coupled with weird memory syntax and strange use of prefix keys; in short, sickening.

That's why we worry that math classes with calculators could be wasting time teaching calculator usage rather than mathematics - those calculators are absolutely counter-intuitive and get in the way of learning the underlying concepts.

Besides, a low-level entry RPN calc could win HP a lot of loyal customers who would upgrade later.

Best,

--- Les [http://www.lesbell.com.au]

Re: you guys are wrong ... same as HP MBA bozo's

*Message #14 Posted by **Brian** on 24 Aug 2003, 11:32 a.m.,*
in response to message #13 by Les Bell [Sydney]

A 6S with RPN and algebraic would be a killer product - everyone's happy - and HP are the only one's that do this in higher model calculators. TI don't have this option on any of their models (except for an rpn emulator done by someone external).

Les 31E

*Message #15 Posted by **Norm** on 24 Aug 2003, 12:51 p.m.,*
in response to message #14 by Brian

Hi Les, I appreciate what you were saying.

I too have noticed that the typical $9.99 "Casio Scientific" is pretty much useless BECAUSE there is so much bullcrap on the front panel (weird notations, graphic symbols, 12 different kinds of parentheses, etc etc).

I am willing to declare it impossible to utilize with, or without, the owner's manual.

Sharp contrast to an HP-31E, a REAL scientific calculator for beginners. I suggest restoring an HP-31E for purposes of giving to a younger person (i.e. 10 - 15) so that they can actually learn the math that pertains to that calculator.

Re: Les 31E

*Message #16 Posted by **Les Bell [Sydney]** on 25 Aug 2003, 6:21 a.m.,*
in response to message #15 by Norm

The "owner's manual"?

These things come with ONE SHEET most of the time!

Ironically, HP fell foul of the same disease with the 48 series. Have you ever tried to read the User's Guide for that sucker?

Give me a decent manual or give me . . .

. . . Mathematica? . . . a cheap substitute? . . . nothing - I'll make do by nursing my 41's along?

Best,

--- Les [http://www.lesbell.com.au]

Re: Les 31E

*Message #17 Posted by **Norm** on 25 Aug 2003, 6:49 p.m.,*
in response to message #16 by Les Bell [Sydney]

Hi Les, I thought my own personal disgust with the 48G+ etc was legendary on this chat board. Had quite a streak of chat noise going about 3 months ago..... I had bought a 48G+ and was thrashing it to pieces with the posts.

I said anybody who wanted one of these was crazy and in the asylum and I was going to get rid of it so it would not be adding to the PSI weight loading of my house foundation.

Immediately came a half-dozen inquiries (from crazy guys?) who wanted to buy it..... made a good deal and haven't seen it since.

So Les, we think the same..... 48G is not useable. That's why I mentioned 31E as an excellent example of a "real" beginner's scientific calculator. Yes it has an owner's manual, although its remarkably short and deficient IMHO but at least you dont really need one (for 31E).

Re: Les 31E

*Message #18 Posted by **Les Bell [Melbourne]** on 26 Aug 2003, 3:56 a.m.,*
in response to message #17 by Norm

Actually, I have mixed feelings on the 48G. It's *possible* that I've been approaching it from the wrong direction.

Since I'm holed up in a hotel all this week, and there's nothing else to do

at night in Melbourne <vbg> I've brought the 48GX and the User's Guide with me, with a view to investigating some things.

But even if I'm right about this, it still doesn't remove the fact that the 48G is just too much device, with too little manual, and requires too many keystrokes and too much thinking to complete simple tasks.

I'll write up my thoughts and results when I get a chance.

Best,

--- Les [http://www.lesbell.com.au]

Re: Les 31E

*Message #19 Posted by **bill platt** on 26 Aug 2003, 12:45 p.m.,*
in response to message #18 by Les Bell [Melbourne]

Hi Les and Norm,

I am, in the very near future, going to have the HP41 emulator running on my 48GX. I am curious to see if, with keyboard overlays on my 48, I can make a decent RPN tool out of the "monster".

But I have also found the 48 does do some very cool things in its native format--like the whole list processing thing, and also the matrix business.

But for straigtforward calculations, the loss of the simple "lastx" is a pain. So we'll see how it goes and I will report back as I develop an understanding.

Note that at least 4 persons who post here reasonably regularly, are experts on the 48 (certainly compared to me!). A few come to mind: R. Lion, Luiz, VPN, Raymond Del Tondo. In one case, I was very frustrated with an impasse I was having in translating a program from RPN to RPL, and these guys straightened me out quickly and gave me new insight---making the "monster" much more tame.

regards,

Bill

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33s Search on Google Gives 1-page Results List

*Message #1 Posted by **Paul Brogger** on 20 Aug 2003, 5:05 p.m.*

I recently heard of an interesting game or exercise: choose any two words such that a Google search with them as the search argument gives a single page of results. (That is, not zero -- 1-10 hits.) (Example: "positronic fortnightly".)

It just so happens that, at this precise, magical moment, a search on " H P - 3 3 S C A L C U L A T O R " (remove the extra spaces -- I don't want to affect the situation!) gives a single page of hits. (Not especially productive hits, mind you, but a single page.)

(Just thought I'd share . . .)

Re: 33s Search on Google Gives 1-page Results List

*Message #2 Posted by **Ben Moss** on 20 Aug 2003, 5:44 p.m.,*
in response to message #1 by Paul Brogger

Easy: search for "www.google.com"

One result on one page. Is that cheating? :)

http://www.google.com/search?hl=en&ie=UTF-8&oe=UTF-8&q=www.google.com

Re: 33s Search on Google Gives 1-page Results List

*Message #3 Posted by **Ben Moss** on 20 Aug 2003, 5:45 p.m.,*
in response to message #2 by Ben Moss

Whoops, I guess it is cheating - only one word.

Re: 33s Search on Google Gives 1-page Results List

*Message #4 Posted by **Mads** on 22 Aug 2003, 11:07 a.m.,*
in response to message #1 by Paul Brogger

How about : "unpolished tigershark"

I know this is way OT, but very funny

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HP Forum Archive 13

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Switzerland is the source for new HP calcs

*Message #1 Posted by **Juergen (CH)** on 20 Aug 2003, 11:06 a.m.*

When you hear Switzerland, do you think of mountains, cheese, chocolate, Heidi? You have to change your mind now. If you want to buy one of the new HP calcs like HP 17BII+, HP 33S, HP 48G II, HP 49G+ (also available with 64 MB SD Card!), you have to check

http://www.calculators.ch

a Swiss calculator dealer.

Choose the "Online-Shop" link, then select "Hewlett Packard" and press "Suchen".

You can buy: HP 17BII+
You can book: HP 33S, HP 48G II, HP 49G+

I will post more infos as soon as possible.

Regards, Juergen

Some facts

*Message #2 Posted by **Juergen (CH)** on 20 Aug 2003, 11:37 a.m.,*
in response to message #1 by Juergen (CH)

HP 33S
available by mid of October

HP 48G II
available by end of September
48 Mhz CPU, IRDA

HP 49G+
available by end of September
75Mhz CPU, 1.5 MB memory, IRDA, USB connection to PC, RAM expansion by SD cards (e.g. 64 MB)

[OT] Re: Switzerland is the source for new HP calcs

*Message #3 Posted by **R Lion (España)** on 20 Aug 2003, 12:40 p.m.,*
in response to message #1 by Juergen (CH)

> Quote:
>
> When you hear Switzerland, do you think of mountains, cheese, chocolate, Heidi?

I use to think in wonderfull watches!!

Raul

Re: [OT] Re: Switzerland is the source for new HP calcs

*Message #4 Posted by **bill platt** on 20 Aug 2003, 12:54 p.m.,*
in response to message #3 by R Lion (España)

Hi Raul,

I think of gratis e-mail: www.seeland.ch

(Some people need Swiss Bank Accounts for handling their illicit funds---but I need a swiss E-mail account fro escaping spam....;-)

Ahem.. Australia was First!

*Message #5 Posted by **Chris** on 20 Aug 2003, 8:23 p.m.,*
in response to message #1 by Juergen (CH)

http://www.instantit.com.au/browse/ProductDetail.asp?supplierid=1&suppliercode=HPA1643

http://www.instantit.com.au/browse/ProductByCat.asp?id=149

1:0 for Australia

*Message #6 Posted by **Juergen (CH)** on 21 Aug 2003, 2:11 a.m.,*
in response to message #5 by Chris

There are fast guys down under! When will we read the first user reports?

Re: Ahem.. Australia was First!

*Message #7 Posted by **Pascal** on 22 Aug 2003, 9:56 a.m.,*
in response to message #5 by Chris

Maybe faster, but much more exensive !

Austria = $ 266 without taxes

Switzerland = CHF 239 - 7.6% taxes = CHF 222 which is around $ 158

Re: Ahem.. Australia was First!

*Message #8 Posted by **Ellis Easley** on 22 Aug 2003, 3:01 p.m.,*
in response to message #7 by Pascal

$266 Australian is about $146 US (AU$1 = US$0.55 last time I bought something from Australia) which sounds like the price that had been mentioned for the 49G+. Were you converting to US dollars - or is the price in Switzerland REALLY good?!! (AU$158 = ~ US$87)

Sorry ... Re: Ahem.. Australia was First!

*Message #9 Posted by **Pascal** on 23 Aug 2003, 3:24 a.m.,*
in response to message #8 by Ellis Easley

Sorry, made a mistake, I don't know why I read Austria not Australia and figured that Chris has

converted the price from Austrian Mark to US$! The price I quoted for Switzerland was US$

Re: Sorry ... Re: Ahem.. Australia was First!

*Message #10 Posted by **r. d. bärtschiger.** on 23 Aug 2003, 9:00 p.m.,*
in response to message #9 by Pascal

Although Austria now uses the Euro, wasn't it's currency formally 'Schilling'?

rdb.

Re: Sorry ... Re: Ahem.. Australia was First!

*Message #11 Posted by **Les Bell [Sydney]** on 24 Aug 2003, 3:30 a.m.,*
in response to message #9 by Pascal

It's the way we wear leather shorts and eat sausage while we mount our kangaroos that can be so confusing. Then there's the Tyrolean accordion music and yodelling at the Sydney Opera House. . .

Best,

--- Les [http://www.lesbell.com.au]

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Why so many "Will ship to USA only" sellers on eBay ?

*Message #1 Posted by **Emmanuel Verbeeck** on 20 Aug 2003, 5:07 a.m.*

I still don't understand why so many HP calculators are put as auctions on eBay with "Will ship to the United States only", considering that

1) a PayPal or BidPay payement is the same electronic transfert from anywhere in the globe (isn't that what the internet is all about : removing the distances?);

2) I will happily pay the shipping cost, in advance (which is normal) as defined by the seller;

3) I don't live in a weird, third-world country (it's in Brussels, capital of Belgium, Europe) and my little website www.emmanuel-verbeeck.net confirms my name, address, etc...;

4)I have a positive eBay feedback history.

Just puzzled. Your opinion is welcome!

Re: Why so many "Will ship to USA only" sellers on eBay ?

*Message #2 Posted by **Valentin Albillo** on 20 Aug 2003, 5:51 a.m.,*
in response to message #1 by Emmanuel Verbeeck

Hi Emmanuel,

Being a Spanish resident, I've experienced the same kind of problems and frustration over "US only" as yourself, so I can understand you perfectly. These are some of the rational reasons for it, IMHO:

1) The US is such a large and powerful country and thus such a large market, that any seller can confidently expect to get many more local bids than foreign ones. The foreign 'share' is so small next to the local one that just plainly ignoring it isn't likely to affect business noticeably.

2) That being so, most sellers, specially those that do not run a business, don't feel comfortable dealing with foreign bidders, which probably aren't native English speakers and so there's the possibility of misunderstanding ("mint", "NIB", "no COD", etc), and which perhaps could result in excessive delays or charges to get the payment and/or send the items. There's always the possibility of a scam lurking out there.

3) Finally, sending a package to an US address is very easy and there's a choice of ways to do it, many of them requiring very, very little effort on the seller. On the other hand, sending a package abroad requires a cumbersome, delicate packaging, with plenty of protective material if the calculator inside is going to stand the rough treatment of a 6,000-mile trip, and that costs money and, specially, a lot of seller's time. Also, the seller is forced to fill and sign a number of forms for the Customs, declaring the value of the item, and a number of other formalities, which many sellers consider a real, big nuisance and yet more time spent.

There's also the fact that many foreign postal services are not as optimal as they should be, and tremendous delays and even lost packages are extremely common, resulting in a lot of inconvenience for the seller. Not to mention when the item arrives broken and it was in perfect working order when it left the seller's hands.

Taking all of these into account, it's easier to understand why many sellers will opt instead to restrict their sales to the big, familiar, comfy local US market. They might occasionally get a slightly smaller final bid for their items, but they'll save a lot of troubles, headaches, effort and time on the long run. Just put yourself in their place.

Best regards from V.

Re: Why so many "Will ship to USA only" sellers on eBay ?

*Message #3 Posted by **Raymond Del Tondo** on 20 Aug 2003, 6:12 a.m.,*
in response to message #1 by Emmanuel Verbeeck

There are various possible reasons for this behaviour.

One of them could be that sending a packet to a foreign location means somewhat more writing into address forms, and the need to declare the contents.

Another one: It can be far more complicated and unsafe to cancel or correct a deal if the 'partner' is located outside your own country.

And another one: I once sold a huge load of HP Series 80 stuff (to Belgium, BTW;-) , and I restricted the shipping range to Europe back then. The reason was: Shipping overseas would have been that expensive so selling chances would have fallen dramatically.

If you buy an item for e.g. 100 EUR, and have shipping cost of about 30 EUR, you may think twice if you'd better try to get the item somewhere else cheaper...

Maybe I simply was lucky enough, but I made very good experiences with sellers and buyers all over the world, on eBay and through other contacts.

I also made the experience that sending stuff from the U.S. to another country seems to be much cheaper than sending thing *to* the U.S.

So far on fair competition :-/

Raymond

Just ask them

*Message #4 Posted by **Juergen (CH)** on 20 Aug 2003, 7:20 a.m.,*
in response to message #1 by Emmanuel Verbeeck

My experience is that many sellers are willing to ship overseas if you ask them. Especially for international transactions, I recommend to get in touch with the seller before bidding. This may provide a certain confidence for both, seller and buyer.

But be aware that shipping may be expensive because many do not use the US postal service (USPS, fair shipping rates). Futhermore, custom taxes may apply.

Regards, Juergen

Re: Just ask them

*Message #5 Posted by **Thibaut.be** on 20 Aug 2003, 10:58 a.m.,*
in response to message #4 by Juergen (CH)

I thought I was the only Brussels HP amateur, but it seems one of my neighbours is also one of these !

My experience is that some people find it extremely difficult to fill in customs forms, and that they just don't want it. Yes, you're all right, there are a lot of safe ways - for the buyer - to get paid.

I just don't agree on Raymond's comment about buying items in Eruope rather than in the US : the problem is that there are almost no HP calcs for sale down here, maybe excepted on ebay.de.

As a seller, I often sold items such as 32SII, 42S and 11C that reached very average prices, even if shipping was included, just becauseUS people are somehow scared of customs... though it is true that Europe-US package shippings have dramatically been dela&yed these last months...

Re: Why so many "Will ship to USA only" sellers on eBay ?

*Message #6 Posted by **Gary** on 20 Aug 2003, 11:32 a.m.,*
in response to message #1 by Emmanuel Verbeeck

I've tried selling outside the US and the biggest problems are shipping related. Initially, I tried figuring the shipping cost myself via a scale and on-line rate schedules but I always underestimated and would have to pay extra out of my pocket to cover the difference. I never got complaints but I was out some of my own money. I then tried packing the item(s) up and going to the post office to get shipping cost. Then report the cost to the buyer, then go back to the post office again to mail it. If I did ebay for a living, I suppost this wouldn't be so bad but I've only sold a hand full of items and only once every few months. Taking time off from work to go to the post office twice was a serious inconvenience (I normally work till 5pm and the post office closes at 5pm). I could go on two seperate Saturdays to the PO but that would incurr a minimum of a one week delay in shipping to the buyer at wich point they become understandably impatient. I tried padding the shipping cost but got complaints from the buyers that I charged them too much (e.g. I figured $20 but asked for $25 and it came out to be $23.45). Even if things went smoothly, the time it takes to actually ship the item(s) could take weeks before the buyer receives the merchandise. And unless you use something like UPS, there's practically no way to track the shipment. That delay causes frustration in the buyers and results in more complaints. I also tried to stipulate that foriegn bidders contact me before bidding but they rarely read that and bid anyway, then complain about one thing or another. I'm sure the language barrier doesn't help. Again, if I did this for a living then it may be worth the headaches and I would be able to develope systems and processes to deal with foriegn shipments better but for the occasional hobbyist, it's just not worh the hassle; it takes the enjoyment of collecting and trading out of it.

Re: Why so many "Will ship to USA only" sellers on eBay ?

*Message #7 Posted by **Juergen (CH)** on 20 Aug 2003, 11:54 a.m.,*
in response to message #6 by Gary

Good reasons not to do it. Just wanted to add, that I always had very smooth transactions, and shipping time from US to Switzerland was between 7 to 10 days. Yes, shipping rates can be high, but you know this. I cannot understand that your customers complained they paid $2 too much (stingy persons).

Regards, Juergen

Re: Why so many "Will ship to USA only" sellers on eBay ?

*Message #8 Posted by **W. Bruce Maguire II** on 20 Aug 2003, 5:30 p.m.,*
in response to message #1 by Emmanuel Verbeeck

Emmanuel:

After reading all the responses, it's clear that there are several credible reasons to limit sales to the U.S.

Unfortunately, let me be the first American to admit that not all Americans are rational! IMO, we've got a lot of employees in the ignorance department! ;-)

As was suggested by a foreign colleague, I think your best bet is an e-mail. A reasonably well-written e-mail asking for an exception to the rule---and mentioning that you will pay all extra shipping costs---might erode some seller's ignorance and misconceptions.

Remember: you never get anything without asking.

Good luck!

Bruce.

p.s. A small consolation: maybe the inflexible (unfriendly?) sellers who still won't ship overseas after you ask, are just the sellers that you are best-off not dealing-with!

2 squared things

*Message #9 Posted by **db(martinez,california)** on 20 Aug 2003, 11:03 p.m.,*
in response to message #1 by Emmanuel Verbeeck

1) The little form is a drag to fill out. Ditto for the insurance one. People who will lie about thousands of dollars on their taxes will agonise over pennies in the "value" column on a customs form. I do.

2) Nobody wants to be the bad guy in an inocent misunderstanding. We only speak english here (and wish youall would too) so it's hard for some of us to deal with your imperfect English. If you don't believe that we speak perfect English then just ask us! Don't ask the Brits. They lie.

I have bought, sold and traded with people in France, Germany, Poland, Japan, and Russia, along with Canada, Ausland, and "Jolly Old". So far everything has worked out ok. Knock on wood. Toque madera. NOTE TO SELLERS: I have sold things to people in four of those countries because they BID HIGHER on those items. Isn't that a good reason to do business with them?

Two things i have found are:

1) Nobody in HongKong can understand a thing i say, no matter how slow i type it.

2) Anything and everything, including greasy 1960's Volvo parts, used books, bootlegged tapes, and candy bars that are mailed to Ecuador from a first world country (insured or not - just try to collect from them) will be stolen. Let me rephrase that: WILL BE STOLEN!!! Lest someone say that i am anti South American; insurance is a waste of money if you are shipping to Chile or north Bolivia. What you send will get there if it gets out of your own country.

I think that fear of the language barrier is the big deal. If you want to bid, and your shipping info isn't Bin Ladin/in a cave/somewhere, then just ask - in good english. I bet most American sellers will say "for you, o.k."

Re: Why so many "Will ship to USA only" sellers on eBay ?

*Message #10 Posted by **Jennifer Seelye** on 21 Aug 2003, 1:38 a.m.,*
in response to message #1 by Emmanuel Verbeeck

I have been selling on ebay for 5 years, I have always shipped overseas. Most of these transactions have worked out well but they also take more time.

I figure by keeping my auctions open to everyone I allow the bid price to go up. Most of the time the overseas

person is outbid so all they do is drive up the price.

On the flip-side, my only negative feedback was from a Frenchman. He paid for 2 knives, asked for them to be packed together & shipped uninsured. I shipped 24 hours after he paid. He went on vacation & more than a month later he emailed saying that one did not arrive. I personally packaged them & delivered them to the post office beyond that I don't know what happened. 7 months later he filed fraud charges. Luckily I save every receipt, I sent copies & the charges were dropped. I still have the negative feedback but at least no fraud charges.

Payments are also hard. Money Orders often times have a $5 or more fee from your bank for cashing them plus it takes a while to clear (like a personal check). Paypal says overseas transactions are "unconfirmed" so there is no seller protection. I now only accept overseas payments via bidpay.com.

One other pain in the neck situation was someone from Austrailia won a Gibson Guitar auction. I spent a lot of time packaging the Gibson & checking into shipping costs. The only shipping company that would ship it said shipping would be $280. We did not complete that transaction.

English is not a major problem for most overseas bidders, I do get a few laughs though.

To sum it all up, there is a give & take. I find these rules work for me:

1- only accept bidpay.com payments, no exceptions.

2- package the item, measure & weigh it, get rates from usps.com add a little extra to what the online calculator says, when you get there it will always be slightly higher.

And a final note, never do "off ebay" transactions from overseas bidders, especially when they want "arrange shipping" & to send you a bank draft (or something like that) for $11,000, then you wire them the difference. You will get that certified check in a day or two but by the time you discover that the check bounced they made off with $10,000 of your money.

Edited: 21 Aug 2003, 9:56 a.m. after one or more responses were posted

Re: Why so many "Will ship to USA only" sellers on eBay ?

*Message #11 Posted by **Stephan (CH)** on 21 Aug 2003, 2:42 a.m.,*
in response to message #10 by Jennifer Seelye

Good morning Jennifer. To get around the shipping cost problem I usually offer the seller to send his items via DHL or UPS with my customer account number. This way all charges will be pay by the receiver. I know, not every body has an account - but if one asks around mostly a friend or a relative does have one. I am glad that overseas foreigners give you sometimes a laugh in trying to write proper English. Unfortunately we can't laugh over here because nobody in the USA even tries to communicate in a other language but English ;-)

Re: Why so many "Will ship to USA only" sellers on eBay ?

*Message #12 Posted by **christof (NoVA US)** on 21 Aug 2003, 7:16 p.m.,*
in response to message #1 by Emmanuel Verbeeck

It really seems to be based on arrogance and ignorance.

The administrative ignorance- people don't realize:

*Global Priority for something the size of a calculator- even a NIB 41CX, isn't outrageously expensive (most auctions where I send stuff overseas it is old computer parts under 1 kilo. I average 13.23 per mailing over the

past 3 weeks)

*Customs forms are trivial. No harder than addressing the package and stating the item and value.

*Insurance is no harder than any other insurance.

*The people at the post office will even fill out the forms for you, or at the very least help you.

The ignorance of money:

*Many Americans seem to feel that no one outside of the US has money to bid usefully (this has been explained to me by a few ebay sellers on in chats)

Arrogance:

We are Americans. Everything outside of America is shoddy, untrustworthy, subject to bribes, and generally so unrealiable as to be not worth pursuing. Besides, aren't Belgian almost Germans? And thus peacenick weenies who don't support our President? <humor, humor. humor>

Or something.

(personally, I've purchased several items from France, Canada, and the UK. While french mail has occasionally had a few oddities [!], generally it's all quite as simple as doing business in the US. So obviously, the last reason isn't my personal view.)

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HP Forum Archive 13

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HP-41 Durability

*Message #1 Posted by **bill platt** on 19 Aug 2003, 7:56 p.m.*

Well, here is the qustion: Having taken the plunge some months back and bought a damaged 41CV, I now have to ask the question to the "experts":

How is the durability of the 41 series? How d oyou stack it up against the Voyagers, or the previous HP's? Or, against the Charlemagnes and Pioneers? How about differences between "Halfnut" and "FullNut?

I seem to remember soemone saying that he halfnot might be harder to break in the 1st place, but that the fullnut has better chance of repair.

Is the "cracked post" problem endemic or occasional? Does the Halfnut sufferfrom this too?

And how come I don't hear a lot of complaints about the seemingly fragile golden plastic battery contacts/expansion port connectors? Are these actually more durable than they look?

Regards,

Bill

Re: HP-41 Durability

*Message #2 Posted by **Chan Tran** on 19 Aug 2003, 8:34 p.m.,*
in response to message #1 by bill platt

I damaged a 25 by using the charger with a capacitor in the battery place. I damaged a 41C (full nut) by droping it 3 ft to hard floor.

Re: HP-41 Durability

*Message #3 Posted by **bill platt** on 20 Aug 2003, 8:59 a.m.,*
in response to message #2 by Chan Tran

Hi Chan Tran,

Capacitor: What where you doing with the capacitor?

Regards,

Bill Platt

Re: HP-41 Durability

*Message #4 Posted by **Valentin Albillo** on 20 Aug 2003, 5:26 a.m.,*
in response to message #1 by bill platt

Not being a hardware guy, I can only offer my nearly 26+ year experience with HP calculators. Among the ones I have in my collection:

Voyager series (HP-10C/11C/12C(USA)/15C/16C)

Most resistant to anything and everything, nearly impervious to use. Never had one broke, all have withstood heavy use with no visible effect. A particular HP-11C I used extensively for a year in the Sahara desert, while I was in the Foreign Legion, and 22 years later it still looks and works like new (now running in its 3rd set of batteries in 22 years, expect them to last till its 30th anniversary at the very least).

HP-71B

Another brick of a machine, I own three and all of them are immaculate and absolutely as new, one of them despite heavy use in less that safe environments. Never failed despite their age, seem unaffected by use or time.

HP-25C

Apart from the battery pack, which I had to rebuild, same as the previous ones: impervious to everything, looks and works as new (acquired in 1976)

Pioneer series (HP-32S/32SII/42S)

These models have also never failed at all, and they all are as new, but they are less old, and I haven't used them at any length, so I can't really compare them to the above models. They do seem quite solid and reliably built, indeed, if somewhat less than the Voyagers, the 71B, and the Woodstock series, not to mention the Classic series (HP-67, etc).

HP-41CV (fullnut)

Another model absolutely brand new. However, I've used (very extensively) a large number of HP-41C/CV/CX models, and while it's a great machine, I always had the feeling that it wasn't as solidly built and durable as, say, an HP-67, which I owned previously. Perhaps an example will help: if you take an HP-67 in your open hand, and strongly close your fist around it, as it to crush it, you'll feel that it does not crack or make cracking noises, no bending, it doesn't noticeably yield, you'll probably hurt yourself if you increase the pressure.

But if you try to do that with an HP-41C instead, you'll hear noises, you'll feel it bending appreciably, and chances are you'll actually damage the machine while applying only a moderate amount of pressure.

Spice series (HP-34C, etc)

The flimsiest of them all. However much I like these machines, their looks, their display, their innovative and advanced functionality, I can't help but feel that their physical casing is the worst, leading to many hardware failures, most specially non-working keys, etc. I think that HP tried to cut costs, but they simply overdid it and these machines aren't very durable or reliable at all, which probably explains their low popularity (except for the HP-34C, fortunately).

Finally, a special mention for the battery door and battery compartment of such models as the HP28S, which are the least durable and worst design ever (the battery doors and compartment, I mean) in any HP machine whatsoever, and the Chinese batch of HP-12Cs, which have the most unreliable keyboard ever.

Best regards from V.

Re: HP-41 Durability

*Message #5 Posted by **bill platt** on 20 Aug 2003, 8:22 a.m.,*
in response to message #4 by Valentin Albillo

Valentin,

Thanks for your feedback!

BTW, I broke the LCD of my first 11-C when it fell off the desk in class, back in 1983. So, I switched to a slide rule for the rest of the year while I waited for my HP to come back (it was under warranty.) It survived many a fall after that--until I lost it in 1996 on an Airplane from New Orleans to Philly.

Re: HP-41 Durability

*Message #6 Posted by **Pierre Brial** on 20 Aug 2003, 10:22 a.m.,*
in response to message #1 by bill platt

Hello Bill Some times ago a friend give me a suposedly broken HP-41CX without battery pack. In fact only the posts were cracken, and there was not enough pressure on the soft connector. I replace it with soldered wires, and now the calculator work as new. From what I see inside, the weak posts are the only major flaw in this calculator. The electronic is very hardy and standed some overvoltage I put by error during my numerous attempt to power it with external power. The keyboard is good also, and for mine, only the LN key need to be pressed stronger to work (I don't know why) There is reports of corrosion or wear of the plastic battery and ports connector, but despite mine has been intensively used by its previous owner in damp equatorial environment, I didn't notice this kind of problem. All the best Pierre

Re: HP-41 Durability

*Message #7 Posted by **David Smith** on 20 Aug 2003, 3:07 p.m.,*
in response to message #1 by bill platt

From my experience (with over 100 '41 series machines) I would say that half have some sort of post/screw boss problems. Probably half of those (25) are just minor cracks or splits that don't affect anything. I do try and fix them with plastic welding solvent.

The other half have more severe problems. Mayby 20 have broken screw bosses that keep the battery contact assembly from making good contact. The other 5 have sheared off bottom screw posts. These can be fixed but it is a pain.

An interesting thing about the tall key 41C machines... pretty much ALL of them have a "1" key that is not very clicky and a somewhat less weak feeling "0" and/or "2" key.

Re: HP-41 Durability

*Message #8 Posted by **bill platt** on 20 Aug 2003, 4:55 p.m.,*
in response to message #7 by David Smith

Hi David,

So, then it sounds like 1 out of 4 have problems that are significant and severe enough to cause a loss of function without repairs being carried out. This is interesting and significant--Perhaps even more interesting is that this calculator was the longest selling until the 12-C, yes?

I wonder how many of the 25% that are damaged, end up non-repairable?

Regards,

Bill

Re: HP-41 Durability

*Message #9 Posted by **David Smith** on 21 Aug 2003, 3:03 p.m.,*
in response to message #8 by bill platt

Well, I have managed to fix pretty much all of the really bad cases... It takes a lot of time and practice. Also just about any '41 will need to be opened and have its internal contacts cleaned and probably a few key contacts also.

Most of these statistics are based upon a couple of rather large lots of machines that I bought for cheap. They are probably indicative of what you would find when buying dead, flakey, or "unknown" condition machines... or "good" ones from strangers.

Also I neglected to include the corroded battery contact failures in my numbers. Probably 1/3 of the machines have some sort of corrosion. Mayby 5 percent are basically so far corroded that they are not repairable. Another 10 percent just need cleaning and dousing with anti-corrosion goo. The rest need some surgery to mend the contacts (usually only the left most contact in the battery compartment).

Re: HP-41 Durability

*Message #10 Posted by **Randy Sloyer** on 20 Aug 2003, 10:09 p.m.,*
in response to message #1 by bill platt

What we don't see in these 41 numbers is what percentage of the total population the dead ones represent. I think you will find it is an incredibly small number, probably less than 1% of the total population. Lets remember we are talking about a twenty-year-old product here. How many twenty-year-old TI's do you still see in daily use?

For my two cents worth, the original Voyagers are the highest reliability of all HP calculators. The newer Malaysian and Chinese 12C's should not be included; they are a different animal altogether.

Second place goes to half-nut 41’s. While broken posts and corroded battery holders account for most half-nut problems, they still hold up better in rough use than any other model due to the keyboard. Full nuts have all problems David mentioned but you can’t beat them for display size and viewing angle. 41’S are by far the most repairable of the LCD models.

The Pioneers and 48’s take third place for one reason: the keyboard. While the tactile feedback is great, use in dirty environments will lead to keyboard failures due to dirt ingress. Keyboards account for 98% of all non-repairable Pioneer/48 models. Also, there are a fair number of LCD failures; this is related to physical size on the 48 and rigid mounting used in all models in this family.

If you want a 41 and don’t care about the differences in the LCD, buy a half-nut. Here’s my top ten list for maximum life:

10. Don’t forget to change the batteries every year no matter what.

9. Don’t install A23 12 volt batteries even though they fit.

8. Don’t put it in your shirt pocket, even though it fits.

7. Don’t sweep the eraser dirt into the keyboard (You draw on a computer???).

6. Don’t loan it to a co-worker that thinks the keyboard is a manual typewriter.

5. Don’t leave it in the glove box of a hot car.

4. Don’t use it as a fly swatter.

3. Don’t use it as the float to check specific gravity of your home brew ale.

And should it ever have a problem:

2. Don’t tin the battery contacts with solder when the unit doesn’t power up.

1. Don’t spray the keyboard with WD40 because a key is sticky.

There is only one item above I made up. All the others I have seen in 41’s returned for repair. Honest.

Tnx, Randy! Excellent List!

*Message #11 Posted by **bill platt** on 21 Aug 2003, 12:05 a.m.,*
in response to message #10 by Randy Sloyer

And actually it is very helpful and insightful. I think the point you make about repairability is especially importatnt, too--judging from Luiz and ither's posts here a few months back, it can be done successfully! And so I must say I am finding this more fascinating all the time.

Regards,

Bill

Re: HP-41 Durability

*Message #12 Posted by **Pieter Botha** on 21 Aug 2003, 12:42 a.m.,*
in response to message #10 by Randy Sloyer

Thanks Randy, good advice. Especially the SG metering of the ale ;^)

What do you experts recommend for repairing battery contacts, then ? I seem to remember somebody else having repaired them by soldering thin cpooer sheet across the contact tips.

What do you guys (girls ?) think ?

Re: HP-41 Durability

*Message #13 Posted by **Randy Sloyer** on 21 Aug 2003, 7:03 a.m.,*
in response to message #12 by Pieter Botha

Beer stories

Technically, I have seen calculators killed by beer, just not a 41. It was a 17B that was being used during an all night cram fueled by brew. The calc got soaked with suds and was left to dry, batteries still inside. A day later the keyboard was toast due to electrolysis, a common Pioneer failure.

Indestructible Voyager stories

I repaired a 15C that spent three days on a street in Vail Colorado during ski season. There were tire tread marks on the back of the case and cinders embedded in the keytops. The only fault with the unit was that the LCD locating pins had been sheared off and it was out of position. Still works today.

Battery holder repairs

I use two methods. One is quick and dirty: conductive adhesive copper foil tape. Works fine, but I would rate life at no more than five years or so. Only works in the case of minor gold tip wear damage, the kind of damage that most solder over. Ugly.

Method two yields the most robust repaired connector. This is David Smiths' fix of using 1/8" brass U channel. Cut pieces about 5mm long (less than the width of the negative terminal of a battery) that forms a cap over the damaged area. The flat bottom part of the U becomes the new battery contact. Scrape the insulation off the connector and solder to the copper foil. I use a low-temperature hard solder called Tix and an adjustable temperature soldering iron to avoid melting things. You might have to cut away some of the old copper and sometimes glue the brass piece in place first. Every damaged holder is different, it is a touchy feely kind of fix.

Edited: 21 Aug 2003, 7:06 a.m.

HP-25 football

*Message #14 Posted by **Michael Meyer** on 21 Aug 2003, 1:06 a.m.,*
in response to message #10 by Randy Sloyer

Voyagers may be reliable, but I don't think any HP was built with the durability of the Woodstocks.

When I first started collection years ago, I bought several HP-25's for about $25 each on eBay. Who knew they'd become more valuable? I used to carry one of the 25's as my "every day" calculator. Not the prettiest, of course. Now I use a 67.

Anyway, I repeatedly and confidently threw the calculator across the room (carpeted floor). I don't think I've ever seen a broken woodstock case. Actually, the 25 seemed to be MORE reliable, as far as battery contacts. I've never succeeded in breaking an HP-25. I've posted in the past what I put my high school calculator through....

I don't think any other HP... and certainly any newer, LCD calculator could survive being bounced end over end on the floor. The 25, however, is almost indestructable. I presume it's destructable: again, I've never broken one from even purposeful, brutal abuse.

I remember reading the letters to HP about calculator survival. One survived being blown through a snowblower. Another survived a whole winter buried in snow.

An amazing machine, and it doubles as a football in a pinch!

RTN2RPN Michael

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Pioneer calcs: Gaps between keys and faceplate cutouts

*Message #1 Posted by **Neil** on 19 Aug 2003, 6:36 p.m.*

Hi,

I've been collecting hp calcs (mainly pioneers) for a while now and I've noticed on some of my calcs that the keys do not sit squarely in the cutouts of the metal faceplate ie. there are gaps above each key, large enough for hairs, breadcrumbs etc. to fall through and get stuck under the key itself. It almost looks as if these particular calcs were stuck together in a hurry because nobody took the time to line up the faceplate cutouts with the keyboard itself. Is this quite common with hp calcs?

Re: Pioneer calcs: Gaps between keys and faceplate cutouts

*Message #2 Posted by **Paul Brogger** on 20 Aug 2003, 5:30 p.m.,*
in response to message #1 by Neil

[fact-like assertions]

Looking at my trusty -33s, I note (for the first time) that the keys are all offset slightly to the left -- the gaps on the right sides are consistently wider than those on the left.

In fact, the keys are molded as a single unit with the plastic front -- they're attached at the top side of each key to the plastic beneath the aluminum faceplate by two thin bridges (which act as hinges as well as points of attachment).

[outright speculation]

The alignment you're complaining about is the alignment of the holes cut in the aluminum faceplate with the keys, or the alignment of the faceplate itself with the calculator front.

Either way, I'd be surprised if there was any "one" around who bears direct responsibility for not taking extra time to align the face and keys. I assume that they were put together by machines which were periodically adjusted to keep the flow of calculator fronts within some specified acceptable range of alignment.

If the keys move without rubbing any sides of the holes in which they're placed, I suspect your unit met production tolerances at the time it was built.

[hope]

But maybe there's someone out there who REALLY knows something about this topic . . .

Re: Pioneer calcs: Gaps between keys and faceplate cutouts

*Message #3 Posted by **Neil** on 22 Aug 2003, 4:53 p.m.,*
in response to message #2 by Paul Brogger

Thanks for your response Paul. Obviously this is not something that hp calc buffs really concern

themselves about, and I just happened to notice it. I don't know why but I always notice stupid things like that. Take my 42s; I noticed that when running the selftest, and the beeper beeps, it kind of goes 'beeeeeeeeeZeeeeeeeeeeeeZeeeeeeeeeeeeZeeeeeeeeeeeeep' whereas on my 27s and 17b it goes 'beeeeeeeeeeeee

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HP's new calc page

*Message #1 Posted by **charles** on 19 Aug 2003, 6:21 p.m.*

I'm sure you've all visited http://www.hp.com/calculators/news/index.html

Did you all find it a bit funny how the guy says "we've just released an old financial favorite" (HP12plat.) and then briefly mentions science/graph calcs, then yet another financial calc is on the way. Then at the end of his note, he says later in the year there will be yet another exciting addition to the financial line of calcs? What's the deal here? His writing does not sound very planned at all...

Also, I've heard rumors and seen pics of a 48gII and a 49g+...why bother with so many different models? Is it really necessary? Glad to have my old 32sii...

Re: HP's new calc page

*Message #2 Posted by **Fred** on 19 Aug 2003, 7:58 p.m.,*
in response to message #1 by charles

With all the ranting going on on this board it is obvious everybody wants just one calc released and it must be just the one they would specify for themselves. An easier way would be to invent a time machine and simply pick up what you want, then everybody could be happy....

One model of calculator

*Message #3 Posted by **christof (NoVA US)** on 20 Aug 2003, 12:45 a.m.,*
in response to message #2 by Fred

HP has tried to issue a 'do everything' calculator a few times. The main problem is they never did a real do everything calculator. A true 'do everything' Pioneer, for example, would have been a combination of the 27S and the 42S - or the 17B and the 42S. That means *programming capability*.

The 41 series and 48 series really are single calcs that can do everything and make everyone happy except for (basically) two things:

1: the 41 series ain't made no more. 2: many people dislike the size and appearance of the 48.

I could add RPL as a third, but that's bogus. Several implementations of good algebraic and RPN/keystroke interfaces are available. Or were available.

I don't think offering one calc is the best plan. i *do* think that a real series of machines with shared technology- like the voyagers or the pioneers, would be a good idea.

(as for the 'boxyness' of the Pioneers, i've had more than one co worker under the age of 25 comment on how pretty the photographs of the 27S are. - I'd show them iin pperson if I could find one!)

-Christof

Re: HP's new calc page

*Message #4 Posted by **Bill Wiese** on 20 Aug 2003, 3:46 a.m.,*
in response to message #2 by Fred

[Fred wrote:] > With all the ranting going on on this > board it is obvious everybody wants > just one calc released and it must be > just the one they would specify for > themselves. An easier way would be to > invent a time machine and simply pick up > what you want, then everybody could be happy...

Hmm... Is this "Fred" as in Fred Valdez of HP??

Most of us want a few things. We're flexible on everything else. Most of us here want an HP calc with:

(1) Ye olde quality. When 30+yr old calcs are mechanically outlasting those produced recently, something's wrong. We're a little more paranoid too, since there's not a great supply of RPN calcs out there. And keys that don't bounce, keys that stop working, or LCD ribbon connectors that separate from PCB are kinda all-important items.

(2) True 4-level XYZT+L RPN with large ENTER key above numeric area. Non-RPN or half-assed RPN without the large [ENTER] key doesn't cut it.

(3) Accuracy. When the new calcs (12C-Plat) don't offer the same accuracy for some functiosn as the orig 20yr old 12C design does, that's a poor sign. Regression in one area indicates likely problems with others.

I'd be grateful to just get something like a TI25X with RPN!

Bill Wiese San Jose, CA

Re: HP's new calc page

*Message #5 Posted by **Fred** on 20 Aug 2003, 11:29 a.m.,*
in response to message #4 by Bill Wiese

"(1) Ye olde quality. When 30+yr old calcs are mechanically outlasting those produced recently, something's wrong. We're a little more paranoid too, since there's not a great supply of RPN calcs out there. And keys that don't bounce, keys that stop working, or LCD ribbon connectors that separate from PCB are kinda all-important items."

Gee, this never happens with those Hp41, classics, etc. (not, I have quite a few that exhibit all these issues) The connections in a 41 series and some of the Spice are pressure fits, etc.) Some of the good old days were good, but others certainly were not!

"(2) True 4-level XYZT+L RPN with large ENTER key above numeric area. Non-RPN or half-assed RPN without the large [ENTER] key doesn't cut it. "

I do agree with the ergonomics of the classic ENTER key placement, but the effort to maintain RPN is commendable.

"(3) Accuracy. When the new calcs (12C-Plat) don't offer the same accuracy for some functiosn as the orig 20yr old 12C design does, that's a poor sign. Regression in one area indicates likely problems with others"

Certainly it indicates room for improvement if it is in a practical analysis situation, but rarely are products without bugs even with the best intentions. Lets only deal with actual problems and not inferred problems!

HP has certain production facilities and capabilities they can draw on with their development partners. We may not like the reality, but going back to the days when calculators were originally developed is impossible. Patience will bring some rewards (not all) but what I see now occuring will only lead to having nothing at all....

Re: HP's new calc page

*Message #6 Posted by **Bill Wiese** on 20 Aug 2003, 1:18 p.m.,*
in response to message #5 by Fred

Fred...

"(1) Ye olde quality. When 30+yr old calcs are mechanically outlasting those produced recently..."

>Gee, this never happens with those Hp41, classics, >etc. (not, I have quite a few that exhibit all these >issues) The connections in a 41 series and some of >the Spice are pressure fits, etc.) Some of the good >old days were good, but others certainly were not!

Yes, some truth there. But quality is also "Feel" (in automotive world it relates to "NVH" - noise, vibration, harshness, even though the engine may be fine and the doorknobs don't fall off). Having good click KBs that have double injection molded keytops that don't wear is a good start.

"True 4-level XYZT+L RPN with large ENTER key above numeric area. Non-RPN or half-assed RPN without the large [ENTER] key doesn't cut it. "

>>I do agree with the ergonomics of the classic >>ENTER key placement, but the effort to maintain >>RPN is commendable.

Yes. But KB layout and RPN entry are very tied together. I am *FAST* number-cruncner on an RPN calc w/large ENTER key - whether it's a 41, 25, or 32S... doubt a small ENTER will help :)

"(3) Accuracy. When the new calcs (12C-Plat) don't offer the same accuracy for some functiosn as the orig 20yr old 12C design does, that's a poor sign. Regression in one area indicates likely problems with others"

>Certainly indicates room for improvement if >it is in a practical analysis situation, but >rarely are products without bugs even with the >best intentions. Lets only deal with actual >problems and not inferred problems!

The 12CPlat bugs I speak of are clearly *systemic* and *architectural* in design. They could EASILY have written a small 12C emulator that runs in the 6502-style CPU of the 12C-Plat without taking up much more (if any) ROM space. (In fact, such emulation may in fact allow some code compression given that the 'Nut instruction set is well adapted to BCD FP math ops - as opposed to a native rewrite in 6502 assy or C.) This would allow a perfect emulation of a 12C. And additional funcs could be added inside or outside of the emulation layer.

>HP has certain production facilities and capabilities >they can draw on with their development partners. We >may not like the reality, but going back to the days >when calculators were originally developed is impossible. >Patience will bring some rewards (not all) but what I >see now occuring will only lead to having nothing at >all....

Development partners?? That implies both do some work. Here it merely looks to me like HP issues a quick spec and has slave-labor Kinpo slightly rejigger an existing calc (33S). No 'value-added' with the HP name.

The ARM-based 49 does seem to be innovative. We'll see how good it is. Now if we could just get that large ENTER key on it we'd be set.

HP has largely turned into a 'rewrap' "badge engineering" house. The brains went away to Agilent (some stayed in the printer division, there still seems to be some innovation there) and they seem to wanna concentrate on building PC clones to sell at Costco - against Dell, who will eat their lunch (and I don't like Dell PCs).

Bill San Jose, CA

Re: HP's new calc page

*Message #7 Posted by **Vassilis Prevelakis** on 21 Aug 2003, 1:11 a.m.,*
in response to message #2 by Fred

```
Fred wote:
> An easier way would be to invent a time machine and simply pick up what you want ...
```

Actually I did try that, but it's not very practical:

a) It requires a shit load of electricity. For example, I used it last Thurday afternoon and I had to wait almost 24 hours for the power to return.

b) I wanted an HP-97, so I went back to 1978 to get one, but it turned out to be too expensive. SEVEN HUNDERED AND FIFTY DOLLARS for a calculator, can you believe it? I told them they were nuts and came back.

:-)

**vp

Re: HP's new calc page

*Message #8 Posted by **john** on 21 Aug 2003, 10:35 p.m.,*
in response to message #1 by charles

easy fix: let the engineers call the shots instead of the &*#%ing bean counters! no wonder we still have 12c and the divine 42s is no more....

Re: HP's new calc page

*Message #9 Posted by **bill platt** on 21 Aug 2003, 11:34 p.m.,*
in response to message #8 by john

HI John,

I feel just as much chagrin at the loss of the good scientifics. But I wonder if (and until we see internal sales figures I do not know how to substantiate this) the real problem is that in fact the vast majority of engineers, scientists and technical people have left the (programmable) calculator behind--i.e. the sales really fell off. Perhaps this even happened to the 32sii. Sure, there are die-hards like you and me, but perhaps most of the rest of the world of engineering is way "past" the calculator approach.

One of my cousins is a prominent scientist involved in groundwater modeling. I spoke to him the other day about my calculator interest, and to him, all is all terribly anachronistic. The amount of data he processes, the very core of his ideas, have left the handheld far behind.

Strangely enough, is it the more "pure math" oriented that have remained enamored with the calculator? Until I discovered this collecting subculture 6 months ago, I had never heard of a "CAS" (computer algebra system). Now I hear the tern "Erable" and "Alg48" frequently. I am a practicing practical mechanical sort of engineer, and when I have an algebra problem I just get out my pencil---usually if it is a strange dynamic problem, or a multi-variable problem, I am rusty enough that I need to refresh my memory anyway! But if one is very math oriented all the time, then I suppose the "CAS" etc would be useful?

Regards and sorry for the ramble....time to hit the sack!

Re: HP's new calc page

*Message #10 Posted by **Bill Wiese** on 22 Aug 2003, 1:31 p.m.,*
in response to message #9 by bill platt

When I have some 'big' math to do I too do not use a calculator but instead use Excel or Matlab or a custom C program, etc.

So requirements of fancy programmability are actually been reduced for me. Matrix math, plotting, etc - I'll use a 'puter. Though it is nice to be able to have a calc customized via programming for various specialty work - and a root-finder is helpful for TVM problems, etc.

[I want to do a nice exterior ballistics program for my 41C. Unfortunately it's too useful of a calc to take to a rifle range or the desert and drop it, get it dirty, etc.]

But I still use a calc to 'think' thru/play with numbers - figuring out bounds of a problem, degree or extent of something, roughing out an approximation, etc.

So a nice RPN sci calc is welcome. Basic funcs of my dream calc, again (w/o even considering programmability):

- RPN w/4-level XYZT stack + LastX reg

- traditional HP KB layout: positioning [ENTER][CHS][EEX][CLx] row above 0-9 keys

- reliable debounced 'click' KB w/double injection molded keycaps

- full logs/trigs/hyperbolics

- x^2 should NOT be shifted function (wastes keystrokes)

- complex # use is nice (a la 42S)

- memory math ops: "[STO][+]03" or "[STO][/]Z"

- quick base conversions (Hex/Dec/Bin/Oct) and non-base10 math (32S too slow, have to use menus)

- basic TVM functions (i, PV, FV, PMT, n,...)

I'd live w/something like a 32SII again but I'd like it slightly narrower.

And an RPN version of a true pocket calc (roughly credit-card sized, 3/16" thick) like TI's TI-25X would be wondrous!

Bill Wiese San Jose, CA

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HP 15C Manuals over $100

*Message #1 Posted by **Mitch** on 19 Aug 2003, 5:20 p.m.*

Ebay item #3041127894. Manual & Adv. Func. Handbook. I don't believe there is a calculator involved in this sale.

Re: HP 15C Manuals over $100

*Message #2 Posted by **Patrick** on 19 Aug 2003, 6:40 p.m.,*
in response to message #1 by Mitch

No, there is no calculator here, just the two manuals.

I have purchased each of these manuals individually for about $30 each. This seller is pretty lucky, although to be fair the Advanced Functions Handbook is a wonderful piece and doesn't come around all that often.

Re: HP 15C Manuals over $100

*Message #3 Posted by **Valentin Albillo** on 20 Aug 2003, 4:47 a.m.,*
in response to message #1 by Mitch

It all depends on the quality of the manuals and the financial resources of the buyer.

In my case, I paid US $90 for a brand-new, shrink-wrapped, spiral-bound "HP-15C Advanced Functions" manual, for my collection. I already had three or four of them at the time, but either they weren't brand-new, never-used, or else they were the hardbound type, which is pretty useless for comfortable reading as it won't lay open flat on the table while you're keying some routines from it in your HP-15C.

As the manual I got was indeed in the absolute best possible condition despite it being 20+ years old (no yellowing, utterly immaculate), I found the price reasonable, specially since I deem it impossible and unnecessary to ever try and get a better one.

Best regards from V.

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HP41 Card Reader

*Message #1 Posted by **Colin Lambert** on 19 Aug 2003, 11:58 a.m.*

I bought a UK 'ex-army' HP41 card reader and calculator about 10 years ago. The HP41CV still works well but the card reader has never been tried - until today with my 'new' HP41CX.

It appears to write programmes OK but does not read them back - no error message shown (brand new cards being used). When I verify the cards I get the message "malfunction".

The card reader appears to take the cards through OK - sounds OK as well (what do I know I have never heard a working one!).

When I do'Catalog 2' the message "CARD RDR 1G" lists.

Any suggestions would be greatly appreciated - should I get the screwdrivers out yet?.

Thanks

Colin (in sunny Derbyshire UK)

Re: HP41 Card Reader

*Message #2 Posted by **Chan Tran** on 19 Aug 2003, 1:27 p.m.,*
in response to message #1 by Colin Lambert

Correct me if I am wrong but I think we can't tell if the card reader writes the card correctly. I would try cleaning the head with the cleaning card first.

Re: HP41 Card Reader

*Message #3 Posted by **andy** on 19 Aug 2003, 1:39 p.m.,*
in response to message #1 by Colin Lambert

Clean the cards also. Use 99% isopropyl alchohol and a soft cloth.

Re: HP41 Card Reader

*Message #4 Posted by **Vassilis Prevelakis** on 21 Aug 2003, 1:20 a.m.,*
in response to message #3 by andy

Pass a new card once through the reader and then look on its underside (the black surface) if it has skid marks then the roller that pulls the card through may be going soft.

look in the forum archives for repair instructions

**vp

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9810 Magnetic card options

*Message #1 Posted by **andy** on 19 Aug 2003, 10:17 a.m.*

Would it be possible to use 9100 magnetic cards on a 9810?

Also, would it be reasonably easy to make a magnetic card that would work in a 9810 or would formatting it be too difficult?

Re: 9810 Magnetic card options

*Message #2 Posted by **David Smith** on 19 Aug 2003, 2:38 p.m.,*
in response to message #1 by andy

9810 cards are much larger than 9100 cards... no joy there. You might try making some cards by gluing strips of video tape to a backing material (think plastic, card stock, etc) so that the tape is under the heads. I have used a spray adhesive and made workable 9100 cards this way. Spray the back of the tape, keep excess glue off the cards and tape edges.

Re: 9810 Magnetic card options

*Message #3 Posted by **andy** on 19 Aug 2003, 3:57 p.m.,*
in response to message #2 by David Smith

Good idea! I'll give it a try and report back with my results.

I just finished up succesfully repairing the printer. The rubber on the paper roller had turned into a kind of gummy tar. I had to dissassembly the entire mechanism to free the paper roller. Then I had to think for quite some time on a way to re-create the rubber. I finally came up with a solution that involved making a nylon roller and covering it with some high-end 3M heat shrink. It works beautifully now.

Thanks!

Andy

Re: 9810 Magnetic card options

*Message #4 Posted by **Achim** on 20 Aug 2003, 4:47 a.m.,*
in response to message #3 by andy

How did you make the nylon roller? I have the same problem with a 9810 printer and haven't found suitable materials yet.

Achim

Re: 9810 Magnetic card options

*Message #5 Posted by **andy** on 20 Aug 2003, 10:24 a.m.,*

in response to message #4 by Achim

I had a machine shop make the roller from nylon round stock. I had them machine the OD to 20mm and drill a hole to allow press fit of a 1/4" shaft. Then we pressed the original stainless steel shaft into the new nylon roller (after removing the deteriorating original rubber).

Then I used a 3M heatshrink which has a layer of adhesive coating its ID (I think its called EPS-300). I carefully heated the heatshrink over the nylon roller. It came out very nice and even (the 3M heatshrink is very high quality). The heatshrink provides the roller with the grip it needs to move the paper and is just soft enough for the thermal head to make good contact with the paper.

I can give you more specific information if you email me.

Re: 9810 Magnetic card options

*Message #6 Posted by **David Smith** on 20 Aug 2003, 3:14 p.m.,*
in response to message #3 by andy

If you can find some old 9 track computer tape, it may be more suitible than video tape. Probably reel-reel audio tape would work, but you would need to align the tape much more carefully when you glued it down. You need two strips on each card since the cards had an "A" and a "B" track.

The 9810 used two sizes of cards. Short ones did not hold as much data as the longer ones.

Re: 9810 Magnetic card options

*Message #7 Posted by **Andy** on 20 Aug 2003, 4:16 p.m.,*
in response to message #6 by David Smith

Do you have the exact dimensions for the 9810 card? Better yet, do you know where and how wide the magnetic strips should be on the card?

From http://www.oldcalculatormuseum.com/hp9820a.html it looks like the dimensions are:

6x2 inches and 10.5x2 inches for short and long cards respectively.

I figured that I could just glue two strips of VCR tape and was planning on looking at the card reader to determine where to position the strips.

If it turns out good, I might make a request for a scanner image of a 9810 card so I can have a more faithful reproduction ;) (I could print the image on card stock and then glue the magnetic strips on the back). The main thing is for it to work though.

I may have time to try it tonight.

Re: 9810 Magnetic card options

*Message #8 Posted by **David Smith** on 21 Aug 2003, 3:09 p.m.,*
in response to message #7 by Andy

I will try and measure some tonight. I would position the tape by looking at where the head is.

Re: 9810 Magnetic card options

*Message #9 Posted by **Tony Duell (UK)** on 21 Aug 2003, 5:16 p.m.,*
in response to message #7 by Andy

When you say 'exact' dimensions, how 'exact'? Do you want me to dig out the travelling microscope (yes, I do have one), or are the following dimensions, measured with a ruler, good enough? The short card, part number 9162-0012 measured 6" long by 2" wide. The long card, part number 9162-0045 is 10.5" long by 2" wide. There is, AFAIK, no pre-fomatting on these cards (or on the 9100 cards for that matter). The 9810 records 4 tracks in each direction (it's a 4-coil head). 3 data tracks and a clock track. Porgram keycodes on the 9810 are 6 bits long, and are recroded as 2 sets of 3 bits on the card. I am not sure how 16 bit data words are stored, probably as 6 3 bit words. I must get round to reparing my 9810 card reader (it's got the 'stock fault' of the decayed roller, and is otherwise OK I think). I had also better figure out how the 9810 works before the HPCC conference in a couple of week's time (If there are any UK people here who would like to come to that (13th Sept in London), then e-mail me and I'll provide details).

Re: 9810 Magnetic card options

*Message #10 Posted by **Andy** on 24 Aug 2003, 1:54 p.m.,*
in response to message #1 by andy

I tried making a 9810 card from a file folder and VCR tape. The card has to make a sharp 180 after passing through the head and this was causing the tape to come unglued.

I eventually got frustrated and decided to try an 9100 card just for kicks and IT WORKED!. 9100 cards are the same width but only 3 5/8 inches long.

The 9810's card reader is full of light sensors (which use visible light) and so its smart enough to know that the card is shorter and so it waits for the next side. It looks like ~279 steps can be recorded on each side. I sucessfully recorded a 500 step program on one 9100 card (both sides). I also successfully recorded all of the memory registers on 2.5 cards (5 sides).

Andy

Re: 9810 Magnetic card options

*Message #11 Posted by **David Smith** on 24 Aug 2003, 6:18 p.m.,*
in response to message #10 by Andy

What kind of glue were you using?

Re: 9810 Magnetic card options

*Message #12 Posted by **andy** on 25 Aug 2003, 11:06 a.m.,*
in response to message #11 by David Smith

I was using 3M spray adhesive...the basic kind. I noticed there was some 3m High Strenght for an extra $10....probably should have bought that.

It seems like there must be a source of magnetic card sheet like what the actual cards are made of. I'll have to look around.

Re: 9810 Magnetic card options

*Message #13 Posted by **David Smith** on 25 Aug 2003, 6:58 p.m.,*
in response to message #12 by andy

I used the 3M Super 77 spray on a test. Seemed to work fine, but I only ran a few cycles. This is their medium strength spray. They also make a really nasty one (#99 ?).

Re: 9810 Magnetic card options

*Message #14 Posted by **Tony Duell (UK)** on 24 Aug 2003, 6:22 p.m.,*
in response to message #10 by Andy

Interesting about the 9100 cards. I'll have to try some when I get my 9810 card reader back together (I also have a _few_ real 9810 cards which I'll try first). My 9810 reader is currently in bits, I am replacing the decayed roller (of course). I've made a puller tool and got the old rollers off the shaft. Now all I need to do is make a new roller with grooves for a couple of O-rings. I didn't like the idea of putting O-rings round the hub of the old roller -- I can see them slipping off after a little use. The light sources for the sensors are filament lamps. I can't remember the voltage (it's either 5V or 12V, probably the former), but I do know they're a standard bulb (T1 size), available from RS components and/or Farnell in the UK. I guess they're available elsewhere too. Mind you, they're considerably under-run, so they should last a very long time.

Re: 9810 Magnetic card options

*Message #15 Posted by **andy** on 25 Aug 2003, 11:14 a.m.,*
in response to message #14 by Tony Duell (UK)

I put the o-rings on my rollers without making grooves in the rollers first. I only used 2 o-rings...1 for each roller. It seems unstable to me too but I figured I'd try it for a while and see if they stay on. So far they're holding up fine (after ~50 card reads).

If they fall off, I was thinking of working them back onto the roller and placing several dots of super-glue gel between the roller and 0-ring (my rollers appear to be aluminum).

The 5/8"x7x8" o-rings are a perfect fit and grip the card nicely. Instead of machining groves into the roller, you might want to consider glueing some flanges on either side of each roller (like a train wheel only on both sides). I'm sure there are some standard washers out there that would work well.

Andy

Re: 9810 Magnetic card options

*Message #16 Posted by **Tony Duell (UK)** on 25 Aug 2003, 1:14 p.m.,*
in response to message #15 by andy

Actaully, making a new roller from a piece of 7/8" brass rod took under an hour... It is a very simple piece of machining. Fitting it on was a little harder, it's all-to-easy to bend the shaft or crack the drive pulley. Anyway, it's done now. And it works fine. Finally, my machine works with 9100 blank cards too, so I guess they all do.

Re: 9810 Magnetic card options

*Message #17 Posted by **Katie** on 25 Aug 2003, 10:37 p.m.,*
in response to message #15 by andy

I posted an article here http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=154 a couple of years ago when I came up with this repair using O-rings too. I used three of them to keep them stable and they've been working ever since.

Re: 9810 Magnetic card options

*Message #18 Posted by **andy** on 26 Aug 2003, 11:10 a.m.,*
in response to message #17 by Katie

Hi Katie,

I read your article before I my repair. It was very helpful (especially the o-ring size information).

I couldn't quite figure out how you used 3 though. My two rollers are far enough apart that a third o-ring would have just flopped around in that space. So I just put on o-ring on each roller. I was careful to get rid of any twists and the ring seems reasonably stable. If I have trouble with it falling off, I think I'll epoxy a washer on either side of the roller to act as a flange.

Thanks!

Andy

Re: 9810 Magnetic card options

*Message #19 Posted by **Katie** on 27 Aug 2003, 11:40 a.m.,*
in response to message #18 by andy

Andy,

I guess that these readers differ from each other. Mine is spaced just right for 3 o-rings. Here's what it looks like:

http://www.wass.net/pictures/9810roller.JPG

-Katie

Edited: 27 Aug 2003, 11:44 a.m.

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Back on line & new articles !

*Message #1 Posted by **Valentin Albillo** on 19 Aug 2003, 6:44 a.m.*

Hiya all, just came back from my 26-day summer vacation out there in some beautiful & sunny Spanish beach.

Upon checking my regular mailbox, I was delighted to find there the latest issue of HPCC's "Datafile" publication (V22N4 July/August), which coincidentally happens to include [shameless plug] two of my articles, namely

HP-15C Nth degree Polynomial Fitting

A 6-page article which includes a program to fit a polynomial of up to 6th degree to a set of arbitrary data points. The program prompts for the data points, then computes and outputs the coefficients of the explicit polynomial which fits them all, in just 42 steps.

Long Live the Advantage ROM!

An 8-page article belonging to my commemorative "Long Live!" series, which includes a 41C/Advantage user-friendly, fully-prompting implementation of the above HP-15C program, in just 60 individually-commented steps, and including a thorough discussion of the differences between both approaches.

Four application examples are given in all, including fitting, interpolation, inverse interpolation, finding a polynomial given its roots, and exposing polynomials disguised as trigonometrics :-)

Of course, this Datafile issue is also choke-full of other interesting articles and programs, including:

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"A Note in Internet Access with the HP-200LX"
"RPN, ALG, and the HP12C Platinum"
"HP-38G Clear Advantage Over HP48G/49G"
"Old Timers" [very interesting article on the HP-45/55 timer, by Jordi Hidalgo, includes
extremely comprehensive references]
"QPI for HP42S"
"What is HP-42X?"
"EMU41 for HP48/49: Some hidden key-combinations"
"A substitue i-solver for the HP12C Platinum"
"HP Calculator History: the HP95LX"
```

etc, etc.

For the very next issues, expect to find (Mr. Bruce Horrocks permitting) several more of my articles, including "Long Live the HP-16C!", featuring a program which *really* makes the HP-16C capabilities shine, and an awesome, chess-related program for the HP-71B ! (ditto).

If you feel like having a look at some or all of these, I would heartily suggest you visit the HPCC's web site at:

HPCC - HANDHELD AND PORTABLE COMPUTER CLUB (formerly PPC UK)

Since the good old PPC, CHHU and HPX bit the dust, this is one of the best and most successful struggles to keep our beloved machines alive. You still get the old thrill of waiting for your issue to materialize in the mailbox, and read it with utmost delight and interest. So, anything we can do to help it going, be it submitting articles and programs, or subscribing, or both, will be in everybody's best interest.

Best regards from Valentin Albillo (formerly PPC member #4747, currently HPCC member #1075), who, needless to say, gets no profit at all from this, other than the pleasure of contributing to the HP calcs users' community.

Re: Back on line & new articles !

*Message #2 Posted by **Tom Scott** on 19 Aug 2003, 8:27 p.m.,*
in response to message #1 by Valentin Albillo

Thanks for the information on HPCC. Your contributions alone would probably make it worth joining.

Tom Scott Lander, Wy

Re: Back on line & new articles !

*Message #3 Posted by **Juergen Rodenkirchen (GER)** on 20 Aug 2003, 3:05 a.m.,*
in response to message #1 by Valentin Albillo

Read and enjoyed your articles a lot (even though alas I do not own a 15C). Keep on contributing those excellent articles to Datafile! Good to having you joining HPCC!

Best Wishes and Happy Hacking,

Juergen HPCC #1065

Thanks to both of you, and ...

*Message #4 Posted by **Valentin Albillo** on 20 Aug 2003, 6:16 a.m.,*
in response to message #1 by Valentin Albillo

... and, as usual, rest assured that I intend to make available these articles on line, in PDF format, in a near future, so that anyone interested can get them. I'll post a message here to let you know.

Meanwhile, as it can probably take some time, the fastest way of getting to read them is to subscribe to Datafile, which has the obvious extra-large benefit of being able to read all the other great articles featured, written by many very knowledgeable, kind contributors and which, naturally, I can't ever provide in any format for obvious legal reasons.

Best regards from V.

Welcome back!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 20 Aug 2003, 7:48 a.m.,*
in response to message #1 by Valentin Albillo

Hey, Valentin;

nice reading your words here again. I hope you had a good time in your vacations.

Unfortunately I'm running through some time-consuming activities for these days, but I am sure I'll have good moments when reading your papers.

Best regards from Brazil.

Luiz

Back on line & new articles !

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HP29C documentation and data

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 18 Aug 2003, 5:21 p.m.*

Hello, folks;

I'm taking the chance to try to repair two HP29C (unfortunately it seems their ACT are bad) and I decided to collect as much data as possible about them. I'll contact the owner and ask for a few more time with them so I can go further. Have a look at the image below (low resolution):

http://www.logeng.com.br/images/HP29Cps_view.jpg

I scanned the mainboard and the power supply unit. I tried to "draw" the power supply in an electronic design SW but I did not achieve good results. So I decided to refine the original scanned image and generate the drawing over it. It seems I have a better look, now. I know it's not the final art I want but I'd like to ask you , please, check it and add your feedback so I can improve it. Original scanned images and track-only are saved.

I also removed the transformer and I measured its "coils" so it's now easier to "see" what's going on. I am transferring the "free-hand" drawings to an appropriate layout so I will add its final art later.

I measured the output DC voltages and I'll add them in a final drawing. I also tried to see (and record) the waveforms, but I have an old audio-lab, vacuum tube oscilloscope that is far from being able to read more than 100 kHz (if more than this, image is fuzzy and out of focus), so I cannot add this information.

I scanned the mainboard without any IC and the power supply, just a few components, both sides. This way I'll be able to generate final schematics.

I'll let you know as soon as it's ready and I'll post the information here. Please, Dave, is it O.K. to do it? I mean, will it be an issue if HP does not allow? Please, let me know.

Best regards.

Luiz (Brazil)

HP29C: transformer schematics

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 Aug 2003, 6:30 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi, folks;

this is to add the image of the transformer coils.

http://www.logeng.com.br/images/trafo_hp29c_schem.gif

As many of you may have already noticed, I'm using an old OrCad version (DOS based) to draw the schematics. No big deal, ahn?

Color names refer to the colors used in "painted" wire (isolating foil). The "COPPER" means transparent foil.

Spice's transformer has a different coil arrangement, as I have checked. I intend doing this sort or "cataloged information" for the HP25/25C. What do you think?

Best regards.

Luiz (Brazil)

Edited: 18 Aug 2003, 6:42 p.m.

HP29C: few questions

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 19 Aug 2003, 1:19 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi folks;

after collecting a few more data, there are three questions I want to ask. If anyone can help with answers...

1 - I saw at least three different codes for ACT chips:
1820-1741 (I saw some HP25, a few HP25C and one HP22 with this one)
1820-1523 (one HP25, two HP22 and at least two HP25C with this one)
1820-1596 (three HP29C)

Are they all interchangeable?

2 - The HP29C's power supply has two transistors and I did not remove any of them till now. Does anybody have the specs/ID for them? This information would allow me to let them in place instead of removing to identify them.

3 - Is there any relation between the 8-pin pinout used in RAM/ROM chips in the HP29C, the HP97/67, Spices and the HP41? I see that pin names for Ø1, Ø2, DATA, SYNC and Is/Ia are the same used in the HP41 and the HP97 ROM/RAM. Are they kept in the HP29C chips? If so, that would allow a better identified schematics.

Thank you for any information.

Luiz (Brazil)

Re: HP29C: few questions

*Message #4 Posted by **David Smith** on 19 Aug 2003, 2:42 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

As far as I know, all the woodstock ACT chips are compatible (except the HP27).

I have never had to take apart the HP29 power supply. I did have one with the on-main-board supply with a bad tantalum filter cap. One DC votage looked fine on a meter, but on a scope it was a square wave.

Re: HP29C: few questions

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 20 Aug 2003, 7:55 a.m.,*
in response to message #4 by David Smith

Hello, David;

as always, thank you for the technical info.

The fact is that I just want to catalog info, and I'd like to know who are those fellows. If I have the chance, I'd test the transformer with external frequency generator and get its characteristics. But I have no generator and no applicable scope, so I thought about disassembling it and collect physical characteristics and # of turns for each coil. Again, the calculators are not mine and I'll not risk damaging their P.S. units.

As I have new data I'm posting. I intend building an article about this particular "adventure" and I'd like others to read and add whatever needed.

I'll post a message about this later.

Best regards and thanks again.

Luiz (Brazil)

Re: HP29C documentation and data

*Message #6 Posted by **Ellis Easley** on 19 Aug 2003, 10:10 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

I don't see any unoccupied pads or vias for connections to the rest of the calculator. I assume wires were tack-soldered to pads - which pads are used for power input and output?

Connecting Pads

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 19 Aug 2003, 4:17 p.m.,*
in response to message #6 by Ellis Easley

Hi, Ellis;

I used an input VCC of 2.4V (two rechargeable NiCad's) connected in C1 terminals (the electrolytic capacitor). All connecting points are shown below:

http://www.logeng.com.br/images/hp29c_ps_conn.jpg

I removed all IC's and measured all voltages with no load connected to the output terminals. There are four connecting points that I found interesting. The ones I marked in blue are single connections to a paralell LC arrangement; a ressonant circuit, maybe. I did not follow the other two ones, shown in green, but the images will help figuring it out: all tracks are shown as all IC's are removed. If needed, I can mark where and which IC's are there.

Hope this helps for now.

Luiz (Brazil)

Edited: 19 Aug 2003, 4:18 p.m.

Re: Connecting Pads

*Message #8 Posted by **Ellis Easley** on 20 Aug 2003, 5:48 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

I don't have a 29C, I just want to try to analyze the power supply circuit. Your posts make it easy to do

without any hardware! Is that power supply PCB "surface mounted" on the main PCB? No wires, just solder? If so, we could call it a "ball grid array" (BGA). Pretty advanced for mid-1970's!

The parallel LC circuit leads go to two pins (13 and 14) on the ACT chip, I imagine they are the resonant tank for the oscillator that generates the clocks for everything.

Re: Connecting Pads

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 21 Aug 2003, 12:36 a.m.,*
in response to message #8 by Ellis Easley

Hello, Ellis;

your analysis is correct. It's a BGA (I didn't know the term) and the connecting points shown are the only ones between the power circuit and the mainboard, no extra wiring. And there is also an isolating foil between them both.

After having a brief look at an HP21 schematic circuit, the only things conneted to pins 13 and 14 (ACT) are two capacitors.

Thank you, Ellis.

Luiz (Brazil)

HP-21 Clock Components

*Message #10 Posted by **Michael F. Coyle** on 21 Aug 2003, 9:04 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Hi Luiz,

That schematic is wrong. Pins 13 and 14 are connected to an *inductor* and capacitor in parallel, not two capacitors.

The values are 150 microhenries and 330 pF, giving an oscillator frequency of about 715 kHz. (Which is then divided by 4 to give a clock of about 180 kHz (5.5 microsecond clock period).

- Michael

Thank you!

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 22 Aug 2003, 12:06 a.m.,*
in response to message #10 by Michael F. Coyle

Hello, Michael;

thank you very much. I thought it was a suspicious arrangement, but I do not have an HP21 to check. I have seen many Woodstocks with inductors that are capsulated as an ordinary, tubular shaped resistor with colored rings to identify them (mH value?). Maybe the author of the schematic concluded it was another sort of capacitor, to justify the use of two of them in parallel, who knows.

Thank you for the additional info. I'll update my schematics with the values you post.

Best regards.

Luiz (Brazil)

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Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #1 Posted by **Victor** on 18 Aug 2003, 2:38 p.m.*

I received a message from service@paypal.com. It said that my PayPal account may be deleted if it is inactive for 3 months. It gave me boxes to type in my email address and PayPal password to log into my PayPal account. I didn't do this, suspecting this was a hoax.

I went to www.paypal.com and logged into my account from there. The first thing I received was a message saying that PayPal will never ask for your PayPal password via email or phone.

I think this was an attempt to illegally obtain my PayPal password.

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #2 Posted by **bill platt** on 18 Aug 2003, 3:35 p.m.,*
in response to message #1 by Victor

Any official information from paypal will come only from HTTPS://paypal.com The "s" means secure. Paypal has a warning posted on their site about fraudulent attempts.

regards,

Bill

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #3 Posted by **unspellable** on 18 Aug 2003, 3:50 p.m.,*
in response to message #2 by bill platt

It's not a hoax, it's a scam. A hoax is a not for profit prtactical joke. This sounds like it's for profit and therefor qualifies as a scam.

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #4 Posted by **Les Bell [Sydney]** on 19 Aug 2003, 4:42 a.m.,*
in response to message #1 by Victor

It's a scam. If you look closely at the URL where the account details are submitted, you'll find it doesn't go to Paypal at all, but goes to a different site. From memory, the URL is cunningly disguided - something along the lines of

http://www.paypal.com@www.scamstersite.com

In other words, it uses www.paypal.com as the user ID - the real hostname is www.scamstersite.com. Devious.

There's a number of these things floating around, impersonating pages on the Paypal site, as well as regional bank web sites. I've received two of the Paypal scam emails, and I don't even have a Paypal account.

Best,

--- Les [http://www.lesbell.com.au]

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #5 Posted by **Wayne Brown** on 19 Aug 2003, 6:38 a.m.,*
in response to message #1 by Victor

This definitely was a scam. If you still have the email, forward it to **spoof@paypal.com** and they'll investigate it. eBay has a similar address, **spoof@ebay.com**, to use for forwarding emails that try to obtain your eBay information.

Some of these scam emails don't ask directly for your id and password. They ask you to "update your account" by clicking a link that *appears* to take you to eBay or PayPal, but really goes to a fake web site. (It may even include text and images copied from the real site.) It *looks* just like you're entering information into the real site, but you're really giving the scammer any info that you enter. **Never** follow a link from one of these emails to eBay or PayPal, but rather go directly to them from your web browser.

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #6 Posted by **Patrick** on 19 Aug 2003, 2:27 p.m.,*
in response to message #5 by Wayne Brown

The other option is for **everyone** to follow the link and to enter bogus data. Effectively, they will be spammed by a plethora of false leads. If a large fraction of would-be victims did this, the slimeballs would be inundated with gobs and gobs of useless data that would take them days or weeks to go through, in a (hopefully) vain attempt to find one that works.

Of course, you would also report them.

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #7 Posted by **Victor** on 19 Aug 2003, 6:26 p.m.,*
in response to message #6 by Patrick

This may not be a good idea. Here is a copy of an e-mail someone sent me:

"Never and I mean never respond to any such email. Even responding with fake information can be dangerous. Some have code that will copy your personal information from you machine once you allow their program to execute by sending a response."

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #8 Posted by **Patrick** on 19 Aug 2003, 6:43 p.m.,*
in response to message #7 by Victor

If this were true then it would have already happened. How many people have randomly surfed the internet and come across a less than reputable site, shall we say. If it were possible for a web site to get your personal information just by visiting the site, there would be no need for scams like the ones being talked about here. The information would be available for the taking.

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #9 Posted by **bill platt** on 20 Aug 2003, 9:05 a.m.,*

in response to message #8 by Patrick

I think your e-mail address is accessible to a website--because I have spam that comes now that never did before, until I visited a particular website. And, it is addressed to my e-mail!

What I do not like about the current online system is that you basically have to trust the microsoft/norton "wizards" that they have protected you. There is no way to understand what their code is doing, i.e. no one really understands Windows.

[OT] How spammers harvest e-mail addresses

*Message #10 Posted by **Valentin Albillo** on 20 Aug 2003, 9:26 a.m.,*
in response to message #9 by bill platt

Hi, Bill, have a look at this:

How spammers harvest e-mail addresses

Paragraph 6.1 seems to me to be most likely applicable in your case. You'll be able to tell if other paragraphs do apply an take appropriate measures to prevent the harvesting.

Best regards from V.

How Spam Works: Thank you, Valentin!

*Message #11 Posted by **bill platt** on 20 Aug 2003, 11:02 a.m.,*
in response to message #10 by Valentin Albillo

Valentin,

TNX 4 the excellent link! Wow, that is the mother lode of Spam delineation. It is just what I was looking for!

BTW I hope U had a gr8 vacation ("holiday") --you lucky Euro Duck! (We only take 10 days here :-(but had a gr8 time in Canada anyway----saw seals, dolphins, Minke Whales, Basking Sharks (10 meters long!) all sorts of cool birds like Gannets and petrels and coots, eider ducks, Guillemots, ravens, osprey.....and went musseling and clamming and caught wild mackerel, ate lobster, picked wild blueberries, swam in the (not so cold this year) cold water, went sailing, rowing, canoeing, double-paddling, reef-gunkhgoling by motorboat, bog trotting (finding carnivorous plants--bladderworts, sundews, pitcher plants, and also wild orchids, Labrador tea, stunted 100 year old larch only as thick as a broomstick--all to leave 4 future generations) and taught my 6 year old to steer a sailboat, made up family plays in the evenings, load 15 people in the old Dodge woody and off we go to the alley for candlepin bowling and soft ice cream....and on.... We work hard and play even harder! So, I hope you feel refreshed from your beach time.....

Best regards,

Bill

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #12 Posted by **David Smith** on 19 Aug 2003, 2:46 p.m.,*
in response to message #5 by Wayne Brown

I got several of these from "ebay". When I tried (several times) to contact the real Ebay about reporting

them, I never got back any response. They did not seem to be interested in stopping the scam in any way.

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #13 Posted by **Victor** on 19 Aug 2003, 6:28 p.m.,*
in response to message #12 by David Smith

I did report this to spoof@paypal.com. I got a response back saying that PayPal did not send the email and that the email linked back to a site not run by PayPal. They also said that they will investigate this fully.

Since eBay and PayPal are part of the same organization, hopefully eBay will be investigating this as well, even though they didn't send a response.

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #14 Posted by **Wayne Brown** on 20 Aug 2003, 6:53 a.m.,*
in response to message #12 by David Smith

All the emails I've forwarded to spoof@ebay.com have gotten a response from eBay. Usually there's an immediate response, then a follow-up message in a day or so.

Re: Paypal Accounts May Be Deleted If Inactive (Hoax?)

*Message #15 Posted by **Chuck from Phoenix** on 20 Aug 2003, 10:11 a.m.,*
in response to message #1 by Victor

Interestingly, a similar scheme was perpetrated on Earthlink. Emails containing false email links 'back' to Earthlink requested passwords and personal info. The linked pages looked quite legitimate. I believe even Bank of America has been through this scam.

But, just like virus protection, the general public is clueless about this scam technique, and despite repeated warnings, the spammers still score plenty of good info from well-meaning saps.

The cat-and-mouse game continues.

Another hoax/spoof

*Message #16 Posted by **Patrick** on 20 Aug 2003, 7:48 p.m.,*
in response to message #1 by Victor

Just had what looks to be another spoof attempt show up in my inbox. Here's the URL of the (very-authentic looking) "Sign In" link that supposedly enters you into a contest to win a nice vehicle:

http://www.ebay.com&refer=ebay@acfis.net/aw-cgi/eBayIsapi.html

This URL actually goes to acfis.net, not ebay.com, if I understand URL-speak. When you go there, you get a eBay-like login box. I'm sure they'll catch a bunch of folks with this.

Re: Another hoax/spoof

*Message #17 Posted by **Victor Koechli** on 20 Aug 2003, 8:10 p.m.,*
in response to message #16 by Patrick

Definitely a spoof. Looks fucking real, though! All elements of the login form are actually ebay's, and all the links go to ebay, except of course the sign in button. It even says 'Thank you' and tells you it had you

entered in the draw if you enter anything...

You're right, there'll be tons of people falling for this.

(deleted post)

*Message #18 Posted by **deleted** on 21 Aug 2003, 12:21 a.m.,*
in response to message #16 by Patrick

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: DO NOT EVEN CLICK ON THE HOAX!!!

*Message #19 Posted by **Patrick** on 21 Aug 2003, 1:10 a.m.,*
in response to message #18 by deleted

I think you can relax, Bill... eBay is down at the moment.

Phew--that was close

*Message #20 Posted by **Bill Platt** on 21 Aug 2003, 4:33 a.m.,*
in response to message #19 by Patrick

Tnx Patrick---I was a bit hysterical there for a moment!

All OK now.

Re: Another hoax/spoof

*Message #21 Posted by **unspellable** on 21 Aug 2003, 8:28 a.m.,*
in response to message #16 by Patrick

What's this thing look like?

I have a message in the bulk mail section (My Yahoo generally puts eBay stuff in the regular mail box.) about an "ebaY Draw". I have not opened it yet. I tried opening it but it stalled out. If eBay is down at the moment then maybe it was really from eBay.

Re: Another hoax/spoof

*Message #22 Posted by **Patrick** on 21 Aug 2003, 3:39 p.m.,*
in response to message #21 by unspellable

eBay, and most other reputable web organizations, make it a point to emphasize that they will **never** ask you for your password as part of an email. This is exactly what this spoof is doing.

Ask yourself this: why would eBay need you to login to "confirm" your entry in this so-called "bonus draw"? Even if there was such a draw, why wouldn't they just tell you to log into your account **in the usual way** and then click on some special bonus link?

These slime moulds are preying on the vast hordes of people who are not intimately aware of all the idiosyncracies and vagaries of web technology. In fact, by default browsers should pop up a warning explaining what is happening whenever this special URL mechanism is used. The true domain that is being asked for should be part of the pop-up message. These days it is rare for anybody to want to send user name and passwords in the clear as part of a URL. Anonymous ftp might be the most common

exception.

Re: Another hoax/spoof

*Message #23 Posted by **puckmasterc** on 23 Aug 2003, 11:54 p.m.,*
in response to message #22 by Patrick

Hey guys, I got this email too. It is deffinately not from ebay. I sent it to their fraud department. They assured me that they are not connected to this hoax in any way.

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HP-55

*Message #1 Posted by **Howard** on 18 Aug 2003, 8:28 a.m.*

A couple of months ago I wrote to this forum about the problems I am having with my HP-55.

It works OK in Timer and Run modes but will not programme. It gives " -15" for every key that is pressed except for when "GTO 0, 1, 2, 3, or 4".

The general consensus of opinion was that the main memory chip is shot.

Anyway I've got hold of another HP-55 for parts and I am looking to see if it is feasible to take out the main memory chip from it. I thought of changing over the whole board but it does not appear be working.

My first problem is that there are eight chips.

Can anybody point me to the right chip?

Or better still, Does anybody fix these calculators?

Thank you in advance.

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hp 80 keys don't respond well

*Message #1 Posted by **Irfan** on 17 Aug 2003, 8:31 p.m.*

I have hp-80 and some of the keys on top row (FV, PMT) don't respond. Every now and then these key function but mostly don't. What would be best way to fix this problem? Thanks in advance for any tips. - Irfan

Re: hp 80 keys don't respond well

*Message #2 Posted by **Victor Koechli** on 18 Aug 2003, 7:12 a.m.,*
in response to message #1 by Irfan

Most of what you need to know shold be in http://www.hpmuseum.org/howtohp/howtohp.htm. That should get you started.

In addition, I have found that using a plain strip of paper (instead of sandpaper) to clean very bad key contacts can be a valid alternative. It's potential for damage might be less than the sandpapaer's.

Cheers, Victor

Re: hp 80 keys don't respond well

*Message #3 Posted by **Jon** on 19 Aug 2003, 5:45 p.m.,*
in response to message #2 by Victor Koechli

If you use a piece of cloth impregnated with isopropilic alcohol it will work for sure. And you can´t damage the metal part (take care with the sandpaper).

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Recovering a HP97 printer

*Message #1 Posted by **Jose Goncalves (Brazil)** on 17 Aug 2003, 6:37 p.m.*

Hi

I've been busy trying to revive the printer of my HP97. The main problem so far is a nylon gear some 10 mm in diameter, 30 teeth, that is turning into powder.

I'm sure it doesn't have to be nylon, may be nylon was chosen to porvide a smooth movement. Have you been trying other type of material for this gear ?

Where can I find a replacement for it ? I'm sure the printer in my HP92 will display the same problem when I start to work on it.

Re: Recovering a HP97 printer

*Message #2 Posted by **Katie** on 17 Aug 2003, 7:13 p.m.,*
in response to message #1 by Jose Goncalves (Brazil)

You can use an aluminum gear. Take a look here:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=84

-Katie

Care for 91,92,97 printer

*Message #3 Posted by **Renato** on 17 Aug 2003, 7:55 p.m.,*
in response to message #1 by Jose Goncalves (Brazil)

Hi Jose Ernesto, I´ve read somewhere that the nylon gear can be destroyed if you try to operate the printer without a good battery pack in the topcat calculator. I am not 100% sure, but I guess I did this to my 97.

BTW, your 92 and 97 are Made in Brazil ?

Let´s talk later this week ? I´ve got some new machines.

Renato

Re: Care for 91,92,97 printer

*Message #4 Posted by **jose goncalves (brasil)** on 18 Aug 2003, 11:12 a.m.,*
in response to message #3 by Renato

Thany you and Katie for your help.

My calculators (HP92 and HP97) are Made in Brazil items, yes. In fact, because I live in Brazil, the access

to Brazilian made products is probably much easier and several of the calculators in my colection were Made in Brazil.

Let´s arrange something by phone, Renato

Jose

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HP 71B - plate below hp logo

*Message #1 Posted by **Neil** on 17 Aug 2003, 4:18 p.m.*

Having seen various pictures of the 71b, I noticed that on some 71b's there appears to be a metal plate just below the hp logo, while on the museum's 71b pictures, this plate is not there, or I should say, it looks instead like some kind of black slot with a smaller plate to the right side of it. Upon reading the museum's 71b description, it looks like the card reader/writer is installed.

Does this mean that the larger plate just a cover which can be removed to install the card reader/writer?

Re: HP 71B - plate below hp logo

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 17 Aug 2003, 4:24 p.m.,*
in response to message #1 by Neil

Hi;

yes, there is a "protective" plate that must be removed prior to install the card reader. Also, there is a 32KRAM module that fits in the same place.

Luiz (Brazil)

Yes, that is the card reader

*Message #3 Posted by **Mike** on 18 Aug 2003, 1:04 a.m.,*
in response to message #1 by Neil

You can install a card reader blank or one of many other memories.

There are 32K RAM, 32K RAM/EPROM, 64K RAM/32K EPROM, 96K RAM, 128K RAM and who knows what else.

Re: Yes, that is the card reader

*Message #4 Posted by **Neil** on 20 Aug 2003, 5:14 p.m.,*
in response to message #3 by Mike

Thanks for all the feedback on this. I actually wanted to know because there was an ebay auction where the seller stated that the only marking on the calculator was engraved numbers on this plate. It was then I checked the photos in the museum and I noticed that that 71b was different to the one in the auction.

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Question for HP-48GX Experts

*Message #1 Posted by **John Smith** on 17 Aug 2003, 3:21 p.m.*

Do any of you know GRiD 1 MB RAM CARD is for? Perhaps would be kind enough to explain the functionality of that card. Thanks,

John

Re: Question for HP-48GX Experts

*Message #2 Posted by **Raymond Del Tondo** on 17 Aug 2003, 5:26 p.m.,*
in response to message #1 by John Smith

Hi,

as you wrote, it's a RAM card. It can be used in slot 2 of the GX, and offers eight additional ports of 128K RAM each.

Regards,

Raymond

Re: Question for HP-48GX Experts

*Message #3 Posted by **John Smith** on 17 Aug 2003, 5:41 p.m.,*
in response to message #2 by Raymond Del Tondo

Raymond,

Thank you for your reply. What I meant to ask is that is this GRiD brand 1 MB ram card similar to HP 1 MB ram card? In other words, will it increase HP-48GX's ram additional 1 Meg as HP, TDS, and RAMSS 1MB ram cards do? Thanks.

Re: Question for HP-48GX Experts

*Message #4 Posted by **Erik Ehrling (Sweden)** on 18 Aug 2003, 4:28 p.m.,*
in response to message #3 by John Smith

I have a 1MB GRID RAM card and it works in every respect as any other 1MB HP48GX RAM card.

Regards, Erik Ehrling (Sweden)

Re: Question for HP-48GX Experts

*Message #5 Posted by **John Smith** on 18 Aug 2003, 11:40 p.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Erik,

Thanks for the info. I was looking for someone just like you who has the working knowledge with this GRiD brand card. Can you share some knowledge with me? Does it require battery or batteries? How often do you need to change them? What kind of battery (brand and number) do you use? Can you also perhaps provide me some instructions on how to reset the calculator after inserting the card etc. Perhaps you can refer me to card manual in the Web site so that I can download? Any further help would be highly appreciated. I'm asking a lot of questions because all I have is the card. No batteries and no manual. Thanks.

John

Re: Question for HP-48GX Experts (Erik)

*Message #6 Posted by **John Smith** on 19 Aug 2003, 5:05 p.m.,*
in response to message #4 by Erik Ehrling (Sweden)

Erik,

Thanks for the info. I was looking for someone just like you who has the working knowledge with this GRiD brand card. Can you share some knowledge with me? Does it require battery or batteries? How often do you need to change them? What kind of battery (brand and number) do you use? Can you also perhaps provide me some instructions on how to reset the calculator after inserting the card etc. Perhaps you can refer me to card manual in the Web site so that I can download? Any further help would be highly appreciated. I'm asking a lot of questions because all I have is the card. No batteries and no manual. Thanks.

John

Re: Question for HP-48GX Experts (Erik)

*Message #7 Posted by **Ben Moss** on 19 Aug 2003, 6:36 p.m.,*
in response to message #6 by John Smith

Hi John,

It takes a CR2016 3 volt watch battery. The instructions say to change it every year and I've always done that without problems. You change the battery while the card is in the calc (With the calc turned on) so that you don't lose the data.

After you insert the card into slot 2, turn the calculator on. It will say "Invalid Card Data". Type 'PINIT' and all is good.

I've read that you should not let the calculator's AAA batteries drop too low while using a GRiD card. I'm not sure why, but you might want to search comp.sys.hp48 usenet archives about it.

Hope that helps, Ben

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Did anyone notice this {HP33S}

*Message #1 Posted by **Naim** on 17 Aug 2003, 8:25 a.m.*

It has a display button and it also has a ENG button. Does that make sense? Or am I missing something?

"Shortcut"?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 17 Aug 2003, 11:19 a.m.,*
in response to message #1 by Naim

Hi, Naim;

I see what you mean. Have you thought that it may be sort of fast "choice selection", or even a shortcut? If you see also, there is a MODES key and RPN/ALG selection key, and I would not be surprised if the "MODES" menu contain ALG and RPN keys as well.

My 2¢.

Luiz (Brazil)

Re: Did anyone notice this {HP33S}

*Message #3 Posted by **Paul Brogger** on 18 Aug 2003, 2:18 p.m.,*
in response to message #1 by Naim

In the summary of features, the "ENG" key must be what is referred to by "engineering notation conversions: ->ENG, <-ENG". (And that, in turn, may explain the otherwise puzzling green left-arrow above ENG.)

FIX, ENG, and SCI are joined by "ALL" in the features list.

My $.02 on the 33S

*Message #4 Posted by **Katie** on 18 Aug 2003, 9:02 p.m.,*
in response to message #1 by Naim

Did anyone noticed that the "Rmdr" function is the only one in mixed (upper/lower) case? I like that HP finally added a remainder to a low/middle-end calc (along with integer divide) but its inconsistent labeling really stands out -- so much so that I'll bet that this is not the final version and (like someone else pointed out on comp.sys.hp48) perhaps this photo/mock-up/whatever is just a test balloon floated to see what people's reaction to the design is.

Re: My $.02 on the 33S

*Message #5 Posted by **Patrick** on 19 Aug 2003, 1:26 a.m.,*
in response to message #4 by Katie

If the 33S is really due for release in the Sept/Oct time frame, I seriously doubt there is time to re-design

the keyboard, even if it is as simple as a re-labelling of some functions.

This is just a gut feel based on the lead time in my industry (custom software development). Perhaps someone with industrial production experience can comment more authoritatively.

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Pioneer keyboard (esp. HP-42S)

*Message #1 Posted by **Erik Ehrling (Sweden)** on 17 Aug 2003, 7:48 a.m.*

Hi all!

I have two keyboard problems with two of my HP-42S calcs.

1) On a USA built Rev A the LN key has become unresponsive. It works if I press it firmly but not with a light press (all other keys do).

2) On a Singapore built Rev B the STO key has a very annoying clicking sound. Sometimes the sound goes away if you press it two or three times, but it comes back if you have not pressed it for some time.

Is there anything I can try to fix these calcs? (Blowing them with compressed air? Cleaning them in a ultrasonic cleaner? Anything else?)

Best regards, Erik Ehrling (Sweden)

Re: Pioneer keyboard (esp. HP-42S)

*Message #2 Posted by **Randy Sloyer** on 17 Aug 2003, 8:43 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Take the batteries out of both and give them several passes in distilled water in an ultrasonic cleaner. Ten minutes is usually enough on each pass. Stop midway through each cycle, take the unit out of the water and press each key several times. This changes the water inside each key dome area. Change the tank water after each 10 minute cleaning cycle. You might be temped to clean both at the same time, don't unless the cleaner is large enough to hold them without touching. The cases and bezels will develop wear marks should they touch.

When you've done two or three cycles, shake out all the water and let dry for two days in a warm place.

Unit 1 may clean up and be okay as the LN key gets low usage compared to the 0-9 and basic 4 (+-*/). If it was one of those keys, I wouldn't have a lot of hope. I've found the older USA and early Singapore units to develop this type of failure, it's due to the conductive material flaking off in the domed part of the switch.

Unit 2 will probably clean up fine, sounds like a spill of something got into the keyboard.

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MoHPC *The Museum of HP Calculators*

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OT: SAT Pictures of the blackout

*Message #1 Posted by **Vassilis Prevelakis** on 17 Aug 2003, 4:36 a.m.*

OK, OK its off topic, but I think its neat. The pictures show the extent of the disruption last Thu.

http://www.noaanews.noaa.gov/nightlights/blackout081403-20hrsbefore-text.jpg

http://www.noaanews.noaa.gov/nightlights/blackout081403-20hrsbefore-text.jpg

http://www.noaanews.noaa.gov/nightlights/blackout081503-7hrsafter-text.jpg
http://www.noaanews.noaa.gov/nightlights/blackout081503-7hrsafter-text.jpg

Re: OT: SAT Pictures of the blackout

*Message #2 Posted by **Scuba Diver** on 17 Aug 2003, 9:12 a.m.,*
in response to message #1 by Vassilis Prevelakis

Great pictures! I saw another set of satellite pics in the paper yesterday, however the difference wasn't as dramatic.

B.

It was caused by aliens

*Message #3 Posted by **Patrick** on 17 Aug 2003, 1:36 p.m.,*
in response to message #1 by Vassilis Prevelakis

You've got the proof right here!! Notice the bright straight line extending from Detroit to Montreal **after** the blackout? I mean, it *couldn't* be anything else!!!!!

I heard there were also crop cirlces found on the ground all along that line.

As far as I'm concerned, this gets Norm off the hook.

Re: It was caused by aliens

*Message #4 Posted by **db(martinez,california)** on 17 Aug 2003, 5:46 p.m.,*
in response to message #3 by Patrick

Patrick, you said "As far as I'm concerned, this gets Norm off the hook."

No it doesn't. Norm IS an alien.

Re: OT: SAT Pictures of the blackout

*Message #5 Posted by **Michael F. Coyle** on 17 Aug 2003, 10:24 p.m.,*
in response to message #1 by Vassilis Prevelakis

Hey, I can see my house from here!!!

Seriously though, great pictures. Thanks!

- Michael

Re: OT: SAT Pictures of the blackout

*Message #6 Posted by **bill platt** on 18 Aug 2003, 10:25 a.m.,*
in response to message #1 by Vassilis Prevelakis

Excellent photos of the blackout!

BTW, a guy from my office had to drive from Newark Airport to our office in Connecticut that evening. He was picking up two european business partners at the airport---they landed at exactly the time of the blackout! I guess the europeans will have some stories to tell!

Anyway, he said that driving by NYC with absolutely no lights on in any of the buildings was him just about the eeriest feeling imaginable. The only feeling that trumped it was the feeling he got after September 11, 2001, driving by and not only seeing, but feeling a hole in the skyline.

Regards,

Bill

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HP Journal for the Integral PC

*Message #1 Posted by **Vassilis Prevelakis** on 16 Aug 2003, 7:19 p.m.*

The October 1985 issue of the HP Journal contains a lot of very interesting info on the Integral PC, a luggable Unix workstation.

http://www.series80.org/HP-Journal-IPC/Images/OS-I0001.JPG

The issue is about 36 pages and covers the construction of the unit itself and the version of Unix it runs.

You can either get a monster PDF file (19 Mbyte) http://www.series80.org/HP-Journal-IPC/HP-Journal-IPC.pdf or see the individual pages as jpg.

http://www.series80.org/HP-Journal-IPC

Note that clicking on an image will give you the full resolution bitmap.

BTW You can get tons of info on the HP-IPC at http://www.coho.org/~pete/IPC/integral.html

**vp

Re: HP Journal for the Integral PC

*Message #2 Posted by **Les Bell [Sydney]** on 16 Aug 2003, 10:14 p.m.,*
in response to message #1 by Vassilis Prevelakis

Thanks for that, Vassilis. HP loaned me an Integral for a few weeks when they were first released (I was editor of a computer mag, and they knew I was a long-time HP calc enthusiast, so . . .).

It was my introduction to HP-UX, running out of ROM on a 68000. With X on the plasma display, it was uncannily similar to Windows 386 running on the Compaq Portable 386 I bought a few years later. But the Integral even had the printer built-in - quite an amazing unit.

I must have written a review of it at the time, but it's long lost now. If I ever come across it, I'll make sure to post it.

Best,

--- Les [http://www.lesbell.com.au]

Re: HP Journal for the Integral PC

*Message #3 Posted by **Les Bell [Sydney]** on 17 Aug 2003, 12:26 a.m.,*
in response to message #2 by Les Bell [Sydney]

Actually, now that I'm reading through the articles, I'm reminded that the Integral didn't run X - it ran a HP-proprietary windowing system (HP Windows).

Best,

--- Les [http://www.lesbell.com.au]

Re: HP Journal for the Integral PC

*Message #4 Posted by **Vassilis Prevelakis** on 17 Aug 2003, 4:06 p.m.,*
in response to message #2 by Les Bell [Sydney]

Shame about the losing your article on the IPC.

Having such articles presents a historical perspective

For example, I found an article on the HP-85 from the early 80s. Since the magazine (BYTE) is still around (for some small value :-) I got permission to put it up on my site
http://www.series80.org/ByteArticle

To provide real context, ads from that era are also very important: E.g. on the same issue of BYTE there was an ad for a 26 **Mega** byte hard disk for $5000 (Yes, five **THOUSAND** 1980 US dollars).

**vp

Re: HP Journal for the Integral PC

*Message #5 Posted by **Victor Koechli** on 17 Aug 2003, 6:01 p.m.,*
in response to message #4 by Vassilis Prevelakis

Notice the watch on the guy's left wrist in the first picture? They really took care of every detail, didn't they?

Cheers, Victor

Re: HP Journal for the Integral PC

*Message #6 Posted by **Raymond Del Tondo** on 17 Aug 2003, 6:08 p.m.,*
in response to message #5 by Victor Koechli

Yes, and I think I saw this or a similar photo in one of HP's product folders.

Regards,

Raymond

Re: HP Journal for the Integral PC

*Message #7 Posted by **Vassilis Prevelakis** on 17 Aug 2003, 10:50 p.m.,*
in response to message #6 by Raymond Del Tondo

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> Yes, and I think I saw this or a similar photo in one of HP's product
folders.
```

Not the same photo since that was taken by the BYTE photographer and the quality is not really up to the standards of promotional material.

Please remember that in 1980 BYTE was a small-scale operation, closer to (say) Steve Ciarcia's INK, than to PC Magazine.

Technical people in the 70s and 80s were absolutely in love with HP (and I include myself in that group), so its not surprising that the BYTE reviewer had an HP-01. Moreover, people thought digital watches were cool, back then :-)

**vp

Thank you for posting this link!

*Message #8 Posted by **Matt Kernal (US)** on 18 Aug 2003, 1:35 p.m.,*
in response to message #1 by Vassilis Prevelakis

I've been looking for this issue of the HP Journal for quite some time (a couple years :-). I appreciate finally getting a chance to read the articles.

Has this online edition been available for a while, or is it new? I don't see a direct link to it from the series80.org site (as you've posted it in your message), nor have I seen it turn up in various searches I've attempted through Google.

In any case, I'm glad I can now read it. Thanks again!

Matt

Re: Thank you for posting this link!

*Message #9 Posted by **Vassilis Prevelakis** on 18 Aug 2003, 10:57 p.m.,*
in response to message #8 by Matt Kernal (US)

I am glad that you liked it. I think the IPC is a very cute machine and I really view it as an HP-85 on steroids (too bad it doesn't look anywhere near as good as the HP-85).

I put the HP Journal images on the series80.org site last week, but I had the scans for some time.

When I completed the original scan, I did email Peter Johnson to let him know that I had scanned the material, since he has been asking for it on his web site (http://www.coho.org/~pete/IPC/integral.html), but he never replied.

Scans always require some post processing and this is extremely labour intensive with the software I have (Corel Photopaint), so I forgot about these scans till early last week. Then I did the processing, uploaded the PDF file and the images and posted the note.

The reason why there is no direct link from the top page is that the IPC is not really a part of the Series 80.

I don't want to put up unrelated stuff on this site, so if I have stuff that do not fit, I try to send it to the admins of the appropriate websites (e.g. I have scanned a couple of HP-41 and HP-71 manuals, but I gave them to Dave since on the MoHPC site they will be of use to more people).

**vp

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Handbook download - where?

*Message #1 Posted by **Tizedes Csaba** on 16 Aug 2003, 5:37 p.m.*

Hello!

Can anybody help me? I want to know, where I can to download the 'HP15C Advanced Functions Handbook'?

Thank you! Csaba

Re: Handbook download - where?

*Message #2 Posted by **Jim L** on 16 Aug 2003, 7:13 p.m.,*
in response to message #1 by Tizedes Csaba

I don't know of a place to download but you can get it on CD #1 here

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Buying FN1000

*Message #1 Posted by **Paulo Costa** on 16 Aug 2003, 4:59 p.m.*

I've read a discussion about Aurora FN1000, and I'm still in doubt about buy an HP12C or or this cheaper clone. Didn't have it in US? Here in Brazil isn't ease to find, but is a half of price. It is the only RPN financial calculator besides HP?

Re: Buying FN1000

*Message #2 Posted by **db(martinez,california)** on 16 Aug 2003, 8:23 p.m.,*
in response to message #1 by Paulo Costa

Paulo:

As far as i know, only HP and Aurora market RPN calculators. I have not been able to find an Aurora 1000 here in the U.S. I wrote to Aurora twice asking if the 1000 is sold here. They did not return my emails. I could ask a Japanese friend to write by regular mail in conji (it reads basicly the same in Chinese) but there are no conji characters for some modern concepts, like calculator for instance.

BTW: Isn't that interesting that there are two distinct languages, not even related like Spanish and Portugese, that can use the same written form?

Please keep an eye out for another Aurora RPN model and tell us if you see it. We would all be interested.

- d

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Help Please - HP32SII Fractional Display

*Message #1 Posted by **Chris Thomson** on 16 Aug 2003, 12:06 a.m.*

Like so many others, my HP32SII has been a trusty friend for years. My (about 1994) model is helping me do some carpentry framing in Thailand. When I came over here last year, I didn't realize that I would be staying, so I left the instruction manual in storage in the USA.

There are two settings for the Fractional Display mode (FDISP orange shift "." key). The denominator for the fractional display is controlled by the value of /c, blue shift "." key. Mine is on the setting I don't like. I want to be able to change /c value to 8, 16, 32, etc., and have that /c value remain constant. Now it is in some type of float mode that I've never found useful.

I can't remember how to switch the setting. I recall having done it a few times over the years, and that switching the setting is not a straightforward exercise unless one refers to the manual. The manual tells how to do it.

Can someone please post the instructions for switching that setting?

Thank you in advance, Chris Thomson

Re: Help Please - HP32SII Fractional Display

*Message #2 Posted by **Patrick** on 16 Aug 2003, 12:44 a.m.,*
in response to message #1 by Chris Thomson

Sorry, don't know the answer to your question off the top of my head, but here is a link to the HP-32Sii User Manual.

Re: Help Please - HP32SII Fractional Display

*Message #3 Posted by **Chris Thomson** on 16 Aug 2003, 1:03 a.m.,*
in response to message #2 by Patrick

Patrick & Everyone Here:

Thank you so much. I posted here first, then immediately jumped over to HP's website "just for grins" to check & see if they had the answer. Since I knew the HP32SII was discontinued, I never dreamed they would still have support online.

However, to my great satisfaction, the manual was available *free* in .pdf format, and I had it quickly downloaded. Reason I always buy HP - just bought the Compaq laptop I'm writing this on in May.

So, scratch my request.

FYI - Three fractional display modes. Mode I wanted is what they call "Factors of denominator." Procedure is to set flag 8, clear flag 9.

Thanks to everybody, Chris

Re: Help Please - HP32SII Fractional Display

*Message #4 Posted by **Renato** on 16 Aug 2003, 1:08 a.m.,*
in response to message #1 by Chris Thomson

I am not sure if this is what you want, but to enter a fractional number, you enter two decimal dots in the same number.

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OK, we know what's wrong..now, what's right

*Message #1 Posted by **bill platt** on 15 Aug 2003, 11:45 a.m.*

OK. We have a near conensus regarding what is wrong with the supposed new 33S. (We still don't know if it is even real.)

Now, assuming someone from HP *might* be listening, then what is right?

Re: OK, we know what's wrong..now, what's right

*Message #2 Posted by **Paul Brogger** on 15 Aug 2003, 12:54 p.m.,*
in response to message #1 by bill platt

Here's my list:

```
1. New offering with some favorite H-P fundamentals:
     * native RPN (not RPL) with Enter, Roll Down and Swap keys,
     * multiple continuous-memory registers, and
     * storage register arithmetic
2. keystroke-programmable (again, not RPL)
3. plastic keys
   (presumably better than rubber -- someone was listening!)
4. 32K memory
5. two-line display
6. "4-arrow key" should give direct (unshifted) access to SST, BST and scrolling
7. built upon well-integrated and easy-to-use 32s/sii
```

Re: OK, we know what's wrong..now, what's right

*Message #3 Posted by **christof (NoVA US)** on 15 Aug 2003, 2:20 p.m.,*
in response to message #2 by Paul Brogger

Absolutely!

Paul's list is very good- there is one and only one thing I don't like about the 33s enoough to really care. And that's the keyboard. in *every* other respect, it seems to be the upgrade to the 32sii that I want*. Pop that puppy in the 10bii case (kind of ugh, but it's workable) and I'll buy them.

-Christof

*(which doesn't make it an upgrade to the 42S! but that is a totally different issue.)

Re: OK, we know what's wrong..now, what's right

*Message #4 Posted by **Les Bell [Sydney]** on 16 Aug 2003, 1:00 a.m.,*
in response to message #3 by christof (NoVA US)

You know, I can compromise on the keyboard, if two conditions are true:

1. at least it's a decent RPN calc in the other ways described, and

2. the keyboard appeals to new (young?) users, and thereby actually *grows* the RPN community.

If 2. holds true, then it's no bad thing. I'd prefer a more plain-vanilla keyboard, but I don't expect to get everything my own way. I'd just like to be able to buy some kind of RPN machine with a consistent interface for my kids to use in school, as opposed to the god-awful half-prefix/half-postfix Casio things they're stuck with now.

Best,

--- Les [http://www.lesbell.com.au]

Re: OK, we know what's wrong..now, what's right

*Message #5 Posted by **Mark Hardman (Home of the maillot jaune)** on 16 Aug 2003, 12:05 p.m.,*
in response to message #4 by Les Bell [Sydney]

> Quote:
>
> 2. the keyboard appeals to new (young?) users, and thereby actually *grows* the RPN community.

Last night my daughter had her boyfriend and three other members of the "nerd patrol" over to watch DVDs.

Out of curiosity I showed them a side-by-side image of the HP-33s and the TI 34II with identifying marks backed out. I asked, "If both of these were on the shelf at BestBuy, which one would you choose?"

All five teen-geeks emphatically picked the HP-33s.

Comments were:

"Very cool keyboard."
"The silver one looks more modern."
"Very, very krunck(??)"
"Where can I get one?"
"Is there more dip?"

On the other hand, none were impressed with the HP-49g+. And a brief discussion of RPN vs. algebraic entry had them all glazed over and chanting "boring."

Mark Hardman

Edited: 16 Aug 2003, 12:08 p.m.

Re: OK, we know what's wrong..now, what's right

*Message #6 Posted by **Victor Koechli** on 17 Aug 2003, 4:16 p.m.,*
in response to message #5 by Mark Hardman (Home of the maillot jaune)

Well, that's as much proof as there can be, isn't it? I'd give up on this if I were you, guys...

'Krunck' phonetically sounds like german 'krank', which means 'sick'. Like Clockwork Orange, maybe, only borrowing german words instead of russian? So Burgess was wrong...

Cheers, Victor

Re: OK, we know what's wrong..now, what's right

*Message #7 Posted by **db (martinez, california)** on 17 Aug 2003, 6:06 p.m.,*
in response to message #6 by Victor Koechli

"Burgess was wrong..." Maybe so, but lubbywubbing and synthemesc are still popular. The ultraviolent is taken care of by the government though.

BTW: I plan to buy a 33 to throw in the glove compartment. I may even use it some. I will not program it extensively. No matter how good it may turn out to be; without mass storage capacity it is just a rat hole. After loosing 6k of programs on a 42 i am not impressed at all by 32k that is not backed up on something permanent.

32k (Long)

*Message #8 Posted by **bill platt** on 17 Aug 2003, 6:28 p.m.,*
in response to message #7 by db (martinez, california)

Hi db,

There is a positive side to the 32k--but you have to see it from the other perspective. Currently, when using the 32sii, it is quite common to have written a whole bunch of tiny little programs, and equations, each of which is relatively trivial and simple on the fly stuff. Now, the crunch comes when you want to "solve" or "integrate" or do some other thing with the machine---and it runs out of memory. 384 bytes is easy to fill up by hand with off the cuff programs---but it is always a shame when you have to chip away half of them just to get "solve" to work.

(This just happened to me today--wrote a simple program for figuring 2nd moments of areas---and had to clean out some stuff--and then discovered that I needed my 2nd 32sii to have enough memory for my handy beam formulas. All these formulas are trivial and easy to program in--and the "overhead" isn't really an issue because the good engineer is always re-familiarizing and confirming anyway---and further without writing paper documentation for 32sii programs, the operational I/O is so cryptic that you can never remember easily what something is, anyway. Now, why wasn't I using a spreadsheet? Ah, the great question--I DO use them--even on this job, but when you are designing a complicated structure, there is really no other good way in my opinion than having decent size scaled sketches, and a calculator and grid tablet, and you go through the structure and design it--very fluid, very hands on and tactile--very direct, but I am getting of topic.....)

So, the 32k will take care of this problem.

What remains to be seen is whether or not they have worked through any addressing issues to make it possible to use all of that space---as we have seen, the 12CP is really stuck at 253? lines of programming--so I wonder if we will see a significant line number limitation (either documented or not) in the 33S.

---all assuming of course that it is not a HOAX!

Regards,

Bill Platt

yes bill,

*Message #9 Posted by **db(martinez,california)** on 17 Aug 2003, 10:02 p.m.,*
in response to message #8 by bill platt

I had thought of something like that; that one use for the otherwise uslessly huge memory would be if someone needed a lot of space for solving a big matrix. That is assuming, like you said, that there is a calculator and it is decently programmable.

Re: Did someone say "matrix"?

*Message #10 Posted by **Paul Brogger** on 18 Aug 2003, 2:02 p.m.,*
in response to message #9 by db(martinez,california)

Maybe I'm missing something obvious, but does anyone see any indication that the 33s has any matrix capability whatsoever?

This ain't a 15c or 42s. I think we're talking 27 registers and 32K program space to mess with 'em.

there i go assuming again

*Message #11 Posted by **db(martinez,california)** on 18 Aug 2003, 10:57 p.m.,*
in response to message #10 by Paul Brogger

I was thinking you could both program it like an HP and move the curtain to change the default storage/program memory alocation. I was thinking this about a modern bottom of the line HP whose parameters were probably laid out by mba's.

DOH!

While i think the solve function is a cool idea, quick-dirty-simple and very impressive, it is not how i learned to program. The 42's version was great though.

Re: there i go assuming again

*Message #12 Posted by **christof (NoVA US)** on 19 Aug 2003, 2:34 p.m.,*
in response to message #11 by db(martinez,california)

Well...

Having used multiple stats lists (sum lists) and a few dozen little solver programs on the 17bii, I can say that the 32k could handily be used if the 33 has the ability to do useful things. Maybe matrices are out (and maybe they aren't- how long will it take one of our regulars to write a program for that?), but if the machine has enough useful program cappabilities, then 32k is more than I had ever asked for in a 32s upgrade. The biggest downfall I see with that much space is only having 27 variables. It's still a functionally *very* good upgrade to the 32sii (assuming the keyboard is usable in the end)

to replace the 42, you simply do need I/O. or a backup module. something. I'm going on 10k of data in mine now. gettin kind of scary. At

least I do printouts periodically. I keep hoping for a 42 replacement.

Nerd Patrol :-))

*Message #13 Posted by **Pierre Brial** on 18 Aug 2003, 11:02 p.m.,*
in response to message #5 by Mark Hardman (Home of the maillot jaune)

Great experiment, Mark. HP probably do the same kind to design the keyboard. And I like the words "nerd patrol" I'll keep a copy of your post in my personnal hp archives. All the best Pierre Brial

Re: Nerd Patrol :-))

*Message #14 Posted by **Mark Hardman (Home of the last 5 maillots jaune)** on 19 Aug 2003, 11:16 p.m.,*
in response to message #13 by Pierre Brial

For all our French participants out there, my Nerd Patrol could have been taken directly from the works of André Franquin:

Mademoiselle Jeanne (My daughter)
Gaston Lagaffe (Her Boy Friend)
Jules-De-Chez-Smith-En-Face (The Prankster)
Bertrand LaBevue (The Quiet One)

http://www.gastonlagaffe.com/gaston/index.htm

That boy better keep his hand off of my daughter.
ROGNTUDJEU!!!!

Me and my 32sii, and insufficiency of it...

*Message #15 Posted by **Tizedes Csaba** on 17 Aug 2003, 7:22 a.m.,*
in response to message #2 by Paul Brogger

Hello!

My first (usable) HP calc is an HP32SII (brown with blue-orange shifts). I buy it for my entrance examination. (And I'm a student now in a Hungarian university... ;))

I use it to solve for many-many problems. I very like it, and if I want to use an fast calculator, I choose this machine.

But some things, what I dont like in it:

1.) Equations not editable, only with [BackSpace] key 2.) SOLVE and INTEGRATE not works parralel (try to calculate an half axis of ellipse if the ellipse's half circumfence and another half axis is available... It's a really problem if you want to design plastic tunnels for vegetables. Or try to calculate inverse normal distribution...) 3.) SOLVE don't works with SOLVE, and INTEGRATE don't works with INTEGRATE 4.) Memory is too small 5.) Haven't got AND, OR, NOT and XOR commands 6.) No two character long (or one character+ a number) variable names (like on C=64 :)), no BEEP, no IR (It's not a really problems...) 7.) And a REALLY problem: No METAL case, and no WATERPROOF case and keyboard. (And no shock resisitant, and not dust catchered,...) Its only a table-calculator, and not usable in industry...

Csaba

Waterproof

*Message #16 Posted by **Patrick** on 17 Aug 2003, 1:42 p.m.,*
in response to message #15 by Tizedes Csaba

I have found some ziplock bags at Staples (office supply store) that are almost exactly the same size as a Pioneer. If you slip your calculator into one of those, it is still usable and pretty much protected from the elements. Of course, it still won't withstand the knocks and tumbles of an industrial environment, though. For that we need to have an inexpensive RPN machine so that replacing it isn't too much of a financial burden.

Re: Waterproof

*Message #17 Posted by **bill platt** on 17 Aug 2003, 2:35 p.m.,*
in response to message #16 by Patrick

You can also get really sturdy ziplock bags that are designed for protecting marine VHF walkie talkies. And, you can apply sticky-backed foamp padding to the case and sides of the calculator for protection.....

regards,

Bill

Re: OK, we know what's wrong..now, what's right

*Message #18 Posted by **Erik Ehrling (Sweden)** on 17 Aug 2003, 7:53 a.m.,*
in response to message #1 by bill platt

The best thing with the 33S is that HP is again producing a keystroke programmable RPN calc. This makes it much more likely that they will ever come up with a 43S (i.e. a HP-42S follow-up).

Regards, Erik Ehrling (Sweden)

One thing is missing?

*Message #19 Posted by **bill platt** on 17 Aug 2003, 2:24 p.m.,*
in response to message #1 by bill platt

Well, we have some good posts here! Interesting post from Mark Hardman--I guess we really are a different species after we have been out of school for ten years!

Something is missing on the 33S keyboard: Standard Deviation, and "R". Note that the "Probability" menu has been removed, the Cn,r and Pn, r are now where "MODES" and "DISP" used to be (+/- and "E" keys) but where did the SD and R go? They surely are not in the "modes" menu or the "solve" button, or the "display" buttons?

Another thing: although the keyboard maintains most of what was already there on the 32sii, it does nothing but worsen the "consternation factor" regarding having menues sort of scattered about the keyboard willy-nilly. Valentin would surely second these comments--he is right about this menu scastering--I still get a bit befuddled using my 32sii menus--especially if I have not had to dive into one in a while.....

But maybe this really is a hoax? I mean, how could they throw out hte Standard Deviation?!

Regards,

Bill

Edited: 17 Aug 2003, 2:30 p.m.

Re: One thing is missing?

*Message #20 Posted by **Tom Scott** on 17 Aug 2003, 6:30 p.m.,*
in response to message #19 by bill platt

I think the standard deviation function is on the same key as on the 32SII (i.e., above the 1/x key). I would imagine that the "r" function is in the "LR" menu on the LN key.

Tom Scott Lander, WY

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I was working on

*Message #1 Posted by **Norm** on 15 Aug 2003, 3:41 a.m.*

I was working on an HP-34C and when I plugged it into the wall it seems to have caused some sort of power blackout.

Dang they said these classic units used a lot of power..... I'm worried somebody might figure out it was my fault.

Re: I was working on

*Message #2 Posted by **Ernie Malaga** on 15 Aug 2003, 4:23 a.m.,*
in response to message #1 by Norm

> Quote:
>
> I was working on an HP-34C and when I plugged it into the wall it seems to have caused some sort of power blackout.
>
> Dang they said these classic units used a lot of power

Those LEDs will kill ya.

-Ernie

Re: I was working on

*Message #3 Posted by **Juergen (CH)** on 15 Aug 2003, 7:48 a.m.,*
in response to message #1 by Norm

Be cautious! Write down all your 34C know-how and send it to Dave before you make any further experiments...

...I get it

*Message #4 Posted by **Bob** on 15 Aug 2003, 8:36 a.m.,*
in response to message #1 by Norm

Funny post.

Re: I was working on

*Message #5 Posted by **jimc** on 15 Aug 2003, 2:21 p.m.,*
in response to message #1 by Norm

Live anywheres in the Midwest? :p

Illegal Use of Unregisterd Electronic Devices

*Message #6 Posted by **Director of Homeland Security** on 15 Aug 2003, 5:18 p.m.,*
in response to message #1 by Norm

From: Department of Homeland Security Reference: post to MoHPC 15 Aug 2003

Sir (aka "Norm"):

We are informing you that your use of said electronic device is a violation of USCj 1334 Subpart g(ii)c, "Non-Compliant Electronic Devices" and you will pe prosecuted to the fullest extent of the law.

Quote from USC 1334 Subart g(ii):

"(a)...any and all electronic devices shall be constructed with a 'v-chip' which enables the Department to examine the device communication history. (b) The Department shall be empowered to collect 'v-chip' data upon reciept of a valid Federal subpoena. (c) All devices which were manufactured prior to Nov 17, 2002 shall be registered with the Department. Form GAO-DHS-011-3 may be obtained.....

"iii. Mandatory Minimum Sentencing. The minimum sentence for violation of this subpart shall be:

"a) for violators with non-compliant Texas Instrument Devices: confiscation of said device and mandatary replacement with SunnyPlains solar 4-function calculator for a 2 year period.

"b) for violators with non compliant Hewlett-Packard Devices: confiscation of said device and subsequent cleansing treatment, consisting of placement of device on active CSX railroad tracks for a minimum exposure period of 48 hours...."

Your trial date will be sent to you via Registered Mail.

So it was YOU! (OT Blackout Report)

*Message #7 Posted by **Michael F. Coyle** on 15 Aug 2003, 5:56 p.m.,*
in response to message #1 by Norm

Hi Norm,

Yeah, those old LED machines will really suck up the power...why do you think they come up in FIX 2?

They'll find you by tracing the red-hot wires all the way back to your house.

That'll teach you never to use a penny in the fuse box.

By the way, I live on Long Island, New York. The blackout hit at 4:12 PM local time, giving us over three hours of daylight for the commuters to find their way home. I live and work in the suburbs, so no problem for me. Power was restored to my house at about 3:15 AM. I had no damage or problems, just had to clean out the fridge and reset a couple of clocks.

I was proud to see that my fellow New Yorkers took it all in stride...civilians directing traffic, just about everyone polite, no looting, crime or fires. There was a little bit of oppurtunistic price gouging ($5 bottles of water, $2 hot dogs) but one store was giving stuff away for free -- flashlights, sneakers, etc.

There were no deaths reported and perhaps just minor injuries caused by the blackout. It's inconveinent but maybe we should have one of these things every 20 years or so, just to show everyone (and ourselves) just how decent New Yorkers can be. It won't offset the bad publicity of the other 19 years, but what the heck.

- Michael

I thought it was MY fault.

*Message #8 Posted by **Michael Meyer** on 15 Aug 2003, 6:44 p.m.,*
in response to message #7 by Michael F. Coyle

I spent my lunch hour yesterday installing a new UPS at my office... hard work to move everything, get behind a cabinet, etc. The blackout hit hours later. (Not here in lovely Nebraska)

You know, when you wash your car it rains. I installed a UPS... so power went out elsewhere.

Isn't that a coincidence... that I was essentially preparing for a blackout and hours later there's a big one!?

Naaah.

*Message #9 Posted by **Ernie Malaga** on 15 Aug 2003, 7:13 p.m.,*
in response to message #1 by Norm

I have a much better theory to explain the blackout. Some sentimental fool in Philadelphia must have switched on good ol' ENIAC to celebrate its 57th anniversary... running a long extension cord from nearby NYC "just in case".

18,000 vacuum tubes will do that to you!

-Ernie

Blackouts and ERO's

*Message #10 Posted by **Karl Schneider** on 16 Aug 2003, 7:37 a.m.,*
in response to message #1 by Norm

> Quote:
>
> I was working on an HP-34C and when I plugged it into the wall it seems to have caused some sort of power blackout.

Now, Norm, I assume that you live in greater Portland, OR (as I do), from your having previously mentioned visiting Fry's in Wllsonville (as I have). If so, your connection to the electric network is outside the northeastern electric reliablity organizations.

So, not to worry -- not that you were... ;-)

Re: Blackouts and ERO's

*Message #11 Posted by **Michael F. Coyle** on 16 Aug 2003, 9:21 p.m.,*
in response to message #10 by Karl Schneider

Four words: Very Long Extension Cord

- Michael

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I was working on

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HP-67 for $760

*Message #1 Posted by **Nick** on 14 Aug 2003, 10:30 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3039688962&category=11713

This HP 67 is going for $760, and it has 22 hours to go still. And the battery won't hold a charge. Yikes, I definetely need to sell mine now.

Re: HP-67 for $760

*Message #2 Posted by **Victor Koechli** on 15 Aug 2003, 3:05 a.m.,*
in response to message #1 by Nick

Keep yours. The 67 is so fun to use, and you'll have trouble finding a comparable quality calculator anywhere. I only recently bought a 67 (finally!) that needed some serious keyboard repair, but it could be done quite easily.

Honestly, I can't believe that this price is really gonna be paid. You would be crazy...

Cheers, Victor

Re: HP-67 for $760

*Message #3 Posted by **Gary** on 19 Aug 2003, 6:52 p.m.,*
in response to message #1 by Nick

This auction finally ended with $810.00 as the final bid. Note how the winning bidder has zero (0) feedback. Looks like bid rigging to me.

Re: HP-67 for $760

*Message #4 Posted by **David Smith** on 20 Aug 2003, 3:32 p.m.,*
in response to message #3 by Gary

If it was bid rigging, then the guy with the (0) feedback probably would not have wound up with the final bid.

But then, I have noticed that when a person with a reputation for bidding way above prevailing market values is around (JOE_OIL, THERWIL, JONCONALI, etc) that (0) bidders seem to pop up and drive the bids even higher. It is very rare that they actually get stuck with the high bid. I don't know how often they actually pay for it.

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New HP32Sii Platinum Model

*Message #1 Posted by **Renard** on 14 Aug 2003, 9:07 p.m.*

If you're a financial person, you're currently in heaven when it comes to the range of "Classic" look calculators you can currently choose from - HP10Bii, HP12C and also the HP12C Platinum (overkill?). It's either a drought or a flood at HP it seems, come on!! ....a HP12C and a HP12C Platinum at the same time? (but currently absolutely no basic scientific model). It's obvious that the financial business minded bean-counters at HP (not scientists) decide the models. Imagine a HP42S, a HP32Sii and a HP32Sii Platinum available at the same time (with no basic financial model available for 2 years)!!!

Now if the same look as now exists in the current financial range was now available in the scientific range then I would be in heaven too. The HP33S should look like the HP10Bii, the HP11C should be added to the current HP12C production line (the moulds are exactly the same) and just for good measure add a HP11C Platinum to the existing HP12C Platinum production line now running and pumping out machines. The HP11C Platinum (or HP11Cii) could be included just to prove the point that HP can produce an over-kill of scienticfic "classic" look calculators just like now exists with the current financial "classic" look range.

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HP-42S With 32K

*Message #1 Posted by **Tom Cox** on 14 Aug 2003, 8:34 p.m.*

Have had a modified unit for a couple of months now and it works just great. Fortunately, the 42S is rock-stable and there is not much danger in losing memory. It took me many hours to key in the nearly 8k of programs I had in machine before the unit was modified.

I would be really upset if I had machine nearly full of 32k and crashed it as it would take a looooooooong time to key in that much stuff.

Will reserve judgment on 33S until more details and reports are available -- but, the features appear to make it a suitable substitute for 32SII. For someone that uses matrices, it would not seem to be a reasonable substitute for 42S.

Unless the reviews are outstandingly bad, will probably purchase one just to see what it can do. As for the keyboard, I can probably get used to it. Perhaps HP was copying the TI-34 when they made Integer Divide a top level key.

Does anyone know when the 33S will actually be available for sale?

All things considered, for $50-$60 the HP-33S appears to be a reasonably priced machine.

Re: HP-33S With 32K

*Message #2 Posted by **Paul Brogger** on 15 Aug 2003, 10:55 a.m.,*
in response to message #1 by Tom Cox

I think the reasoning behind 32K in the 33s is "no practical limit" -- a vast improvement over the mere several hundred bytes offered by the 32s/32sii. From that perspective, the lack of I/O, while unfortunate, is not illogical.

Also (and without really knowing anything about the subject) I suspect that, given the reliability of current fabrication processes and chip yields, 32K is not significantly more expensive than would have been a 2K or 8K addition to the CPU circuit. (That assumes they're on the same chip. If no one gets there before me, mine will be dismantled soon after I get my hands on it.)

Note that the 32s/sii programming model for line numbers (three digits unlabeled, plus 26 labels with two-digit suffixes for each) has a potential range of at most ~3,600 lines. The 33s' 14-character display lines (up from 12) must be dictated by the availability of 32K bytes of storage, if that is to be made available to programmers.

I note the addition of a "space" function, implying a "space" character -- that wasn't available in the 32s/sii, was it? That could imply variable and program naming, or maybe it's just a syntactic requirement elsewhere?

Space in 32sii

*Message #3 Posted by **bill platt** on 15 Aug 2003, 11:13 a.m.,*
in response to message #2 by Paul Brogger

Hi Paul,

There is a space in the 32sii---it is on the R/S key and it is only active when in the equation writer. Remember that in the 32sii, the equation writer can be used a number of ways:

1. You can write equations in the "equation list" and solve them for any varible. The "equation can be either an assignment, an expression, or an equality. Then, you can solve it, using "solve"

2. You can write equations in PROGRAM mode. This way, you can sneak algebraics into your programs. The equation takes up one "line" in hte program, and it can be solved in the program etc.

3. By setting a flag, you can use the equation writer in PROGRAM mode, but instead of treating the equation as a mathematical expression, it will instead just dump the contents to the display via a "pause" so that you can have text messages!

And also, you can integrate, too. So, for lots of stuff, this is just soo much more than the 11c ever was (and 19 times faster, too). But I still like the 11c. It is a beautiful thing.

So that's the long of the short of it.

regards,

Bill

Edited: 15 Aug 2003, 11:16 a.m.

Re: HP-33S With 32K

*Message #4 Posted by **John Moore** on 20 Aug 2003, 6:16 a.m.,*
in response to message #2 by Paul Brogger

I do not think that the 33s has 32K-bytes. It is more likely to be 32K-bits. The CPU is a SPLB31A. The specification can be found here:

http://www.innotech.co.jp/sunplus/products/p_splb.html

and here:

http://w3.sunplus.com.tw/products/lcdcontroller/confirmsheet/lb31a_cm.pdf

The CPU has 4 K Bytes. This is the same as 32K-bits. I think someone has made a mistake.

It could use an extenal RAM but this would add a lot to the cost. The 12C Platinum uses a CPU from this range.

Re: HP-33S With 32K (bits?)

*Message #5 Posted by **Paul Brogger** on 20 Aug 2003, 9:39 a.m.,*
in response to message #4 by John Moore

In the 33s' description (as provided) there are enough grammatical mistakes and clumsy turns of phrase to make your observation very plausible.

4K would be more in line with the lack of electronic I/O and the apparent limitation of 27 registers, while still being a vast improvement over the severely hamstrung 32s/sii memory. Another benefit

would be reduced need to alter the 32s/sii user programming address scheme (limited to something like 3573 lines, if I've got it right).

Quite apart from the obviously ugly keyboard, all this speculation about actual *capabilities* has me checking hpshopping.com regularly . . .

Re: HP-33S With 32K (bits?)

*Message #6 Posted by **bill platt** on 20 Aug 2003, 11:05 a.m.,*
in response to message #5 by Paul Brogger

Hi Paul,

But isn't most of the memory in these calculators used up in the built-in functions and routines? In other words, this 4k may not be any more than the existing memory in the 32Sii?

regards,

Bill

Re: Not 4K (but I'm no expert)

*Message #7 Posted by **Paul Brogger** on 20 Aug 2003, 11:52 a.m.,*
in response to message #6 by bill platt

I understand that "secret" registers are used for STAT & complex number operations, and probably for SOLVE, but I would think only a handful.

Remember (for example) in the Woodstocks, the statistics features took up 6 registers that were otherwise made available for general use. I think as memory got cheaper, these registers were simply allocated in the background, and dedicated to statistics uses to simplify the user interface.

I assume similar things are done with SOLVE, etc. But again, that shouldn't take too much memory.

But then, what do I know? Maybe they've implemented a huge jump table in RAM to allow dynamic patches to the OS Kernal and support viruses & worms . . .

Re: Not 4K (but I'm no expert)

*Message #8 Posted by **bill platt** on 21 Aug 2003, 12:23 p.m.,*
in response to message #7 by Paul Brogger

Hi Paul,

Somewhere here recently someone posted about how much ROM is used up in implementing the machine's functions (like sine cosine etc) I think it was Gene who posted.

Anyway, what I am guessing is that much of that 4 kB would be used up in ROM as opposed to user RAM. Am I confused?

BTW, just read your contribution regarding taking apart Pioneers----so, how is your black stealth 14-BS doing?!

Regards,

Bill

Re: Stealth 42s

*Message #9 Posted by **Paul Brogger** on 22 Aug 2003, 4:24 p.m.,*
in response to message #8 by bill platt

I was assuming the 4K referred to RAM, and that the ROM was a different number. If they're combined as 4K either/or, I think we're not going to see much user memory in a 33s! Someone probably has some idea how much ROM it takes to implement something like a 32s/33s -- I 'll bet it's a LOT more than 4K!

I have two Dr. Frahnkenshteen HP-42s'. One is all black, upgraded to 32K, with some sort of keyboard or power-short problem. IIRC, it randomly resets itself, quickly uses batteries and dies. The other is a 32K model too, in a 17BII with most keys and the faceplate black, but the numerals, operations, and a few other shared keytops exposed. It's doing great.

In addition, I bought 42s with a sticky keyboard a while ago. A few attempts at un-sticking it don't seem to have worked. Way down on my projects list is performing "keyboard surgery" to replace its internals, and documenting the whole process with pictures. But that's just not going to be done anytime soon.

Re: Stealth 42s

*Message #10 Posted by **John Moore** on 22 Aug 2003, 7:16 p.m.,*
in response to message #9 by Paul Brogger

THe SPLB31A CPU has 256K ROM and 4288 bytes of RAM. It can address up to 4 megabytes externally. It has all the hardware needed for a display and keyboard. Using just the CPU would make the calculator cheap to build, adding external chips puts up the cost.

The calculator must have a least 4K-bytes or 32K-bits of RAM. It could have RAM external to the CPU , though I doubt this. It has 256K of ROM, more than enough for all the functionality

http://w3.sunplus.com.tw/products/lcdcontroller/datasheet/lb31av03.pdf

Re: Stealth 42s - A guess...

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 23 Aug 2003, 3:43 a.m.,*
in response to message #9 by Paul Brogger

Hi, Paul;

I read your post and it made me remember I want to catalog the available 32KRAM chips for the HP42S/HP42S+ upgrade. BTW, have you tried to remove/replace the 32KRAM chip in the all-black, self resetting Frahnkeshteen? The high-current drain made me think of RAM chip as the cause. Just a guess...

In time: do you know where did I find related 32KRAM with ID code close to the ones I used in some HP42? Ancient hard-disk controler board (two so far, one with two 32K IC's and another with only one), an old sound board (with three IC's, two

already used) and a controler ISA-type board for a hand-pulled, colored Genius scanner. The only board I could remove the IC's is the sound board; the others are still in use. As I mentioned, I'll collect data and post later.

Best regards.

Luiz (Brazil)

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Pampered Texas Instrument Calculator users

*Message #1 Posted by **Max** on 14 Aug 2003, 7:24 p.m.*

Do you think HP would go to the trouble of giving HP calculator users one of these? (see below site) - Hey Man they're really breast fed at TI!!

http://education.ti.com/us/product/accessory/keyboard/features/features.html

Re: Pampered Texas Instrument Calculator users

*Message #2 Posted by **Garry H.** on 14 Aug 2003, 7:30 p.m.,*
in response to message #1 by Max

Going to need one of these when I'm 70 years old.

Re: Pampered Texas Instrument Calculator users

*Message #3 Posted by **Les Bell [Sydney]** on 14 Aug 2003, 8:03 p.m.,*
in response to message #1 by Max

I've got to hand it to them; TI is running rings around HP these days, in terms of product design (they're actually *designing* things, not just picking from a Kinpo OEM product list), support (manuals, applications, etc.), marketing (obviously) and probably build quality (I haven't used a TI since my TI-59A crapped out after only a few months of use).

Sad to see.

Best,

--- Les [http://www.lesbell.com.au]

Re: Pampered Texas Instrument Calculator users

*Message #4 Posted by **VPN** on 15 Aug 2003, 4:48 a.m.,*
in response to message #3 by Les Bell [Sydney]

Well TI cut back the manual size for the new TI 89 (I used to own the old model with good manual) and the new HP is promised to have a much bigger manual.

There is no SD card model in the TI calculator line.

The keyboard of all the TI sucks big time. There is no key-click whatsoever. THAT you call "design"? Eat my socks! The new Kinpo models ARE designed specially for HP.

You can find enough applications for the 49G models to fill up a SD card here: www.hpcalc.org

Re: TI Keyboards

*Message #5 Posted by **Paul Brogger** on 15 Aug 2003, 11:36 a.m.,*
in response to message #4 by VPN

I disagree re: "ALL" TI keyboards. I think the TI-83+ Silver Edition (plastic, not rubber keys) has as good a feel as can be found in a modern device. Not as good as older H-P's, but still fine.

If the 33s feels even that well, I'll consider it a step in the right direction.

Re: Pampered Texas Instrument Calculator users

*Message #6 Posted by **Speck** on 15 Aug 2003, 9:26 p.m.,*
in response to message #1 by Max

I would understand the keyboard for people who did serious programming on the machines, but most who do already have PC's and are using all the SDK's, GraphLink editors and the VTI emulators they can get their hands on. Besides, most people using TI's don't even know how to program them (but then, I STILL haven't figured out how to program my 49G yet, so who am I to talk?). You do have to hand it to TI, though, for their ambition to get their machines into the classrooms. Looks like it's really paid off for them. Are you listening, New HP?

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HP11C LCD Display "Corrosion"

*Message #1 Posted by **Daniel** on 14 Aug 2003, 6:32 p.m.*

Does anyone know what causes the black "sandwich bite" corrosion effect which gradually "eats" along the perimeter edges of the HP11C LCD display and generally increases with time - oxidation? The display still functions OK (seemingly) but will eventually encroach into the digits and render them unreadable.

How do you stop this? - store the calculator in a zip plastic bag away from the air? or in a vacuum seal bag? --to stop the corrosion increasing.

Can the LCD be replaced by a HP11C LCD spare part and what is the HP spare part number for the HP11C display?

Alternatively, what is the HP Spare Part number for the HP12C or 12C Platinum display to order from HP? (if compatible)

Failing all of the above options, would it be feasible to purchase a currently available HP12C or HP12C Platinum and cannibalize the LCD display from these models to put into the HP11C?

Thanks

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End of Evolution (long)

*Message #1 Posted by **Ernie Malaga** on 14 Aug 2003, 1:16 p.m.*

I wish I could remember who said first what Iâ€™m going to say now. The idea isnâ€™t mine; if you disagree with it, donâ€™t blame me.

The point I want to make is that devices are first created using a less-than-ideal design, which keep improving through the years as user feedback arrives pointing out possible improvements.

But this evolution reaches an end sometime. A time comes when itâ€™s impossible to further improve on utensils such as spoons and forks, chairs, toothbrushes, and so forth. You can make an aesthetic improvement, but not one of functionality. You can also add gee-whiz gimmicks and doodads, but you canâ€™t really make the product better.

I believe the telephone keyboard belongs in this category. It reached its plateau many years ago. Making oddly shaped keys or holographic captions wonâ€™t make the keyboard better; in fact, it usually does the opposite. Often Iâ€™ve seen phones (which are designed to look antique) in which the buttons are arranged in a circle. Others have the buttons arranged in a triangle. All these make the phone _difficult_ to use; in an emergency I donâ€™t want to have to figure out where the 9 and the 1 keys are so I can dial 911. Iâ€™d rather have a boring, square-shaped keyboard in which the keys havenâ€™t moved since the 1970s.

Likewise with calculators. Give me a boring rectangular keyboard and Iâ€™ll be happier than if the keyboard were along the lines of HPâ€™s latest abomination, the HP-33S.

-Ernie

Re: End of Evolution (long)

*Message #2 Posted by **hugh** on 14 Aug 2003, 1:48 p.m.,*
in response to message #1 by Ernie Malaga

i have always wanted a telephone with a keyboard the same way up as a calculator.

Keyboards on telephones

*Message #3 Posted by **bill platt** on 14 Aug 2003, 2:18 p.m.,*
in response to message #2 by hugh

Now that isw an interesting idea.

The other day, I was struggling with the HP-45 a bit, since it has the old original locations for the math operators. This got me to thinking: How come I never feel awkward or discombobulated when going from calculator to telephone?! Like, the numbers run opposite, yet I don't fumble!

I guess the brain is a remarkable thing.

So also this is why design is so difficult--since adaptation can sometimes prove to be just fine. Or in other

words, finding the difference between mere stylistic annoyance and truly bad design is not always straightforward.

Re: Keyboards on telephones

*Message #4 Posted by **Marx Pio** on 14 Aug 2003, 3:48 p.m.,*
in response to message #3 by bill platt

The new HP33 keyboard layout designer seems to be the same of nokia cel design center...haha.

Pio

Nokia Mobile Phones

*Message #5 Posted by **bill platt** on 14 Aug 2003, 4:30 p.m.,*
in response to message #4 by Marx Pio

BTW, I read an interesting article about Nokia and Cell Phones in a business magazine about a year ago. It turns out that the guy behind all of their great designs is not Finnish--and neither is their manufacturing chief. The designer is a Southern Califronia dude who dreams about almost nothing but cell phones, and the manufacturing chief is a Princeton grad from the U.S. So much for Finnish ingenuity :-(

Also, my old 1989 Saab 900 had a Nokia spare tire. And our first big CAD monitor in 1994 was a NOKIA. It burned out in 99.

(somebody from Finland, flame me, PLEASE!)

Regards,

Bill

Re: Nokia Mobile Phones

*Message #6 Posted by **Frank B. (Germany)** on 14 Aug 2003, 4:46 p.m.,*
in response to message #5 by bill platt

Hi,

if I remember right it was mentioned in comp.sys.hp48 by JYA that the HP49G in fact was designed by the company which designs Nokia phones ...

Frank.

You remember well

*Message #7 Posted by **R Lion (España)** on 14 Aug 2003, 6:10 p.m.,*
in response to message #6 by Frank B. (Germany)

This is the post from JYA.

Regards
Raul

Re: You remember well

*Message #8 Posted by **Michael Meyer** on 14 Aug 2003, 6:59 p.m.,*
in response to message #7 by R Lion (España)

Anyone remember the weird chairs that came from the '70's? Egg-shaped, uncomfortable, and even comfortable but strange "ergonomic" shapes? Pretty much back to the same chair they had thousands of years ago now.

I like my old chair. And I like my old calculator.

Now, maybe I'm just an "old (slang for flatulence)", but this IS testable. Let's pit someone using an old HP-67 (or equivalent) against someone using one of the new TI's, etc. and give them some problems to solve.

But, alas, I'm very biased. But maybe not.... I remember the great awe I felt as I looked at and held an old HP. Still have the same feeling. I don't get too excited holding a TI-83. Maybe because nothing's so new anymore, but I'll bet there's more to it than that.

Re: Nokia Mobile Phones

*Message #9 Posted by **VPN** on 15 Aug 2003, 4:56 a.m.,*
in response to message #5 by bill platt

So you have found some "foreign" workers on the biggest multi-national cell phone manufacturing company? The design of the circuitry and the outer cell is not entirely Finnish, but the programming is mostly done in Finland. The series 60 platform is the defacto standard in cell phone software engineering and it is certainly Finnish from the root to the leaves. The head of the company, Jorma Ollila, is a genuine original Finn. VPN PS: The flame you wanted:

May the flees from thousand hobo dogs bite you!

Re: Nokia Mobile Phones

*Message #10 Posted by **bill platt** on 15 Aug 2003, 9:00 a.m.,*
in response to message #9 by VPN

Terve VPN,

Thank you for your reply!

Now that I have your attention, let's add some more outstanding Finnish technical and business achievements:

Shipbuilding: Turku and Helsinki (the old Wärtsilä now Aker-Kvaerner) arguably the most capable builders of complex ships in the world.

Software: NAPA (Naval Architectural Package) A remarkable ship design system--including a programming language. Used by many of the world's best yards--not just the Finnish ones.

Engines: Regardless of the business woes of a few years past, one must regard Wärtsilä with admiration.

Yachts: Nautor's Swan. Outstanding. Has been and continues to be the most sought-after production yacht in the world.

The list goes on.

And yes, hobo dog fleas are NASTY! (ouch;^)

Best regards,

Bill Platt

Edited: 16 Aug 2003, 8:39 a.m. after one or more responses were posted

Monty Python's "Finland" (1980)

*Message #11 Posted by **Karl Schneider** on 16 Aug 2003, 7:23 a.m.,*
in response to message #10 by bill platt

Hmm, perhaps Finland is a bit more advanced than as depicted in the 1980 comedy LP, "Monty Python's Contractual Obligation Album":

```
Finland, Finland, Finland
The country where I want to be
Your mountains so lofty
Your treetops so tall
Finland, Finland, Finland
Finland has it all!
```

Edited: 17 Aug 2003, 4:20 a.m.

Re: Monty Python's "Finland" (1980)

*Message #12 Posted by **bill platt** on 17 Aug 2003, 2:40 p.m.,*
in response to message #11 by Karl Schneider

They've been quietly busy up there for 23 years.....

By the way, did you know that Santa Claus really lives in Finland? Thousands of people from around the world--especially from Japan, flock to the "North Pole" in Finland every winter.

But it's the Sauna that is Finland's most envigorating feature. My Finnish friend's father was known for running out of the Sauna in his community and jumping in the snow, only to trot back in for more heat. All stark naked, of course...it just wouldn't be right any other way!

Imagine the sight of Santa Claus doing that---you got the picture!

Edited: 17 Aug 2003, 2:41 p.m.

Re: Nokia Mobile Phones

*Message #13 Posted by **Speck** on 15 Aug 2003, 9:31 p.m.,*
in response to message #5 by bill platt

Nokia sure has come a long way from their days of making toilet paper, haven't they.

Re: Nokia Toilet Paper

*Message #14 Posted by **db(martinez,california)** on 16 Aug 2003, 4:46 p.m.,*
in response to message #13 by Speck

Speck; Was it the thinest and brightest colored? - d

Re: Nokia Toilet Paper

*Message #15 Posted by **Speck** on 16 Aug 2003, 7:46 p.m.,*
in response to message #14 by db(martinez,california)

Probably. I wouldn't know, though. We always got the cheap stuff!

you have a point

*Message #16 Posted by **christof (NoVA US)** on 14 Aug 2003, 7:51 p.m.,*
in response to message #1 by Ernie Malaga

serious users of a telephone don't use triangle layouts with rocker keys.

serious users of a calculator won't use V layouts.

HP has- apparently deliberately (this is obvious enough they CANNOT have missed it) designed a toy. this is not a serious calculator for professionals. It has the *capability* to be one, but HP doesn't want that, so they design a toy cover.

anyone have plans to try making sane keyboards? I'll buy one if ya do.....

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new hp 17bII+ on eBay

*Message #1 Posted by **Juergen (CH)** on 14 Aug 2003, 12:11 p.m.*

Item number: 3041142335

Re: new hp 17bII+ on eBay

*Message #2 Posted by **Raymond Del Tondo** on 14 Aug 2003, 1:12 p.m.,*
in response to message #1 by Juergen (CH)

Thanks for the hint.

I made a bid of 15 dollars, because that's the real value.

It's the same housing as the 10BII, and thus it's likely to be just trash (OMHO).

Raymond

Re: new hp 17bII+ quality

*Message #3 Posted by **christof (NoVA US)** on 14 Aug 2003, 7:45 p.m.,*
in response to message #2 by Raymond Del Tondo

Well, as somene stated previously- i'd take a 42S in that case if it was available.

I'm curious to see how the software handles, really. the upgrade in RAM sound useless until you try to track a small business and home finances in a 17bii using summed lists and solver programs. (hey Randy, ever do a RAM upgrade on a 17bii?)

The description of the machine mentions text handling- maybe they've upgraded the 17bii to a 19bii, heheheheh.

I'm sure the quality of the case is far far far from the quality of the pioneer hardware. And I think it's a bad idea for HP to move away from the Pioneer. It's now old enough and well known enough to be as recognizable by people who know as the 12c is.

That said- I'll use the 17Bii+ ... maybe. I'll certainly buy on and use it as my car calculator. or something. maybe. (but if it's a case of spending *$70* on THAT or finding a 17Bii pioneer for $150 [one can hope], I'll buy another 17Bii)

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HP82494 HP71B Survey Module

*Message #1 Posted by **Stefan Hauschild** on 14 Aug 2003, 9:12 a.m.*

Hello,

I asked this question a few months ago but got no answer. Maybe I am luckier these days. I am looking for a short summary of the functions this module offers. Some things I discovered myself but I am not a surveying engineer so I miss some information. A scan of the manual will although be nice because it is not in the museums files.

Best regards

Stefan

Re: HP82494 HP71B Survey Module

*Message #2 Posted by **Ellis Easley** on 14 Aug 2003, 12:46 p.m.,*
in response to message #1 by Stefan Hauschild

82494 is the model number of a Custom ROM Module. A while back, I posted some information about custom modules from a 1986 HP catalog:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=37334

For information beyond this, the catalog said HP would refer you to third-party software developers who would help you get your application into a custom module.

Try SHOW PORT, it should give the size of the device in the port and the number 2 indicating it is a ROM. 82494 should be a 64K (size 65536) ROM.

I think these were mask ROMs, not programmable ROMs - I think HP would assign a unique model number when a customer's module went into production. Maybe the A or B suffixes indicate EPROM vs. mask ROM. Maybe what you have is a pre-production copy of the module. Try to get a listing of the files in the module with CAT :PORT(n) and post that here. Someone might recognize the module from the file names.

Re: HP82494 HP71B Survey Module

*Message #3 Posted by **Stefan Hauschild** on 14 Aug 2003, 1:08 p.m.,*
in response to message #2 by Ellis Easley

Hi Ellis,

thank you for the information. I think that it is a masked ROM (64k), too, but I didn´t know that these were made avialable by a 3rd party developer.

The exact text on the back of the module shows: "82494 REV 0 SURVEY 1 of 1 SINGAPORE". This seems to be the standard HP label.

The ROM contains some BASIC-files which are protected. If I could find a way to read them my problem is solved.

The files are named: "INPT, CKSUM0, VAL1, INSECT, SURVEY, CONVRG, TRAV, RESECT, POLTAB, SUBTNS, ALTMTH, GEOUTM, AZDIST, HASUN, HASTAR, TRIANG"

When I start "SURVEY" I get a table to choose the desired algorithm or program. But I am not enough of a surveillance engineer. I only unterstand the AZDIST and GEOUTM programs (by the help of a nice book about field surveillance techniques) but the parameters of the other programs are unknown.

Best regards

Stefan

Re: HP82494 HP71B Survey Module

*Message #4 Posted by **Ellis Easley** on 16 Aug 2003, 9:05 a.m.,*
in response to message #3 by Stefan Hauschild

> Quote:
>
> I didn´t know that these were made avialable by a 3rd party developer

I'm sure HP made the ROMs, but the catalog says this:

```
"Custom Products and Programming Development Aids
   Through customization, the powerful HP-41, HP-71, and
HP-75 can be tailored with your own software to perform
the functions that will increase performance productivity.
   Using customer- or third-party written programs, the
HP-41, HP-71, or HP-75 can be customized using Custom ROMs,
EPROMs, Magnetic Cards, and Keyboard Overlays. The HP-41
can also be customized with Custom Keyboard Touchpads and
Bar Code.
   The services of Independent Custom Consultants (ICCs)
make the customization process easy. (A list of ICCs is
available from your HP Sales Representative.) ICCs are
application-oriented software houses with in-depth training
on HP products and system integration. They convert
software to finished Custom Products and can write and
field test software, package the system, write user's
manuals, and more. Choose and contact an ICC to help you
decide if customized HP products can be used to help meet
your needs."
```

So a company specializing in surveying, for instance, could have a ROM made without having their own in-house HP computer software development people.

The reason I think it might be a third-party module is because I would guess that HP would have assigned a unique model number, even in pre-production. BTW, I looked in the same 1986 catalog and found that HP did have a surveying module for the HP-71B, model number 82483A. The catalog has no details other than the model number and its manual isn't on the Museum CD-ROMs. Maybe what you have is a pre-production (judging by "REV 0") release of the HP 82483A.

Re: HP82494/82483 HP71B Survey Module

*Message #5 Posted by **Stefan Hauschild** on 17 Aug 2003, 9:50 a.m.,*
in response to message #4 by Ellis Easley

Hello Ellis,

thank you for your help. I took some interesting facts from your posting. So I decided to modify the header - perhaps someone has some hints on the other module. I think there is a chance that the contents of these two are not too much different. I have looked at the manual of the HP41´s survey module and the HP97´s handbook but these two only gave me some hints on the used algorithms. The HP71 has a more comfortable user interface. I made a picture of the module. The printed letters and the case look exactly like that on my HP-4k-module. As I remember the real 3rd-party-modules have a different character set for the label. When I pulled it out I found an additional description on the back (my fault, should have looked before...) :

104 001 120 2 HTI SURVEY (c) MAY 85

http://www-tkn.ee.tu-berlin.de/curricula/ss03/vl-kts/hp1.jpg

http://www-tkn.ee.tu-berlin.de/curricula/ss03/vl-kts/hp2.jpg

Best regards

Stefan

Re: HP82494/82483 HP71B Survey Module

*Message #6 Posted by **peter (Germany)** on 18 Aug 2003, 4:26 p.m.,*
in response to message #5 by Stefan Hauschild

Hello Stefan,

here is a link to an US army site which contains documentation to the system this ROM belongs to:

http://www.adtdl.army.mil/cgi-bin/atdl.dll/fm/6-2/toc.htm

The complete system was called BUCS (BackUp Computer System). I got mine together with a ROM called DDCT installed in a HP-71, and the web site mentions the SURVEY ROM also. If You should find the manual for the surveying ROM there, please post the link. The HTI SURVEY ROM is completely different from the HP survey ROM. There are other army related HP-71 ROMs, seems that the US army bougt a lot of hp-71 stuff.

-peter

Re: HP82494/82483 HP71B Survey Module

*Message #7 Posted by **Stefan Hauschild** on 19 Aug 2003, 8:24 a.m.,*
in response to message #6 by peter (Germany)

Hello Peter,

thank you - that was indeed the information I was looking for. Now some things become clear because some parts of the program didn´t look like made for terrestical navigation for yachting or general surveying.

The documents you mentioned contain a good description of the theoretical background. Chapter 12 contains a description of the programs. It is not like a manual but some hints to the experienced user. They often refer to some military standard paper forms to copy the values.

After reading it all I will write a short paper with the descriptions for the forums data base.

But that will take some time, it´s a lot to read.

Bst regards

Stefan

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ACO lives again??

*Message #1 Posted by **Tom (UK)** on 14 Aug 2003, 7:43 a.m.*

ACO did the old(!) HP49G.

Have HP re-employed some of the top HP49 people? (e.g. YP)

If so where is this being done? HP or outside design house or freelance?

Re: ACO lives again??

*Message #2 Posted by **Raymond Del Tondo** on 14 Aug 2003, 8:54 a.m.,*
in response to message #1 by Tom (UK)

Hi,

I'm not sure, but maybe Cyrille de Brebisson could give an answer. At least he still works for 'hp'.

Raymond

Re: ACO lives again??

*Message #3 Posted by **VPN** on 15 Aug 2003, 5:04 a.m.,*
in response to message #2 by Raymond Del Tondo

Seems like the company Hydrix (www.hydrix.com) with the old ACO team leader, Jean-Yves Avenard (now the leader of Hydrix) and at least Gerald Squelart, is hired by HP to do the "Hydrix" part of the new HP calculators.

You may call it "ACO IV - Resurrection" if you wish.

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New HP33S & Pontiac Aztec Design Philosophy

*Message #1 Posted by **Danny** on 14 Aug 2003, 7:42 a.m.*

Funny, I don't recall the Pontiac Aztec becoming the world's number one top selling design because it was radically and appealingly different, and youthfully eye-catching .....I must have missed something!!!!!! By adopting the same design philosophy with the HP33S this machine will enjoy the same notoriety and become a world Number 1 sales success (NOT).

Why should HP adopt the same old design strategy as Harley Davidson has adopted with their motorcycles and Volkswagen has with their famous VW BUG .....it obviously doesn't work at all to stick to the same theme to achieve longevity and fame.....do you get my drift!!!

Image what would happen to Harley Davidson if they dropped their classic design and went with the mega-trendy modern youthful design of the Japanese HONDA CB750.....bye bye Harley Davidson. The Japs are actually copying the Harley Davidson design in droves because it is so popular (despite Harley's antique design formula hardly changing for more than 50 years). Young and old people love the Harley's because it's a sign of quality, prestige, affluence, uniqueness, distinctiveness - and people aspire to own them. Same analogy applies here with HP's design experiment in the HP33s – they've changed to far from what they traditionally produce ....and people don't like it.

If economics is the rationalism of HP, why can't we have the best of both worlds - put the plastic face of a HP41 (example only) on the cheap electronic internals of a HP33S style calculator ....this has got to be remotely possible, surely. The homogeneous rectangular keys of the HP41 have to be more economical to manufacture than the exotic "vee" shaped keys of the HP33S.

The HP33S design has already been pseudo-tested on the market in real life .....in the equivalent CITIZEN calculator model. Has this been a run-away sales success with the mega-trendy youth market and received rave reviews.....NO!!!...the point has already been proven about the design already ...In this case the HP33S design is one step worse than the equivalent CITIZEN....a Citizen that's been hit by an earthquake…..hence the mal-aligned and mis-shapen keys and keyboard arrangement of the HP33S…The earthquake must have been a 6 on the Richter scale.

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48GX /SX

*Message #1 Posted by **Andrey** on 14 Aug 2003, 3:28 a.m.*

The 48 doesn't get too much posting on this site, but I'm sure there are big 48 experts out there. Can anyone clue this clueless guy in on the various SX/gx versions (Singapore, US, etc made) and the screen question? Is the higher contrast new screen really so much better? Or does it come at the cost of corner cutting somewhere else in the production specs? What are the known problems with 48 ? Thanks for any tips and advice.

Re: 48GX /SX

*Message #2 Posted by **Randy Sloyer** on 14 Aug 2003, 8:58 a.m.,*
in response to message #1 by Andrey

S and SX's were made in both USA and Singapore (molded keys).

G and GX's were made originally made in Singapore (molded keys).

G,GX and G+ were then made in Indonesia (painted keys).

The GX finished up in China (painted keys).

Yes, the black on gray screen is that much better, but at the cost of Chinese unit. The printing of the keys and bezel is not as sharp as on earlier units, but worth the trade off IMO.

There are no other changes in manufacturing for the black on gray units.

Edited: 14 Aug 2003, 8:59 a.m.

Re: 48GX /SX

*Message #3 Posted by **christof (NoVA US)** on 14 Aug 2003, 11:47 p.m.,*
in response to message #2 by Randy Sloyer

Yeah-

I've heard rumors of the early 48sx with a black LCD. Neither of mine have it. Shame, as I prefer the SX over the GX in most particulars.

I do have one GX with the black screen and the screen is really amazingly better. It's visible in all sorts of work situations where the older screen isn't.

I occasionally consider carrying a 48GX with black screen instead of my trusty 32k 42s. then I turn the 42s on and say.. "naaaaah" (though the calendaring on the 48 would allow me to never have to carry anything else)

Re: 48GX /SX

*Message #4 Posted by **arthur** on 21 Aug 2003, 10:48 p.m.,*
in response to message #3 by christof (NoVA US)

Do you know where to buy the expansion cards for the hp 48 gx. I have looked everywere even www.hp.com and they dont have any. HELP Art

Re: 48GX /SX - RAM cards

*Message #5 Posted by **R Lion (España)** on 22 Aug 2003, 3:30 a.m.,*
in response to message #4 by arthur

Try in Klotz, Germany. I have a couple of them.

Regards
Raul

Re: 48GX /SX

*Message #6 Posted by **arthur** on 21 Aug 2003, 10:48 p.m.,*
in response to message #3 by christof (NoVA US)

Do you know where to buy the expansion cards for the hp 48 gx. I have looked everywere even www.hp.com and they dont have any. HELP Art

Re: 48GX /SX - RAM cards

*Message #7 Posted by **R Lion (España)** on 22 Aug 2003, 3:30 a.m.,*
in response to message #6 by arthur

Try in Klotz, Germany. I have a couple of them.

Regards
Raul

May I?

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 22 Aug 2003, 3:05 a.m.,*
in response to message #1 by Andrey

Hi folks;

Just to add a few comments of my own about the HP48G/S. I'm not an HP48 expert user (no SYS RPL neither Assembly knowledge), but for me, the best additional features that the HP48G has are related to data input/output and the equation library itself. The 3D addition is somehow important, but I believe a faster processor and a bigger, higher resolution display would be of help in this case.

The new features (new commands) are listed in Section E of the HP48G AURM.

Best regards.

Luiz (Brazil)

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8051 as HP-41 module?

*Message #1 Posted by **Ben Moss** on 14 Aug 2003, 3:08 a.m.*

I have been considering the possibility of using an 8051 microcontroller to act as one of the HP41 ROM modules. I would like feedback on some of my early ideas.

From reading the articles at Meindert's MLDL site (Meindert, you have one impressive gizmo!) the clock on the serial line is at 359kHz. A typical 8051 can run 10-20MHz, so it can process at least 30 instructions in the time one bit goes by on the serial line. If the ROM image from the module is kept in internal memory of the 8051, I think that is plenty of time to do the necessary thinking to send out the data on the serial line.

Atmel sells a variety of 8051-derivative microcontrollers with 32K of flash (and in-system programmable) memory, internal oscillators, and plenty of I/O pins to do the job. These chips come in PLCC packages which are small enough to fit in a module case. The 8051 would probably draw somewhere between 15-25mA while in operation, which is a bit steep... if the clock speed is kept down the power consumption would be less. These chips can run off of 6V - a single chip could do everything. A level convertor (like a MAX232) would be needed to reprogram the chips (like if you wanted to change from a Game to a PPC rom) but that could easily be outside of the module.

Now, the tricky part. The HP-41 is a 10 bit machine, and the 8051 is an 8-bit machine. To make the 8051's job easier, I think the ROM image should be broken up into 10-bit chunks, with each 10-bit chunk occupying 2 bytes in the 8051's memory. There will be 6 bits wasted per every 10-bit word, but since there is memory to spare, it won't be a problem. It will also be tricky to keep track of the necessary timing so that the 8051 receives and talks to the HP41 correctly.

I think this could work. Anybody have ideas, or lots of experience with 8051 chips? Anything horribly wrong with what I have thought up so far?

Thanks, -Ben M.

Re: 8051 as HP-41 module?

*Message #2 Posted by **Vassilis Prevelakis** on 14 Aug 2003, 6:00 a.m.,*
in response to message #1 by Ben Moss

There is already a PIC based version designed by ji. The system is described at
http://www.tla.org/hp41/mldl.html

http://www.prevelakis.net/MLDL/108-0854_small_IMG.jpg

The problem with the PIC is that the high clock rate causes it to eat up too much juice. Also the fact that the PIC core has to be running to see whats on the bus, does not allow the MLDL to go into sleep mode, so it drains even more power.

To avoid draining the HP-41 batteries, I placed the PIC board into a printer enclosure so that it can be powered by the much larger printer battery pack. Pictures are at http://www.prevelakis.net/MLDL

The FPGA version should solve the power consumption problem. However, it introduces a new one: size. The

FPGA is too big to fit into a module so you need to use a card reader enclosure.

Re: 8051 as HP-41 module?

*Message #3 Posted by **Diego Diaz** on 14 Aug 2003, 7:57 a.m.,*
in response to message #2 by Vassilis Prevelakis

Hello Ben, Vassilis.

I've done some job on the hardware side of the PIC-ROM modules approach.

As a result, the layout of a module-sized (23 x 14mm) PCB is on my drawing board rigth now, it contains the PIC18LF252 (SMD), 40Mhz Xtal, 2x15pF caps, and 2x1n4148 in series with V+ line just to pull it ~1v down. I think that nothing bigger than a 28pin SO SMD device can fit into a HP-41 module, and even this has some difficulties to manage with such an small area (less than 1/2 sq inch!!.)

I'm now dealing with the PIC programmer, and hope to have it working in a few days.

Vassilis, it seems that you have already developed the required software to deal with the HP-41 I/O lines, wich is BTW the most difficult part of the job. Your info will be of great help to me, if you feel the will to share it. I'd also like to know if the B3-B4 lines handling and the BankSwitching are implemented in your design.

Thank you.

(remove the NO-SPAM if you want to mail me)

Re: 8051 as HP-41 module?

*Message #4 Posted by **Ben Moss** on 14 Aug 2003, 10:43 a.m.,*
in response to message #3 by Diego Diaz

Hello Diego, Vassilis.

What would be an acceptable level of current consumption to run the module off of the calculator's batteries? I have found several chips that draw slightly less than 10mA in operating mode at 10MHz.

Thanks, Ben

Re: 8051 as HP-41 module?

*Message #5 Posted by **Diego Diaz** on 14 Aug 2003, 2:06 p.m.,*
in response to message #4 by Ben Moss

Hi Ben,

Typical Idd vs Vdd @ given Osc Freq. chart for PIC18LF252 in HC mode (Xtal operated), shows 7.5mA for 5v. Vdd @ 20MHz. This is much more than a *real* HP-41 module, but I think it's still low enough for the 41 to handle.

Anyhow I'm confident about beeing able to manage with SLEEP mode, wich will ask for a few µA only.

You can chek the full specs for that PIC at www.microchip.com, make a search for 18F252.

Regards.

Slowing CLK down?

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 15 Aug 2003, 2:46 a.m.,*
in response to message #5 by Diego Diaz

Hi, folks;

As Ben mentioned in starting post, the 8051 has plenty of "waitting time" between two bits if working at 10-20MHz. Also, Diego mentions using a 20MHz CLK PIC and Vassilis is using an ATMEL chip (probably fast, too).

As Ben's first idea is emulating ROM moduless, I'd like to know if a lower clock-while-active (and consequent low power consumption in most cases) wouldn't be a better choice *if applicable*. In this case, how many cycles would any of these processors need to "push" the next bit out of its internal flash memory? If I am not wrong, bit manipulation facilities in the 8051 are restricted to internal RAM, although it has a serial OUT pin and I'm not sure if TX-rate is clock dependant. Also I'm not aware of the ATMEL and/or PIC instructions and if they would allow a better data handling than the 8051. As they are newer designs, it's possible that they will.

Have you, guys, also thought about I/O implementation other than IL-compatible? I know this is something that would never work if standard protocol is not set firstly, but I do not like to think that I depend on HPIL devices to transfer data from/to the HP41.

I'd like to be in contact with you all about these subjects, may I? For these days I've been working with some heavy activities and my spare time is none; I can barely read new posts. But I'll find a way to follow this subject as I can.

Thanks.

Luiz ((Brazil)

Edited: 15 Aug 2003, 2:47 a.m.

Re: 8051 as HP-41 module?

*Message #7 Posted by **Vassilis Prevelakis** on 15 Aug 2003, 3:02 a.m.,*
in response to message #3 by Diego Diaz

Actually all I did was stuff the PIC board into the printer enclosure (and take lots of pictures).

ji *at* tla *dot* org is the person to contact regarding the actual implementation.

I *am* trying to do something similar for the HP-85 ROM modules though, but I am a bit busy at the moment.

**vp

Re: 8051 as HP-41 module?

*Message #8 Posted by **Meindert Kuipers** on 17 Aug 2003, 2:37 p.m.,*
in response to message #2 by Vassilis Prevelakis

I'm back form my vacation and ready to join the discussion. Have a look at the products fron Cygnal at www.cygnal.com. These are very small and include oscillator, power regulator and a full 8051 with pretty

low power consumption. These should fit inside a module housing as the require virtually no other extrenal components.

As most of you are aware of, I am building an MLDL with an FPGA but I have been seriously looking at the small microcontroller products, but the main problem is that they lack serious amounts of memory, otherwise I would certainly have chosen one. Especially the USB version are great!

Meindert

Re: 8051 as HP-41 module? a note or two about 8051s

*Message #9 Posted by **Bill Wiese** on 14 Aug 2003, 4:19 p.m.,*
in response to message #1 by Ben Moss

Hi... Just remember that many 8051 CPUs - at least of original design - run at 12 clock states min. per instruction. (Some take longer). That is, many 12MHz 8051s effectively give a 1MHz instruction rate (or less, if lots of 3-byte instructions used...)

Some 51s have a newer internal design with 6-state or less but these aren't as prevalent as yet..

Bill San Jose

Re: 8051 as HP-41 module? a note or two about 8051s

*Message #10 Posted by **Diego Diaz** on 15 Aug 2003, 3:18 p.m.,*
in response to message #9 by Bill Wiese

HI all,

Well Luiz, you can of course contact me for whatever I can be of any help, so can the rest of you.

First a pair of mods to my previous posts:

a) The Xtal must be slower than 26 ~ 24 Mhz, wich is the max. speed a PIC18F252 can run at from its internal resonant circuitry, and there is no space inside a module enclosure to fit an external oscilator. (Pls correct me if I'm wrong about that.)

b) You can pull the V+ line down to 3.5v with a series zener diode, this is enough for the 41 to handle the ISA line, while the 18LF252 is able to keep the 24Mhz Xtal running when powered at 3.5v thus lowering the Idd to a typical 5.5mA, 6.5mA max. wich seems quite reasonable, as the original MLDL design drawn about 12 ~ 14 mA. (not counting the EPROMS!!, they were only powered during ONE single cycle for -obvious- reading purposes.)

Now some facts:

It's about 2.77µS between clock pulses in a standard 41 (not 2x clocked) at 360kHz. The PIC needs four clock cicles per instruction so it gives us 6MIPS at 24MHz so we can process 16 instructions to handle the corresponding I/O line... It's not too much but I think it's worth trying.

Regarding the program Vassilis, I'll contact I.J. and will ask him about. I asked you because I didn't know if you were the one that developed the code, and there is no downloadable file in your page nor Mr. Ioannidis'. Is this code copyrighted? or is it only a "Coca-Cola formulae alike" well keep secret...? :-)

I'm starting the PIC18F252's thick PDF Data Sheet reading, I've also already done the flowcharts for the corresponding port B interrupt handling, and hope to begin testing (and a huge amount of debugging) as soon as my PIC programmer is ready.

Trying to keep 41's alive.

Diego.

Re: 8051 as HP-41 module? a note or two about 8051s

*Message #11 Posted by **David Smith** on 15 Aug 2003, 4:27 p.m.,*
in response to message #10 by Diego Diaz

The Scenix chips are PIC compatible and can do 1 instruction per clock (at up to 100MHz). Draws 1 mA/MHz.

Re: 8051 as HP-41 module? a note or two about 8051s

*Message #12 Posted by **Diego Díaz** on 15 Aug 2003, 8:25 p.m.,*
in response to message #11 by David Smith

Hi David,

Yes, they are really fast processors but lack of memory space, only 2048 x 12bits, wich is not room enough to place a 4096 x 10bits standard HP-41 module, and there are double, triple and four times this size modules out there...

Please let us know if you have any further info about those chips other than I have stated above as it should be of great interest for some of us.

Thanks.

Diego.

Re: 8051 as HP-41 module? a note or two about 8051s

*Message #13 Posted by **David Smith** on 18 Aug 2003, 1:09 p.m.,*
in response to message #12 by Diego Díaz

Use an external EEPROM chip. You can get over 256Kbits in a single 8 pin chip.

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Are 1970’s sales brochures worth anything?

*Message #1 Posted by **ben** on 14 Aug 2003, 1:48 a.m.*

Hello everyone,

My eyes were opened to this world of HP collecting earlier this year. I sold my dad’s little-used 11c after he passed away.

While cleaning out his office, I also found some HP sales brochures.

They are all from the mid 1970’s.

Among others, they include:

*HP 9831 Desktop Computer (including insert on Technical Data and pricing insert)

*HP 3000 Series II Systems: An Introduction for Managers

*Data Entry and Communications: Applications of Hewlett-Packard computer systems

And more along those lines....

Any chance anybody would be interested in them? Would it be worth it to compile a full list of the brochures and post it in classifieds/ebay?

9830 / 9831 / 9815A / 9896 / 3000 Series II / 21MX / HP - 1B / HP 1000 / 3070A / 9825 brochures

*Message #2 Posted by **ben** on 23 Aug 2003, 12:01 p.m.,*
in response to message #1 by ben

Hmmm...interesting. Apparently these old artifacts interest nobody?

I don’t know that much about HPs, but just from a historical perspective, these brochures looked interesting to me. They seemed pretty cool.

Or is information like this plentiful and commonplace?

I suppose I could just throw them away. I simply thought they might interest someone actually into HPs.

Re: 9830 / 9831 / 9815A / 9896 / 3000 Series II / 21MX / HP - 1B / HP 1000 / 3070A / 9825 brochures

*Message #3 Posted by **bill platt** on 23 Aug 2003, 12:32 p.m.,*
in response to message #2 by ben

Ben,

Yes, yes, they are interesting! I think 2 things happened:

1. Your 1st post got lost in the "daily view" rollover,

2. It wasn't clear what any response was to be.

3. If you would like to sell or trade them, there is a separate section in this online museum for that.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/adforum.cgi

or without an associated auction:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/adforum.cgi?noauctions

Regards,

Bill

Re: Are 1970?s sales brochures worth anything?

*Message #4 Posted by **Vassilis Prevelakis** on 23 Aug 2003, 1:38 p.m.,*
in response to message #1 by ben

Why not scan them and contribute them to the museum.

**vp

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rpn discussion

*Message #1 Posted by **Paco** on 13 Aug 2003, 1:03 p.m.*

RPN discussion at TI

http://www-s.ti.com/cgi-bin/discuss/sdbmessageview.cgi?databasetoopen=calculators&topicarea=TI-89/Voyage+200/TI-92+Plus&viewmethod=Thread&messageid=138400

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just don't buy one

*Message #1 Posted by **bill platt** on 13 Aug 2003, 10:04 a.m.*

So, here is a proposal regarding the 33s: just hold your breath and let them sit. The overwhelming response here to the keyboard is: OOOOOOGLy! and dIsTRacTInG.

So, IF it comes out with that Whacky keyboard, then LET IT GO! Then, they'll re-tool, and we can give Compaq the money once they give us the product we deserve.

OR: HEY COMPAQ-HP! ARE YOU LISTENING! We want a REAL KEYBOARD!

So, hopefully someone at HP (Mr. Valdez, you are a real person----can you sway this in our favor?) will read these posts and see what the problem is.

-Bill Platt

Edited: 13 Aug 2003, 10:07 a.m.

Re: just don't buy one

*Message #2 Posted by **David Ramsey** on 14 Aug 2003, 1:48 a.m.,*
in response to message #1 by bill platt

You guys here are SO missing the point.

Old farts like us-- collectors and engineers-- are NOT THE TARGET MARKET for the 33s.

High school and college students are. And they will buy it because it looks cool. Really-- admit it to yourself, even if there are serious usability compromises inherent in the keyboard design, it looks damn cool...just like all those weird-ass cell phones that are selling like hotcakes now.

Re: just don't buy one

*Message #3 Posted by **Vassilis Prevelakis** on 14 Aug 2003, 6:06 a.m.,*
in response to message #2 by David Ramsey

```
David Ramsey wrote:
> You guys here are SO missing the point.


<flame>
```

OK, so the next model should have fake diamonds like the chinese-made cell phones that sell like hotcakes in China.

After all 2 billion people can't be wrong.

```
</flame>
```

**vp

:)

*Message #4 Posted by **Tizedes Csaba** on 14 Aug 2003, 7:23 a.m.,*
in response to message #3 by Vassilis Prevelakis

Somewhere in Earth, in the Old-Fashioned-Engineer's room:

"Uhh Dad, in this calc REALLY haven't got mp3 player...!"

Cs.

Re: just don't buy one

*Message #5 Posted by **Jonas Lööf** on 14 Aug 2003, 8:03 a.m.,*
in response to message #2 by David Ramsey

Do you actually think it looks cool? I must be getting old, and I only just turned 27...

Seriously, I think the design is unbalanced, with the calculator being too elongated and the 'midsection bulb' (between the 'mode keys') too dominant. That combined with the crowded keyboard and the vee-shaped keys making the allready busy keyboard even more busy, makes the calculator look cheap, I think.

Re: just don't buy one

*Message #6 Posted by **christof (NoVA US)** on 14 Aug 2003, 7:38 p.m.,*
in response to message #5 by Jonas Lööf

Nah, I think the point is being missed all over again.

The new cell phones with the crazy keyboard layouts aren't selling because they have crazy keyboard layouts (I know people with them who hate the keyboards, but none who like them).

They are: cheap They are: color

yeah- the overall look is much better than the older phones. Sorta look like cheap knockoffs of the $400 multipupose phones. Oh, wait- that's what they are.

The 33s isn't going to sell well because it's got a keyboard tht looks like stacked female chalice symbols. It's going to sell well (if it does) because the display, capabilities, and interface (software).

I could be wrong, but I think the only people *really* turned on by this layoout are marketers. Show me one of those elementary or middle school math students in the contests that would pick this as an *upgrade* to his 32Sii.....

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Texas Instruments RPN calculator

*Message #1 Posted by **Graeme W.** on 13 Aug 2003, 8:33 a.m.*

Surely the HP32SII production line is not that cold that it couldn't be restarted in Indonesia so that HP could get back to producing at least one single classic calculator - surely that's not too much to ask is it!!!! - just one single solitary measly lonesome classic calculator - why the hell is that so difficult to do. HP just had a calculator competition to determine what the kids would like to see in a calculator.....ummmmmmmm.....why don't they ask the veteran/expert users instead (sorry kids). Some of these veteran users have been using HP and RPN since 1972 and might possibly know a couple of things (more likely a thousand good ideas some of which have already been mentioned on this site).

It's now totally apparent that the HP calculator design contract was won by a Canon or Casio design bureau. Take all the tell-tale labels off the HP33S and ask the public what brand of calculator it is - guaranteed 99 percent would say its a Canon or maybe a Casio ... no.... it must be the new Sharp model.

Maybe someone should be tapping Texas Instruments on the shoulder to try to get them into RPN machines - after all HP cross-dressed into algebraic machines. Maybe TI would do a better design job and produce a classic looking machine ... desperate times require desperate measures.

Re: Texas Instruments RPN calculator

*Message #2 Posted by **Ron Ross** on 13 Aug 2003, 9:07 a.m.,*
in response to message #1 by Graeme W.

I think it would be a wasted effort. As long as Hp is even remotely capable of making or outsourcing a calculator, Ti will never make an RPN model (the Ti-89 has a pretty good download to change it over to an RPN, I am told, but that was developed outside of Ti). Why? Because that just might breathe new life into a competitor on the ropes (HP). There is a whole decade of Ti users and a new Hp calculator user is in the EXTREME minority (and I would bet 2/3's of the new users are using Algebraics, since that is what many new Hp's are). Textbooks are written around Ti calculators. Why would Ti even think to make an RPN to admit or recognize its merit?

But that is only my belief, and you could certainly campaign Ti to do otherwise.

And concerning many of the new Hp algebraic models, while they may be superior to their competetion, they are not significantly superior to warrent any tears if they disappear. I'll use an Hp39G as an example. It has lots more functions and capability and 10 times the RAM as Ti's 83 series. Very similiar and you could almost use their manuals interchangably. But they are not identical, and when the text book is using a Ti-83 for examples, what calculator do you think the student or parent will buy? And Hp could have added more to the Hp39G, but chose not to, to compete directly with the Ti-83. Why not give the student who buys Hp the UNFAIR advantage. Thats my slogan! You buy Hp to get the best, not a castrated eunuch. While Hp may get banned from a few exams, the truth is, it often is anyway, since they are so seldom seen, that the proctors ban them out of ignorance. Give them a REASON, I say. If the Hp39G had an RPN mode and a units library, it would have been a great low priced graphics calculator. Both features would have cost Hp NOTHING. But marketing wanted to put their 39G head to head with the Ti-83. Those extra features would have hurt sales (and this is true, but I suspect you would have gained 5 sales for every one lost). The knowledgable customer

would have purchase for the units feature and maybe learned RPN later. Others, such as myself would use the 39G as a knockaround calculator for day to day use, since it would be an RPN (well, I would probably still stay with my 48G).

TI 89 RPN program is great!

*Message #3 Posted by **Matt Kernal (US)** on 13 Aug 2003, 1:11 p.m.,*
in response to message #2 by Ron Ross

Ron > (the Ti-89 has a pretty good download to change it over to an RPN, I am told, but that was developed outside of Ti)

I picked up a TI 89 for $40 a couple years ago just to try out Lars Frederiksen's RPN program. What a nice (and fast) interface!

One really cool aspect is that as you perform a calculation (in rpn entry format.. working from the inside out.. ie. no parenthesis), it builds/maintains a "history", in algebraic format, as the calculation is entered.

In other words, the history shows the same calculation, as if you entered it algebraically (ie. it shows the calculation in the order it was calculated *with* parentheses inserted).

It is by far, the BEST way I have seen to teach an "RPN impaired" person how/why RPN is so efficient, while also reinforcing rules of precedence (order-of-operations).

I must admit, I only use it (TI 89) as a four-banger calculator (can't stand SO MANY things about the TI 89).

Matt

ps. I should take a stab at writing a similar app for the 48/49G series.

The point is:

*Message #4 Posted by **Harry (Germany)** on 13 Aug 2003, 9:24 a.m.,*
in response to message #1 by Graeme W.

All those "veteran/expert" users already HAVE RPN calculators that they use.
Why would you buy a 32SII if you allready got 2 of them? Your old ones are not very likely to stop operating, and if they did, you could always buy a new one - after your old one has failed.
Thats why they focus on the kids. Every year thousands of schoolkids need a new calculator, and they don't care about quality or RPN, they just want it to be stylish. And their parents want it cheap, as they have to pay.
Ok, WE would by an RPN calculator for our kids (and I am very happy my Dad did the same), but thats just a few parents who would do that. Most parents have no idea about calculators. I was the only kid in school that had an HP calculator, all the others had Casio or TI.

Regars, Harry, who is very disapointed that nowadays it is not quality, but design that is important.

btw, its the same with cars:
They put more and more (in my oppinion) useless electronic stuff in cars, that makes them more expensive, heavier, less reliable, and no fun to drive.
For example they don't put time and effort (and of course money) in designing a good suspension, but they just put a stability control in, that keeps the car from flying off the road.
Ok, I guess I am loosing focus...

Re: The point is: (LONG)

*Message #5 Posted by **bill platt** on 13 Aug 2003, 9:54 a.m.,*
in response to message #4 by Harry (Germany)

Harry,

No, you are not losing focus--you are right on!

This problem of doingthe details without the fundamentals is endemic in design and engineering today. Just read the "technical" papers from any technical socierty and you will notice that the majority of papers focus on minutuae and not fundamentals. It is becoming increasingly difficult to find good, reliable fundamental engineering information that is not 30 or more years old. I suspect that most younger engineers don't even know where the (old but good) information can be found--never mind that they may not even know it exists.

On the other hand, if you read any industry magazines from the world of photonics, electronics, microelectronics, or robotics, you will see great enthusiasm for the ability to do anything formerly requiring mechanical action by using electronics. I have read just such a piece regarding automobile stability and control!

What does this have to do with calculators? The same dynamics are at work---the products are produced using 3-D wiz-bang total product models, TQM ("total quality management") and "advanced analysis" (read: the software thinks instead of the engineer) and so in the nd, you have no real quality--only what a robot "thought" would work. I suspect this is why the 12C has the problems it does.

We'll see about the 33s. And yes, that keyboard layout looks like the Pontiac Aztek! (Uuuuuuuuuuugly).

BTW: Interesting that you, a German, were the only one with an HP in your class. What years? For me, in the States, I was the only HP kid in 1983, out of 2,000 students. Clearly, the old HP was not successful with the "kids".

regards,

Bill Platt

Re: The point is: (LONG)

*Message #6 Posted by **Harry (Germany)** on 13 Aug 2003, 11:21 a.m.,*
in response to message #5 by bill platt

I got my first Calculator - a HP 32S - in 1989. Although I wasn't allowed to use it in class at that time. I don't know about now, but back then we started using calculators in class from 8th grade on. That was in 1992 for me.

Looking for pictures of that ugly Pontiac now ;)

Regards,
Harry

Re: The point is: (LONG)

*Message #7 Posted by **Harry (Germany)** on 13 Aug 2003, 11:50 a.m.,*
in response to message #5 by bill platt

Bill,

Quote:

This problem of doing the details without the fundamentals is endemic in design and engineering today.

I totaly agree with you. I am studying electronics engineering, and this happens to me all the time. When I try to understand the theory behind a way of solving a problem, I am often (too often) told, that I do not need to know. The Professors are like: "Belive me, it works that way, just do it!"
For example the Laplace-transformation. In class all we do is, looking up the transformations in tables. I tried to calculate those tables myself, by simply solving the actual Integral, wich defines the Laplace-transformation. It worked pretty good. But what I can't find out is (don't know all the words in english here, sorry for this) why the table can be read backwards. I mean, before doing this, you have to proof, that two diffrent functions that are transformed, ALWAYS give a diffrent answer, wich is essential. Or in diffrent words: may f(x) be the original function and F(s) the transformed. Then there must not be more than ONE f(x) for every F(s). There is a simple word for this, I just don't know it in english.

Regards,
Harry

Re: The point is: (LONG)

*Message #8 Posted by **Eduardo** on 13 Aug 2003, 7:38 p.m.,*
in response to message #7 by Harry (Germany)

The word in English is "one-to-one". Your question can be rephrased as: "why is the Laplace transform one-to-one?" (sometimes the term "injective" is used instead).

Eduardo

Thank you Eduardo!!

*Message #9 Posted by **Harry (Germany)** on 14 Aug 2003, 11:34 a.m.,*
in response to message #8 by Eduardo

no text

Fundamentals...

*Message #10 Posted by **Karl Schneider** on 14 Aug 2003, 1:17 a.m.,*
in response to message #5 by bill platt

"bill platt" wrote:

Quote:

This problem of doing the details without the fundamentals is endemic in design and engineering today. Just read the "technical" papers from any technical society and you will notice that the majority of papers focus on minutiae and not fundamentals.

Right on, Bill! I've noticed a general de-emphasis of fundamentals, too. There could be several reasons:

1. Students are expected to cover more topics and advanced material in their "4-year" degree programs, so they don't spend as much time learning the fundamentals.

2. Computing devices (more PC's than calculators) make it so easy to get answers without analyzing the problem from a fundamental standpoint.

3. Higher emphasis on short-term payback can result in "solutions" intended to make distinct impressions rather than to withstand the test of time.

4. Rapidly-advancing and more-complex technologies make it more difficult for most people to comprehend the fundamentals, except for the exclusive "cognosenti" (sp?)

> Quote:
>
> For me, in the States, I was the only HP kid in 1983, out of 2,000 students. Clearly, the old HP was not successful with the "kids".

I assume that this was in high school. I bought my first HP (15C) as a college junior in 1983, after being enthralled by the 41C in 1980-81. I think it was more a matter of "kids" not being able to comfortably afford HP's until the mid-80's. The $115 I paid exceeded my monthly scholarship stipend.

hp's marketing strategery (rant)

*Message #11 Posted by **ned** on 13 Aug 2003, 11:02 a.m.,*
in response to message #1 by Graeme W.

HP contracted Kinpo to build their calcs. This company makes perfectly good ones branded as Citizen. The 30s is an example of straight rebranding of an OEM, in this case the Citizen SR260. The 9s is the SRP325g, which is a redone Casio fx-6300. The 33s, 48ii, and 49+ all appear to be designed exclusively for HP, as evidenced by the keys EVAL, R/S etc. HP surely wants to re-enter the education and mass consumer market. They already have a strong distribution chain, in fact this is all they are anymore: a distributor. OEM printers, ink, digital cameras, etc in asia, resell them in the americas and europe. Every company does it. They split off Agilent to seperate their 'tech' division, which is higher risk, narrow customer base, from their 'consumer' division, which is lower risk, broad customer base. They want to sell gagets to the masses through brand recognition and reputation. Just keep paying Juan Pablo Montoya the big bucks HP! ~ned

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We should be happy

*Message #1 Posted by **L Martin** on 13 Aug 2003, 8:19 a.m.*

Hello,

From my point of view, we should be happy with the new HP 49G+ (if everything is true).

Consider this:

* Five to ten times quicker than the old HP 49G. Come on, be honest: how many of you would have killed to get this much? 100 %

* An USB port. This is a high speed standard connection, isn't it?

* A sd Card expansion. We can buy a (hopefully) standard SD Card and have 32 Mb to keep data and programs. The HP 48GX could only hold up to a 4Mb card (if you could find one) That is 8 (or 16 or more) times more memory. So what?

The biggest complaint is the keyboard (no big ENTER key), plastic and other minor things. I guess most of us are in love with the machine we studied with, and cannot accept easily something with a new design without comparing. This only means we are getting OLD!

Let us accept these new machines as they come and see if they really work (calculate!) fine.

I second you... somehow

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 13 Aug 2003, 12:27 p.m.,*
in response to message #1 by L Martin

Hi, L. Martin;

to be honest, I do not like the hP33S look, but I thought that if this look will make it be acceptable among youngers, let's bring them to RPN "world" with a different bait, if this is the case. I read Bill's post and I think the HP33S should look more serious, not as a current videogame personal tool, almost a sci-fi object. As many in here point out (and I am not aware of these facts), HP must survive somehow if we want RPN calculators, OR someone else should start producing RPN calculators. As mentioned in Graeme's post, I don't know if Texas would offer an RPN model so far.

If these "market targeted" calculators allow HP staff to consider producing others with a different approach, I think we could wait to see. If I have the chance, I want to try the new HP49G+. But I still believe an O.S. upgradable HPg48G*whatever* would be better.

My 2¢.

Edited: 13 Aug 2003, 2:42 p.m.

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Round off (beautiful...)

*Message #1 Posted by **Tizedes Csaba** on 13 Aug 2003, 1:40 a.m.*

In the first math exam we got this example:

What is the limit of this serie: (the calculator use not was allowable!)

an=(1+1/(2^n+1))^(2^(n+1)) where n->infinity (n is integer)

the limit is e^2 (~7.39), but look, what happen if we try to calculate it! Grab your 48, and plot it: 0 40 XRNG 0 10 YRNG 'n' INDEP ERASE DRAW You'll see, the value of function about 37.5-37.8 will be 1. (not 7.39)

That happen, when 1+1/(2^n+1)=1 for 12 digit, the limit will be 1.

Where? Its simple calculable:

1/(2^n+1)<5e-12 -> n>37.54

Csaba

Re: Round off (beautiful...)

*Message #2 Posted by **hugh** on 13 Aug 2003, 3:28 p.m.,*
in response to message #1 by Tizedes Csaba

like you say, let k=2^n+1, then your problem is written (((1+1/k)^k)/(1+1/k))^2 ~ e^2 as k->inf.

the difficulty for the calculator is (1+x/k)^k -> exp(x) as k->inf because you have here a classic 1+epsilon problem.

the 1+eps problem is a defect of floating point numbers as real approximations. floats (inc calculator BCD) are only dense around zero.

with a single floating point, 1+x-1 = x, only where abs(x) > 10^(-d) where d is the number of internal working digits.

when IEEE floating point was invented (1983??), it was a big step forward in standardisation. i believe its time for calculator makers to move forward again onto a fundamentally new way of approximating reals.

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Restoring the 'ole click to a "classic"

*Message #1 Posted by **Michael Meyer** on 13 Aug 2003, 12:52 a.m.*

Well, I've not seen this reported before, and it's a pretty aggressive approach, but...

I'm repairing a *very* used HP-67. (Yes, I know... not really a classic, more of a Woodstock.) The key contacts were extremely worn. After a light sanding of the contacts as described elsewhere, the keys remained mushy with little "click". One had even broken from fatigue: I patched it with a little tinned piece from an old badly corroded HP-25 keyboard. Repaired it perfectly.

The scary part: I used a small nylon cable tie and threaded it through each contact. The cable tie acted as a wedge, allowing me to carefully stretch each metal arch away from the board. I put a little more force into it than I was comfortable with, but none broke.

Guess what? It worked pretty well! The keys have a much more positive click to them, and there are no bounces. It's really not too bad now.

I suggest this as a radical approach to help only nearly expired keyboards. I couldn't bear to see a good machine die.

Michael

Re: Restoring the 'ole click to a "classic"

*Message #2 Posted by **Tom Scott** on 13 Aug 2003, 2:38 p.m.,*
in response to message #1 by Michael Meyer

I appreciate your work on this calculator. I don't feel quite so stupid for paying way too much on eBay. What a contrast: all the unselfish work you're putting into this compared to the seller who lied and walked away with the money. It will be great to have a working unit (even with some remaining problems) since the 67s were such great instruments.

Tom Scott Lander, WY

Re: Restoring the 'ole click to a "classic"

*Message #3 Posted by **Michael Meyer, M.D.** on 13 Aug 2003, 9:30 p.m.,*
in response to message #2 by Tom Scott

My pleasure.

You know: I was playing with it today, and it's really not bad at all! Again, a testimony to it's quality... even the keyboard can be fixed!! What a beauty.

I think you'll be surprised.

RTN2RPN Michael

Re: Restoring the 'ole click to a "classic"

*Message #4 Posted by **Tom Scott** on 14 Aug 2003, 3:18 p.m.,*
in response to message #3 by Michael Meyer, M.D.

Great news. Considering the poor condition of the HP-67 when I received it from the eBay seller, you must have worked some miracles! There's just something about the solid feel of these units and the key click action that is hard to describe. They (and the other HP oldies) were in a class by themselves. Of course, maybe I'm just getting old.

Tom Scott

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My self centered "but objective" opinion

*Message #1 Posted by **Ron Ross** on 12 Aug 2003, 6:07 p.m.*

I believe Eriks site as I know him to be a reputable source of information. Am I estatic over what I see? No, but at least we will get a fresh supply of RPN calculators into the market place to placate RPN fanatics that do not need the Hp quality of old (ok, mostly for the newbies who don't know what an Hp calc SHOULD FEEL LIKE). I really had hoped for an enter key in the original location for both the Hp33s and Hp48G. I didn't really expect it for the Hp33s, but I was dissappointed with the 48G.

I am glad to see the new Hp33s. Not so much as it is the great savior to pocket calcs, but because it IS RPN. Perhaps this will lower the competetion for the older Hp32s and Hp42s and therefore allow their prices to fall (where I can buy another spare).

I noticed it is an RPN/Algebraic selectable. This is probably smart. However, I feel Hp is pricing this unit to high to make it the seller that it could or should be. It is really only a $30 calculator about on par with the 9G. Even though it has 32K (who really knows yet??) what good is that much memory without matrix math, only 27 variables and NO I/O? Marketing has probably struck Again!!! 32K sounds WONDERFUL!!!

An algebraic user will probably buy a Casio 7400 or maybe an Hp9G. Both cost less.

Design style makes me cringe, but I will buy. Function wise, it is well equiped. It is more powerful than an Hp32s, but I still like the old RPN keyboard and time will tell (but if I were to predict and I suspect this IS AN EASY PREDICTION, I won't like the new keyboards at all).

If the Hp33s really does have 32K, WHY DIDN'T they give us long variable names, matrix functions and I/O? Why not?

I feel the 48G won't last long on the market due to marketing genius'es. Why? Why buy a 48G? The beloved enter KEY is gone. Only a paltry 128K RAM (no mention of any expansion slots). True, it should be lots faster than an older 48, but it will only be half the speed of a new 49G. With the same keyboard layout, there is no reason to buy the 48G. Hp could have abandoned it. Why bother?

While I use a 48 much more than my 49, I do so only because of the keyboard and eq library. Now that the new 49 is going to have an eq library AND the very same keyboard, why would anyone buy a new 48G unless there is a drastic difference in price? Marketing!!!????

Well, I used up bandwith again.

I hope I haven't offended any legitimate Hp (or Kingpo?) engineers. However you marketing or management #@$%^'s at Hp, on the other hand, should be horsewhipped! I don't feel my comments are to far out of line considering what we will get to buy in the near future.

Re: My self centered "but objective" opinion

*Message #2 Posted by **Patrick R** on 12 Aug 2003, 6:33 p.m.,*
in response to message #1 by Ron Ross

What I don't understand: 1. Why is the 48GII called 48GII? It has absolutely nothig to do with a 48G series calculator. 2. 39G+, fast processor, small screen; 48GII slow processor, small screen; 49G+ fast processor, big screen.

Being a young physics teacher, I need high quality calculating equipment for my everyday use. So last year in spring I started buying new spare HP calculators, some good old brown 32SIIs and some 48GXs + ram cards for that fantastic metakernel (thanks to those exceptional programmers), for absolutely reasonable prices, just in case that my current machines could fail some day. I am happy, whether those new calculators are real or not. I will not need them and I will not buy them.

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HP41C halfnut serial numbers

*Message #1 Posted by **David Smith** on 12 Aug 2003, 4:58 p.m.*

I recently got an HP41C HALFNUT. It had a serial number of 1932A00XXX. This number was 13 off from my old full-bugs, gold ball, tall key unit. This seems to support the theory that the halfnut 41C's were very late date service replacement units. For a service replacement they swapped the old case back onto the new halfnut front end to keep the old serial number. If you had a damaged case back, you got back a new case back with a hand-engraved serial number.

Re: HP41C halfnut serial numbers

*Message #2 Posted by **Randy Sloyer** on 13 Aug 2003, 9:40 a.m.,*
in response to message #1 by David Smith

That would make a lot of sense. Why not just replace the front with current production and give the customer his old serial number back. I guess the older case bottoms without the extended cylinders on the bottom screws didn't matter on a half-nut?

This gives rise to the question: Was the C just a CV with a trace cut for the reduced memory? I doubt they masked a separate chip for just the C's. Maybe they just dropped a wire bond or two at packaging. I read the memory was in the display module, I believe Luiz did or at least tried to confirm this a few months ago. Maybe the module part numbers will tell the story?

Re: HP41C halfnut serial numbers

*Message #3 Posted by **David Smith** on 13 Aug 2003, 4:03 p.m.,*
in response to message #2 by Randy Sloyer

HP was rather agressive about keeping a unit's serial number when the case was replaced during service. I know a lot of calculators back then were kept under inventory control systems. Changing a serial number could cause a lot of user headaches.

I have not opened up the halfnut 41C yet to see what differences it has with the CV. It is definitely a 41C halfnut (with quad memory module plugged in).

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New HP calculators

*Message #1 Posted by **Dave** on 12 Aug 2003, 4:38 p.m.*

Not to be picky, but... Could we try to remain positive about HP reentering the calc market & having an offering that supports RPN, RPL, etc. These calcs will not be the same as the classics - today's market will not support the cost of making those old designs. Nor are there enough people on this board to supprot such an effort! Please wait until you have your hands on a physical calc and make constructive comments...

Thanks

Re: New HP calculators

*Message #2 Posted by **Paul Brogger** on 12 Aug 2003, 4:51 p.m.,*
in response to message #1 by Dave

I've typed similar sentiments in the past. Count me in (for what that's worth).

. . . however . . .

*Message #3 Posted by **Paul Brogger** on 12 Aug 2003, 5:41 p.m.,*
in response to message #2 by Paul Brogger

I wrote the first response before seeing the product sheets on "The New Hope".

I will no doubt buy a 33s (unless I hear that it *behaves* badly too), but that has to be **the** ugliest, busiest keyboard ever devised! I hope it *feels* good . . .

(A cherished tradition, indeed!)

Griping is a cherished tradition!

*Message #4 Posted by **bill platt** on 12 Aug 2003, 5:08 p.m.,*
in response to message #1 by Dave

(;^8>

1234 deletes

Re: New HP calculators

*Message #5 Posted by **John Cadick** on 12 Aug 2003, 8:47 p.m.,*
in response to message #1 by Dave

Amen, Dave. All the negativism of the last few months has really been a downer.

Re: New HP calculators

*Message #6 Posted by **christof (NoVA US)** on 13 Aug 2003, 12:40 a.m.,*
in response to message #1 by Dave

I'm honestly fairly happy with the physical layout of the new 48.

And I hope that we will be able to write real code on it and hack any software defects or forgotten tools.

but the 33S is...

it would be everything I ever wanted in a 32Sii upgrade is the keyboard was just remotely sane. With THAT keyboard, I'll be somewhat negative.

(granted, It is barely possible that once I get my hands on it and try, i will decide it's not much worse than a pioneer. But.... well, we shall see)

-C

Re: New HP calculators

*Message #7 Posted by **Wayne Brown** on 13 Aug 2003, 2:29 a.m.,*
in response to message #1 by Dave

I'm sorry, but if these things are real, then there simply is nothing positive I can say about them. The closest I can come is "the 48GII isn't *quite* as ugly as the 49G+." The 33S, however, is one of the ugliest devices of *any* type that I have ever seen.

I honestly would rather HP simply abandoned the calculator business altogether than continue to besmirch the memory of their decent calculators with trash like this.

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New HP 33s and so forth

*Message #1 Posted by **Charles** on 12 Aug 2003, 3:54 p.m.*

Hi all,

regarding that 33s and 48gii spec sheet, did you notice the orientation of the 33s in the scientists white coat pocket? and the 48 laying on the students table? They sure looked to have been pasted in...

On a lighter note, maybe one of us should send a pic of our calcs to HP since they seem to have forgotten what they should look like. That 33s key layout hurts to look at. It seems that HP is confusing calculators with automobiles, the beauty of the old HPs was the simplicity and no nonsense design. We don't (at least I don't) need fancy v-shaped key orientation and scratch-off lettering.

I guess I'll get to continue to have moments of pride as I whiz thru calculations RPN-style during exams while the TI folks step thru their deep parenthesis set-ups...One of my profs refused all programmable calcs for tests, and when I confronted him with my old HP he said "that one's ok". Well, back to work, best regards, Charles

Re: New HP 33s and so forth

*Message #2 Posted by **Patrick** on 12 Aug 2003, 4:27 p.m.,*
in response to message #1 by Charles

I loved the part where it said that the 33S is pocket sized -- right next to the photo of the scientist with 1/3 of the calculator jutting up out of his lab-coat sized pocket.

Now, the 15C is truly pocket sized. It fits in a typical *shirt* without sticking up at all.

Re: New HP 33s and so forth

*Message #3 Posted by **Trent Moseley** on 12 Aug 2003, 11:19 p.m.,*
in response to message #2 by Patrick

No shirt pocket for your 15C today. Can you imagine leaning over and have that baby hit the deck?

tm

Re: New HP 33s and so forth

*Message #4 Posted by **Jonas Lööf** on 13 Aug 2003, 7:00 a.m.,*
in response to message #2 by Patrick

The size is actually the most annoying thing about the 33s... Whats the point, when it is nearly as big as a graphing calculator? It should have been the same size and design as the 17bii+, IMO. I guess it's time to get that 42s...

Re: Examine those images . . .

*Message #5 Posted by **Paul Brogger** on 13 Aug 2003, 5:37 p.m.,*
in response to message #1 by Charles

I've pasted the calculator images into a picture editor & blown 'em up to 400%.

What I found interesting (among other things) is that on **BOTH** the 49G+ image (from the marketing materials link of a while back) and 48GII image, there appear to have been some labels "blanked out" above the "Tool" keys.

Am I misreading these pixels, or was (were) some function(s) axed at the last minute?

Re: Examine those images . . .

*Message #6 Posted by **Ned** on 13 Aug 2003, 5:55 p.m.,*
in response to message #5 by Paul Brogger

uuh, that's a lower case i and an upper case I, right above the same key used for alpha I. Look on a 15c above cos and tan. ~ned

ps I just found out google will do math. Calculate 50 N / 2 kg (= 25 m/s^2) pretty cool.

About that Google thing

*Message #7 Posted by **Harry (Germany)** on 13 Aug 2003, 7:24 p.m.,*
in response to message #6 by Ned

That is cool, I didn't know it has a build in calculator.

I played a bit with it and found this:

ln(e^(2 * pi * i)) = 0

At this point I was a bit surprised I get no roundoff errors.

I tried this next:

ln(e^(4 * pi * i)) = - 1.15771108 × 10^-15 i

And now got roundoff errors. Any idea why?

Regards, Harry

Re: About that Google thing

*Message #8 Posted by **Patrick** on 13 Aug 2003, 8:40 p.m.,*
in response to message #7 by Harry (Germany)

Just tried "4 ENTER 5 +"

Sigh.

Re: About that Google thing

*Message #9 Posted by **Tom (UK)** on 14 Aug 2003, 7:39 a.m.,*
in response to message #8 by Patrick

"Just tried "4 ENTER 5 +"

Sigh."

Did it reply:

Did you mean: 4 + 5

:-)

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33s and 48gII Info

*Message #1 Posted by **Jeff** on 12 Aug 2003, 12:27 p.m.*

Just found this info at hpcalc.org in case you haven't seen it yet:

http://www.hpcalc.org/images/datasheet48gii

http://www.hpcalc.org/images/datasheet33s.pdf

Sorry folks, the double-wide enter key at the left of the fifth row from bottom appears to be history. Time will tell if that is the worst omission from these new models.

Re: 33s and 48gII Info

*Message #2 Posted by **hugh** on 12 Aug 2003, 12:55 p.m.,*
in response to message #1 by Jeff

looks interesting. not sure what they mean by "internal napier precision". but they have a sensible amount of memory. the 33s claims keystroke programming, but the 48 doesnt say. is it the same or some C like basic?

i just hope they're not full of bugs.

on the subject of bugs, i am supposing that the old range worked by recycling and improving the same algorithms as they were developed, maintaining a strong base. if you've ever tried to write a scientific calculator in software from scratch its way too easy for quite embarassing bugs to get in there. limiting cases of trig functions and so on. even though you think youve really tested it.

Re: 33s and 48gII Info

*Message #3 Posted by **JaSon** on 12 Aug 2003, 1:04 p.m.,*
in response to message #2 by hugh

I worry. All the pictures look like the calculor was just pasted on. Look at the shadows on everything else then that of the calculator the real ones have several shadows coming from different light sources the calc has only one. Plus the wording of the specs is strange. It doesn't fit with the wording for the 9g and 30s. It looks like a very elaborate fake.

Re: 33s and 48gII Info

*Message #4 Posted by **Dave Shaffer** on 12 Aug 2003, 4:36 p.m.,*
in response to message #3 by JaSon

JaSon,

I agree - looks very much like a set of fakes.

The description of functions is incredibly inconsistent. There are some details that anybody who can

figure out how to turn it on won't need, and some other remarkably obtuse comments (like the "Napier" precision) and the appearance of linear regression twice (for the '33S) as well as other confusing, non-standard terminology in the "statistical function" section.

Re: 33s and 48gII Info

*Message #5 Posted by **Raymond Del Tondo** on 12 Aug 2003, 4:45 p.m.,*
in response to message #4 by Dave Shaffer

So maybe this is a taste of the manual quality of the new machines;-)

Raymond

Re: 33s and 48gII Info

*Message #6 Posted by **Thomas Cox** on 12 Aug 2003, 8:07 p.m.,*
in response to message #3 by JaSon

I wish I thought that the pictures and information shown on the 33S and 48GII were fake. Unfortunately, they are probably real. The keyboard on the 33S may be perfectly functional, but my first impression is: "Its a toy." Looks like a calculator Mattel would make.

On the other hand, my 32SII, 42S, and 41-CX look professional, have a good keyboard feel, and are sturdily constructed.

After I find out more about the new line of calculators I may be more impressed. But, as the saying goes, "If it looks like a duck and quacks like a duck, it is probably a duck."

Still, they do use RPN, so maybe there is some hope.

Re: 33s and 48gII Info

*Message #7 Posted by **John F** on 12 Aug 2003, 8:51 p.m.,*
in response to message #6 by Thomas Cox

The 48GII looks better than the 49G+, as far as being able to see the myriad of key function s clearly, but the 33S? That has got to be the worst possible design for a calculator keyboard ever imagined! Talk about throwing the ergonomics book into the paper shredder!!!

If they have already built and are selling the 12C Platinum, why not build a remake of the 15C? They have already solved the manufacturing and die casting issues, simply build on the 15C capability and correct the already identified ergonomic issues with the 12CP. I think that would be better accepted than this alleged 33S monstrosity. It does RPN a disservice by making it appear hard to use simply because you can't find the keys you need. Talk about a wacko casting job that must be too.

Re: 33s & 48gII Info - couple of points

*Message #8 Posted by **Tom (UK)** on 12 Aug 2003, 1:09 p.m.,*
in response to message #1 by Jeff

For both of these the make or break for me will be the manual - from recent efforts (last 10 years) HP will have to try MUCH harder.

HP33S:

1) Sack the keyboard designer (is it the worst looking calc ever?)

2) Is this like the HP42 or HP32? Keyboard - 32, display - 42 (or is the display for alg replay - yuk)

3) What is the manual like?

4) 0.06 inches thick - WOW!

5) No input output (not even Ir out?) - so having 32K RAM is not very useful (lose power - start typing).

HP48GII:

1) Looks like the HP49G+ to me but: less memory, slower processor, fixed operating system?

2) Is the Ir only compatible with the HP48GII and HP49G+?

3) Serial port - RS232 or USB?

4) MOST IMPORTANTLY is the manual any better than the heap-o-junk that the HP49G came with?

5) It still looks way too high end for my use :(

Re: 33s & 48gII Info - couple of points

*Message #9 Posted by **Jim L** on 12 Aug 2003, 4:01 p.m.,*
in response to message #8 by Tom (UK)

> Quote:
>
> 4) 0.06 inches thick - WOW!

But ten times that thick in metric :-)

Re: 33s & 48gII Info - couple of points

*Message #10 Posted by **hugh** on 13 Aug 2003, 9:42 a.m.,*
in response to message #8 by Tom (UK)

totally agree. the 9g comes with 2 pages. just two fold out pages. its totally appalling. you have to read the program examples to reverse engineer the syntax of the program language!

Re: 33s and 48gII Info

*Message #11 Posted by **Patrick** on 12 Aug 2003, 2:56 p.m.,*
in response to message #1 by Jeff

Well, the 33S sure makes the 32Sii look gorgeous, doesn't it? Form has ultimately trounced function, it seems.

I'm sorry, I know it is somewhat unfair to criticize without ever having held a machine in your hands, but these documents sure don't fill me with warm fuzzies.

Look at how in both documents the thickness has been incorrectly translated from mm to inches -- was it one of these calculators which did the conversion?

Look at the paragraph at the end of the 48Gii document, the one with the asterisk. Can anybody make sense of

this paragraph, in English? Say what? You need an internet connection in order to use the serial cable? But please purchase the cable separately because it is included!?

If this is the attention to detail the microcode got then we're in for some serious disappointment.

I also echo another poster's comment about no I/O with the 33S. This was one of the biggest criticisms of the 42S and so what does HP do but go out and repeat it. Probably some brainy marketer vetoed it to keep "product separation" with the 48Gii.

Re: "Please purchase separately"

*Message #12 Posted by **Paul Brogger** on 12 Aug 2003, 6:22 p.m.,*
in response to message #11 by Patrick

I think that phrase should be in parentheses (as in, "please purchase the PC separately").

Hey, at least they're being consistent. They've patched up some old designs and put 'em in flashy packaging. For marketing materials, they're not doing all new photography -- just patching in images of the new units into existing pictures. (I think I've seen the architect guy somewhere before . . .)

As for the 33s, it occurs to me that the designer either worked on or drives a Pontiac Aztek.

Re: 33s and 48gII Info

*Message #13 Posted by **Harold A. Climer** on 13 Aug 2003, 4:29 p.m.,*
in response to message #11 by Patrick

Also look at the words "maths students" no one whose native language is English would say that. I see it all the time from people who post messages on comp.sys.hp48 that are not native english speakers.

maths students

*Message #14 Posted by **bill platt** on 13 Aug 2003, 4:43 p.m.,*
in response to message #13 by Harold A. Climer

Unless you are English (not american): then you refer not to the subject as "math" but rather as "maths"

Regards,

-Bill

Re: maths students

*Message #15 Posted by **Les Bell [Sydney]** on 14 Aug 2003, 12:39 a.m.,*
in response to message #14 by bill platt

Not just the English - the Scots, Australians, probably the Irish, etc.

The term "math students" is only used by people whose first language is not English; to wit, Americans.

(Why *do* they only teach one mathematic in schools there?)

Best,

--- Les [http://www.lesbell.com.au]

Re: 33s and 48gII Info

*Message #16 Posted by **Fred** on 13 Aug 2003, 8:33 p.m.,*
in response to message #13 by Harold A. Climer

In almost every english speaking country besides the USA, we refer to it as maths.

Well, almost

*Message #17 Posted by **Patrick** on 13 Aug 2003, 8:42 p.m.,*
in response to message #16 by Fred

We don't use the "s" up here north of the USA, either, even with our strong English heritage.

Re: Well, almost

*Message #18 Posted by **bill platt** on 13 Aug 2003, 10:29 p.m.,*
in response to message #17 by Patrick

I was hoping a Canadian would get into this thread--I rather expected it with my ambiguous "american" moniker!

It's fun how Canadian english is sort of in between--the spelling of "colour" yet the use of "math" "funny" (meaning queer or eerie) "diaper" (not nappy). I can't remember about "soda" or "pop" but certainly not "tonic". I'd say Canadian feels more "States" than "U.K" to me--but I mostly interact with those in Nova Scotia where there are lots of familial ties and also an old french speaking population (L'Acadie was the province's original name after all). I don't know so much about the West (i.e. west of N.B!).

I had a great conversation just a week ago, in N.S., with a 16 year old, on this topic. She had a bunch of other great comparisons which I cannot think of now. My 15 year old cousin was also in the chat, and she just moved back State-side after five years in the Midlands--so she had a bunch of great comparisons and of course "bad words" to compare (like b*gger, bl**dy, and the British expression for a person who wears the jerseys of her favorite sports team all the time---). I wish I could remember them all!

regards,

Bill

Canadian vs. American english (long)

*Message #19 Posted by **Scuba Diver** on 14 Aug 2003, 12:11 a.m.,*
in response to message #18 by bill platt

Well, Bill, to answer your question,

We refer to it as pop, not soda. And the only time I order tonic is if it's mixed with gin!!

My school had quite a few british teachers, so I have a few british phrases in my lexicon. For instance, I refer to it as maths, and thanks to my chemistry professor (from Nottingham), I also pronounce some chemical names differently, for instance, aluminum is "alew-minium", methane is "meethane" and ethane is "eethane". You'd think that it would be an easy thing to change, but it isn't!!

The fact that I was exposed to british accents for most of my schooling makes it easier for me to follow Coronation Street...I've watched that since I was "knee-high to a grasshopper" (thought I'd throw some American English in for good measure!) I had some American friends up a few weeks ago, and they couldn't understand a word of it. Then again, most Canadians can't understand what they're saying either!

Of course, with the last name of Platt, I'm sure you would have no problem Bill...any relation to Gail and her gaggle of obnoxious children?? She married a murderer, don't you know!

(A coronation street reference, for those of you who don't follow the longest running soap opera in television history...now in its 41st season!!)

Anyhow, I digress...back to American and Canadian English

The difference between the two dialects becomes apparent to me when I go south of the border. For instance, when I order tea, they usually bring me iced tea, so now I'm in the habit of ordering hot tea. When I need a napkin (which we call a serviette), Flo usually stares at me like I'm from Mars. Finally, when I give up on the tea and order a pop, she asks me if I want "a Sprite Coke, an Orange Coke or a Coke Coke". The power of branding! Hehehe

Imagine if HP had the same brand power as Xerox, Kleenex, or Coke...

So do you want a Casio HP, a Citizen HP or an HP HP?

B.

Oh, and one more thing...

*Message #20 Posted by **Scuba Diver** on 14 Aug 2003, 12:19 a.m.,*
in response to message #18 by bill platt

...the last letter of the alphabet is "zed" not "zee"!

:) Cheerio! I'm knackered...off for a kip!

B.

Canadian Bacon

*Message #21 Posted by **bill platt** on 15 Aug 2003, 11:59 p.m.,*
in response to message #20 by Scuba Diver

Scuba,

(canadian bacon). How did this one ever come to be? And what do *you* call it?

Then there is french fries (pomme frites en francais?)

and how about "raisin" and "grape" vs french "raisin et "raisin sec". I have a theory about this one. If we english speaking people use the french word meaning grape to decribe the dried grape, perhaps it is because any grapes that came from France would have been dry by the time they got there, and so the "raisin" printed on the box would have "stuck". Or hte box said "raisin sec" but the second word was merely dropped for expedience. (I don't know what the real reason is, but it is fun to imagine it, anyway.

Isn't the bird the "turkey" so named because somewhere in europe it was though or assumed that the bizarre creature was from Turkey? What did the pilgrims call it, anyway--big-*ss bird?

And then there is cos(x) rather than cosine(x).....

ciao,

bill

Re: Canadian Bacon

*Message #22 Posted by **Patrick** on 16 Aug 2003, 12:55 a.m.,*
in response to message #21 by bill platt

What the US calls Canadian Bacon, Canucks call back bacon.

Re: Back Bacon

*Message #23 Posted by **bill platt** on 16 Aug 2003, 8:42 a.m.,*
in response to message #22 by Patrick

Patrick,

thanks! Of Course! How could I forget! It was even in one of the Bob-and-Dave McKenzie skits!

Best regards,

Bill

Re: Back Bacon

*Message #24 Posted by **Karl Schneider** on 17 Aug 2003, 4:25 a.m.,*
in response to message #23 by bill platt

> Quote:
>
> It was even in one of the Bob-and-Dave McKenzie skits!

I remember, from the early '80s, the "12 days of Christmas"

```
...
Five golden tukes
Four pounds of back bacon
Three french toast
Two turtlenecks
And a beer on my knee
```

I can hear the cheesy sythesizer now...(NT)

*Message #25 Posted by **bill platt** on 17 Aug 2003, 2:31 p.m.,*
in response to message #24 by Karl Schneider

;-}

PS was it "beer in a tree"?

Edited: 17 Aug 2003, 2:32 p.m.

classic calculator; classic pizza

*Message #26 Posted by **Norm** on 18 Aug 2003, 4:21 a.m.,*
in response to message #25 by bill platt

An HP-34C is what I call a classic calculator.

Canadian Bacon and pineapple is what I call a classic pizza.

There is a problem that there is too much variation between pizza stores; often substituting cheap types of meat for the genuine back-bacon that was mentioned.

Another classic pizza is pineapple with olives.

HEY GET THIS ONE: The ultimate classic pizza? I invented it myself . FOUR ingredients

* Canadian Bacon

* Pineapple

* Pepperoni

* Olives

See? You take two classic pizzas and merge them together. You can't beat the taste, plus it keeps most everybody happy.

Kind of like combining the red LED's of an HP-34C with the more sophisticated programming of an HP-41C.

Re: classic calculator; classic pizza, classic beer

*Message #27 Posted by **Randy Sloyer** on 18 Aug 2003, 7:38 p.m.,*
in response to message #26 by Norm

Which beer should one consume with such a classic pizza?

It would not be fitting to pop a lowly Budweiser or Miller with such a creation. Would you recommend a full-bodied Belgian? wink, wink, nudge, nudge.

Edited: 18 Aug 2003, 7:39 p.m.

Re: classic calculator; classic pizza, classic beer

*Message #28 Posted by **Scuba Diver** on 18 Aug 2003, 10:22 p.m.,*
in response to message #27 by Randy Sloyer

Well, just so long as it isn't American beer...one of these days

you'll realize that beer is supposed to have alcohol in it! Hehehe

The pizza sounds yummy, and I'd go with a nice wheat beer, especially this time of year. Nice and refreshing.

On the topic of beer, a British friend (who was a bartender) told me something and I don't believe him (I'm usually quite a trusting fellow!) I'm a big fan of snakebites, which are 1/2 lager, 1/2 cider. He said that British pubs can't serve it, and the reason is that it can cause brain aneurisms. If pubs are not allowed to sell this drink, I think it's because the cider makes the lager go cloudy, which might throw off other patrons.

My question to those on the other side of the pond is:

Can I order a snakebite in a local, and if not, why?

B.

Re: Back Bacon

*Message #29 Posted by **jimc** on 19 Aug 2003, 7:26 p.m.,*
in response to message #24 by Karl Schneider

"tukes" is I believe, actually spelled "toques".

Re: 33s and 48gII Info

*Message #30 Posted by **JK** on 13 Aug 2003, 11:38 p.m.,*
in response to message #13 by Harold A. Climer

Sorry Harold, your parochial "slip" is showing. "Maths" is the usual abbreviation for mathematics that native English speakers outside North America use.

Re: 33s and 48gII Info

*Message #31 Posted by **Juergen (CH)** on 12 Aug 2003, 3:39 p.m.,*
in response to message #1 by Jeff

For me, the 33s looks much like a 32sII with more memory. The design, especially of the 33s, remembers me to stylish cellular phones. A matter of personal taste, but I wonder if that key arrangement is really comfortable. The worst is the missing PC link: did you ever typed in 32KB of program/data?

As Patrick noted before, I'm curious what the Internet connection is good for (perhaps to access MoHPC?).

My fear (see 12C Platinum): stylish, but not really an invention...

Juergen

Re: 33s and 48gII Info

*Message #32 Posted by **christof (NoVA US)** on 13 Aug 2003, 12:32 a.m.,*
in response to message #31 by Juergen (CH)

I have typed in large amounts of programs- my 42s has about 22k in.

Far, far worse for me than the lack of IO is the keyboard look.

Oh- I'll end up buying one and trying it out, but it looks horrid.

(And i still think the 32Sii is a pretty machine)

but- what about the 48? Do we get to hack? Can you get in there and do assembly language programming? Is it *real* addition to the 48 series?

Re: 33s and 48gII Info

*Message #33 Posted by **Richard Garner** on 12 Aug 2003, 3:57 p.m.,*
in response to message #1 by Jeff

Well Folks,

I had high hopes that these new units would return HP back into what it once was, in terms of calculators. Reading the descriptions and looking at the images, I now have to finally come to terms, that the old HP is truly dead and this new one is not far behind. Currently the only option that I can see is to take out a mortage on my house and buy 10 units of each of the older HP calculators I use off of eBay.

Re: 33s and 48gII Info

*Message #34 Posted by **Tizedes Csaba** on 12 Aug 2003, 4:35 p.m.,*
in response to message #1 by Jeff

I am a little conservative... I am a mechanical engineer student, and the classical design mean me a value of this profession (engineering).

I belive, the calculator represents this profession, like slide-rule many years ago.

I will be an engineer, and I use day-to-day a classical HP calculator.

I think the next young engineer generation LOST something from the honour of this profession when begin to use this new calculators.

That was a 'great era', when the engineers desingns for engineers not the market.

Sorry for my poor english...!

Csaba

Classic

*Message #35 Posted by **Tizedes Csaba** on 13 Aug 2003, 1:15 a.m.,*
in response to message #34 by Tizedes Csaba

'classic' I mean HP10C, HP15C, HP28C, HP32SII, HP48SX...

Csaba

Re: 33s and 48gII Info

*Message #36 Posted by **Raymond Del Tondo** on 12 Aug 2003, 4:42 p.m.,*
in response to message #1 by Jeff

Thanks for the update.

>Sorry folks, the double-wide enter key at the left

>of the fifth row from bottom appears to be history >

Yes, I really hoped that at least the 48GIIxyz;-) would have a more ergonomic keyboard. The new electronics inside the machines made hope for some advanced program development options, like programming in C or alike, and interfacing to RPL.

Like Richard, I'm very disappointed.

Maybe I'm too used to the much more ergonomic keyboard of the Pioneer Series, including the 'Streched Pioneers' (HP-48, not 49), and of course the HP-41 series.

The 49G and alike aren't Pioneer series machines, at least from the overall hardware.

So maybe someday I'll buy one of these 'redesigned 49G's' for my collection only, but after seeing the pictures, my buying priorities suddenly shifted to one of the latest HP-48GX's with the high-contrast display. The mechanical quality isn't as good as in the 'A' or 'S' made units, and the key legends are painted, but these are minor points, because the keyboard layout and tactile feedback is how I want it.

So if someone wants to sell or trade a GX with the new display, or knows where I could buy such a unit for a good price, please let me know.

Raymond

Re: 33s and 48gII Info

*Message #37 Posted by **bill platt** on 12 Aug 2003, 5:24 p.m.,*
in response to message #36 by Raymond Del Tondo

Hi Raymond,

I think samson cables (www.samsoncables.com) may have the black and white ones.

There was a post in last month's archives, which I instigated, which also found a source.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=35477

just follow down through the responses, and you'll see who found one--he leaves his e-mail address.

Another source, from an old post:

http://cgi.es.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3029192245&category=20335

Best regards,

Bill

Re: 33s and 48gII Info

*Message #38 Posted by **Daniel Diggelmann** on 12 Aug 2003, 5:50 p.m.,*
in response to message #37 by bill platt

I agree with all your posts that the classic HP cals were of high quality and I always apreciated this

very much. But I don't see the new calcs as negative. At least it's a sign that HP have changed their mind upon leaving the calc business. And it seems as if they were reading the comp.sys.hp48 and also MoHPC in order to find out what the customers want. I only do hope that the new calcs will be of better make than the 6S and 30S which I had in hands. I can imagine that Kinpo are able to write an emulator. But where are the innovations? What we want is a more powerful CAS, other calc software or engineering packages which need a lot of know how and ingenuity. And we want it bugfree because we like to use the calc for work and not to play. I'm curious and will sure buy the HP49G+ to play but maybe only to play with...

Re: 33s and 48gII Info

*Message #39 Posted by **Raymond Del Tondo** on 14 Aug 2003, 5:01 a.m.,*
in response to message #37 by bill platt

Hi Bill,

many thanks for the links !

Best Regards,

Raymond

oh no, it's kinpo

*Message #40 Posted by **ned** on 12 Aug 2003, 5:49 p.m.,*
in response to message #1 by Jeff

just what I feared after seeing the 49G+ pdf. The 33s is a Kinpo. Has the entire world gone form over function? I wish it *were* a hoax, but seeing is usually believing. Conspiracy theorists: please don't waste everyone's time.

Here is page 5 of Kinpo's line of Citizen branded calcs:
http://www.jcbm.co.jp/eng/consumer/calc/scientific/scientific5.html look familiar? I wish the 33s were as plain as the citizen SPR-350, but hp had to go and do a flashy custom design. I'm definitely getting a 48gx while still I can, they're on hpshopping.com for US$150. Try using those slanted keys during a test. I'll treat my 28s very well from now on. I was hoping they would at least reuse the 10bii mold for the 33s, but it wouldn't be 'economically viable' to start that production line up again. Somewhere in a dump in Singapore or Malaysia there lies the fab line for the pioneer series. :(To Kinpo's credit, they do have good bang for the buck. Someone please convince Kinpo to buy the Pioneer patents and sell HP calcs back to HP. ~ned

33s

*Message #41 Posted by **Tom Scott** on 12 Aug 2003, 8:13 p.m.,*
in response to message #40 by ned

Well at least the new 33S has a two line display like the 42S.

Tom Scott Lander, WY

Re: 33s

*Message #42 Posted by **db(martinez,california)** on 12 Aug 2003, 9:01 p.m.,*
in response to message #41 by Tom Scott

And maybe someone can find a way to connect the 33 to a pc or mass storage.....Randy?

Re: 33s

*Message #43 Posted by **Iqbal** on 12 Aug 2003, 9:22 p.m.,*
in response to message #42 by db(martinez,california)

The HP48GII looks pretty good. The only thing is probably the buttons. Can't wait to get one though.

Yuck!

*Message #44 Posted by **Michael F. Coyle** on 12 Aug 2003, 10:24 p.m.,*
in response to message #1 by Jeff

I don't like the looks of the 48gII, but the 33s is really awful! The weird key shapes are very distracting.

They must be getting their design ideas from the same people who are doing the new Nokia phones. (The phones are even worse -- they've replace the standard rectangular keypad with various strange layouts apparently designed for their novelty effect, rather than what's easiest for the customer to use. Hopefully they won't sell many and this terrible trend will come to a swift end.)

Give me a boring rectangular keyboard any time.

I'm not crazy about the small Enter key either.

Having said all that, I may end up getting a 33 just so that I'll have a cheap throwaway RPN machine I can take everywhere. Otherwise, I'll stick with my *real* HP calculators.

- Michael

Posts are too negative

*Message #45 Posted by **Louis Alley** on 13 Aug 2003, 9:58 a.m.,*
in response to message #1 by Jeff

Who cares if the keyboard slants like a cell phone. After a while of using the calc, you'll get used to it.

Face it - it's not the 1980's anymore. HP won't doom itself by bringing the ugly brown design back. Some people buy based on looks. HP needs that.

I feel like a lot of people who post are just bigoted for the 1980's calcs. They haven't even used the new ones, and they are already bashing them.

If the 33S turns out to be a smashing success for my generation, I'm sure we'll be nostalgic when HP changes the color to black in 2020.

-Louis

Re: 33s and 48gII Info

*Message #46 Posted by **eclectic_echidna** on 13 Aug 2003, 4:12 p.m.,*
in response to message #1 by Jeff

Hey, I LIKE the look of the new 33s.

Two line display, and around $50-60? Why not?

My question to HP is why are the cube-root and integer-divide top level keys? Is it really THAT common?

-- ee

Re: 33s and 48gII Info

*Message #47 Posted by **bill platt** on 13 Aug 2003, 4:45 p.m.,*
in response to message #46 by eclectic_echidna

They found themselves with 3 extra keys and didn't know what to do with them ;>}

Re: 33s Cube Root & Integer Divide

*Message #48 Posted by **Paul Brogger** on 13 Aug 2003, 6:30 p.m.,*
in response to message #46 by eclectic_echidna

. . . and both SST & BST are shifted (as in HP-32Sii). And for Algebraic users, left & right parentheses are shifted . . .

Troubling! (Geez! How I wish *someone* who frequents this board had had a shot at the keyboard layout early on!)

But more memory is what the 32sii needed most. And a second line of display (assuming it's appropriately functional in RPN and programming modes -- it had better be!) will be nice. And the 32s/sii programming interface (assuming *that's* what's being carried forward) is, I think, H-P's **most** user-friendly for the occasional programmer.

I'll still probably buy one, and I still hope it *feels* good!

Re: 33s and 48gII Info

*Message #49 Posted by **Eduardo** on 13 Aug 2003, 7:29 p.m.,*
in response to message #1 by Jeff

I was hoping the 33S would be more like the 42S than the 32S ---vain hope, it turns out now. Also, the specs say the display is 2x14 characters of 5x7-pixel characters, so it's a 2-line version of the 32S display rather than a true pixel grid like the 42S, aka, not even suitable for (rudimentary) graphics :-(

Price?

*Message #50 Posted by **Erik Wahlin (USA)** on 13 Aug 2003, 10:38 p.m.,*
in response to message #1 by Jeff

Anybody have any idea what the price on these calcs. might end up being?

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Another picture thief on eBay

*Message #1 Posted by **Andrey** on 12 Aug 2003, 8:42 a.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3040681963&category=11713

Here's another one borrowing CX material from an official site. This time the idiot stole a .jpg from a well known site that I am not permitted to name here (as an automatic filter on this site warned me!) If they don't have digital cameras, why not just have no picture and leave it at a description. What do these people possible think they are gaining by posting such stuff? People never cease to amaze me- I must be getting old.....

Re: ... growing old ...

*Message #2 Posted by **Paul Brogger** on 12 Aug 2003, 10:33 a.m.,*
in response to message #1 by Andrey

You may have just suggested another defintion for "grown old":

*when one stops being **amazing**, and is merely **amazed**.*

He also has BAD Contact Info

*Message #3 Posted by **Mike** on 12 Aug 2003, 10:44 p.m.,*
in response to message #1 by Andrey

and 5 negatives for not matching description.

If you report his BOGUS email address, he WILL be suspended. Guaranteed!

A rule of eBay is that contact info must be valid at all times. His is bad.

Edited: 12 Aug 2003, 11:10 p.m.

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Can we bring ebay prices down ?

*Message #1 Posted by **Renato** on 12 Aug 2003, 2:16 a.m.*

Just by NOT BIDDING AGAINST SOMEONE ELSE ?

Even if the first bid is very low, just keep your faith and do not bid.

I have been trying to do this for some months.

Can we all do it for a couple of months ?

Re: Can we bring ebay prices down ?

*Message #2 Posted by **Juergen (CH)** on 12 Aug 2003, 5:33 a.m.,*
in response to message #1 by Renato

Don't think it will work. They are too many people interested in HP handhelds on eBay. If you look for cheap calcs ask your friends, your coworkers, etc. The more people know of your hobby the greater will be the chance to get HP calcs for reasonable prices (or even for free).

Regards, Juergen

the only way is auction sniping

*Message #3 Posted by **Norm** on 12 Aug 2003, 6:03 a.m.,*
in response to message #2 by Juergen (CH)

Renato --

Auctions are problematic because some people do not concentrate on fair/value/market pricing. Instead they think they are playing a game of ping-pong, and whatever the existing bid is, they go higher. They don't concentrate up front and decide on a fair price, they just keep entering numbers as they go, always trying to outbid. It is like they think they are hiking up the side of a mountain, instead of evaluating the fair price of something.

The only way around this is auction sniping. You either bid low, or not bid at all. Let the other guy think he won the auction. Then enter your final bid price a few seconds before the auction closes.

If everybody auction sniped, instead of being a game of ping-pong, it just becomes a voting system.... everybody enters a value they think it is worth, and high-entry takes the item.

Auction sniping is problematic because you have to enter that true final bid in the last 5-10 seconds, and sometimes you miss, so then you lose entirely.

I have been very happy with an automatic auction sniping service, of which there are several. People on this board pointed me towards: http://www.auctionsniper.com

I can't see any other way to "bring eBay prices down". It is not a cure, but it DEFINITELY helps, and quite a lot . :o)

Acution sniping software

*Message #4 Posted by **Mike** on 12 Aug 2003, 10:55 p.m.,*
in response to message #3 by Norm

Is completely unnecessary, unless you can't be there in person. The software does not help you beat another in-person sniper.

Simple rule of auctions: Highest bid wins. Just pick your bid and bid at the last second. If you lose, oh well, you didn't want to pay higher. If you win, you most likely will get it at a lower price than you expected.

free auction sniping

*Message #5 Posted by **Clive Marner** on 12 Aug 2003, 7:31 a.m.,*
in response to message #2 by Juergen (CH)

I agree with Norm. I try never to get into a bidding war on an item because the moment you do the final price will be more than you want to pay. I've used sniping services a lot - auctionsniper is very good but you can only use it so much before you have to start paying. There is another site I've used which you never have to pay for - I think it's www.lotsnipe.com but I can't check at work because everything to do with auctions is blocked! They do have a premium service which you pay for, but if your happy with 10 second sniping then it's completely free.

Conversely, I would encourage everyone to get into bidding wars on all my items ...

Re: free auction sniping

*Message #6 Posted by **Thibaut.be** on 12 Aug 2003, 8:41 a.m.,*
in response to message #5 by Clive Marner

www.vrane.com provide a sniper publix boxn, that let you snipe one auction at a time. Though 6 seconds is not always good : i've been sniped in the meantime on a complete 65 for $ 185... quite cheap !

Waste of money

*Message #7 Posted by **Mike** on 12 Aug 2003, 10:58 p.m.,*
in response to message #5 by Clive Marner

Paying for sniping service is a waste of money. There are always in-person snipers and software does not help you beat those.

For instance, I always bid my maximum bid in the last seconds. If someone outbids me, they pay too much (based on what I believe it's worth). No auction software can beat that. They might win, but they pay more than I would have paid and they can have it at that price.

Re: Can we bring ebay prices down ?

*Message #8 Posted by **Patrick** on 12 Aug 2003, 3:11 p.m.,*
in response to message #1 by Renato

I think this question is motivated by a belief that the prices on eBay are somehow "inflated". I totally disagree with this notion. To me, the prices on eBay are almost by definition the true market value of these items. Other than needing access to the internet, there are few restrictions on who can buy and who can sell there. If this does not result in "true market value" then what does?

However, to answer the question asked, it is only the market as a whole that can influence prices. The people who visit this forum are significant part of that market but by no means the majority, I suspect. Even if you manage to get a bunch of people here to bid lower or bid less often or refusing to snipe, what I think will happen is that the people who don't participate in this effort will start to win items (marginally) cheaper. The people who do participate in the experiment won't win many auctions at all and will be in pretty much the same boat they're in now.

Re: Can we bring ebay prices down ?

*Message #9 Posted by **David Smith** on 12 Aug 2003, 4:47 p.m.,*
in response to message #8 by Patrick

The people who visit this forum tend to bid very reasonable amounts for machines... typically the low side of average. It is the newbie, uninformed, or desparate people who tend to bid those really high prices. And it takes two of them at the same time and place to make that Ebay magic happen... all too often though.

Re: Can we bring ebay prices down ?

*Message #10 Posted by **Patrick** on 12 Aug 2003, 7:25 p.m.,*
in response to message #9 by David Smith

I'm not sure how you know how the people on this forum bid. I would imagine that there are people here of a vast variety of means and values who bid altogether differently from one another -- just like the rest of the world.

But even if you are right, even if it is the newbie, uninformed or desperate who bid "high" prices, it makes no difference. Those people are part of the free market, just like everybody else, and their contributions help to set the "market price", and always will. It's not like there is another eBay-like place out there where newbies don't go and where the items are therefore more affordable. This is it, folks. This *is* the free market system.

Let's also remember that the people who bid those so-called high numbers generally *pay* for their items. What is perceived as a lamentable unaffordability of these items by buyers like you and me, are a corresponding financial boon to the good folks selling these items. Many of them also have kids to feed, I suspect.

Re: Can we bring ebay prices down ?

*Message #11 Posted by **David Smith** on 13 Aug 2003, 4:14 p.m.,*
in response to message #10 by Patrick

The regular people here are a fairly small and chummy community. We know each other fairly well, often trade and correspond with each other, know Ebay user names, and very often bid against each other.

No, it's not a true market.

*Message #12 Posted by **Thibaut.be** on 13 Aug 2003, 6:43 a.m.,*
in response to message #8 by Patrick

... at least for HP calcs.

Ebay is the bets place to sell and the worst place to buy.

Since there at the same time is a very limited supply of calculators and that the auction system make lots of buyers bid on the same item, you often switch from a true market to an oligopolistic and often monopolistic market where prices are inflated.

Then where?

*Message #13 Posted by **Patrick** on 15 Aug 2003, 2:36 a.m.,*
in response to message #12 by Thibaut.be

Ok, so point me at the place where I can go -- mark you -- where *I* can go -- that is more representative of a true market.

I emphasize that it must be possible for me to go there and to do so at a very reasonable cost. There's no point to me or to anyone else if there's a market in some place that costs me a great deal of money and/or effort to use. I'm not going to spend thousands of dollars in travel costs or in my time to save a small percentage on items costing a few hundred.

I'm sorry, I just don't get it. You can't argue that eBay is somehow biased towards sellers unless you have something else to compare it to that has similar mass market appeal and availability and does not have that bias.

I'd be very happy if you were to prove me wrong. Then I wouldn't have to spend so much money pursuing my geekish hobby!

Of course, if you were able to do this, everybody on eBay would flock there and the same situation would soon develop there as is now the case on eBay.

What if we just try to see what happens ?

*Message #14 Posted by **Renato** on 12 Aug 2003, 4:54 p.m.,*
in response to message #1 by Renato

Lets just not bid against anyone for a few months. This HP activity is for fun. If the prices do not go skyhigh, we will have more fun.

What will happen if this does not work ? We will not get some calculators for a few months.

What if it works ? We will get cheaper calculators for some time.

Let me play devil's advocate

*Message #15 Posted by **Mike** on 12 Aug 2003, 11:01 p.m.,*
in response to message #14 by Renato

Let's assume we played your game. Let's assume prices came down. (it won't; but let's assume)

When do we all start to bid again?

Who gets the items at bargain prices in the meantime?

When we all start to bid again, against each other, the prices will rise again? And those that didn't play your game, got some bargains, while we forced the price back up for ourselves, when we start again.

No thanks!

Ouch!

*Message #16 Posted by **Renato** on 13 Aug 2003, 1:10 a.m.,*
in response to message #1 by Renato

Enough spanking ... I quit.

Ok - wait for me . I´ve just reloaded my auctionsniper account. Bidders beware !

Renato

Re: Ouch!

*Message #17 Posted by **Patrick** on 13 Aug 2003, 2:15 a.m.,*
in response to message #16 by Renato

Way to go, Renato! Snipe away!

You see how the free market works? Any "plan" to thwart true market value is overcome by other market forces (i.e., the rest of us :-), thereby forcing true-market behaviour on the would-be planner.

Re: Can we bring ebay prices down ?

*Message #18 Posted by **Victor Koechli** on 13 Aug 2003, 8:54 a.m.,*
in response to message #1 by Renato

IMHO, no, we can't, at least not significantly, because there will always be people who don't play your game and continue bidding, also against each other.

I have tried to bring Picasso (insert you favorite artist here) prices down this way, with no success :-((If everybody wants to have something, the ones who will spend the most money for something will get it.

That said, and referring to an earlier post where I thought out loud about starting collecting something else (not being serious, of course), statistical fluctuations are there and will sometimes allow you to get a calculator at a reasonable price even if they are usually waaay to expensive.

Cheers, Victor

Re: Not a good idea!

*Message #19 Posted by **gifron** on 13 Aug 2003, 1:54 p.m.,*
in response to message #1 by Renato

Whether it would work, or not, is one issue. The real issue though is that this is ILLEGAL bid rigging. I'm not talking about "eBay illegal." This is real, "Sheriff at your door at supper time" illegal... In the US anyway.

Re: Difference between boycott and Bid rigging

*Message #20 Posted by **Ron Ross** on 13 Aug 2003, 2:28 p.m.,*
in response to message #19 by gifron

I believe that boycotting is legal, Bid Rigging is not. And there is a difference. How one accomplishes the feat determines whether it is legal or illegal.

What is really proposed here, regardless of what they call it, is boycotting. Bid rigging really only takes place in closed sealed bids. Everyone is in on the scam and one person is predetermined to be the high bidder. Bid Rigging.

This group is really advocating a boycott (which is totally within the whole groups rights). But as has been mentioned earlier, is that this will be an ineffective and probably counter productive endever. It may depress a few auctions, by allowing those not participating or even ignorant of this groups efforts to purchase some calculators below the present market value.

I foresee the new Hp's will depress the market somewhat. How? Because some less knowledgable consumers (maybe smarter! 8o)) will wait until the newer and improved RPN's come out so they won't have to buy the outdated and discontinued JUNK! There are engineers who just have to have an RPN calculator and when their ONE and only breaks, they jump in and buy the first one available when they can't find Hp at the local store and also find HP no longer even makes. These guys need a tool now and cannot afford to bargain shop. That is why I believe Hp32s and Hp42s (and older Hp10c series calculators as well) are usually so high. Collectors have to fight over these as well, but these models might actually be much more common than a 21s, 22s or 27s which typically bring less.

Pioneer Prices

*Message #21 Posted by **Randy Sloyer** on 13 Aug 2003, 6:22 p.m.,*
in response to message #20 by Ron Ross

The 21s, 22s and 27s are of course algebraic. IMO, only the collectors and a few dedicated users buy them. It's not that their prices are low, they are probably just about right. Saw a nice 22S go last week for <$70.

Its that huge pool of everyday RPN users driving up the prices on the 32S and 42S machines. When someone plunks down $250 for a dented 42S, that ain't no collector.

$600 for a NIB 15C is another story...

Re: Not a good idea!

*Message #22 Posted by **David Smith** on 13 Aug 2003, 4:09 p.m.,*
in response to message #19 by gifron

If you read the Ebay fine print you will find that they are technically NOT an auction! They are a name-your-price service. That way they don't need auction licenses in every state/country that they deal in. Auction bid rigging laws don't seem to apply.

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simple math

*Message #1 Posted by **Don Alexander** on 12 Aug 2003, 1:19 a.m.*

how do you do simple math ie adding,multi.div.sub on a hp19c. where is the = key?

Re: simple math

*Message #2 Posted by **Vassilis Prevelakis** on 12 Aug 2003, 1:30 a.m.,*
in response to message #1 by Don Alexander

RTFM

The manual for the 19C is on the MoHPC CDROM

For a quick how-to read the RPN article on the HP web site: http://www.hp.com/calculators/articles/rpn.html

**vp

Re: simple math

*Message #3 Posted by **Don Alexander** on 12 Aug 2003, 2:53 a.m.,*
in response to message #2 by Vassilis Prevelakis

thanks VP I will either get the cd or get rid of this thing if i can't figure out how to use it if it was a slide rule I would know how to use it.

Re: simple math

*Message #4 Posted by **Chan Tran** on 12 Aug 2003, 8:26 a.m.,*
in response to message #3 by Don Alexander

Dear Don, If you want to get rid of it please donate it to one of us. Please

Re: simple math

*Message #5 Posted by **Jim L** on 12 Aug 2003, 12:47 p.m.,*
in response to message #3 by Don Alexander

> Quote:
>
> it if it was a slide rule I would know how to use it.

But I'm sure you were given some instruction on slide rules. Get a manual for it and it will all make sense. You won't want to go back to calculators with = keys.

Re: simple math

*Message #6 Posted by **Chan Tran** on 12 Aug 2003, 2:25 p.m.,*
in response to message #5 by Jim L

Thanks Jim. I was about to ask Don to trade his 19c for a calculator with the "=" key. (I would buy him a brand new one too)

Re: simple math

*Message #7 Posted by **Chan Tran** on 12 Aug 2003, 2:36 p.m.,*
in response to message #6 by Chan Tran

I can't help but post again. A fully functioning HP19C is worth more than any handheld calculator that you can buy new in store today. So Don do ya wanna trade?

Re: simple math

*Message #8 Posted by **ned** on 13 Aug 2003, 2:01 p.m.,*
in response to message #1 by Don Alexander

Don, please read about RPN on HP's site, and be sure to check out the explanation of RPN here on hpmuseum.org also. link to HP: http://www.hp.com/calculators/articles/rpn.html

If you really wanna get rid of it, put it up for sale in the classified's on this site. Otherwise just tough it out and learn RPN for 'fun'. Get a Casio fx260 solar at walmart for $9 to do your everyday math.

~ned

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HP-71B/HP-41CX on same HP-IL Loop

*Message #1 Posted by **Jeff** on 11 Aug 2003, 8:26 p.m.*

HP-71B/HP-41CX on same HP-IL Loop, can this work? I presume so but I have been having problems getting the HP-71B or the HP-41CX to print or access the tape drive. I have checked the cables for continuity and also that each one works, prints and accesses the tape drive, while the other is not plugged in. I have been reading the HP-IL books for both machines and have yet to get anything that works. "Broken IL Loop" is one of the messages I get. Any thoughts or ideas would be appreciated. I would like to leave them both connected and just transfer control from one to the other when required. Best Regards, Jeff

Weird, isn't it?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 12 Aug 2003, 12:17 a.m.,*
in response to message #1 by Jeff

Hi, Jeff;

Because of the fact I had only one IL cable, one 9114B (IL disk drive) and the 82160A (HP41 HPIL ROM module), I tried this about a couple of months ago to see what happened.

The fact is that the HP71B (and anyone else) cannot be a controler in a loop where an HP41 is part of. If you put two HP41 in a loop (as Jose Ernesto once tried) they will conflict with each other because both will try to be controlers, and one of the rules in an HPIL loop is that only one controler can exist; all other devices are "talker" or "listener". I tried to go further and set the HP71 as a listener, but I believe it is set as a listener by the HP41. If you have the Extended I/O module (or any other taht is able to do it, like PANAME ROM) you can connect both the HP41 and the HP71 together (and only) and execute AID in the HP41. In the first attempt you'll read [TRANSMIT ERR] in the HP41, but in the second attempt you'll find no errors and the ALPHA register will contain [HP71] text after executing AID.

Try it and tell us. I cannot go any further because I did not try to.

Not too much of a help, but I think it's a starting point.

Success.

Luiz (Brazil)

Edited: 12 Aug 2003, 12:18 a.m.

Re: HP-71B/HP-41CX on same HP-IL Loop

*Message #3 Posted by **Philip** on 12 Aug 2003, 8:02 p.m.,*
in response to message #1 by Jeff

Try this with just the 71 and 41 connected.

on 71: CONTROL OFF @ RESTORE IO ENTER :LOOP;A$ @ DISP A$ (there must be a space before :)

on 41: 1[ALPHA]TESTING[ALPHA] XEQ [ALPHA]OUTA[ALPHA]

That should send the string from the 41 to the 71.

I believe CONTROL OFF is the key to removing the 71 from Controller Status. You'll need to do a RESET HPIL or CONTROL ON on the 71 to regain loop control.

Hope that helps.

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Symbolic math

*Message #1 Posted by **Tizedes Csaba** on 11 Aug 2003, 5:17 p.m.*

Hello!

Try to solve for 'x' the following equation:

```
3*x+1/(x-5)=15+1/(x-5)
```

The MAPLE, MATHEMATICA and HP48SX (solve with QUAD) give me the bad answer (x=5). (The "good" answer is 'no solution'.)

Who understand it...!?

Csaba

Re: Symbolic math

*Message #2 Posted by **Wayne Brown** on 11 Aug 2003, 5:52 p.m.,*
in response to message #1 by Tizedes Csaba

I would imagine it is rearranging it as:

3*x=15+(1/(x-5)-1/(x-5))

and simplifying that to:

3*x=15

which it then solves to get x=5. (I'm just guessing here.) Obviously it doesn't try to go back and substitute x=5 into the original equation and solve it, else it would get a divide-by-zero error. Hence the admonition of my algebra teachers over 30 years ago: Always go back and check your answer!

BTW, Erable 3.201 on my 48GX gives the same answer: x=5.

Well...

*Message #3 Posted by **Jim L** on 11 Aug 2003, 6:48 p.m.,*
in response to message #2 by Wayne Brown

Undefined-approaches infinity = Undefined-approaches infinity?

Seems like a pretty good "machine answer". Needs a person to put it in context though.

Re: Symbolic math

*Message #4 Posted by **Larry Corrado, USA (WI)** on 11 Aug 2003, 5:56 p.m.,*
in response to message #1 by Tizedes Csaba

If you try to find a solution by inserting values and testing, the 1/(x-5) terms on each side "blow up" when x approaches 5. However, if you first algebraically cancel out those denominators (by multiplying by (x-5)), you can solve it normally (and get x = 5). To be honest, I don't know which solution ("no soultion" or x = 5) a mathematician would call correct.

Don't know if this is helpful or not... Larry

Re: Symbolic math

*Message #5 Posted by **Speck** on 11 Aug 2003, 9:55 p.m.,*
in response to message #1 by Tizedes Csaba

On the TI-92:

Solve(3*x+1/(x-5)=15+1/(x-5),x)

Returns x=5

The TI-85 numeric solver returns X=5.00000000001, but does so with a sign change error before final resolve.

As a direct algebraic problem, x=5 doesn't really work. However, if the machine is internally doing some sort of a limit process, then the returned answer x=5 is quite correct, as it would never actually reach the discontinuity at x=5. If something like Newton's method (or bisection, or one of the better methods) is being used, then there is some sort of stop condition where, based on a preset tolerance level, the algorithm figures it's "close enough," and returns the found answer to the user, even though that answer may appear to be exact. The machine doesn't just magically pick x=5, plug it in and see what happens. You could just as easily do that on your own. The machine has to use a method more suited to it's type of "thinking." The advice posted above about always checking your answer is definately good advice. The computer can never be better than the person using it.

Unfortunately, this doesn't look like one of the problems where the conjugate trick works, either.

Speck.

Re: Symbolic math

*Message #6 Posted by **J. Osugi (E. U.)** on 12 Aug 2003, 1:32 a.m.,*
in response to message #1 by Tizedes Csaba

```
 > Try to solve for 'x' the following equation:
 > 3*x+1/(x-5)=15+1/(x-5)
 >
 > The MAPLE, MATHEMATICA and HP48SX (solve with QUAD) give me the bad answer (x=5). (The
"good" answer is 'no solution'.)
 >
 > Who understand it...!?


I wasn't able to get a symbolic result with the HP48GX (expan, colct and isol
fail to isolate the 'x' variable).
The numeric solver (root) instead works and returns 5.


The functions solve(), nsolve(), and zeros() of the TI89 <EG>
return 5 as well.


Mupad Light and Math Cad return 5, too.


I suppose it's a matter of how the function behaves when the value of x
```

```
tends to 5: both the terms 1/(x-5) tend to the same order of infinite
and elide each other, so that x=5 is the actual "good" solution.
In other words: evaluate both the terms of your equation, 3*x+1/(x-5) and
15+1/(x-5) for x=4.9, 4.99, 4.999, and so forth, or for x=5.1, 5.01, 5.001,
and so forth. It should be self explaining.
Just my two Eurocents. :-)
```

Re: Symbolic math

*Message #7 Posted by **Thibaut.be** on 12 Aug 2003, 10:25 a.m.,*
in response to message #6 by J. Osugi (E. U.)

I agree with previous comments. When it goes about solving an undefined equation, then you need to calculate the limit for f(x) when x tends to the value of the indertimenation, which is here x-5 = 0, or x=5. The limit clearly tends to 5.

My really problem...

*Message #8 Posted by **Tizedes Csaba** on 12 Aug 2003, 4:10 p.m.,*
in response to message #1 by Tizedes Csaba

Thanks for your answers, opinions!

I think, the really problem is that, if a program works symbolically, why dont examine the denominators?

And if the solver works numerically why give back x=5? (And not 'division by zero' error...) In this case the 'good' solution is a number near 5 (where 1/(x-5) is properly big number (=:N) considering 3*x or 15 AND 3*x+N equal with 15+N for 10, 12 or many digits.)

Csaba

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TVM inaccuracy

*Message #1 Posted by **Thomas Radtke** on 11 Aug 2003, 1:51 p.m.*

Hi,

am I the only user who finds the TVM calculations on HP-18C et al. to be horribly inaccurate? Take just a simple example: PV=100, PMT=10, I%YR=3, annual interest compounding, monthly payments. Interest conversion leads to I%=2.96... and the subsequent TVM calculation (Begin mode, N=12, P%Y=12) gives a value of -224,941194... where it should be exactly -224.95. Higher cash flows lead to a worser inaccuracy. Are these problems accepted?

Any statements are very welcome.

Thanks,

Thomas

Re: TVM inaccuracy

*Message #2 Posted by **Gene** on 11 Aug 2003, 2:28 p.m.,*
in response to message #1 by Thomas Radtke

Original 12c gives $224.9411945

Excel 2000 gives $224.941194069285

Where did you find that the "exact" answer should be $224.95?

Probably due to some rounding in the interest rate conversion. i is equal to 0.00246626977230369 and 0.00246627 on the 12c.

Re: TVM inaccuracy

*Message #3 Posted by **Thomas Radtke** on 11 Aug 2003, 2:49 p.m.,*
in response to message #2 by Gene

Hi Gene,

1) I can do this by hand:) 2) I wrote an iteration for my 32SII 3) I solved the iteration to get an analyical equation. Thats probably more exact since there is not such a high exponentiation necessary as in the usual formula which explicitly needs the conversion (you end up w/ e.g. q^N^CP, CP=compound period, something like that). Dunno exactly, I haven't done the error calculation yet but am fairly sure that this method is problematic.

Well all three methods get the same result. That, of course, does not mean that I'm right;). Might be bad logic on my side. Anyway I will look into this further and if only to prove that I'm too stupid to use my pencil and calculators;(.

Thanks for your answer!

Thomas

Re: TVM inaccuracy

*Message #4 Posted by **Gene** on 11 Aug 2003, 4:15 p.m.,*
in response to message #3 by Thomas Radtke

Well, perhaps what you're using is not really a simple example? You have a rate that is annual and monthly payments.

Usually, simple problems have a rate and payment frequency that are the same.

On the 12c, here's what I do to find the given answer:

1.03 ENTER 12 1/x Y^x 1 - 100 x i (This gives the equivalent interest rate per month, or 0.246627, which means that 2.959524% compounded monthly is equivalent to 3% compounded annually) 100 PV 10 PMT 12 N FV

which returns the value I have posted earlier.

Re: TVM inaccuracy

*Message #5 Posted by **Victor Koechli** on 13 Aug 2003, 4:34 p.m.,*
in response to message #1 by Thomas Radtke

This is really interesting. If you supply the FV value you state as exact and calculate i, you get 2.96473629127 (on the 48GX) which is significantly different from the 2.959523724 you get from the conversion.

If you add interests up manually you do indeed get -224.95. I get this result by doing

$$10*.03 + 10*\frac{11}{12}*.03 + 10*\frac{10}{12}*.03 + \ldots$$

and adding 3 for the interest from the initial 100. What's going on here? The error seems too large to be simple roundoff...

Cheers, Victor

Re: TVM inaccuracy

*Message #6 Posted by **tony** on 14 Aug 2003, 1:23 a.m.,*
in response to message #5 by Victor Koechli

Very interesting Victor!! So, that is where the exact 224.95 comes from. It uses simple interest over the year!! As you say :

224.95 = 100*1.03 + 12*10 + .03*10*6.5

TVM uses compound interest, like so:

100*1.03 + [10*.03*(1.03)^(1/12)]/[(1.03)^(1/12) - 1]

Re: TVM inaccuracy

*Message #7 Posted by **Victor Koechli** on 14 Aug 2003, 4:31 a.m.,*
in response to message #6 by tony

Hmmm... Forgive my ignorance, but I'm trying to find out why this makes a difference. Is it because, in this example, interest is only compounded once a year, while payments are received monthly?

And if so, could you still calculate this example using the TVM solver?

Cheeers, Victor

Re: TVM inaccuracy

*Message #8 Posted by **tony** on 14 Aug 2003, 6:21 a.m.,*
in response to message #7 by Victor Koechli

>Hmmm... Forgive my ignorance, but I'm trying to find out why this makes a difference.

Oh, I just gave the mathematical side. My reading was you wanted to know why there was a small difference.

The TVM expression I gave assumes monthly compounding. TVM always compounds at each payment incident.

> Is it because, in this example, interest is only compounded once a year, while payments are received monthly?

The exact 224.95 answer assumes the payments get simple interest. If the plan lasts for one year only then there is really no compounding at all.

>And if so, could you still calculate this example using the TVM solver?

No, TVM will not do this. But what it will do is ... if the savings plan lasts for a number of years, and the compounding occurs one a year, then you can compute an FV by using the equivalent end-of-year payment, as PMT. This would be 121.95 in this case. So you can correctly compute the FV after 10 years with n=10 i=3 PV=100 PMT=121.95 at END.

This also works with n=1, of course, but we have had to calculate the PMT manually... this is as close as we can get to representing this problem in TVM.

Hope this ramble helps :)

Cheers, tony

Re: TVM inaccuracy

*Message #9 Posted by **Thomas Radtke** on 14 Aug 2003, 3:42 p.m.,*
in response to message #8 by tony

Hi Tony, Victor, Gene,

I've got the solution to this problem already. I'm in the process of publishing a paper about it and as soon as it is accepted, I will report here all findings. Please understand that I want to get this damn thing out first as I really need it (beeing unemployed for a too long time now, this is good stuff to present to any potential employer). Btw., HP, TI et al., any vacancy for a good physicist w/ PhD?:).

Thomas

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Does this 82162A work?

*Message #1 Posted by **David Ramsey** on 11 Aug 2003, 12:05 p.m.*

I bought an untested 82162A HP-IL printer and am trying to determine if it works.

I suspect it doesn't: it powers up and can advance the paper, but the "Print" button does nothing, and nothing prints when it's set to "Trace" mode and I perform operations on the HP-41 I'm using to test it.

I know the HP-IL interface works-- it controls a tape drive just fine.

Still, there's one thing that makes me think I'm overlooking something: according to my HP-IL module manual, I should be able to test flag 55 to see if a printer is present. But with either HP-IL module I have, pressing "TF" and "55" returns "Nonexistent", rather than a status.

Ideas?

Re: Does this 82162A work?

*Message #2 Posted by **David Smith** on 11 Aug 2003, 2:08 p.m.,*
in response to message #1 by David Ramsey

That teeny little switch on the HPIL module enables or disables the printer functions (so you can use HPIL and the 82143A in the same machine). Make sure it is ENABLEd.

Re: Does this 82162A work?

*Message #3 Posted by **David Ramsey** on 11 Aug 2003, 3:53 p.m.,*
in response to message #2 by David Smith

"Hello, my name is David and I'll be your moron today..."

Yep, that was it. The printer works fine (well, there's a print element out in the middle of the head, but I can live with that). Thanks!

Have you checked the printer enable switch at the IL interface ?

*Message #4 Posted by **Renato** on 11 Aug 2003, 2:03 p.m.,*
in response to message #1 by David Ramsey

Have you checked the printer enable switch at the IL interface ?

Renato

Check the print head ribbon cable...

*Message #5 Posted by **Michael Meyer** on 12 Aug 2003, 12:27 a.m.,*
in response to message #4 by Renato

I've had great luck by opening these printers and using VERY light oil (flute valve oil) on the moving parts and shafts. Don't get any on the rubber drive belt!

While you're in there, you might check the ribbon cable for damage and firm seating. I have a "junk" printer sent to me for the print head to repair a 19C, but the power board on the 19C was corroded beyond repair. So, I have an unknown print head.

RTN2RPN Michael

Re: Check the print head ribbon cable...

*Message #6 Posted by **David Smith** on 12 Aug 2003, 3:15 p.m.,*
in response to message #5 by Michael Meyer

The 82143A print head will work fine in the HP-IL printer. You can get them cheap on Ebay. The 82143A printhead is NOT compatible with the HP91/92/97/19C. Those earlier machines have a low resistance (10 ohm) head. The 82143A and HP-IL printers have a high resistance (80 ohm) head that is driven by a boosted power supply voltage. HP did this becuase the 82143A can print twice as fast as the HP97.

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Ebay - HP-12C #ABA

*Message #1 Posted by **Howard** on 11 Aug 2003, 6:37 a.m.*

Have I missed something? What is the "#ABA" mean in this item? http://cgi.netscape.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3040554321&category=11712

U.S. model

*Message #2 Posted by **Raymond Del Tondo** on 11 Aug 2003, 9:17 a.m.,*
in response to message #1 by Howard

Hi,

at least the last letter is for the target market. ABA: U.S. America ABD: Deutschland (Germany) ...

Raymond

But I don't think

*Message #3 Posted by **Mike** on 11 Aug 2003, 10:56 a.m.,*
in response to message #2 by Raymond Del Tondo

I don't think ABA means it is "Made in the USA".

Re: But I don't think - ABA on HP12C

*Message #4 Posted by **Bill Wiese** on 11 Aug 2003, 12:48 p.m.,*
in response to message #3 by Mike

I didn't get a chance to peruse the EBay ad post - but this "ABA" doesn't sound like an HP model #, etc.

Is this a logo on the calc in addtion to HP & 12C?

If that's the case, "ABA" = American Banker's Association or American Bar Association (perhaps a calc for tax lawyers?)

Bill Wiese San Jose CA

Re: But I don't think

*Message #5 Posted by **Raymond Del Tondo** on 11 Aug 2003, 7:30 p.m.,*
in response to message #3 by Mike

No, it doesn't mean 'made in', but 'made for';-)

Raymond

Re: Ebay - HP-12C #ABA

*Message #6 Posted by **gifron** on 11 Aug 2003, 1:03 p.m.,*
in response to message #1 by Howard

Probably doesn't mean anything. My guess is that the seller just put it in the title to attract attention from ABA type people. May have to ask the seller.

Re: Ebay - HP-12C #ABA

*Message #7 Posted by **r. d. bärtschiger.** on 11 Aug 2003, 1:43 p.m.,*
in response to message #6 by gifron

#ABA is the 'option' 'number'. The most recent HP-48GX which I purchased came with a card listing some of the features of the calculator. At the bottom of the card are the following:

(3OP) Option ABA

Proof of Purchase 48GX ABA

If you check the hp sales site you will see that most hp items carry such an option designator. #ABA probably refers to a u.s. version made for sale in the u.s.

rdb.

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Start collecting something else

*Message #1 Posted by **Victor Koechli** on 11 Aug 2003, 5:00 a.m.*

HPs are definitively getting too expensive, I think I have to start looking for a new hobby ;-)

Need proof? Just look at this auction..

Cheers, Victor

Re: Start collecting something else

*Message #2 Posted by **Thibaut.be** on 11 Aug 2003, 5:45 a.m.,*
in response to message #1 by Victor Koechli

Who will believe this ?

Re: Start collecting something else

*Message #3 Posted by **Pierre Brial** on 11 Aug 2003, 6:55 a.m.,*
in response to message #2 by Thibaut.be

Isn't it a bit risky ? One cannot see what look like the calculator closer.

Re: Start collecting something else

*Message #4 Posted by **hugh** on 11 Aug 2003, 6:56 a.m.,*
in response to message #3 by Pierre Brial

zero bidders dont always pay.

Re: Start collecting something else

*Message #5 Posted by **hugh** on 11 Aug 2003, 6:58 a.m.,*
in response to message #1 by Victor Koechli

[hushed voice] other makes are a lot cheaper to collect and some are even good.

Re: Start collecting something else

*Message #6 Posted by **Michael Meyer** on 12 Aug 2003, 12:33 a.m.,*
in response to message #5 by hugh

The surest way to drop the price would be to try to sell one of yours <grin>.

Seriously, despite these anomalies, some are still O.K. HP-35's have sold for less than $30. Many others have come down... remember the routine $600 HP-15C's about two years ago?

Don't give up the chase yet.

Michael

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Hp future calculator

*Message #1 Posted by **Pierre Brial** on 10 Aug 2003, 11:02 p.m.*

Look at this : http://www.hp.com/calculators/news/index.html A New Hope ?

All the best Pierre Brial

Re: Hp future calculator

*Message #2 Posted by **hugh** on 11 Aug 2003, 6:54 a.m.,*
in response to message #1 by Pierre Brial

hmm. the 30s was never a perennial favorite.

Re: Hp future calculator

*Message #3 Posted by **charles** on 12 Aug 2003, 3:44 p.m.,*
in response to message #2 by hugh

I agree with Hugh, the 30s never got my attention. It's just another algebraic with flat keys. This hp page just doesn't convince me. Thank heaven for my 42s, 32sii, and *cringe* my 49g...

What happened? I guess computers and pocket pcs' are easier to market. I wish HP'd do what I read in another post, that being to just do a big run of 42s or 32sii and sell 'em off.

I'm so comfortable with my 32sii's key layout that I'd really think twice before giving up that great big 'enter' key and hinged keys to get a new manual to read... thoughts? Eric

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USB to serial connectors and HP calculators.

*Message #1 Posted by **Cameron Downunder** on 10 Aug 2003, 10:05 p.m.*

Have others had trouble using the Link48 software and an HP calculator with cable through a USB to serial converter - though all works will though a direct serial port. Mac experiences in particular sought.

Cameron Downunder.

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HP-41C LCD

*Message #1 Posted by **Terry** on 10 Aug 2003, 8:12 p.m.*

okay, I corrected it to LCD - thanks. I have an HP-41C that I kept in a closet for several years when I did not need it. When I finally needed it again, I found the LCD has a brown haze to it. But it looks more like something under the display cover (if there is such a thing). I would like to know if that is true, that there is a separate cover protecting the LCD, and if I can get to it easily for replacement or cleaning. The repair info posted here does not go into removing the LCD, so I do not know if I can and whether or not the risk of having a non-functioning calculator would be worth it. The only thing bothersome about it is that it looks dirty.

Edited: 11 Aug 2003, 7:41 p.m. after one or more responses were posted

Re: HP-41C LED

*Message #2 Posted by **Randy Sloyer** on 10 Aug 2003, 8:44 p.m.,*
in response to message #1 by Terry

Refer to Dave's photo to see which model you have:

If it's a half-nut, you're out of luck, the LCD cannot be removed. If you're lucky enough to have a full-nut, you can desolder the LCD and remove for cleaning.

? There are no LEDs on a 41C

*Message #3 Posted by **Mike** on 10 Aug 2003, 9:01 p.m.,*
in response to message #1 by Terry

The 41C has an LCD display. http://www.msdsite.com/images/smile.gif

Huh?

*Message #4 Posted by **Randy Sloyer** on 10 Aug 2003, 9:18 p.m.,*
in response to message #3 by Mike

I thought it was a "Luminosity Echo Device"

Re: ? There are no LEDs on a 41C

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 10 Aug 2003, 9:29 p.m.,*
in response to message #3 by Mike

I replaced all LED occurrencies for LCD and it fit fine. (in the text, of course)

Luiz (Brazil)

Edited: 10 Aug 2003, 10:49 p.m.

yeah but there should be

*Message #6 Posted by **Norm** on 11 Aug 2003, 4:09 p.m.,*
in response to message #3 by Mike

yeah but there should be LED's, for a 41C display.

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Wanted: Hp Xpander connectivity cable schematic

*Message #1 Posted by **Sean McNamee** on 10 Aug 2003, 8:02 p.m.*

Hi all - Bought an Xpander without connnectivity parts (cable or CD). I'd like to u/l some WinCE software to it - can someone post the cable schematic? Or perhaps point me to somehwere this info might be on the web already? Also, what software would I need on the PC side? I assume that something can be substituted for whatever came with the XPander originally.... Many thanks.

Special Cable

*Message #2 Posted by **Mike** on 10 Aug 2003, 8:52 p.m.,*
in response to message #1 by Sean McNamee

I believe the cable is special and may contain electronics in the 9 pin plug end.

There is a warning in the manual that it's a special designed 9 pin plug for HP. One end is a 9 pin female. The other end is a phone plug.

I buzzed the cable and only one pin makes continuity to the 9 pin connector (see photo). I checked both polarities, for diodes, and still no continuity. That leads me to believe there is electronics in the 9 pin end.

http://www.msdsite.com/hpcalcs/xpander/iox.jpg

Edited: 10 Aug 2003, 8:53 p.m.

Re: Special Cable

*Message #3 Posted by **Colin** on 10 Aug 2003, 11:10 p.m.,*
in response to message #2 by Mike

There is an RS232 level converter in the housing of the DB9 connector. 3V logic at the Xpander connection. Only RX, TX and GND are present. Don't ask me which one because I just cannot remember.

Re: Special Cable - RS232 level converters

*Message #4 Posted by **Bill Wiese** on 11 Aug 2003, 12:56 p.m.,*
in response to message #3 by Colin

Yep, the cable has some level RS232<==>5V logic level converters in it.

You can do this with a couple of transistors & resistors & caps or do it right w/a chip.

A typical & common chip used for this task is the Maxim MAX232. I believe there is a successor called the MAX2232. Other variations (...233, etc.) also exist. These are 'low power' chips.

The cable's electronics is likely powered from the RS232 connector. Sounds like it's just using TxD, RxD and Gnd (pins 1,2,3,7, IIRC, on a DB25 - dunno about DB9) and picking up power from another

signal line like CTS, DTR, etc.... The PC application software may have to switch one of these control lines from default state to power up the electronics in the cable head.

Bill Wiese San Jose, CA

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HP-01

*Message #1 Posted by **Gene Marsh** on 10 Aug 2003, 6:10 p.m.*

Can anyone tell me where I can purchase (1) batteries, SR-44, for the HP-01 calculator watch, (2) the gold-plated stylus pen for the HP-01 and (3) the manual for the HP-01? Also, what is the modern version of the SR-44? Thank you.

Re: HP-01

*Message #2 Posted by **Randy Sloyer** on 10 Aug 2003, 8:50 p.m.,*
in response to message #1 by Gene Marsh

Batteries you will find at any Radio Shack or Wal-Mart - thats the easy part. Question two is really tough - you might never find a stylus as a seperate piece. Three is easy again, it's the museum CD number one.

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15C: Original Packaging or Repackaged

*Message #1 Posted by **Mike** on 10 Aug 2003, 3:37 p.m.*

There is an auction running that is advertized as never opened. But the packaging does not look like original HP packaging, that I've seen.

Did HP ever shrinkwrap the calculator to the manual? I have seen original 15C Manuals that were shrinkwrapped seperate from the 15C.

I wonder is this is repackaging?

Repackaged or Original

If it is repackaging, who knows what is really inside the case.

Re: 15C: Original Packaging or Repackaged

*Message #2 Posted by **Raymond Del Tondo** on 10 Aug 2003, 7:47 p.m.,*
in response to message #1 by Mike

Hi,

when I bought my first new 11C in the early eighties, it was in a pink air 'bubble' sleeve. The manual was wrapped separately. The retail box had the old graphic design with the symbolized technical construction platform, in other words the four squares;-)

In those years I saw many new 11C's and 15C's, and all were packed like mine.

Maybe the newer 15C's were packaged in a different way, and HP omitted the sleeve, because it better fitted into the box that way (the 15C manual has more pages than the 11C manual), and it could save cost.

It's hard to tell if this is original packaging. The page cut of the manual and the edge of the calc seems to be clean. Too bad the seller didn't include some more pictures which could show the manual front side, and parts of the side case of the calc.

However, let's see what the buyer will make with this expensive item. If he/she doesn't open the plastic, he/she will never know if the item is just a dummy.

Otherwise if opened, the 'never opened' price bonus will go away. Very difficult decision;-)

Raymond

a fake, quick & dirty repackaging...

*Message #3 Posted by **Emmanuel Verbeeck** on 11 Aug 2003, 2:01 a.m.,*
in response to message #1 by Mike

... as you often find on eBay.

It's very easy to go to a bookshop (or any other shop with this equipment) and ask to have a manual + a calculator shrink-wrapped. There are cheap devices can can shrink-wrap second-hand videotapes, cd or dvd cases, books, magazines with a bonus cd, etc...

IMHO HP never packaged items like this (it looks like a very very cheap method, and during the glorious HP days it was absolutely not their corporate culture).

And it works : $686 for a calculator that was bought without even seeing a picture of it !!! Gullible people ar e amazing.

Maybe well, maybe not...

*Message #4 Posted by **Thibaut.be** on 11 Aug 2003, 3:44 a.m.,*
in response to message #3 by Emmanuel Verbeeck

When I bought my 1st 15C in 84, the manual was indedd shrinkwrapped.

I also bought a 12C solutions handbook for Father's day and it was also shrinkwrapped.

Nevertheless this one does not seem original...

Sure manuals are shrinkwrapped

*Message #5 Posted by **Mike** on 11 Aug 2003, 11:02 a.m.,*
in response to message #4 by Thibaut.be

But was the calculator shrinkwrapped to the manual?

I have seen many manuals shrinkwrapped but never a calculator shrinkwrapped to the manual. Bookstores might shrinkwrap a return like this.

However, the seller does say this was given to his father, by HP, so it might be special packaging. If he has first hand knowledge that it has never been open, then it's probably mint.

Edited: 11 Aug 2003, 11:05 a.m.

Re: 15C: Original Packaging or Repackaged

*Message #6 Posted by **Fred** on 11 Aug 2003, 4:14 a.m.,*
in response to message #1 by Mike

I think it's TRUE.

The seller said : "the plastic wrapping around the calculator and manual HAS NEVER BEEN OPENED"

The seller does not say : "this is the orignial packaging"

!!!!!!!!!

Yes indeed, they did

*Message #7 Posted by **Casey** on 11 Aug 2003, 7:43 a.m.,*
in response to message #1 by Mike

I've owned 4 NIB voyagers that had the calc shrinkwrapped with the manual. All new, all original. But whether this auction claim is legit, is anyone's guess

I sold the 15C. It is indeed originally packaged.

*Message #8 Posted by **Chris Gardner** on 11 Aug 2003, 11:06 a.m.,*
in response to message #1 by Mike

Thank you to Renato for bringing this discussion to my attention. As I said briefly in my Ebay listing, when HP stopped making the 15C, they pulled them out of stores and gave them free to their employees. My father was one of those employees. At the time, they gave him 3 or 4 15Cs and he gave most of them away to friends and family as gifts. He also had 1 or 2 15Cs that he used himself. He nor I never had any reason to "repackage" it. In fact, I just found this one 2 weeks ago while cleaning up the house and I was going to give it away as well...that was until I saw what they were going for on Ebay, so I decided to sell it. I am as amazed as you are that someone was willing to pay so much for an old calculator, but it is definately authentic. Nobody in my family (including me) had any idea of its value...we probably would have eventaully given it away, thrown it away, or sold it at a garage sale for $5. It is just an old calculator taking up space to us.

I do have some more pictures if any of you would like me to email them to you. I just didn't provide them on Ebay because I'm not a very good photographer and they didn't come out.

As for peoples' comments about how their 15C was wrapped, I think it is entirely likely that HP changed the box and wrapping during the years they were selling it. In fact, just looking around on the Internet for 5 minutes has shown that there are a few different boxes. Just go to www.hp-collection.org/Rechner/hp-15c.htm Mine looks like the box on the right. However, it is not exactly the same - the description on mine is slightly different. Also, notice that the manual in that picture is bound rather than punched and bound with wire like mine - an obvious move towards cheaper packaging and materials in my calculator. There is no way it would ever fit in the box if it was anything other than shrink-wrapped to the manual...the box is not very big. I know my father would not have cared enough to rewrap it because he had so many of these things...and he could probably get more from work whenever he wanted.

Finally, you're right Raymond, it was a difficult to choose whether or not to open the item. Not because I'm worried it is a "dummy," but just to see if it works. I decided to leave it wrapped because these are very high quality calculators...I'm sure it is fine.

Thank you all for a very interesting and unexpected conversation. I would have never thought that they way an old calculator is wrapped would spark such a lively debate.

P.S. The manual is shrinkwrapped separately from the calculator, and then the whole thing was wrapped again with the calculator

Edited: 11 Aug 2003, 11:55 a.m.

Re: I sold the 15C. It is indeed originally packaged.

*Message #9 Posted by **Renato** on 11 Aug 2003, 2:11 p.m.,*
in response to message #8 by Chris Gardner

Chris, I´m happy that I emailed you, and with your reply. In my opinion you were very lucky with the price you got for the calculator, and you deserved it. I am also happy that your father, a HP employee of the old times, left such a nice surprise to his family. Here in Brazil, yesterday we had Father´s day.

Now you know what to do with any old HP itens you may find laying around the house -including books, manuals, magazines - ANYTHING.

Best regards, Renato

Re: I sold the 15C. It is indeed originally packaged.

*Message #10 Posted by **David Smith** on 11 Aug 2003, 2:19 p.m.,*
in response to message #8 by Chris Gardner

I suspect that it was an machine returned or recalled to HP. The original packaging for the machines was a pink anitistatic foam or bubble pack bag. A lot of HP return items were repacked by shrink wrapping them together (usually with a piece of cardboard backing). I have several HP65 and HP67 software pacs that were done this way. They were part of a special promotion that HP did for cleaning out a bunch of returned items.

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41c y^x

*Message #1 Posted by **hugh** on 10 Aug 2003, 10:27 a.m.*

ive been staring at the keyboard for a while now. its really not there is it?

Re: 41c y^x

*Message #2 Posted by **hugh** on 10 Aug 2003, 10:33 a.m.,*
in response to message #1 by hugh

found it! its the heat honest :-)

Re: 41c y^x

*Message #3 Posted by **Norm** on 10 Aug 2003, 12:53 p.m.,*
in response to message #2 by hugh

or those mushrooms you put into the tuna casserole

:o)

Try to "find" [(SIGMA)-] in an HP48S/SX...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 10 Aug 2003, 3:50 p.m.,*
in response to message #1 by hugh

Hi, Hugh;

Maybe I'm actually playing silliness, but I'd like to "hear" from others, if applicable.

When I had the chance to use an HP48SX, I tried its statistic resources and I got myself stuck: where was the [(SIGMA)-]] key/function? As it deals with lists instead of final summations (all RPL's do this way), I thought I should remove the last entry in another way, so [(SIGMA)-] did not exist.

Later, after a careful reading, I "found" it: HP48 Owner's Manual, 3rd. Edition, single volume (big brochure), p. 21-4. There you read:

```
1 - Press [left-shift][(SIGMA)+] (the (SIGMA)- command) in the STAT menu to delete
the last data point.
```

You can't see it, it's not in the keyboard, but it exists. Far worst than finding [y^x] in the HP41's kbd...

My 2¢.

Luiz (Brazil)

Edited: 10 Aug 2003, 3:53 p.m.

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12c/12c Platinum programming differences

*Message #1 Posted by **Don Shepherd** on 9 Aug 2003, 8:31 p.m.*

I was wondering if anyone who has bought the new Platinum 12c has noticed if programming is any different. Specifically, since the original 12c used up all 256 possible combinations for an 8-bit command, and the Platinum has some new keys (x^2, =, ALG, RPN), how are these accomodated? Come to think of it, with GTO 000 to GTO 399 taking up 400 combinations, and an 8 bit command allowing only 256, did they maybe take a new approach and have the GTO command take 2 bytes now?

Has anyone checked this out?

thanks, Don Shepherd Louisville, KY

Re: 12c/12c Platinum programming differences

*Message #2 Posted by **tony** on 10 Aug 2003, 2:13 a.m.,*
in response to message #1 by Don Shepherd

Don, programming is the same, using RPN. In my unit i cannot go over 253 lines though as then any earlier GTO cease to work.

Re: 12c/12c Platinum programming differences

*Message #3 Posted by **Don Shepherd** on 10 Aug 2003, 3:44 a.m.,*
in response to message #2 by tony

Thanks Tony. Based on your experience, it sounds like they goofed up the GTO command implementation. What good are 400 steps if you can't use them?

Don Shephed

It does show a lack of testing

*Message #4 Posted by **Gene** on 10 Aug 2003, 8:26 a.m.,*
in response to message #3 by Don Shepherd

A good period of beta testing using people who really know what they're doing would have caught the GOTO problem.

FYI...I was a beta tester of sorts, but only got the unit about 6 weeks before it was sold on retail. That won't work, HP. Beta testing has to be early enough where you can fix things they find!

Re: 12c/12c Platinum programming differences

*Message #5 Posted by **Karl Schneider** on 11 Aug 2003, 1:53 a.m.,*
in response to message #3 by Don Shepherd

Don wrote:

> Quote:
>
> What good are 400 steps if you can't use them?

I have a "classic" 12C (Singapore 1993), and find its programming capabilities suitable for little more than short, disposable routines. Its "GTO" goes to line numbers only, in the style of old BASIC -- no "GSB"/"XEQ" for execution of subroutines identified by a "LBL" (statement label/routine name). There is no capability to edit programs by inserting or deleting individual instructions.

If the 12C Platinum works the same way, perhaps a better question is, "What good is 400 steps of programming under this paradigm?"

Re: 12c/12c Platinum programming differences

*Message #6 Posted by **bill platt** on 11 Aug 2003, 9:54 a.m.,*
in response to message #5 by Karl Schneider

Or further,

why did HP use such a crippled version of RPN in the 12c in the first place? Does somebody have any clues to this? Did the built-in financial routines just take up too much space?

Perhaps another way to answer this would be to see how much space it would take on a 15c to implement all of the 12c financial routines. Perhaps it would not even fit on an 11c, or even a 15-c?

regards,

Bill

Re: 12c/12c Platinum programming differences

*Message #7 Posted by **Gene** on 11 Aug 2003, 10:11 a.m.,*
in response to message #6 by bill platt

It's not a crippled version of RPN per se but of RPN programming.

I thought all op codes were used in the 12c. If so, then there was no room for LBL, RTN, GSB, etc.

No excuse in the 12c plat however.

It is normally much too painful to write anything really useful on the 12c for me to do so.

I know that Valentin has done wonders, but I dont' have the patience any more to write things on feature-starved calculators when they should have more instructions.

My 2 cents. Gene

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Pioneer Display

*Message #1 Posted by **gifron** on 9 Aug 2003, 4:24 p.m.*

Are Pioneer displays interchangeable? I suspect they are, but don't know. If so, can they be gotten at from the front by removing the bezel, as opposed to opening the case by breaking the stakes? As you can tell, I've never worked on one of these.

Pioneer LCD Matrix

*Message #2 Posted by **Randy Sloyer** on 9 Aug 2003, 5:25 p.m.,*
in response to message #1 by gifron

Removing the bezel is sure fire looser deal. Don't do it under any circumstances. You'll only have a bent bezel to show for your efforts as LCD's can only be removed from the back after the logic board is off. Flat bezel models with the clear window presents another problem as you cannot push on the front of the LCD to get the stick-um to release. Be sure to use some UN-DO on windowed units or you'll crack the LCD.

It's always best to leave the zebras attached as it helps center the LCD in the frame. The 17/27/42 LCD's are VERY sensitive to alignment in both directions. You'll have approximately 1 MM (0.040") clearance on all sides when aligned properly.

The interchangeables:

- 10B = 20S = 21S
- 14B = 22S = 32S
- 17B = 17Bii = 27S = 42S

The only single:

- 32Sii

Let me know if you have a specific model request as there is some weirdness with the 14B/22S/32S interchangeability as the stepped bezel version can be different than the original with the window.

Edited: 10 Aug 2003, 11:34 a.m. after one or more responses were posted

Re: Pioneer LCD's

*Message #3 Posted by **Scuba Diver** on 10 Aug 2003, 12:28 a.m.,*
in response to message #2 by Randy Sloyer

What about the 14B?

Re: Pioneer LCD's

*Message #4 Posted by **Randy Sloyer** on 10 Aug 2003, 11:36 a.m.,*
in response to message #3 by Scuba Diver

14B added in the edited post. Thanks Dave, editing is great.

Knew I would miss one...

Re: Pioneer LCD's

*Message #5 Posted by **Scuba Diver** on 10 Aug 2003, 2:20 p.m.,*
in response to message #4 by Randy Sloyer

Thanks Randy! I found your post very informative!

I'm such a newbie that you've probably forgotten more than I'll ever know!

B.

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Bermuda Triangle... Help, Mister Fox Mulder!

*Message #1 Posted by **Emmanuel, France** on 9 Aug 2003, 4:14 p.m.*

```
Finally found back a major part of the "lost" parcels.
Without any reason, explanation from La Poste...
Bermuda Triangle in France? Help, Mister Fox Mulder!
Some were opened, some had their CDR broken, ...
I'm really disappointed. Not because they are in such state, but because they did not reach
their destination correctly.
I'll be away from home till 30/08.
I'll take an additional bulky rucksack in order to draw up an inventory.
To be continued...
Thanks for your patience.
Emmanuel
```

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A new fanatic?

*Message #1 Posted by **Christof** on 9 Aug 2003, 2:12 p.m.*

So, i've been off the boards for a while.

Update: I'm in Virginia with a new job, and it ended up being a boy instead of a girl!

Leif was born on 29 June, and has already "played" with his dad's prized 42s.

I wonder if the 32Sii I'm saving will be 'too out of date' to use when he's 12. or the 20s, for that matter.

-Christof (oh, email server is still a bit iffy, email can be sent to yhokoyote at yahoo)

Congrats, "koyote" dad!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 9 Aug 2003, 2:44 p.m.,*
in response to message #1 by Christof

Hey, Christof;

Good news! Yeah, both of them: for Leif's comming and for the fact he's playing whit an HP "toy".

Best regards.

Luiz (Brazil)

Edited: 9 Aug 2003, 2:44 p.m.

Re: A new fanatic?

*Message #3 Posted by **db(martinez,california)** on 9 Aug 2003, 8:30 p.m.,*
in response to message #1 by Christof

Congrats to you and Jessica. How about a photo? -And another beer and ice cream meeting of the Davis hp club next time your in S.F.? Glen must be due for a half day off by now, it's been months.

Re: A new fanatic?

*Message #4 Posted by **Christof (NoVA)** on 10 Aug 2003, 1:18 p.m.,*
in response to message #3 by db(martinez,california)

Definitely need to get together on my next trip. I'm not sure when that is yet, but sometime during the fall for sure.

Photos are www.ansible.org/~jess/leif/

Leif, a.k.a. "Rubberman"

*Message #5 Posted by **db(martinez,california)** on 10 Aug 2003, 10:39 p.m.,*
in response to message #4 by Christof (NoVA)

After looking at the baby pics; i'm glad to be able to tell everyone here that Leif takes after his mom in the looks department :-) And while his future rpn/aos prefrence is still up for grabs; he's a world class contortionist right now. Check out the second foto and another even more painful-looking in the middle somewhere.

Good work you two.

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HP32SII - Keypad Labels

*Message #1 Posted by **Tony** on 8 Aug 2003, 9:59 p.m.*

Can anyone tell me for sure why HP changed the colors of the HP32SII key labels from yellow/blue to green/mauve in the last model they manufactured. Was this an economic decision or what? - everyone I know seems to hate the new model because they changed colors from blue/yellow.

The contrast on the green/mauve design is pretty poor compared to the tradional blue/yellow setup they've had on their various other machines since the HP25 era (eg HP33E etc). My theory is that were trying to save money and they used green and mauve because it was cheaper - hence the reason why they also dropped the brown painted LCD surround and left it as silver - saves on brown paint and hence saves on money.

I guess only HP themselves can supply the true reason but it was a pretty poor management decision to change the colors after all those years of blue/yellow production models.

I also reckon the top painted shift keys look pretty ordinary compared to the all color keys they had on the HP25, HP33E etc - HP should go back to all color keys again including all white/cream keys for the number keys & the plus/subtract/multiply/divide keys. You compare the keypad on the HP33E with that of the HP32SII and you'll see instantly what I mean.

At least TI still makes the effort for all color keys on their TI-83 and in various colors too - the keypad on the TI83 is very pleasing - keys moulded in black, grey, blue, yellow, green - not painted on the top like HP. Unfortunately the TI doean't have CLICK-STOP.

Re: HP32SII - Keypad Labels

*Message #2 Posted by **Trent Moseley** on 8 Aug 2003, 11:10 p.m.,*
in response to message #1 by Tony

Tony,

My HP25 has two function keys, "f" yellow and "g" blue. On the other hand the HP32SII the function keys are ORANGE (not yellow) and blue with the bent arrows.

tm

Re: HP32SII - Keypad Labels

*Message #3 Posted by **Randy Sloyer** on 8 Aug 2003, 11:57 p.m.,*
in response to message #2 by Trent Moseley

IMO, it had absolutely nothing to do with cost. This silver color is ink, not bare metal, so the cost between the two should be the same. Each scheme had four different inks used in the printing process.

It had everything to do with change for change sake by the marketing department. The HP fashion police wanted to compete with TI, the old brown looked dated. It was OLD HP. This is the NEW HP. The teal and purple colors where the same as used on the 48G series, they just applied it to a black background.

You know, black, the new designer color awhile back. The fad that lasted for about a year with a appliances until people realized it showed every last finger print.

It wasn't just the 32Sii, the black scheme also appeared on the 10B, 17Bii and 20S before they shut down the Pioneer line in Indonesia. It was not about cost and certainly not about usability, but about appearances.

Then came the red and blue keys of the 49G on a light blue background. Beginning to see the pattern here?

Edited: 8 Aug 2003, 11:59 p.m.

Re: HP32SII - Keypad Labels

*Message #4 Posted by **Pierre Brial** on 9 Aug 2003, 1:23 a.m.,*
in response to message #3 by Randy Sloyer

I agree with Randy. I think this change of color is only for aesthetical and fashion reason. At first sight, I find the 32SII "Silver bezel" nicest than the old one. But one don't speak about usability here... Pierre

Don't forget the 19BII!

*Message #5 Posted by **Scuba Diver** on 10 Aug 2003, 12:34 a.m.,*
in response to message #3 by Randy Sloyer

As an aside, the 19BII case colour also changed from brown to black when they launched the redesigned battery cover.

The colour of the keys also changed from grey to black. AFAIK, however, the LCD remained the same.

B.

Re: HP32SII - Keypad Labels

*Message #6 Posted by **Graham Wilson** on 9 Aug 2003, 2:05 a.m.,*
in response to message #1 by Tony

I think the change had something to do with the change from light brownish LCDs to later more grey LCDs. 17BIIs for example made up until about 1997 or so have the lighter brown LCDs with yellow markings on a dark brown case. Later 17BIIs have a LCD with darker activated segments and have corresponding black cases with yellow markings.

I think the earlier 48SXs had less-contrasted brownish LCDs whereas the 48GXs (not the latest with the black/grey screen) have darker, more greeny-blue LCDs. Hence the 48SX has a brown case and blue and orange markings to blend with their LCDs, and the 48GX has a grey case and turquoise and lilac markings to blend with their greeny-blue (and post 2000 black-grey) LCDs.

The contrast between 32SIIs is not as obvious as the other two, but you can see that earlier models have more brown LCDs.

I've not seen this explanation as a reason for the colour change -- it's just my opinion based on my observations.

Re: HP32SII - Keypad Labels

*Message #7 Posted by **Raymond Del Tondo** on 9 Aug 2003, 4:15 a.m.,*
in response to message #6 by Graham Wilson

Hi,

the HP-48SX doesn't have a brownish LCD. Instead, it is blue with extremely bad contrast. And when the machine is off, I think the LCD more tends to green.

Raymond

Pioneer and 48 LCD differences

*Message #8 Posted by **Randy Sloyer** on 9 Aug 2003, 1:53 p.m.,*
in response to message #6 by Graham Wilson

The color of the Pioneer LCD polarizers never changed. They are all a neutral gray. It's an illusion due to the change in surrounding colors. I've got a pile of broken ones here that says so. There are major differences in the display timing and resultant contrast of the LCD's on the 32Sii and 17Bii. You can't compare apples and oranges.

The 48 series did change for not so obvious reasons. The original 48S/SX and early G LCD's were simply larger versions of the Pioneer displays. They did go to a light blue polarizer for unknown reasons with the resultant lousy contrast. The LCD's have silver reflector on the back of the LCD, but it is not totally opaque. After the 48 machines started getting replaced under warranty, they found one of the high rates of failure was LCD breakage. In order to strengthen the LCD, the HP engineers designed a molded black plastic plate that attached to the back of the LCD with thin double sided tape. This gave the glass some support and distributed the load for a non-sharp impact. This also changed the light transmission due to the reflector now being backed up with an opaque material. Since the contrast was also a problem and the reflective characteristics had changed, it was time for a polarizer change. They did add some green to the blue as we all know. While the reinforced LCD's are better and less prone to breakage, it still happens.

With the advent of the 39 and 49, they went back to a gray polarizer and put the LCD behind an acrylic lens to totally prevent breakage. That just created a new set of problems. Maybe the 39/49 team maybe didn't know about how hard it was to read an LCD through a secondary clear, reflective lens. Just ask anybody with an older Pioneer (17B/32S/42S) with the clear lens in front of the LCD. And then there is the issue of the softness of the material. Maybe it was just to make them look more like a TI. I certainly don't know for sure.

PS: Just a thought on 48 LCD swaps. Should you ever find yourself swapping a newer, reinforced LCD for an older non-reinforced, make sure you use the zebra strips from the new one - they are 0.015" thicker to accommodate the thicker LCD.

Re: Pioneer and 48 LCD differences (spell checked)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 9 Aug 2003, 3:17 p.m.,*
in response to message #8 by Randy Sloyer

Hi Randy, folks;

About protective lenses: I think the best ones are those used in Voyagers and in the HP71B (does the HP75 also have it?). Voyager's and HP71B's lenses are perfect! They have such a high degree of transparency that they do not interfere. And you are also correct: I have an older HP42S (deceased) that has the protective lens: it is not as good as the one found in Voyagers and HP71B's. I noticed that Voyager's lenses have a thin coat that seems to be the "trick": once it is removed by any reason, the protective lens seems to be as reflexive as regular protection. Is it some sort of silicon-based film? Looks like a thin silicon plaque.

Luiz (Brazil)

Edited: 9 Aug 2003, 6:44 p.m. after one or more responses were posted

Re: Pioneer and 48 LCD differences

*Message #10 Posted by **Randy Sloyer** on 9 Aug 2003, 5:30 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

On Voyagers, it's a thin film metallization anti-reflective coating that will wear off over time. It will also come off when trying to polish scratches out of the lens. You can certainly tell the difference side by side when the coating is missing.

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HHC2003

*Message #1 Posted by **John Cadick** on 8 Aug 2003, 9:13 p.m.*

The HHC2003 meeting is being held this year on the weekend of September 20th. You can get full infomration here at http://holyjoe.net/hhc2003.

John

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HP-97 Card Reader - Reads but won't Write (Photos)

*Message #1 Posted by **Mike** on 8 Aug 2003, 3:33 p.m.*

Problem: You have an HP-97 that will read cards just fine. But you get an **Error** whenever you try to write to a card.

Well, I have had two, just today, that had this problem. Both had the same fix.

I've decided to document the solution to the ones I just repaired. There may be problems with similar symptoms, for which this fix will not work.

Solution: the card switch needed adjustment. But which contact? The photo below shows the specific contact that I found, in both cases, to not be making contact.

http://www.msdsite.com/hpcalcs/hp97/cr-swx.jpg

Adjustment: If you look at the reader on edge, as shown in the photo, and slide a card in from the right, you can see the switches rise to make contact with the PCB (which is now out of the way). The closest switch was not rising high enough to make contact. It should rise above the surfaces shown in the photo below.

http://www.msdsite.com/hpcalcs/hp97/cr-edgex.jpg

You can adjust the switch adjustment screw and watch the switch rise high enough to contact the PCB. Make sure that the switch drops down far enough when you remove the card.

This has been the fix to problems I have seen with HP-97 card readers that will read ok but won't write.

Hope this helps some of you out there that have seen this problem.

Edited: 9 Aug 2003, 8:27 p.m. after one or more responses were posted

Re: HP-97 Card Reader - Reads but won't Write

*Message #2 Posted by **Ernie Malaga** on 8 Aug 2003, 6:29 p.m.,*
in response to message #1 by Mike

Mike:

Great post, thanks! But before opening up the calculator, check that the card hasn't been write-protected. Surprising how often the obvious is overlooked.

-Ernie

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Deceptive eBay Auction

*Message #1 Posted by **Patrick** on 8 Aug 2003, 3:01 p.m.*

Can anyone figure out which calculator you'll actually get if you win this auction? This guy appears to have a cheap 18C for sale and thought it would be good to sprinkle around the model number of the much better 19BII in the ad. Nothing but name dropping, it seems.

Edited: 8 Aug 2003, 3:41 p.m. after one or more responses were posted

Looks like the 18C

*Message #2 Posted by **Mike** on 8 Aug 2003, 3:38 p.m.,*
in response to message #1 by Patrick

is what you get.

By the way, the auction is here

He shows the 18C and talks about how it is similar to the 19Bii. I don't see any deception. It's not written very well though.

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Meeting V

*Message #1 Posted by **Matthias Wehrli** on 8 Aug 2003, 2:15 p.m.*

Hi Volks!

Here the latest news for our meeting in Basel (CH) on september 20:

1. Members: Until now, I know, that the following persons will join us:

Thibaut Cousin (BE) Emmanuel Compes (F) Jean-Francios Garnier (F) Matthias Wehrli (CH) Daniel Diggelmann (CH) Klaus Bussinger (CH) Christoph Giesselink (I don't have your email!) Raymond Del Tondo (DE) Christoph Klug (DE) Massimo Gnerucci (I) (I don't have your email!) Ángel Martin (?)

2. Programm: My personal whis is to meet some other collectors, programmers, ... and to talk to them. I will have 1-2 side activities if desired, but I will not “plan” this day. Just let us join and enjoy.

Let us fix a time... 10 am. We meet on my personal appartment:

Matthias Wehrli Bettenstrasse 53a CH-4123 Allschwil (1km away from Basel)

Emmanuel will offer one of the following workshops, if desired:

- burning Eproms for HP-41 Eprom Box and HP-71 HHP Eprom module - building a 4K Eprom box for HP-41 - transfering data from/to HP-41 to/from PC

If you also want to offer a workshop, please contact me (room, reservation, material) and the forum.

3. overnight stay: There are different possibilities:

- hotel in the area of Basel: double room with shower and toilett arround €100 - youth hostel in Basel: arround €20 (not checked the price)

Please have a look at the internet (Google “hotel Basel”). I can not arrange overnight stays for everybody... (I also have a normal job to do aside of my collection..)

So, I hope I don’t have forget too much....

Matthias

Re: Meeting V

*Message #2 Posted by **Thibaut.be** on 8 Aug 2003, 3:03 p.m.,*
in response to message #1 by Matthias Wehrli

Great Matthias !

I propose that everybodyu brings something typical from his place, so that we can also share "cultural" experiences...

I'm looking forward to being over there !

Grützli,

Thibaut

Re: Meeting V

*Message #3 Posted by **Emmanuel, France** on 9 Aug 2003, 4:04 p.m.,*
in response to message #1 by Matthias Wehrli

```
Dear Matthias,
Will need a 286, 386 or 486 with two ISA slots free.
Else do you have a (S)VGA monitor and a PS2 keyboard?
Will come with Jean-François. Phoned him this afternoon.
Thanks for your idea of a meeting. Really nice!
Will come back on 30/08 (vacation).
Yours.
emmanuel
```

Re: Meeting V

*Message #4 Posted by **Thibaut.be** on 10 Aug 2003, 9:54 a.m.,*
in response to message #3 by Emmanuel, France

If needed, I do have here a old 486 with plenty of Isa slots. Matthias should provide Swiss A/C cords, I know by experience than French/German.Belgian ones don't fit over there (too thick)

Re: Meeting V

*Message #5 Posted by **Ángel Martin** on 10 Aug 2003, 7:07 a.m.,*
in response to message #1 by Matthias Wehrli

Matthias,

Great plans. I´d also like to have a discussion or workshop on HEPAX vs. RAMBOX. Anybody else interested?

I have compiled a collection of mcode routines into a 4k page (project SANDBOX), and would be nice to share it with all of you if you cared.

Best wishes, Ángel Martin

Re: Meeting V

*Message #6 Posted by **Meindert Kuipers** on 15 Aug 2003, 4:06 a.m.,*
in response to message #1 by Matthias Wehrli

All,

I would really like to come to Basel, but this is not possible for me at that date. Maybe next time?

Meindert

Re: Meeting V

*Message #7 Posted by **Museum** on 16 Aug 2003, 1:27 a.m.,*

in response to message #6 by Meindert Kuipers

We both will arrange a meeting for ourself, so that we meet us one day...

Greetings Matthias

Re: Meeting V

*Message #8 Posted by **Christoph Klug** on 18 Aug 2003, 5:50 a.m.,*
in response to message #1 by Matthias Wehrli

I hope to come with Reimund Del Torno :-) because we have nearly the same way (from Hannover and Hildesheim) to Basel.

I want to present some interface hardware (I/O-Board, IL2000, second generation HP-IL/PC Card), and a nice interrupt circuit (external power on) for HP41.

Furthermore I take the exotic AEC-Rom to the meeting. Hope Emmanuel disassemble this 12KByte bankswitched rom during the meeting for use with EMU41...

Best wishes - Christoph

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computation challenge

*Message #1 Posted by **hugh steers** on 8 Aug 2003, 1:39 p.m.*

here's one that i thought would be easy.

a lot of people know that 1+1/2+1/3+1/4+1/5 diverges and that 1+1/2^2+1/3^2+1/4^2+... converges to pi^2/6 in fact, and there are simpleish formulas for the limit sums of 1/n^(2k), ie even powers. but no one knows if there are easy formulae for odd powers.

lets look at the most simple case, cubes. write a program to find the limit sum of 1+1/2^3+1/3^3+1/4^3+... if you're really smart, try other odd powers.

thinking this was a five minute job, i wrote a simple loop to do the obvious adding, but after some 600 iterations (some time on a hp41c) it had only managed 5 decimal places. can you do 10?

Re: computation challenge

*Message #2 Posted by **Dave Shaffer** on 9 Aug 2003, 4:52 p.m.,*
in response to message #1 by hugh steers

Hugh,

It's gonna take a lot of terms until you get the value to the tenth decimal place (for the cube). A quickie Fortran program on my PC indicates that you'll need somewhere between 50,000 and 100,000 terms until there is no more change in the tenth place, and you'll need almost 250k terms if you are worried about round-off (i.e. at 250k terms, the eleventh and beyond digits indicate you need to round up by one in the tenth place). However, I'm not sure the calculator has enough precision - you need 11 digits: the answer is 1.202 056 903 15 (to 11 decimal places).

I don't know for sure how the '41 calculates powers, but I suspect you can increase your speed by multiplying 1/n three times rather than taking the third power. On the PC (in Lahey fortran), multiplying was about three times faster than taking the third power of 1/n .

I hate to make your calculator seem like a slowpoke, but on a modest PC (a 200 MHz pentium pro, accelerated to 333 MHz), summing 10 million terms (using multiplication and not exponentiation) takes about 2.5 seconds with an old (10+ years) Lahey Fortran compiler, using double precision.

Re: computation challenge

*Message #3 Posted by **GE** on 9 Aug 2003, 5:20 p.m.,*
in response to message #2 by Dave Shaffer

<just kidding mode> Yes, Pentium is fast. If only it were accurate... </just kidding mode>

Just reasoning...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 9 Aug 2003, 7:00 p.m.,*

in response to message #2 by Dave Shaffer

I am always trying to improve my own knowledge (and skills, if possible) when we're dealing with subjects like this one.

I don't know what sort of method you use in your program to compute how many terms are needed till the tenth digit does not change. I'm curious because the HP41 uses 12-digit internal precision and 10-digit mantissa results. I know it's not necessary to relate one thing to another, but you mentioned you used a double-precision compiler to compute a 10-million terms summation in 2.5 seconds, right?

I'm afraid you'll think my question is irrelevant, but I'm curious: does your 50,000 to 100,000 estimation take 12-digit to 10-digit rounding after each loop or it is based on FORTRAN's double precision? Maybe it's based in another approach, I don't know.

I'm curious because after reading the *HP15C Advanced Functions Handbook* and understanding that internal limits may also not change external results, I always try to understand the rounding consequences of series computations, like the one we're talking about here.

Please, I'm not asking you to explain your conclusions, I just want to know how did you get to them. I think they are clever and understanding, and if they can be expanded to systems with different digit numbers (like Pioneers and the RPL models), maybe we can significantly reduce computation time based on the difference achieved between terms instead of wait till they are steady.

Thank you.

Luiz (Brazil)

Edited: 9 Aug 2003, 7:06 p.m.

Re: Just reasoning...

*Message #5 Posted by **hugh** on 10 Aug 2003, 10:25 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

hi guys,

dave is right. you need too many terms to sum the series directly. this is what i had discovered in my "5 minutes" answer.

so a viable solution involves some kind of series acceleration. one discovery is that a series of the alternating terms (ie 1-1/2^3+1/3^3-1/4^3+...) converges faster.

let z(s) = 1+1/2^s+1/3^s+1/4^s+... we'd like, at first, z(3). now z(s) = (1-1/2^3+1/3^3-1/4^3+...)/(1-2^(1-s))

this is better. i get a good answer in around 2000 terms. but still way too many for the 41c.

there are further accelations possible. here is my new program to compute z(s).

```
LBL "Z"
STO 00
1
STO 01
STO 02
STO 05
0
STO 06
STO 07
10
```

```
STO 09
STO 08
LBL 00
RCL 01
1/X
RCL 00
Y**X
RCL 02
*
ST+ 06
1
ST+ 01
RCL 02
CHS
STO 02
DSE 08
GTO 00
2
RCL 09
Y**X
STO 03
STO 04
LBL 01
RCL 05
ST- 04
RCL 01
1/X
RCL 00
Y**X
RCL 04
*
RCL 02
*
ST+ 07
1
ST+ 01
RCL 02
CHS
STO 02
RCL 09
RCL 08
-
RCL 08
1
+
STO 08
/
ST* 05
RCL 09
RCL 08
X<Y?
GTO 01
RCL 07
RCL 03
/
RCL 06
+
.5
RCL 00
1
-
Y**X
1
-
CHS
/
END
```

run as 3 ENTER XEQ Z to give 1.202056903 in a few seconds. other values of s work too, for s >= 2.

Re: Just reasoning...

*Message #6 Posted by **Dave Shaffer** on 10 Aug 2003, 7:18 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Luiz,

Here is my fortran program (with proper line breaks, I hope!):

```
      PROGRAM POWERSUM
C
C  CALCULATES SUM OF POWERS OF RECIPROCAL INTEGERS
C
      IMPLICIT REAL*8 (A-H,O-Z)
C
C  DO A LOT OF NUMBERS TO GET TIMING
C   TRY IT TWO WAYS - MULTIPLY & EPONENTIATION
C
      SUM = 0D0
      DO 100 N = 1,10000000
      X = 1D0/DFLOAT(N)
C
C  RUN IT ONE WAY OR THE OTHER, BY MOVING THE COMMENT
C
      SUM = SUM + X*X*X
C     SUM = SUM + X^3
C     IF(MOD(N,50000) .EQ. 0) WRITE (*,2000) N,SUM
  100 CONTINUE
      write (*,2000) n,sum
 2000 FORMAT(I9,F25.16)
      END
```

Nothing fancy. The line (commented out here, because I was doing the timing tests) just before the CONTINUE statement gives me the value after every 50,000 terms. I was NOT rounding off; just summing the results to the precision of the compiler/computer.

I just looked at those values to make my statement that it was between 50k and 100k terms that the sum settled down in the tenth decimal place. (I was too lazy to try to find exactly how many terms were needed!) It was looking at the printout that also indicated that somewhere around 200k-250k terms, the tenth decimal place should be rounded up (IF you were interested in only the "correct" properly rounded-off value to ten decimal places).

Double precision fortran should be good to 15 or 16 significant figures - plenty enough for this test. If amybody cares, there is quadruple precision, too, I think.

This doesn't offer much insight into HP calculator precision or round-off. Conversely, if you can define the algorithm that the calculator uses, it would be easy to check it this way.

In any case, Hugh's solution with alternating terms is far more elegant!

Re: Just reasoning...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 10 Aug 2003, 8:01 p.m.,*
in response to message #6 by Dave Shaffer

Hello, Dave;

thank you very much twice: allowing me to remember FORTRAN and showing me (us) the listing. About fanciness: I like to see programs that run, like yours; it's fancy enough for me.

I did not dedicate enough time to understand FORTRAN in deep, because I learnt it enough to accomplish all tasks related to the language at the university (1979 & 1980). But I want to know if it is possible to add a small modification at this line:

```
      X = 1D0/DFLOAT(N)
```

such that **1D0/DFLOAT(N)** is rounded to ten significant digits. Is it easy to do, if possible? I think that, given that specific rounding propagation errors do not occur so often, rounding a 16-digit mantissa or a 12-digit mantissa to ten places will give closer but equal approximated results. I thought about writing a program in PASCAL, but I see that yours is ready and we can, at least, see

if rounding to ten decimal places will reduce the number of cycles.

If you think it's worth doing and you have the time to (on Sunday...), I'd just like to know what happens.

Thanks again, Dave. It's been enlightening, though.

Luiz (Brazil)

Edited: 10 Aug 2003, 8:04 p.m.

Re: Just reasoning...

*Message #8 Posted by **Dave Shaffer** on 11 Aug 2003, 12:47 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz,

I don't recall a truncation or rounding function in fortran, but it is fairly easy to accomplish.

After the statment X = 1D0/DFLOAT(N) , you would multiply X by 1e10 (where 10 is the number of decimal places you want), then set the floating point value equal to an integer, and then refloat the integer and divide by 1e10.

Because IX = X truncates the value in X, for proper rounding you should add 0.5 to X before integerizing it. (You have to be a bit careful about the sign of X, because setting the floating point value equal to an integer TRUNCATES the floating point number, causing a rounding in the wrong direction for a negative value. You can use the SIGN and ABS functions to take care of the general case.)

Thus a few steps after X = 1D0/DFLOAT(N) that go like this:

(I omit FLOAT and INT operations, which are often inserted automatically by the compiler, although it is good practice to do it yourself, so you KNOW what is happening.)

```
X = X * 1E10
  IX = X + 0.5
  X = IX/1E10
```

will round X off to 10 decimal places. You need to worry about the overall precision of fortran. You'd probably want to use double precision integers! A regular integer (4 byte) has about 9 or 10 digits of precision (2^31 or thereabouts, you need a bit for the sign - although "twos-complement" style numbers may give this bit back). I never worried to much about that. Astronomers seldom do anything that needs so much precision! The joke is that we worry about significant figures IN THE EXPONENT!

Doing this could falsely indicate how fast a sum converges - you'd be throwing away higher order digits that otherwise add up. However, it should show what a calculator would do.

Re: computation challenge

*Message #9 Posted by **Rodger Rosenbaum** on 16 Aug 2003, 6:34 a.m.,*
in response to message #2 by Dave Shaffer

The value of the limit to 36 digits after the decimal is:

1.202 056 903 159 594 285 399 738 161 511 449 990 ^ The 11th digit | after the decimal point should be

rounded up to 6, if what we want is a result correct to 11 digits after the decimal point.

Summing 329894 terms gives:

1.202 056 903 154 999 980 070

Summing 329895 terms gives:

1.202 056 903 155 000 007 923

So, we would have to sum 329895 terms to get a correctly rounded result to 11 digits after the decimal point.

Isn't this fun?!! Thanks to Mathematica for all these results.

Re: computation challenge

*Message #10 Posted by **Tizedes Csaba** on 10 Aug 2003, 5:30 p.m.,*
in response to message #1 by hugh steers

Hello!

You can approximate the minimal numbers of terms: Nmin=ceil((1e10)^(1/3))=2155. But this serie is not alternate, the numbers of terms you must to add is N=70711. (with MAPLE7)

If you want more precision, begin the summation with 1/70711^3, then decrease the number in the denominator.

Csaba

Hmm... It is suspicious...

*Message #11 Posted by **Tizedes Csaba** on 10 Aug 2003, 5:58 p.m.,*
in response to message #10 by Tizedes Csaba

70711... Its suspicious... I try it with some numbers...

Yes! The numbers of terms you must to add is N=1/SQRT(2*eps), where eps is the desirable precision.

Cs.

Re: Hmm... It is suspicious...

*Message #12 Posted by **hugh** on 11 Aug 2003, 6:50 a.m.,*
in response to message #11 by Tizedes Csaba

thats remarkable. you do indeed get 70711 with that calculation.

the program i wrote was based on further series acceleration. various techniques here, http://numbers.computation.free.fr/Constants/Miscellaneous/seriesacceleration.html

so that the number of terms for eps is given by -log((1-2^(1-s))*eps)/log(8). which for eps=1e-10, rounds up to 12. in fact i use 10 in the program which happens to be enough.

I was played with this in MAPLE

*Message #13 Posted by **Tizedes Csaba** on 11 Aug 2003, 12:40 p.m.,*
in response to message #12 by hugh

Try it in MAPLE, and play with 'n':

```
restart;with(plots):
Digits:=20;
a:=sum(1/x^3,x=1..infinity);
b:=sum(1/x^3,x=1..n);
d:=a-b;
n:=424;evalf(d);
```

And if you plot 'd' in loglog plot, you'll see an linear function:

```
loglogplot(evalf(d),n=1..100000);
```

The equation of linear function is:

```
log(N)=-1/2*log(2)-1/2*log(eps), where base of 'log'-s are anything.
```

('d' are equal 'eps')

(I know, its not a very elegant solution, I just use it for a fast 'research'...)

Csaba

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HP-97 display question

*Message #1 Posted by **Mark Monica** on 8 Aug 2003, 1:10 p.m.*

Is it possible to get a HP-97 to power up with the display showing 4 decimal places? Currently set at 2. Thanks

Re: HP-97 display question

*Message #2 Posted by **Chan Tran** on 8 Aug 2003, 1:27 p.m.,*
in response to message #1 by Mark Monica

No. The 97 does not have continuous memory.

Re: HP-97 display question

*Message #3 Posted by **David Smith** on 8 Aug 2003, 4:11 p.m.,*
in response to message #1 by Mark Monica

Nope, you have to press DSP 4 to get four places.

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HP12C - Internal Rate of Return

*Message #1 Posted by **David L. Taylor** on 8 Aug 2003, 11:16 a.m.*

I no longer have my owner's manual and now need to info on how to calculate IRR for irregular cash flows.

Re: HP12C - Internal Rate of Return

*Message #2 Posted by **Gene** on 8 Aug 2003, 12:05 p.m.,*
in response to message #1 by David L. Taylor

Initial investment $10000 Cash Flows: Year 1 $5000 Year 2 $4000 Year 3 $3000

Clear the financial registers.

10000 CHS g CFo 5000 g CFj 4000 g CFj 3000 g CFj

f IRR

10.65%

Re: HP12C - Internal Rate of Return

*Message #3 Posted by **Patrick** on 8 Aug 2003, 2:32 p.m.,*
in response to message #2 by Gene

In addition to what Gene has said, if any consecutive set of cash flows are equal, you can use the Nj function to specify how many times the flow repeats. Extending on Gene's example, suppose that there were flows in years 4, 5, and 6 that were all equal to the $3000 flow in year 3, then instead of keying these in individually, you can just type "4 g Nj" just before the "f IRR" keystrokes. The 4 signifies 4 payments of $3000 corresponding to the four years (3, 4, 5, 6).

Apart from saving some keystrokes, this method also saves on memory registers. Basically, you only use one memory slot for a repeated flow. Somehow, the HP engineers have stored the value of Nj (which can be as large as 99) in some spare bits inside the calculator, probably in the bits in the memory register which holds the payment itself.

Re: HP12C - Internal Rate of Return

*Message #4 Posted by **Gene** on 8 Aug 2003, 2:50 p.m.,*
in response to message #3 by Patrick

Quite correct!

One can also see an example from my business math textbook that uses the HP-12c...

http://www.rskey.org/gene/hpgene/book.html

Re: HP12C - Internal Rate of Return

*Message #5 Posted by **Luc (Vietnam)** on 8 Aug 2003, 8:07 p.m.,*
in response to message #1 by David L. Taylor

Hi,

You can download and read the manual of HP 12C Platinum at:

http://h20015.www2.hp.com/content/common/manuals/bpia5309/bpia5309.pdf

The way to use of HP 12C is mostly similar with HP 12C Platinum (in PRN mode).

Good luck!!!

Luc - Vietnam

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Familiar 97S Data

*Message #1 Posted by **DougT** on 8 Aug 2003, 7:10 a.m.*

Check out this 97S auction:

http://cgi.ebay.com/ws/eBayISAPI.dll?viewItem&item=3038892567&category=3294

Facts are facts, but a nod to the Museum still would have been nice. At least they used their own pictures...

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HP32SII Emulator

*Message #1 Posted by **D.W.** on 7 Aug 2003, 11:28 p.m.*

Does anyone know if a life-like emulator exists for the now-extinct HP32SII which is as realistic as the fantastic HP41 emulator. And if a good HP32SII emulator exists where can it be found?

Re: HP32SII Emulator

*Message #2 Posted by **Randy Sloyer** on 8 Aug 2003, 9:24 a.m.,*
in response to message #1 by D.W.

While my knowledge of HP emulators is not the broadest, I do know that if one existed, it could only be a rough facsimile. The creator would have to write the entire program from scratch as there is no way that I am aware of to access the microcode contained in the 32Sii. Even if you could find a hidden entry point, you would have to hand transcribe the image as the unit has no printing ability.

Most all of the very faithful to the original emulators out there are processor simulation engines that run on top of an image of the original HP microcode. This is how the 28,41,42 and 48 series machine emulators work.

Anyway you go with a project of this complexity, it's a pretty tough nut to crack.

Re: HP32SII Emulator

*Message #3 Posted by **Patrick** on 8 Aug 2003, 2:37 p.m.,*
in response to message #2 by Randy Sloyer

I know I'm asking a lot, but wouldn't it be possible to take the ROM chip from a defunct unit and put it into a piece of hardware that could read out its guts?

This would be a great breadboard project for a first year EE student! Do we know enough about the ROM package (electrically) for someone to accomplish this?

Re: HP32SII Emulator

*Message #4 Posted by **Nelson M. Sicuro (Brazil)** on 8 Aug 2003, 3:32 p.m.,*
in response to message #3 by Patrick

I think that the ROM is inside the Saturn CPU, so it will be impossible to get it - but I don't know it for shure.

Good luck!

Nelson

Re: HP32SII Emulator

*Message #5 Posted by **Christoph Giesselink** on 17 Aug 2003, 8:16 p.m.,*

in response to message #1 by D.W.

As somebody know, there is a HP32SII emulator, but because of the ROM image problem Randy wrote about, it isn't available. The ROM image can't be uploaded from an original calculator, so we must wait that HP makes a copy of the ROM image available.

BTW, the HP32SII use the Sacajawea 1LR3 chip, another chip of the Saturn family chips, quite similar to the Lewis 1LR2 chip. The HP32SII is fully programmed in assembler, no RPL code inside.

Regards

Christoph

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How to change dots <> commas in HP-32E?

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 7 Aug 2003, 6:32 p.m.*

Hi, folks! How to change dots <> commas in HP-32E? I just finished their restoration, and I need to know if was any way to do this. A jumper, maybe?

Thanks

Nelson

Re: How to change dots <> commas in HP-32E?

*Message #2 Posted by **Raymond Del Tondo** on 7 Aug 2003, 7:04 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

I'm not sure, but I remember reading about the dot/comma jumper or bridge in the international version of the 34C.

Please take a look at the technical info for the 34C here in the museum. Maybe the forum archive could help, too.

Raymond

Re: How to change dots <> commas in HP-32E?

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 7 Aug 2003, 7:12 p.m.,*
in response to message #2 by Raymond Del Tondo

Thanks, I'll look (again) there. But I think that there isn't any jumper (I don't found any) inside it. Maybe only the international 34C have it...

If I was crazy enough I might just swap the dot and comma connection on the display! Ahh, what a sin messing up with the flexible PCB... Never mind.

Best regards,

Nelson

Look at what Luiz posted, responding to a question of me

*Message #4 Posted by **Harry (Germany)** on 7 Aug 2003, 8:44 p.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Here you find a very good picture of the powersupply of a Spice and the jumper in it that changes dot/comma.
Luiz's Post

Regards, Harry

Re: Look at what Luiz posted, responding to a question of me

*Message #5 Posted by **Nelson M. Sicuro (Brazil)** on 8 Aug 2003, 1:11 a.m.,*
in response to message #4 by Harry (Germany)

Thanks, I'll look for it next time I open it.

Regards,

Nelson

Re: Look at what Luiz posted, responding to a question of me

*Message #6 Posted by **Nelson M. Sicuro (Brazil)** on 8 Aug 2003, 10:55 a.m.,*
in response to message #5 by Nelson M. Sicuro (Brazil)

I just finished assembling again my 32E. I cutted that jumper, and it is now showing dots as separators and a decimal comma. It worked!

Thanks to all!

Best regards,

Nelson

I heard my name...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 8 Aug 2003, 9:43 a.m.,*
in response to message #4 by Harry (Germany)

Hi, Harry;

thank you mentioning. Just to add that I read it first in one of Katie's post, sometime ago. Please, feel free using the information and the pictures anytime you want. Belongs to us all.

Best regards.

Luiz (Vieira)

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And the winners are.... ?

*Message #1 Posted by **Matt Kernal (US)** on 7 Aug 2003, 5:34 p.m.*

Not that I was eligible or anything, but the announcement date of winners of HP's Create-a-Calculator contest has come and gone (August 1, 2003, btw).

http://www.hp.com/calculators/contest/index.html

Matt (mildly curious)

Re: And the winners are.... ?

*Message #2 Posted by **Harry (Germany)** on 7 Aug 2003, 6:33 p.m.,*
in response to message #1 by Matt Kernal (US)

Why do they still have that "RPN?" link on that site?!? I thought tey didn't care about RPN anymore.

Harry

Re: And the winners are.... ?

*Message #3 Posted by **M.J.** on 7 Aug 2003, 11:21 p.m.,*
in response to message #2 by Harry (Germany)

You need to be bitch-slapped for making such a blasphempous statement that HP doesn't care about RPN any more!!!

Re: And the winners are.... ?

*Message #4 Posted by **Ben Salinas** on 9 Aug 2003, 11:16 a.m.,*
in response to message #1 by Matt Kernal (US)

Well, I can narrow it down by 1. I have figured, since i havent been notified about anything, that i did not win. Other than that, I know nothing -ben

Re: And the winners are.... ?

*Message #5 Posted by **Les Bell [Sydney]** on 9 Aug 2003, 7:56 p.m.,*
in response to message #4 by Ben Salinas

Darn it, Ben - with the amount of good work you put in, I had you down as a sure-fire winner.

Commiserations . . .

Best,

--- Les [http://www.lesbell.com.au]

Re: And the winners are.... ?

*Message #6 Posted by **Ben Salinas** on 9 Aug 2003, 11:47 p.m.,*
in response to message #5 by Les Bell [Sydney]

It's okay. I am figuring (AKA comforting myself) by saying it was probably judged by the marketing department. I can see it now: Judge: Wow... Look this entry is shaped like a rocket ship, and when you press any button it makes a noise like a rocket taking off, and the LCD screen flashes. How cool... I bet it would sell millions. Judge 2: Well, I think this one is better... I mean how can you beat the rose shaped calculator, which actually smells like a rose. I could see a whole line of calculators, all which have a different smell.

Oh well, I did it partially to occupy my time, and prove to myself that I could do something of that caliber -ben

That's not so far fetched Ben.

*Message #7 Posted by **db(martinez,california)** on 10 Aug 2003, 10:45 p.m.,*
in response to message #6 by Ben Salinas

All but two of HP's current calculators already smell, albeit not like a rose.

Edited: 11 Aug 2003, 12:21 a.m.

Re: And the winners are.... ?

*Message #8 Posted by **bill platt** on 11 Aug 2003, 12:10 a.m.,*
in response to message #5 by Les Bell [Sydney]

I second Les' comments. And I keep my fingers' crossed. Maybe they're just late.....really enjoyed Ben's posts!

regards,

Bill Platt

Easy to figure out the winners...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 11 Aug 2003, 1:01 a.m.,*
in response to message #1 by Matt Kernal (US)

Hi, folks;

the winners are:

the HP Staff and
Kimpo Manufacture Co.

Now, let's hope that they have found a good amount of "what_should_a_calculator_do" so they will learn how to do that and find a way to produce them. And let us win, too... I mean, in a sense, good and acceptable calculators. Not as gifts from them to us, instead as buying options.

Luiz (Brazil)

Re: And the winners are.... ? OOPS, I lied

*Message #10 Posted by **Ben Salinas** on 12 Aug 2003, 9:40 a.m.,*
in response to message #1 by Matt Kernal (US)

Well, I walked into my electronics teacher's room this morning, and he told that he needed tot alk to me. He told me that he had recieved a call from HP, and they left a message on his answering machine saying that I won the contest, and he wanted to talk to him about working with my school on future science/calculator related stuff. He told me that he (the HP guy, last name was vignette or something), was extremely amazed by my entry. I guess since HP said August 1st, I should have known I needed to wait another 2 weeks.:) -Ben

Congratulations, Ben!!

*Message #11 Posted by **bill platt** on 12 Aug 2003, 10:56 a.m.,*
in response to message #10 by Ben Salinas

I kept my fingers crossed! That is really excellent!

Re: Congratulations, Ben!! and a challenge to HP

*Message #12 Posted by **jimc** on 13 Aug 2003, 7:59 p.m.,*
in response to message #11 by bill platt

Ben, you are to be congratulated for not only your project, but the energy and enthusiasm you showed for the work and the professional presentation. Wow.

I don't know your age, but I will say that I can only hope that HP hires you. Old engineers like me are hoping that you can bring some technology and quality back to HP.

A challenge to HP: You hire Ben, give him free rein, unencumbered by marketing. Let him build you a calculator. I'll guarantee that you'll sell every calculator you make. I'll buy two!

OOPS... and "Congrats!", too

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 12 Aug 2003, 12:21 p.m.,*
in response to message #10 by Ben Salinas

Hi, Ben;

congratulations!

Hey, as HP is turning your design an actual project, you're surely be "A" beta tester. Please, as this happens, use a nickname and let us know whatever we can about it, will yah?

For what I saw, you deserved this.

Best regards.

Luiz (Brazil)

Congrats Ben! Hold out for a 49G+

*Message #14 Posted by **Matt Kernal (US)** on 12 Aug 2003, 1:06 p.m.,*
in response to message #10 by Ben Salinas

Hey, that's GREAT news! Ditto on the Congratulations! Sounds like you'll get some scholarship money, and at least a new calculator. Hold out for a 49G+, 48GII, or at least a couple 33S's! Don't settle for a 12C Platinum or 9G.

Concerning HP and prizes, in previous HHC's (HandHeld Conferences), and I'm thinking of the two held in Vancover Washington a few years ago, HP was very generous and donated some nice prizes for an on-site HP48G programming challenge. I believe the winner received an HP notebook PC AND a Jornada PDA. Everyone attending got a free 49G.

HP will be present for this year's HHC as well. See http://www.holyjoe.net/hhc2003/index.htm

Once again, good job Ben! Oh, one more thing... how about reposting your entry for us to see again?

Matt

Re: Congrats Ben! Hold out for a 49G+

*Message #15 Posted by **Tom (UK)** on 12 Aug 2003, 1:16 p.m.,*
in response to message #14 by Matt Kernal (US)

"Everyone attending got a free 49G."

Ah - thats how they avoided the land fill tax.

OOP's. Spoke too soon (48GII & 33S pics)

*Message #16 Posted by **Matt Kernal (US)** on 12 Aug 2003, 1:38 p.m.,*
in response to message #14 by Matt Kernal (US)

Well, maybe you should just hold out for the scholarship money :)

Re: And the winners are.... ? OOPS, I lied

*Message #17 Posted by **reversi** on 12 Aug 2003, 6:22 p.m.,*
in response to message #10 by Ben Salinas

www.series80.org/HP51S

Re: And the winners are.... ? OOPS, I lied

*Message #18 Posted by **Ben Salinas** on 12 Aug 2003, 6:31 p.m.,*
in response to message #10 by Ben Salinas

To answer some of the questions that have been asked: As far as I understand, the prize is a HP 9g, and $3000. I will be sure to ask to see if they will give me a nicer calculator, though I am not sure if they will. (Trust me, I would much rather have a HP 49g+ than a 9g:)) There is no guarantee (and probably very little chance) that they will make this calculator I designed. First off, a few of the features might be physically impossible(a few, mind you) but more importantly, remember they were expecting , and I quote, "What if a calculator could measure the ocean's depth, transmit the temperature on Mars, and solve any complex math problem you could dream up? What if a calculator came in the shape of a rocket ship, butterfly, or snake, or was painted in patriotic stars and stripes?" It said in the rules, that the calculator designs might be used for ideas in future calculators. I truly doubt they will make my calculators, but there is a strong possibility that they will use some of my ideas in future models (if they make future models)

My teacher called the HP person back (as he was instructed to do so). They want to interview me, via phone, on thursday, and would like to come down to south Texas to see the school. (http://scitech.stisd.net)Supposedly they were very amazed by my entry. They also said that they might want to donate some equipment/money to the school, if they like it (which I believe they will like it) (the school itself is a magnet school with emphasis on math, science, and engineering, and all the skills I used

in creating my design I learned in the required technology classes) I will hope for the best. -ben

Well done!

*Message #19 Posted by **Patrick** on 13 Aug 2003, 2:26 a.m.,*
in response to message #18 by Ben Salinas

Absolutely fabulous story, Ben. Hearty congratulations!

If I were you, I'd take the 9s, smile and say thank you. They're giving you $3000, after all, so you can now afford to buy a mint version of anything you want on eBay!

What you *should* ask for, IMO, is a co-op/summer job at their calculator division (if it still exists)! There's something worth leveraging into this opportunity!

Good luck!

Re: And the winners are.... ? OOPS, I lied

*Message #20 Posted by **Les Bell [Sydney]** on 14 Aug 2003, 12:25 a.m.,*
in response to message #18 by Ben Salinas

That's great news, Ben - congratulations!

Best,

--- Les [http://www.lesbell.com.au]

Hey, Congratulations!

*Message #21 Posted by **Michael F. Coyle** on 12 Aug 2003, 9:49 p.m.,*
in response to message #10 by Ben Salinas

Glad to hear you won!!!

It seems like they were looking for fun, casual, "blue sky" stuff and you gave a complete serious design proposal, just like they'd get from their own engineers. No wonder they were blown away!

(I must admit that I was impressed by your entry -- what I read of it. It was so large I was rather intimidated by it!)

Hopefully, given the amount of work you did, HP will upgrade your prize to the new 49. And hopefully they will do right by your school. When they visit, send us a report -- we'd like to know what they're up to.

Again, congratulations!

- Michael

Re: CONGRATULATIONS!!!

*Message #22 Posted by **Ron Ross** on 13 Aug 2003, 11:17 a.m.,*
in response to message #10 by Ben Salinas

To me, your design may have had more thought and sense than what Hp delivered! Perhaps the prize committee conversation went like this.

"Would you LOOK AT THIS!!!"

"Did one of our previous engineers enter??"

"Well!! IT DOESN'T look like the butterfly we were looking for! (contemputous tone)"

"Yeah, but if we ever need to get back into the calculator business, we can't have this kid submitting this design to Ti."

"Ok, so its the best (again contemputous resignation). I wanted the designs to look like colorful crayon markups that I could scan over to my powerpoint presentations to show to Carly. She won't want to look at this (snear and snival)."

"Well, I guess we'll award to this kid, but we wanted more imagination and less research and work. I just can't understand these techie types."

Sadly, the above conversation probably didn't take place, becuase the above would be to intellectual for the present Hp management. Kingpo probably does most of Hp's real design and a look at the new 33s (which is larger than some graphics) pocket?? calculator gives me an idea of their skill.

However, Again my congratulations to a well deserved award. Use the scholarship money well and Who knows, Maybe you can design the next Hp calculator.

Re: Congratulations!

*Message #23 Posted by **Paul Brogger** on 13 Aug 2003, 12:51 p.m.,*
in response to message #10 by Ben Salinas

Ben, regardless of the happy outcome, in the process of creating your fine entry you exhibited traits and talent that will take you places. You should take some confidence that, whatever direction you choose in life, you are certainly capable of most any achievement you may desire. What a way to start out in life!

Congratulations!

Re: And the winners are.... ?

*Message #24 Posted by **eclectic_echidna** on 13 Aug 2003, 3:31 p.m.,*
in response to message #1 by Matt Kernal (US)

Dumb question: Can you show us the calculator that won the design contest?

Where is the info?

-- ee

Re: And the winners are.... ?

*Message #25 Posted by **eclectic_echidna** on 13 Aug 2003, 4:07 p.m.,*
in response to message #24 by eclectic_echidna

Nevermind, I have found it.

Quoted from Ben's design document:

The first, and most impressive, is the Pseudo-Graphing function. This function allows the scientific calculator to graph in a way more accurate than a graphing calculator. This function was put in this

calculator to increase the market to high school students, most of whom depend on their graphing calculator. This function creates a table of value of only important points. This will greatly decrease graphing time and allow students to be weaned from their graphing calculator. Important points are those which are directly adjacent to curves in a graph, or at a vertex, as well as a point ½ to 1/3 of the way through a curve (which will make sure the line drawn on paper is accurate). Important points also include the x and y-intercept, and any other number which happen to be “nice” whole numbers. The table will display 2 lines at a time, and be scrolled through using the Up and Down “Program Navigation” keys (keys 18 and 23).

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CP/M on an HP-86/87XM

*Message #1 Posted by **Mike** on 7 Aug 2003, 5:30 p.m.*

I have a nice HP-87XM system that I was going to sell. I wanted to include the CP/M Module as well but I don't seem to be able to get the CP/M to boot.

The system has 384K of RAM, the CP/M module and I have an original CP/M disk. But, when it tries to boot, I get an error saying, "operating system not on drive A, please correct and hit any key" or something to that effect.

Drive A?

Should I have a 2nd disk? Is this a sign that my CP/M disk is bad? I have a 2nd CP/M module and it behaves the same.

Does the CP/M module have to be in a specific slot?

Is there any setup required besides just booting from the floppy?

Re: CP/M on an HP-86/87XM

*Message #2 Posted by **Vassilis Prevalakis** on 9 Aug 2003, 2:52 a.m.,*
in response to message #1 by Mike

Sorry for the delay, I had to find the CP/M module first :-)

You only need one floppy, here is the directory:

```
[ Volume ]: HPCP/M
Name         Type    Bytes      Recs
CP/MSYS      DATA      256      1021
Autost       PROG      256         5
CP/M         BPGM      256        25
```

Autost is a Basic program:

```
10 PAGESIZE 24
20 PRINTER IS 705
30 FLIP
40 LOADBIN "CP/M"
50 END
```

File *CP/MSYS* is the CP/M filesystem (your DRIVE A). If you try to use the native *COPY* utility, you are likely to corrupt this file. You have to use the CP/M *PIP* command.

The floppy behaves like typical *Autost* floppies: if the floppy is in the drive, the system loads *Autost*, runs it and boots into CP/M, if the floppy is inserted after the 87 boots into Basic, you can still *LOAD* and *RUN* the *Autost* program and boot into CP/M. If you press *[SHIFT] RESET* you get back into Basic.

Once CP/M is up, you can do a DIR and see the files that exist inside the CP/MSYS (filesystem) image.

BTW, if you happen to have the software for the HP 82900A terminal emulation co-processor, then this

should be usable with the CP/M module, since the actual hardware card is the same for both systems. Unfortunately, I do not have this S/W.

**vp

Thanks for info but...

*Message #3 Posted by **Mike** on 9 Aug 2003, 11:58 a.m.,*
in response to message #2 by Vassilis Prevalakis

Sadly, I have an original disk and it still does not boot. That doesn't mean that it wasn't overwritten at some point.

My program file list matches what you have here. The autost program is slightly different but that is a file that is configured to match ones system so it makes sense that it might be different. For instance the printer is at a different location.

I suspect that my master disk may be corrupted.

Thanks,

Mike

Just a guess..

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 9 Aug 2003, 3:02 p.m.,*
in response to message #3 by Mike

Hi, Mike;

I'm not aware of using CP/M, but I found some troubles on floppy system disks in other systems that were solved by starting with another disk drive unit. I'm not sure if you can do one of these:

- prepare another CP/M startup disk (or system disk)
- use another disk drive unit
- clean the head(s) of the existing drive unit

As I mentioned, I never used any CP/M-based system, I just thought about this and maybe it's nonsense. Anyway, maybe current drive (the one you are usiing) is able to read disk information and disk contents, but somehow it cannot read startup (system) data. I once found a multi I/O (daughter)board that was able to do enything EXCEPT prepare a hard disk as a system disk. I tried whatever you can imagine: use another I/O board, prepare another hard disk, use the same hard disk prepared in another computer, use the "bad" daughter board in other computers... That multi I/O board was not able to write startup information. It was able to read but write. And the problem was only when using that board.

There are things one must go too deep inside the system's inner secrets to explain...

Qapla' (as Ernie thought me as being Klingon's world for Success!) Please, let us know if/when you succeed.

Luiz (Brazil)

Edited: 9 Aug 2003, 3:08 p.m.

Copying CP/M floppies

*Message #5 Posted by **Vassilis Prevelakis** on 9 Aug 2003, 3:10 p.m.,*
in response to message #3 by Mike

OK, then I'll send you a boot floppy.

For the rest, here is a list of what I had to do to create the new diskette:

Conventions: I assume you have two floppy drives and you are booting from the lower numbered one. This will be drive A (like in MS/DOS). The second drive will be drive B.

To copy the boot floppy you have to boot with it and when you are within the CP/M environment you have to perform the following steps

1) Format diskette and install the CP/M system files

Run the *FORMAT* command, select option 2 (Create CP/M system diskette), and follow the instructions.

2) Copy user files from the master diskette

Assuming the master disk is on drive A, and the new disk on drive B, use *PIP B:=A:*.**

Warning: Unlike most systems, the *PIP* syntax is *Destination := Source*

3) Use *DIR A:* and *DIR B:* to confirm that the files have been copied.

Notes: The *FORMAT* command is not a standard CP/M command, it was developed by HP for the Series 80 CP/M emulator. I do not have the HP CP/M documentation, but you can download the CP/M 2.2 OEM docs from http://www.cpm.z80.de/manuals/cpm22-m.pdf

**vp

Holy CP/M Batman... (Photos)

*Message #6 Posted by **Mike** on 9 Aug 2003, 7:46 p.m.,*
in response to message #5 by Vassilis Prevelakis

It worked!

I guess I hadn't tested the original masters as I thought I did. I tried again and it booted. Guess I won't need that floppy.

The images below show the boot screen.

Photo 1: This is what the CP/M boot screen looks like

Photo 2: This is a screen that shows results after creating a new Master CP/M disk.

Photo 3: This shows the same disk when viewed using CAT from the BASIC environment.

http://www.msdsite.com/hpcalcs/hp87/cpm/bootx.jpg
http://www.msdsite.com/hpcalcs/hp87/cpm/copyx.jpg
http://www.msdsite.com/hpcalcs/hp87/cpm/after-copyx.jpg

Now, how to get a bootable 3.5" disk http://www.msdsite.com/images/smile.gif

Thanks VP

Edited: 9 Aug 2003, 8:25 p.m.

Re: Holy CP/M Batman... (Photos)

*Message #7 Posted by **Vassilis Prevelakis** on 9 Aug 2003, 11:18 p.m.,*
in response to message #6 by Mike

I have used a 9121 3.5" disk all along, so there is nothing fundamentally wrong with CP/M and 9121 disks.

The setup I have here does not have 5.25" disks. I have a 9121 (HP-IB device 0), a 9122 (HP-IB #4, used with the EMS ROM) and a ThinkJet printer (HP-IB #5).

CP/M has the following drive allocation:

```
   DRIVE           CP/M
9121 left drive      A
9121 right drive     B
9122 left drive      E
9122 right drive     F
```

So there is a gap in the drive numbering (C and D are missing).

My guess is that maybe CP/M does recognize all your floppies but you don't know what drive letters to use.

Try booting CP/M with both types of floppy connected and then try using drive letters till the floppy access led lights.

I have done this scan by placing a normal HP-85 floppy on the 9122 right drive (not a CP/M floppy) and executing *DIR B:*, *DIR C:*, *DIR D:*, *DIR E:*, etc till the drive mechanism engaged.

**vp

That did the trick

*Message #8 Posted by **Mike** on 10 Aug 2003, 12:22 a.m.,*
in response to message #7 by Vassilis Prevelakis

I had to swap my drive letters to make my 5.25 the boot drive. Then, it was a simple matter to format a 3.5" disk on drive E: and copy the system files to the 3.5" disk.

Now, I have CP/M bootable from 5.25" or 3.5" depending on the drive letter setup.

You have been a great help. There is a lot of good documentation here.

Thanks,

PS: I owe you one, or two, or three http://www.msdsite.com/images/smile.gif

Edited: 10 Aug 2003, 12:24 a.m.

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HP15C batteries

*Message #1 Posted by **Tony** on 7 Aug 2003, 3:59 p.m.*

The HP15C worked fine for the past 18years. I recently replaced the batteries and the calculator is acting erradically.

Are there specific batteries required for this calculator?

Re: HP15C batteries

*Message #2 Posted by **BatteryBoy** on 7 Aug 2003, 4:07 p.m.,*
in response to message #1 by Tony

Tony:

Type 357 silver oxide (also known as SR44) 1.5v buttons, or type LR44 alkaline button cells.

Regards,

BatteryBoy

http://batteryboy.com/hp

Re: HP15C batteries

*Message #3 Posted by **the professor** on 7 Aug 2003, 8:36 p.m.,*
in response to message #2 by BatteryBoy

Page 260 of the HP-15C OWNER'S HANDBOOK, the following batteries are recommended:

Alkaline: Silver-Oxide: Eveready A76 Eveready 357 UCAR A76 UCAR 357 Ray-O-Vac RW82 Ray-O-Vac RS76 or RW42 National or Panasonic LR44 Duracell MS76 or 10L14 Varta 4276 Varta 541

Hank

Re: HP15C batteries

*Message #4 Posted by **the dumb professor** on 7 Aug 2003, 8:43 p.m.,*
in response to message #3 by the professor

I did not realize how the mail program would parse my message. Please bear in mind all of the odd numbered items are in column one and all of the even numbered items are in column two.

I will list the batteries again: Alkaline: Eveready A76 and UCAR A76 and Ray-O-Vac RW82 and National or Panasonic LR44, Varta 4276.

Silver-Ozide: Eveready 357 and UCAR 357 and Ray-O-Vac RS76 or RW42 and Duracell MS76 or

10L14 and Varta 541.

Sorry about my boo-boo.

Hank

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HP-80 Questions

*Message #1 Posted by **Michael Barry** on 7 Aug 2003, 11:21 a.m.*

I'm very interested in trying to purchase an HP-80. I'm a finance guy and live with my 12c. I would love to have the first handheld business calculator HP made. I have been to the "Collectors Corner." Can you give me your thoughts, warnings, and suggestions regarding trying to buy HP-80 that I didn't find in the Corner? Are their problems inherit with the HP-80 both then and now? What is the most common deficiancy I should expect to see when trying to buy one? What would be a reasonable goal to strive for in buying one? As you can tell, I have never done this before. I've been reading this forum for some weeks now and have seen a lot of good information regarding older calculators, but nothing on the HP-80. Any additional help would be appreciated.

Sincerely, Mike

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Technical Mac HP48gx connectivity problem with USB to serial converter

*Message #1 Posted by **Cameron Downunder** on 7 Aug 2003, 5:54 a.m.*

Like the 5 points (commandments) for this group.

I am posting here on the suggestion of Wayne Brown, who I met on the comp.sys.hp48.

I have in the past connected my HP48sx calculator to an old mac via a serial port, no problems using Link 48 software.

I have been trying to do the same unsuccessfully using a New Motion USB to serial port adaptor to a G4 powerbook running OS 9.2.2, with Carbon Lib 1.6. I have also tried on a G3 powerbook with same OS setup.

There is some initial indication of communication on the HP calculater.. with the following..

HP: <connecting> <processing command> <connecting> <processing command> later ..<retry 1> <retry 2>,... then <timeout>.

With the attempted exchange process between the HP 48 sx and HP Link 48 software program, the Link software reports the error (result code 55) Couldn't complete the last command because the connection timed out. Please check your connections.... etc (all fine, HP calculator in server mode etc..)

Within the Link 48 software, program continues to report no connection. Have tried many combinations of set up within Link 48 software and the control panel for iDock USB to serial dual port adapter from NewMotion. No success.

I thought someone familiar with the Kermit exhange process may have some suggestions as to a solution.

I have also tried connecting through Appleworks (software on Macs) with no success.

The USB serial converter software has an option of 5V on pin 9. Not sure what this is about, and if I want to use it? This is a second technical question I think?

In response to my comp.sys.hp48 posting, Bill Graves made the following comments about this problem....

This is my guess ....

1. The round trip time for serial communication between the PC and the Calc is pretty short IF the calc does not have to do much.

2. Although USB has a much higher peak transfer rate, it seems like the total round trip time can be a little longer for the one character server commands.

3. In the case we are discussing, it is a little worse because the characters go through USB then serial then to the calc then back as serial and then back to USB.

4. Again I think the total throughput rate might be fine, the round trip time for a single message might be too long.

5. This might cause the link program to time out because it has been coded for the shorter serial, round trip times.

(...full posting on comp.sys.hp48 4 August 2003)

For those technically minded I have added below a USB Events List, accessed from Apple System Profiler. (Powerbook started up and Link 48 program begun, with USB to serial converter and HP48sx already connected ready. - keeping this list as short as possible!)

I am consious this makes for a long posting, however on the other hand putting all information into the one posting can be time efficient interms of another scanning to see if they have something to offer.

I am having trouble posting it formatted by individual line. Sorry.

Cameron downunder.

1.917: Expert - Initializing ROM based USB Expert 1.5.6 1.937: [123456789]: UIM - keylargo found -2147483648 1.937: [123456789]: UIM - wake handler enqueued 0 1.946: [123456789]: UIM - keylargo found -2147483648 1.947: [123456789]: UIM - wake handler enqueued 0 2.011: [123456789]: UIM - UIMEndpointDelete: Could not find endpoint -6987 2.071: [123456789]: UIM - UIMEndpointDelete: Could not find endpoint -6987 2.084: [75575988]: Expert - LoadClassDriver: USBHub1Apple - calling driver initialize routine... 0 2.084: [75575988]: Expert - LoadClassDriver: USBHub1Apple - driver initialization completed 0 2.085: [75575988]: Driver - Externally powered Hub attached - power supply good 0 2.097: [75576245]: Expert - LoadClassDriver: USBHub1Apple - calling driver initialize routine... 0 2.097: [75576245]: Expert - LoadClassDriver: USBHub1Apple - driver initialization completed 0 2.098: [75576245]: Driver - Externally powered Hub attached - power supply good 0 3.355: [0]: Expert - Bus Enumeration using ROM-based drivers (mSec): 1299 3.359: [0]: Expert - Registered with Native Power Manager 0 34.201: [597]: Expert - LoadUSBShim: Unable to register fragment! -2805 34.333: [-1610604544]: UIM - All ports disconnected, stopping clocks 0 34.337: [-1610608640]: UIM - All ports disconnected, stopping clocks 0 35.344: [0]: Expert - Bus Enumeration using disk-based drivers (mSec): 1016 120.011: [75575988]: Driver - Hub Driver - Device found, calling USBHubAddDevice. Port 1 120.181: [0]: USL - processDelayQ delayQueueChanged, breaking 0 121.142: [75576502]: Expert - LoadClassDriver: USBBootstrap - calling driver initialize routine... 0 121.164: [75576502]: Expert - LoadClassDriver: USBBootstrap - driver initialization completed 0 121.749: [75575988]: Driver - Hub driver - Removing dead device: 132104 121.750: [0]: USL - processDelayQ delayQueueChanged, breaking 0 121.753: [75576502]: Expert - Unable to locate device descriptor: -2538 121.753: [75576502]: Expert - Finalize returned: 0 121.783: [0]: USL - processTimeoutQueue found dead queue element - X 0 122.265: [75575988]: Driver - Hub Driver - Device found, calling USBHubAddDevice. Port 1 122.425: [0]: USL - processDelayQ delayQueueChanged, breaking 0 122.953: [75576759]: Expert - LoadClassDriver: iDock_Driver - calling driver initialize routine... 0 122.955: [75576759]: Expert - LoadClassDriver: iDock_Driver - driver initialization completed 0 123.012: [75576759]: USL - - USBDeviceRequest called for Set_Config. Use USBSetConfiguration instead 75576759 123.021: [75576759]: USL - - Obsolete funtion, USBOpenPipe, called 75576759 123.021: [75576759]: USL - - Obsolete funtion, USBOpenPipe, called 75576759 123.025: [75576759]: USL - - Obsolete funtion, USBOpenPipe, called 75576759 123.025: [75576759]: USL - - Obsolete funtion, USBOpenPipe, called 75576759 123.025: [75576759]: USL - - Obsolete funtion, USBOpenPipe, called 75576759 364.062: [0]: USL - Stalling pipe 1174716422 364.074: [0]: USL - Stalling pipe 1174716422 364.086: [0]: USL - Stalling pipe 1174716422 364.098: [0]: USL - Stalling pipe 1174716422 364.110: [0]: USL - Stalling pipe 1174716422 364.122: [0]: USL - Stalling pipe 1174716422 364.134: [0]: USL - Stalling pipe 1174716422 364.146: [0]: USL - Stalling pipe 1174716422 364.149: [75575988]: Driver - Hub driver - Removing dead device: 132104 364.155: [75575988]: Driver - Hub driver - Connection bounce: -1744500480 364.155: [0]: USL - processDelayQ delayQueueChanged, breaking 0 364.158: [75576759]: Expert - Unable to locate device descriptor: -2538 364.158: [0]: USL - Obsolete function USBClosePipeByReference called 1174718474 364.158: [0]: USL - Obsolete function USBClosePipeByReference called 1174717961 364.158: [0]: USL - Obsolete function USBClosePipeByReference called 1174716422 364.159: [0]: USL - Obsolete function USBClosePipeByReference called 1174717448 364.159: [0]: USL - Obsolete function USBClosePipeByReference called 1174716935 364.160: [75576759]: Expert - Finalize returned: 0 364.197: [0]: USL - processTimeoutQueue found dead queue element -

X 0 367.487: [75575988]: Driver - Hub driver - Connection bounce: -1744500480 367.584: [75575988]: Driver - Hub Driver - Device found, calling USBHubAddDevice. Port 1 367.645: [0]: USL - processDelayQ delayQueueChanged, breaking 0 368.527: [75577016]: Expert - LoadClassDriver: USBBootstrap - calling driver initialize routine... 0 368.530: [75577016]: Expert - LoadClassDriver: USBBootstrap - driver initialization completed 0 369.097: [75575988]: Driver - Hub driver - Removing dead device: 132104 369.098: [0]: USL - processDelayQ delayQueueChanged, breaking 0 369.101: [75577016]: Expert - Unable to locate device descriptor: -2538 369.101: [75577016]: Expert - Finalize returned: 0 369.112: [0]: USL - processTimeoutQueue found dead queue element - X 0 369.602: [75575988]: Driver - Hub Driver - Device found, calling USBHubAddDevice. Port 1 369.760: [0]: USL - processDelayQ delayQueueChanged, breaking 0 370.280: [75577273]: Expert - LoadClassDriver: iDock_Driver - calling driver initialize routine... 0 370.282: [75577273]: Expert - LoadClassDriver: iDock_Driver - driver initialization completed 0 370.294: [75577273]: USL - - USBDeviceRequest called for Set_Config. Use USBSetConfiguration instead 75577273 370.303: [75577273]: USL - - Obsolete funtion, USBOpenPipe, called 75577273 370.303: [75577273]: USL - - Obsolete funtion, USBOpenPipe, called 75577273 370.307: [75577273]: USL - - Obsolete funtion, USBOpenPipe, called 75577273 370.307: [75577273]: USL - - Obsolete funtion, USBOpenPipe, called 75577273 370.307: [75577273]: USL - - Obsolete funtion, USBOpenPipe, called 75577273

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Xpander battery compartment

*Message #1 Posted by **Sean McNamee** on 7 Aug 2003, 12:43 a.m.*

So all, Just bought a Xpander. I understand that the battery issue can be dealt with by charging the batteries outside the unit, but... In trying to open the compartment, it seems that the bottom of the lid is attached to two posts, which go down into the unit. Are these attached to screws? How do I remove the lid without damaging anything? Thanks all you collector.

PS> Any questions anyone wants to ask about the Hp Xpander - feel free!

Re: Xpander battery compartment

*Message #2 Posted by **Colin** on 7 Aug 2003, 2:08 a.m.,*
in response to message #1 by Sean McNamee

The tabs were broken off and the lid held down by a strong double sided tape because the prototype hardware could not tell the difference between Standard Alkaline batteries or NiMH batteries which are installed. It was decided for the field trial prototypes that the battery compartment would not be user accessable.

Using a small screw driver insert where the tabs were and disengage them. Then slowly but firmly lift the cover off. The tape will give way and you can lift the lid off. Clear any left over gum and tape off the lid or unit.

Colin

So, regular alkalines can be used?

*Message #3 Posted by **Sean McNamee** on 7 Aug 2003, 3:02 a.m.,*
in response to message #2 by Colin

The rechargables (got them out - thanks!) have tape covering most of them, but look like they're labeled 1.2V. Normal alkalines are 1.5V, if I'm not mistaken. That would make them incompatible...

Not quite...

*Message #4 Posted by **Mike** on 7 Aug 2003, 8:26 a.m.,*
in response to message #3 by Sean McNamee

That makes them different, not incompatible.

I don't think I have ever seen a piece of equipment that would work with NiCads but not Alkaline.

I have an XPander too and they are very interesting. I replaced my dead batteries with new AA rechargeables, with solder tabs (tabs removed). I think a normal AA alkaline will be a tight fit because the + terminals stick out further on normal alkaline.

http://www.msdsite.com/hpcalcs/xpander/x2x.jpg

Edited: 7 Aug 2003, 11:56 a.m.

Alkalines or any other battery other than NIMH AA in Xpander

*Message #5 Posted by **Colin** on 7 Aug 2003, 7:04 p.m.,*
in response to message #4 by Mike

If you do put any other battery other than NiMH into the Xpander, please be aware that the charger chip will not be determine that the wrong type of battery has been inserted. Do not connect the AC adapter if this is the case as it will attempt to charge the wrong battery.

Colin

Except

*Message #6 Posted by **Mike** on 7 Aug 2003, 7:19 p.m.,*
in response to message #5 by Colin

that NiMH and NiCads have the same voltage levels and the chip will see them as the same and charge them just fine.

I don't know why anyone would put anything but a rechargeable in one of these.

Re: Except

*Message #7 Posted by **Sean McNamee** on 8 Aug 2003, 1:24 a.m.,*
in response to message #6 by Mike

As I have since found out that these types of rechargables are commonly available - I wouldn't want to use non-rechargables either. I thought they were some specialty battery no longer available, As it is, you can get them out Radio Shack - neat!

Not quite, either.

*Message #8 Posted by **Speck** on 8 Aug 2003, 9:09 p.m.,*
in response to message #6 by Mike

I use Panasonic NiMH cells, and they charge to 1.4V, closer to the 1.5V of alkaline cells than the 1.2V of any NiCd cells I've ever used. Guess we've got to start checking that on a cell-by-cell (or mfgr-by-mfgr) basis, too.

I don't get your point

*Message #9 Posted by **Mike** on 8 Aug 2003, 10:40 p.m.,*
in response to message #8 by Speck

They will charge just fine in the Xpander.

Are you sure about the 1.4? Is is spec'd at 1.4 or do you just measure that? What is the part Panasonic number?

I just checked the Panasonic NiMH battery list and don't see any 1.4V cells.

But in any case, your comment doesn't conflict with what I said above.

Edited: 8 Aug 2003, 10:42 p.m.

Re: rechargables vs. alkaline

*Message #10 Posted by **Sean McNamee** on 9 Aug 2003, 1:18 a.m.,*
in response to message #9 by Mike

My boss (who knows everthing) says that the NiMH batteries hold much closer to full voltage under a load than alkaline or NiCAD. Low internal resistance. Now I don't know about what kind of load an Hp expander would put on these, but might it be that the other batteries drop closer to 1.2V under load anyway? ...Just pondering...

Batteries are spec'd

*Message #11 Posted by **Mike** on 9 Aug 2003, 2:28 a.m.,*
in response to message #10 by Sean McNamee

Batteries are spec'd at a specific voltage. That is what we should be talking about.

Re: I don't get your point

*Message #12 Posted by **Speck** on 9 Aug 2003, 9:39 p.m.,*
in response to message #9 by Mike

It wasn't much of a "point" at all. It was just an observation, that when one is looking for compatibility in cells, one might want to look past the label. I use Panasonic HHR-3UP AA NiMH cells with 1600mAh capacity. They are labeled 1.2V on the sides, but many of them tend to measure out to just under 1.4V. I got them cheap (that may be why), but I've had no complaints with them sofar, except that I can't seem to find a couple of them. They're kind of goofy things, but then I've just made (or am making) the switch from alkalines and MiCd's to NiMH cells, so I'm still learning about them. I've already saved quite a bit of money on them, so that's one thing I'm glad I'm learning.

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STAT PAK for HP-48GX

*Message #1 Posted by **Thomas Cox** on 6 Aug 2003, 8:42 p.m.*

Recently obtained a HP-48GX and Stat PAK by Davinci, originally by Sparcom. The manual scrambles the keycodes so that I don't know what keys should be pressed to activate the various operations. For example, on page 8 there is a paragraph that starts as

Setting the Current Director(sic)

To set the current directory, go to the Matrix Manager and use "E, B, 3i, i, 3c, and 6" to switch to the current directory. I think "6" is "ENTER" and the combination "3i" and "3c" are probably shifted entries.

Any assistance in either explaining the codes or providing a "Rosetta Stone" for interpretation of the codes would be appreciated.

Many of the examples are unintelligible. It would seem that printer used for printing manual was incompatible with code for printing special characters, resulting in garbage.

Does anyone have a copy of the manual either in hard copy or scanned that I could borrow or purchase?

Thanks.

Re: STAT PAK for HP-48GX

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 Aug 2003, 8:48 p.m.,*
in response to message #1 by Thomas Cox

Hi, Thomas;

Aren't these references related to menu keys? I mean, when you enter in Matrix Manager (not Matrix Editor) aren't you in a particular environment?

Just to know.

Luiz (Brazil)

Re: STAT PAK for HP-48GX

*Message #3 Posted by **Thomas Cox** on 7 Aug 2003, 7:25 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

The messages in the menu keys are clearly written in manual, it is the other keys that are not printed in a way that I have been able to determine what key(s) to press.

Also, what is more confusing is the examples in manual show scrambled printing so I can't see what results I should be getting.

Thanks

Thomas Cox

Re: STAT PAK for HP-48GX

*Message #4 Posted by **Megha Shyam** on 19 Aug 2003, 9:00 a.m.,*
in response to message #1 by Thomas Cox

You can contact Paul Nelson at www.calcpro.com and he can get you a manual. All sales of da Vinci products are licensed through Calcpro and so he is your best option.

megha shyam chairman and ceo da Vinci Technologies group

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F and G

*Message #1 Posted by **John** on 6 Aug 2003, 6:17 p.m.*

Can anyone explain the useage by HP of "F" and "G" keys for function keys? Why were these letters chosen? Also, it looks like the new 49G+ has "left" and "right" arrow keys for other key functions. Why not F and G?

Re: F and G

*Message #2 Posted by **Gordon Dyer** on 6 Aug 2003, 6:23 p.m.,*
in response to message #1 by John

I have always assumed that this was "f" for function key, and originally this was the only one. Later HP added a second one and used "g" as it was the next letter. "h" appeared in the HP-34C.
I have no evidence for this, just my own speculation.

Re: F and G ... and H (shifted function keys)

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 7 Aug 2003, 8:05 a.m.,*
in response to message #2 by Gordon Dyer

Just a comment: "h" first appeared in the HP 67, long before the HP 34.

While "f(x)" and "g(x)" are usual mathematical function notation (as is "f-1(x)"); the letter selection also fit nicely with the A,B,C,D,E definable keys on the HP 65 and 67. This may have been infuenced by the physical layout of the handhelds (5 top row keys).

The need for a sixth top row key, as in the Pioneers, with A...F meaning, is very convenient for hexadecimal functions; but this doesn't seems to have been an important concern before 1980. If "F" means binary 1111 or decimal 15, then the function key should be labeled differently. The angled "left shift" and "right shift" keys are compatible with this. Personally, I don´t like them, but one must concede that such arrows are a blessing for persons with color blindness.

Re: F and G

*Message #4 Posted by **Ernie Malaga** on 6 Aug 2003, 6:46 p.m.,*
in response to message #1 by John

> Quote:
>
> Can anyone explain the useage by HP of "F" and "G" keys for function keys? Why were these letters chosen?

It's mathematical notation. In math one uses the notation f(x) and g(x) to denote functions. The notation f^{-1} is also mathematical, meaning the inverse function of f. I believe the HP-65 was the only one ever to have f^{-1}.

> Quote:

> Also, it looks like the new 49G+ has "left" and "right" arrow keys for other key functions. Why not F and G?

Beats me. I've never liked those angular arrows myself; it would have been enough to have unlabeled, colored shift keys.

By the way, the colors gold and blue initially chosen by HP of the Golden Era were wise choices; color-blind people are likely to be unable to distinguish between green and red, but yellow and blue are okay. But then the Golden Era ended and all sorts of "in style" colors appeared, all the way to the (ugh) teal and lavender of the HP-48G/GX.

-Ernie

Re: F and G

*Message #5 Posted by **Ernie Malaga** on 8 Aug 2003, 2:31 p.m.,*
in response to message #1 by John

Texas Instruments calculators have had [2nd] from the very start. In recent years, calculators such as the TI-36X have added [3rd].

I find it amusing that TI has always used gold for [2nd] and now blue for [3rd] -- a copycat color scheme from HP calculators.

One advantage of TI's shift key naming scheme over HP's is that HP's uses up letters that _may_ collide with other key labels, while TI's choice is unlimited ("Press [17th] and [x^{25}] to raise a number to the 25th power"). For example, if the HP-67 had to have another shift key, it couldn't be named [i] because that's already used in financials and, in more modern machines, for the imaginary unit.

-Ernie

Re: F and G

*Message #6 Posted by **Vassilis Prevelakis** on 10 Aug 2003, 1:31 p.m.,*
in response to message #5 by Ernie Malaga

```
Ernie Malaga wrote:
> For example, if the HP-67 had to have another shift key,
> it couldn't be named [i] ...
```

Of course, because the HP-67 and 97 already use the letter i for the index register. In fact the HP97 *has* an I key (in the HP-67 the function of the I key is replaced by composite instrustions, i.e. STI rather than STO I).

**vp

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HP41CV basic statistics question

*Message #1 Posted by **Andrew** on 6 Aug 2003, 5:37 p.m.*

Hi All,

I'm new to this forum and just started to use my calc after over 10 years. I can't find my manual as well. How do you use the basic stats built in this unit. That is, how to input values and view results for single (x) or double (x,y) to calc sdev, x*y, x^2, mean, and their respective sums.

thanks,

Andrew

Re: HP41CV basic statistics question

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 Aug 2003, 6:46 p.m.,*
in response to message #1 by Andrew

Hi, Andrew; and welcome!

In the text below, please consider (SIGMA) as a reference to the greek symbol used to represent summation, O.K.? To use the Statistics resources available in the HP41, let's first see what does it offer:

Labeled key [(SIGMA)+] and [SHIFT][(SIGMA)-] are the "starting point" to enter data, but you should first take some initial precautions:

enough registers - if you have the means, check for existing registers. You need at least six registers to compute statistics. If you have an HP41CX or an X-functions module, execute SIZE? and verify if it is bigger than 6. If not, simply execute SIZE 006 or anything bigger and that will be fine.

Default value is SIZE 017 because the statistics resources use a "block" of six consecutive registers starting at R11, i.e., R11 to R16. This block may be changed to any existing position by using [(SIGMA)REG], provided a block of six registers is reserved. In the worst case, use [(SIGMA)REG] 000 to use the first six registers (R0 to R5) and the maximum value is [(SIGMA)REG] 314, when all memory is dedicated to registers and you'll use the block from R314 to R319. In any case, these registers will contain:

```
R(x)   - summation of X
R(x+1) - summation of X^2
R(x+2) - summation of Y
R(x+3) - summation of Y^2
R(x+4) - summation of X*Y
R(x+5) - n (# of sampled data)
```

where x is the number of the first statistic register, the same one used with [(SIGMA)REG] to define them. Prior to enter data and after defining/knowing the statistics block, execute CL(SIGMA) to clear only the six registers defined for statistics.

To enter data for a double statistic sample:

enter the first value for Y;
press [ENTER];
enter the related value for X;
press [(SIGMA)+]
repeat these four steps for each remaining pair of sampled data

If it is a sample with one value only, first enter a single 0 [ENTER] and then:

enter the first X value;
press [(SIGMA)+];
repeat these two steps for each remaining X-value

If you enter a wrong data, repeat the input procedure with the wrong data and press [SHIFT][(SIGMA)-] to remove; then you enter the correct data and press [(SIGMA)+] to enter it.

After the data is completely entered, there are two statistical functions that will help you:

[MEAN] - Mean of each value; you'll see the mean value for X and you may press [X<>Y] to see the mean value for Y, if applicable;

[SDEV] - Standard Deviation; works the same as MEAN

Also, you can recall any of the six statistic accumulated data with [RCL] x to [RCL] (x+5) and use it as you need. You can create programs to compute other values.

Hope this helps as a starting point. If you need more advice, let us know.

Best regards..

Luiz (Brazil)

Edited: 6 Aug 2003, 6:50 p.m.

Re: HP41CV basic statistics question

*Message #3 Posted by **Andrew** on 6 Aug 2003, 8:03 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Got it working now... thanks a whole lot... cheers...

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JYA just mentioned ROM 1.20 for the 49G on c.s.hp48

*Message #1 Posted by **Gene** on 6 Aug 2003, 5:28 p.m.*

He was talking about ROM 1.19-7 and then he put in parentheses "(officially ROM 1.20)".

I've asked a follow-up out there, but the obvious leap to make is that ROM 1.20 is what the 49G+ will use and I would have every reason to think it would work on existing 49G calculators.

FYI.

Re: JYA just mentioned ROM 1.20 for the 49G on c.s.hp48

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 Aug 2003, 9:26 p.m.,*
in response to message #1 by Gene

Hi, Gene;

is JYA "back to business"? Just to know.

Another thing I'd like to figure out: for what I could see, the HP49G+ has about the same memory amount already available in former HP49G: 512K+800K against 256K + 1024K (if not rounding, it's even closer)

Am I getting things wrongly? I read the PDF announcement and understood that. Any lacks of reasoning?

If so, the new O.S. fits in former HP49G UNLESS the new processor is used in a different way, meaning internal resources not existing in previous models that are explored by the new O.S.

My 2¢.

Luiz (Brazil)

Edited: 6 Aug 2003, 9:27 p.m.

My guess on the 800K thing

*Message #3 Posted by **Gene** on 6 Aug 2003, 10:46 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I suspect they had the original 1MB of flash but have taken away roughly 200K for system enhancements...kinda like the most recent ROM takes 64K away.

For what? I don't know, but that's my guess.

Maybe HP reached a buy agreement with JYA and BP to buy the rom update?

Re: My guess on the 800K thing

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 7 Aug 2003, 12:01 a.m.,*

in response to message #3 by Gene

Hi, Gene;

if I am not wrong, this is enough to add the Equation Library and additional resources to access its data. I read that Equation Library is sharing space with CAS in the HP49G+. If so, welcome!

Forgive me folks if I repeat the fact I'm a teacher all the time. So, let me add that I tell my students that information already existing somewhere must only be found. There was a time that knowing some sort of information by heart was a privilege; I thing that knowing how to find some sort of information is the key for today's professionals. We have virtual libraries in CD's or DVD's, no paper, no forest destruction. For itself, this achievement is a good justification. Based on this, I think that having basic equations already stored in a pocket calculator the way they are, together with CAS in one single unit, is something I cannot disregard. Although many contributors in here express their "worries" for the HP49G, I look at it and see the first HP pocket calculator with "upgradable" O.S., something that neither the HP48G has. And this is something that counts a lot for me. If the HP49G+ is actually an enhancement, I'll find a way to have one.

I'll wait to see.

Luiz (Brazil)

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Roll-on adhesive use

*Message #1 Posted by **Michael Meyer** on 6 Aug 2003, 2:50 p.m.*

Just thought I'd post this in case it's ever helpful to others:

I overhauled an HP-41 card reader last night. When it came to replacing the square sticker, I wanted it to stick firmly without too strong a glue, etc.

I placed the sticker/id plate upside down on some scratch paper and rolled over it with the new roll-on office adhesive (applies an adhesive double stick film). Lifting it off the paper, I had a completely re-adhesive piece. Thin, even. The tiny bit of adhesive on the edges rubbed right off after the sticker was replaced.

I wonder if temporary adhesive would work as well and still allow easy removal if needed? Anyway, this might be of use elsewhere in restoration. Liquid adhesives are messy and usually uneven and difficult to remove again.

Michael

This can also be useful for...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 Aug 2003, 2:59 p.m.,*
in response to message #1 by Michael Meyer

Hi, Doc;

sometime ago I posted some messages about a "custom" faceplate protection based on a rugged, transparent self-adherent acetate. I mentioned this sort of product and anoter contributor (not sure if it was Ellis Easley or Randy Sloyer) posted another message about this roll-over adhesive.

Is it the same one? He posted the specs as well, I don't remember.

Best regards and thanks for the tip, Doc.

Luiz (Brazil)

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just got HP12C-Plat. spam from HP

*Message #1 Posted by **Bill Wiese** on 6 Aug 2003, 1:34 p.m.*

Since I've sent a couple of emails to Lee-Kuan Goh and Fred Valdez of HP (two of their calculator marketing dudes) I guess I ended up on their spam list.

Got an email last nite - HTML! - extolling the virtues of the 12CPlatinum. No new info, no new info on other HP calcs. May just be a replay of a prev brochure, etc. so I didn't bother cutting/pasting it to the Forum here.

HP, if you're gonna spam me, please do it in ASCII.

HTML emails are just plain *rude*.

Bill Wiese San Jose, CA

Re: Spam

*Message #2 Posted by **The Marketing Department** on 6 Aug 2003, 2:33 p.m.,*
in response to message #1 by Bill Wiese

We know, but you can't do spiffy marketing stuff in plain text.

Re: Spam -

*Message #3 Posted by **Bill Wiese** on 6 Aug 2003, 4:23 p.m.,*
in response to message #2 by The Marketing Department

If you ARE indeed in the HP calc mktg department, you should know it's RUDE to email in HTML. In fact, I'm trying to set up my email now so that all HTML stuff goes into the spam bucket.

If this is a prank msg from Norm, that's cool too :)

HP, save your HTML marketing efforts; it'd be far wiser to put the manpower into fixing bugs in the HP12CP firmware!

And bring back a good RPN calc, dammit!

Bill Wiese San Jose, CA

HTML and Calculator Design

*Message #4 Posted by **Paul Brogger** on 7 Aug 2003, 11:07 a.m.,*
in response to message #1 by Bill Wiese

Surely it's no coincidence that HP (and other brands') calculators got pointlessly glitzier at the expense of usability about the time college kids started graduating after their visual incubation in an HTML world.

It's more important that products look like **pieces of Flash animation** than that they be well-thought-out tools . . .

. . . and don't call me Shirley.

Re: HTML and Calculator Design

*Message #5 Posted by **hugh** on 7 Aug 2003, 12:17 p.m.,*
in response to message #4 by Paul Brogger

a very good idea you have there. i wouldnt be surprised if those fiendishly clever people at kinpo handnt already put a html browser inside the new hp models.

that way the whole operation would be html driven including bits of javascript to do the actual math.

moaney old beards pining over rpn could then upload their favourite java 41c/34c/whatever emulator and weep. that'll stop 'em :-)

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HP95LX HELP !!

*Message #1 Posted by **Rick VanHuss** on 5 Aug 2003, 7:56 p.m.*

I just bought a HP95LX for 40.00, no manual or cables of course, and need help with a PC cable to program it. Anybody know the pin-outs? I know the Hp pins, but dont know how to hook them to the PC (serial 9 pin?). A manual (or zip file) would be nice if anybody has it.($$). Also once the cable is connected what do I use to xfer the data? The computer was cheap, but I dont have a sram-pcmcia card for it (125.00)for 1 meg. Also do I need to upgrade any of the software. Any help would be VERY appreaciated.

Re: HP95LX HELP !!

*Message #2 Posted by **Katie** on 5 Aug 2003, 10:20 p.m.,*
in response to message #1 by Rick VanHuss

Software http://www.palmtop.net/super95.html

Hardware http://www.daniel-hertrich.de/95lx/

and lots more http://www.technoir.org/hplx/hplx-l/

Re: HP95LX HELP !!

*Message #3 Posted by **Bill** on 6 Aug 2003, 5:39 a.m.,*
in response to message #2 by Katie

The old palmtop paper is online at

www.palmtoppaper.com/

Look at the earlier archives which included lots of good stuff on HP95LX.

Re: HP95LX HELP !!

*Message #4 Posted by **Bill Smith** on 6 Aug 2003, 1:45 p.m.,*
in response to message #1 by Rick VanHuss

don't give up hope on the PCMCIA card. there are files at palmtop.net that supposedly allow use of sandisk cards, and these are very cheap. even SRAM cards come up on ebay occasionally.

i have the manual at home, and will check on serial connection info, since you have to get the driver into the 95lx to use a sandisk. also, there is the IR port. you can use a terminal program with the serial cable if you don't have the connectivity kit software. there is a wealth of info at the links posted by Katie.

guess i was lucky to get the 95lx, manuals, cable w/ connectivity kit, and sram for $45 :)

Re: HP95LX HELP !!

*Message #5 Posted by **Bill Smith** on 6 Aug 2003, 11:29 p.m.,*
in response to message #4 by Bill Smith

here are the pin connections for the 9-pin DB end:

```
1, 4, 6-9 not used.


2 transmit data (from 95lx)
3 receive data (to 95lx)
5 signal ground
```

best of luck,

bs

Edited: 6 Aug 2003, 11:43 p.m.

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HP-41C or V?

*Message #1 Posted by **Michael Meyer** on 5 Aug 2003, 2:06 p.m.*

Sorry to ask such a basic question, but I'm new at this model. I bought a lot on eBay that included an HP-41CV.

When I turn it on, it only shows 63 memories, like a C. Could it be a C in a CV case, or is this a loose internal module or what?

Thanks for a little help.

Michael

Re: HP-41C or V?

*Message #2 Posted by **Holger S.** on 5 Aug 2003, 2:13 p.m.,*
in response to message #1 by Michael Meyer

You may expand program memory by reducing the number of registers using the 'size' function. I.e. type XEQ [ALPHA] SIZE [ALPHA] 017. That should give you 302 registers programming space which is equivalent to about 2000 bytes. You may reduce registers further but then you have to relocate the statistics registers (IIRC) if you intend to use them.

Re: HP-41C or V?

*Message #3 Posted by **Michael Meyer** on 5 Aug 2003, 3:24 p.m.,*
in response to message #2 by Holger S.

Thanks. That works.

Michael

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HP 12C

*Message #1 Posted by **Joe** on 5 Aug 2003, 2:01 p.m.*

My calculator presently displays a comma to indicate the decimal place. How is it changed to a point?

Re: HP 12C

*Message #2 Posted by **Gene** on 5 Aug 2003, 2:35 p.m.,*
in response to message #1 by Joe

1. Turn the 12c off. 2. Press and hold the decimal point key. 3. While continuing to hold down the decimal point key, turn the 12c back on.

Should fix the problem. Gene

Re: HP 12C

*Message #3 Posted by **Joe** on 5 Aug 2003, 2:55 p.m.,*
in response to message #2 by Gene

It worked! Thanks

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Whatever happened to the "Logic Dart" HP product?

*Message #1 Posted by **Gene** on 4 Aug 2003, 10:34 p.m.*

I remember seeing a video demo of this from the Philly PPC chapter from about 4-5 years ago where Eric (?) showed the new product.

Have never seen one live or on ebay since. Anyone ever actually seen this? Did it really get released?

Anyone know what I'm talking about? :-)

Re: Whatever happened to the "Logic Dart" HP product?

*Message #2 Posted by **Ellis Easley** on 4 Aug 2003, 11:05 p.m.,*
in response to message #1 by Gene

I've never touched one but I know it shipped because at least one person here has talked about owning one - I think it was Tony Duell. And he or someone else once sent me a link to a webpage with details - I can't remember if it was at HP/Agilent or a dealer. So I'm quite sure it was once available.

Re: Whatever happened to the "Logic Dart" HP product?

*Message #3 Posted by **Tony Duell (UK)** on 5 Aug 2003, 4:26 p.m.,*
in response to message #2 by Ellis Easley

Indeed I do have a LogicDart, and several of my friends (who played with mine) bought one too. So it certainly shipped. It is one of those typically HP products -- an excellent tool that was somewhat badly marketted. The most useful mode is 'Investigate' In that mode, you put probe 1 on a point in your circuit. The unit displays the average DC voltage at that point (great for checking power lines) and the freqeuncy (done by counting the number of crossings ofa threshold in one second or something). So far it doesn't sound like it does more than a good DMM, but if you now press the appropriate button, it records the logic waveform (high, low, undefined, with user-selectable thresholds) at that point. So it's great for distiguishing between clock waveforms (close to 1:1 Mark:Space ration, and regular) from sync pulses (more extreme Mark:Space ratio, but still regular) from data lines (not regular). Much of my HP classic-series calculator investigations were done using this mode. There's also a 3 channel logic analyser mode. 3 channels doesn't sound like much, and indeed I am sometimes gald of my larger benchtop logic analyser. But 3 channels will let you look at most handshake sequences, or clock and data lines, or... One great feature is the fact that it records each signals as high, low, or undefinded. This is very useful for picking up illegal levels either due to shorts between signals or faulty chips. This saved me a lot of time when sorting out my 98x0 machines, which had a number of 74Hxx chips that didn't pull high properly. The threshold settings will even (just about) let you look at the flip-flops in an HP9100... I guess I can sum up by saying that it's the first instrument I go for when investigating an unknown digital circuit, or when testing one of my own designs. Sure I sometimes need the 'scope or the bigger logic analyser, but the LogicDart often gives enough clues on its own, or at least it tells me where to use the larger instruments.

Re: Whatever happened to the "Logic Dart" HP product?

*Message #4 Posted by **Michael F. Coyle** on 5 Aug 2003, 6:45 p.m.,*
in response to message #3 by Tony Duell (UK)

The Logic Dart did look interesting, but at, what, $800? it was way too expensive for mere mortals to buy. To me, it fell into the category of "cool toys that maybe I could persuade the company to buy for me". (I couldn't.)

As for me personally, I struggle along with a logic probe and a borrowed 'scope. Maybe I'll go onto eBay one of these days and pick up a cheap logic analyser.

- Michael

Re: Whatever happened to the "Logic Dart" HP product?

*Message #5 Posted by **Tony Duell (UK)** on 6 Aug 2003, 5:04 p.m.,*
in response to message #4 by Michael F. Coyle

Are you suggesting I'm not a 'mere mortal'? I am just a hobbyist, who happens to take things a little more seriously than most :-). Anyway, I bought the LogicDart myself. As did the friedns of mine who bought them -- I don't know of any that were bought by companies (I guess I jsut don't know the right people). Sure it was expensive, but IMHO it's worth it. It does the job. It's saved me a lot of time over the years. But then you could say the same thing about may great HP products, right :-)

Re: Whatever happened to the "Logic Dart" HP product?

*Message #6 Posted by **Michael F. Coyle** on 7 Aug 2003, 12:16 a.m.,*
in response to message #5 by Tony Duell (UK)

Hi Tony!

I'm glad you like your Logic Dart and feel that you got your money's worth.

For me, I already had a logic probe, DMM, and storage 'scope. So I already had most of the Logic Dart's capabilities, and to spend $800 didn't seem worth it to me. (And BTW, I never even tried to get my employer to buy me one either; I knew I couldn't make a convincing case for it.)

The fact that Agilent no longer sells the Logic Dart tells me that it probably wasn't a good match for the marketplace. I notice that the Fluke ScopeMeters are still going great guns, though. (Now, how can I tell my boss that I just can't live without one...?)

I guess we'll just have to agree to disagree on this one.

- Michael

Re: Whatever happened to the "Logic Dart" HP product?

*Message #7 Posted by **Vassilis Prevelakis** on 6 Aug 2003, 6:00 a.m.,*
in response to message #3 by Tony Duell (UK)

Actually you can still get the Logic Dart from Agilent.

However you get the bare unit, no manuals or probes.

i.e. the product number is for the replacement units under waranty.

**vp

Re: Whatever happened to the "Logic Dart" HP product?

*Message #8 Posted by **Ellis Easley** on 4 Aug 2003, 11:27 p.m.,*
in response to message #1 by Gene

I went to agilent.com and entered "logic dart" into the search available on the home page. The first document in the search results, dated 5-5-2003, apparently announces the discontinuation of the Logic Dart. This link goes to the page that the first search results go to:

http://we.home.agilent.com/cgi-bin/bvpub/agilent/Product/cp_Product.jsp?OID=536880960&NAV_ID=-11264.536880960.00&LANGUAGE_CODE=eng&COUNTRY_CODE=ZZ

It says the product will be supported until 12-1-2004.

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eMail from eBay

*Message #1 Posted by **Ellis Easley** on 4 Aug 2003, 9:52 p.m.*

Has anybody else ever received the following message from eBay?

Dear eBay User, During our regular update and verification of the accounts, we could not verify your current information. Either your information has changed or it is incomplete. As a result, your access to bid or buy on eBay has been restricted. According to our site policy you will have to confirm that you are the real owner of the eBay account by log in and complete the form that will pop up or else your account will be suspended without the right to register again with eBay. After you will login please verify your information in order to complete this verification. Thank you eBay Customer Support

The email contains a form that asks me to login. The form is part of the email, it's not downloaded - I can see the parts of the form with View, Message Source. I don't understand Java well enough to see what they are doing with the ID and password. It sure looks like it could be a scam to get my password so I didn't respond to it. But since there is no way to contact eBay, how can I find out if it is real? My ISP promises to never ask for any passwords or other confidential information except via a secure link. I realize when I login to eBay, I'm not using a secure link, but at least I know I WENT TO eBay in that situation.

Re: eMail from eBay

*Message #2 Posted by **Mark Hardman** on 4 Aug 2003, 10:01 p.m.,*
in response to message #1 by Ellis Easley

It most surely is a scam.

From the eBay help pages:

Safety Tips:

Be cautious of emails that ask you to submit personal information such as your credit card number or your eBay password. Some members have reported attempts to gain access to their personal information through email solicitations that are made to appear as having come from eBay. These solicitations will often contain links to web pages that will request that you sign-in and submit information. At eBay, we identify these as 'spoofed' emails or websites. Remember, eBay employees will never ask you for your password.

If you receive or suspect you have received such an email, do not respond to it or click the links. Immediately send a copy of it to spam@ebay.com.

To be sure that you are signing into a genuine eBay website, look at the Address/Location field of your browser. At an eBay Sign-In or log-in page, the URL (link) that appears in the Address/Location field of your browser will begin with "http://cgi.ebay.com/" or "http://cgi3.ebay.com/"

Re: eMail from eBay

*Message #3 Posted by **Ellis Easley** on 4 Aug 2003, 10:16 p.m.,*
in response to message #2 by Mark Hardman

Thanks, Mark! I've send it to spam@ebay.com.

SCAM, SCAM, SCAM

*Message #4 Posted by **Mike** on 4 Aug 2003, 10:14 p.m.,*
in response to message #1 by Ellis Easley

All the images and links appear to be ebay links and images. In fact, some actually take you to ebay. **all but one...**.

Go to the browser View->Source and search for the "submit" tag for the SUBMIT button. You will find that when you click the SUBMIT button on the form (don't actually click it), it sends the username and password to a CGI script, on a non-ebay domain.

There is also an email address visible in the source, as a parameter to the CGI script.

The one I had was on the Elvis.com domain.

I actaully sent an email to this guy and he responded, "You are only slightly smarter than the others." Indicating that he was acknowledging it was a scam.

PS: The one I got, didn't do anything but email the username and password. It didn't capture anything except what was in the form. So, one could have written...

Username: BugOff Password: BiteMeDoughBoy

And he would have received that email...

Don't try this unless you verify that the email is otherwise harmless :-) (I'd advise against it altogether)

Edited: 4 Aug 2003, 10:18 p.m.

Re: SCAM, SCAM, SCAM

*Message #5 Posted by **Ellis Easley** on 4 Aug 2003, 10:28 p.m.,*
in response to message #4 by Mike

What damage could a person do with my account (other than cause me grief!) since I am not a seller? I guess he could bid on items as me, and get me kicked off Ebay - and if he had a lot of accounts, he could bid on and win auctions of people he has a grudge against, just to give them extra negative feedback. But how could he make money with extra accounts? Maybe if he is a seller, or is working with a seller, he could use my account to shill. I might be a good target for that because I haven't used my account for some time (I assume it is possible to track my activity) and if I had just responded to keep my account alive (I almost did!) someone could have bid in my name without my ever knowing, as long as "I" never won an auction. I'm beginning to believe that shilling is real! (Hey, man - shi***** happens!)

Well, for one...

*Message #6 Posted by **Mike** on 4 Aug 2003, 10:39 p.m.,*
in response to message #5 by Ellis Easley

They could start buying everything in sight. Your negatives would start piling up, as you likely wouldn't want to pay for the Lexus and Jaguars that they might buy, **in your name.**

If there is any doubt, you should **change your password, ASAP**.

Before I analyzed that email, I immediately changed my password, just in case.

Edited: 4 Aug 2003, 10:39 p.m.

Re: Well, for one...

*Message #7 Posted by **Ellis Easley** on 4 Aug 2003, 11:01 p.m.,*
in response to message #6 by Mike

I know Ebay always points out that a bid is a legally binding agreement. But other than losing my Ebay priveleges, what other penalties would I be subject to because of bids that were made in my name without my knowledge - or even bids I made and chose to not honor? Are there any horror stories about this? What recourse would a person have if he got in such a position because he innocently (if stupidly) gave away his password in response to an email like this? Is it better or worse than identity theft (bank, credit card account, etc.) in general? I understand that is pretty bad - if it happens to you, getting out of it becomes your new career!

Well, how about this

*Message #8 Posted by **Mike** on 4 Aug 2003, 11:22 p.m.,*
in response to message #7 by Ellis Easley

Suppose someone starts selling stuff on eBay, using your name. Of course you could cancel anything you didn't recognize. But say he offers great, "Buy-it-Now" deals, with paypal link, to his account. PayPal need not be related to eBay, whatsoever.

Then, people snap these up and he is paid.

You could be hassled beyond belief.

Example: A guy was selling Iraq 52 Cards for $9.99 per pack. He sold over 5,000 in one hour. That is $50K and he was paid via PayPal ONLY. He was legit, but what if he was using your account.

Hard to beat, "buy-it-now" are snapped up immediately. What if the SCAM guy decided to sell Nikon Digital Cameras for $100.00 (New in Box). He could probably SCAM hundreds before you knew what was happening. Once an auction ends, you can't cancel or change anything, including any bogus PayPal links in the auction.

Or, what if a guy sold a $100,000 Jaguar for $15,000. Someone might want to sue over that. Also, you'd be legally on the hook for eBay fees. You'd have to prove your case.

This is just one of many examples. Still, you might not be liable but if it's a lot, you could be sued or hassled.

Edited: 4 Aug 2003, 11:25 p.m.

is there any history of this -

*Message #9 Posted by **Ellis Easley** on 4 Aug 2003, 11:36 p.m.,*
in response to message #8 by Mike

- or has Ebay hushed it up as well as the banking industry has suppressed news reports about people being robbed at ATM's?!!!

Re: is there any history of this -

*Message #10 Posted by **David Smith** on 5 Aug 2003, 2:21 p.m.,*
in response to message #9 by Ellis Easley

If you have your credit card account registered with ebay the scum scammer would have it, etc.

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HP-91 How rare?

*Message #1 Posted by **Michael Meyer** on 4 Aug 2003, 7:20 p.m.*

Quick question:

I don't remember reading or hearing that HP-91's are that rare, yet I don't remember ever seeing one for sale on eBay. A search doesn't show any either currently or in completed auctions. The Museum shows it as "somewhat difficult" to find, but I've seen far more of the others in that category....

Has it become more rare, or have I just not noticed the auctions?

Michael

Re: HP-91 How rare?

*Message #2 Posted by **Massimo Gnerucci (Italy)** on 4 Aug 2003, 7:35 p.m.,*
in response to message #1 by Michael Meyer

No, they don't show up frequently, however, sometimes, they may be hidden in a lot:
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3035907091

I asked for permission to bid on them but the seller replied - quite rudely - that they were for sale in the USA only.

Given this, and since I don't like when links to eBay items are reported here, I thought that this seller did not deserve to see his items sold for an amount much higher than his dull auction title was worth.

Massimo

Re: HP-91 How rare?

*Message #3 Posted by **Massimo Gnerucci (Italy)** on 4 Aug 2003, 7:39 p.m.,*
in response to message #1 by Michael Meyer

BTW: do you know who *mlmeyermd* is?

;-)

Re: HP-91 How rare?

*Message #4 Posted by **Raymond Del Tondo** on 4 Aug 2003, 8:42 p.m.,*
in response to message #1 by Michael Meyer

It depends.

- on overall look;

- on what comes with it;

- on how/if it works;

- on something I forgot here;-)

The units in the eBay auction #3035907091 look very used from the picture, and the description says '..in unknown working condition..' which tells nearly all about the machines.

From the user's view, they're just trash, because it's 99.9 percent sure they are *not* working properly.

From the collector's view they're like a two blade knife: If you don't have an 91, maybe you want to get one regardless of it's condition.

If you want them for display, these units seem to be hard work to look nice (and complete) again...

Raymond

Re: HP-91 How rare?

*Message #5 Posted by **Massimo Gnerucci (Italy)** on 4 Aug 2003, 8:58 p.m.,*
in response to message #4 by Raymond Del Tondo

Hi Raymond,
four Topcats for less than $90 is a fair price to me even though you'll have to work on them a little (?) to end up with 1 or 2 working units... and the 91 in the middle row doesn't look so ugly.

Nevertheless I agree with your points.

Massimo

Re: HP-91 How rare?

*Message #6 Posted by **Michael Meyer** on 4 Aug 2003, 11:34 p.m.,*
in response to message #5 by Massimo Gnerucci (Italy)

Yes, it's me, of course, that bought the lot.

The guy was really pretty nice to me, on the phone anyway. And I really enjoy the restoration part.

And I thought no one else spotted the auction. Silly me.

Michael

Re: HP-91 How rare?

*Message #7 Posted by **David Smith** on 5 Aug 2003, 2:29 p.m.,*
in response to message #1 by Michael Meyer

My estimates are that HP91 and 97S machines show up 8-12 times a year on Ebay. HP-92 machines are mayby twice as scarce.

Re: HP-91 How rare?

*Message #8 Posted by **Michael Meyer** on 5 Aug 2003, 7:36 p.m.,*
in response to message #7 by David Smith

That's really pretty rare... given how many calculators sell on eBay. Thanks! Hopefully at least one will be restorable for my collection and maybe the other will sell and pay for the lot. I've never sold on eBay, but it's getting time, so my hobby might be a little more self-supporting. Besides, it's fair; it takes some time to restore these things!

RTN2RPN, Michael

Re: HP-91 How rare?

*Message #9 Posted by **David Smith** on 6 Aug 2003, 3:13 p.m.,*
in response to message #8 by Michael Meyer

Some people like the bare simplicity of the HP-91, but the HP-97 is a LOT more capable of a machine... for usually a lot less money.

True, but this is more for collecting...

*Message #10 Posted by **Michael Meyer** on 6 Aug 2003, 9:19 p.m.,*
in response to message #9 by David Smith

No doubt!! I LOVE the 97!! Pictures just don't do it justice (like the 71B). I "pictured" a much bigger machine. The 97 is really a reasonable size, given the desktop concept. Like other HP's, a beauty to behold and use. And I really like working on them... the quality of the engineering shines through. As our friend Luiz has said, it's great to think about the human factor behind the design.

Anyway, my interest in the 91 is just to add to the collection, frankly.

Otherwise, I'd have only one spice, maybe one or two voyagers, etc.

Michael

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HP Forum Archive 13

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What do you think of my HP buying prices?

*Message #1 Posted by **Emmanuel Verbeeck** on 4 Aug 2003, 5:00 a.m.*

Hi everyone,

I just finished the three purchases (over the last 3 months) of my prefered vintage HP RPN calculators -- I purposely limited myself to the 3 models hereunder, trying not to break the bank, at least for the time being...

So, I paid: -- $119 for a perfect HP41CV + carrying case (no books); -- $250 for a mint HP71B + carrying case + books + box; -- $275 for a mint HP15C + carrying case (no books).

Although non-HP lovers would say this is way too much, after 3 months of daily prices inspection, and considering the perfect or mint status I was looking for, I think it's still OK ... or am I wrong?

Thanks for your opinions!

Re: What do you think of my HP buying prices?

*Message #2 Posted by **Thibaut.be** on 4 Aug 2003, 8:27 a.m.,*
in response to message #1 by Emmanuel Verbeeck

You paid "normal" ebay prices....

If they fit your needs...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 4 Aug 2003, 10:12 a.m.,*
in response to message #1 by Emmanuel Verbeeck

Hi, Emmanuel;

first of all, if they they fit your needs, are in good condition and will be of any use, then congratulations. For what I can tell you, you made very good choices. As I can see, you are not exactly in the business field, right?

If your bank account is still healthy, better. As Thibaut mentioned, normal prices.

Make good use.

Luiz (Brazil)

Re: What do you think of my HP buying prices?

*Message #4 Posted by **Dave** on 4 Aug 2003, 10:30 a.m.,*
in response to message #1 by Emmanuel Verbeeck

A bit high for the 71B but otherwise the going prices on EBay.

Re: What do you think of my HP buying prices?

*Message #5 Posted by **Patrick** on 4 Aug 2003, 2:14 p.m.,*
in response to message #1 by Emmanuel Verbeeck

I think most people who use eBay should expect some bargains and some rip-offs. I've been pretty lucky in the bargain department (2 10C's for a total of $57) and have over-bid on some items ($149 for a very marginal 55).

You have to go into eBay expecting this sort of roller coaster ride. You have to be very alert and very up-to-date not to be taken every once in a while.

Re: What do you think of my HP buying prices?

*Message #6 Posted by **Howard** on 4 Aug 2003, 4:58 p.m.,*
in response to message #5 by Patrick

Beauty is in the eye of the beholder. If you are happy with your purchases then you paid the correct price.

You have the added support in the fact that somebody else (the loosing bidder) valued your purchases at almost the same value as you did.

Enjoy your purchases.

Re: What do you think of my HP buying prices?

*Message #7 Posted by **Michael Meyer** on 4 Aug 2003, 7:25 p.m.,*
in response to message #6 by Howard

I even think the 71B price was good, given the fact it was in the box. Wasn't that long ago that the boxed ones were selling for up to $600. I know, 'cause I have the box from my original purchase and I've followed the prices....this stuff goes up and down like the stock market.... if it hits REAL high, I'll have to "sell".

Not sure I can bring myself to part with the ones in my collection with no duplicate, though....

Michael

Well, since I sold you one...

*Message #8 Posted by **Mike** on 4 Aug 2003, 10:36 p.m.,*
in response to message #1 by Emmanuel Verbeeck

I think you got a fair deal. http://www.msdsite.com/images/smile.gif

I actually don't know if you are referring to the 71B that you got from me but if you are, thanks for calling it Mint. I didn't because it wasn't mint to me. That's how picky I am. But many would call it mint.

I'm finding more and more that there are many sellers (far too many) that aren't collectors that are selling junk and overstating the condition. They don't mention obvious flaws that aren't shown and even sell broken items as working.

I have been on ebay for several years and it is getting to epidemic porportions, when it comes to misinformation.

I am thinking about modifying my **Calculator Buying Tips** to make it generic in nature (rather than specific to

me), and have a list of collector-sellers at the end. Of course, it will be subjective.

Still puzzling over whether or not I should do this. Good idea; bad idea?

Edited: 4 Aug 2003, 10:42 p.m.

Yes, it's yours :-)

*Message #9 Posted by **Emmanuel Verbeeck** on 5 Aug 2003, 1:25 a.m.,*
in response to message #8 by Mike

Admittedly, I haven't received it yet, but I must said I bought in total confidence considering the very detailed pictures you made, as well as your very good references.

I hope it's arriving soon in the mailbox :)

Your idea about the generic tips is very good, but you'll have a lot of work since imho buying tips are typical to each "zone of interest" (i.e. buying tips for vintage calculators being slightly different from other areas).

Anyway, thanks for all the answers, and have a nice day!

Buying Tips

*Message #10 Posted by **Tom Scott** on 5 Aug 2003, 9:36 p.m.,*
in response to message #8 by Mike

I wish I had read your "Buying Tips" before I recently bought an HP-67 which was advertized as having "all keys working properly" and the "card reader working perfectly". Unfortunately, neither were and I paid way too much. I guess the only thing I can do at this point is give a negative rating to the seller but he has a "0" history so probably doesn't care.

Tom Scott

It can be fixed....

*Message #11 Posted by **Michael Meyer** on 5 Aug 2003, 10:59 p.m.,*
in response to message #10 by Tom Scott

Hi Tom!!

I apologize for not knowing, but do you restore calcs? If not, the HP-67 is wonderfully fixable.

The keyboard is fairly easy to repair by polishing the contacts... there are many threads on how to do this. The card reader is also a fairly easy fix, especially if you've done a couple.

Let me know... I've been pretty busy, working 18 hour days lately (everyone is in crisis at once), but I'd be happy to take it on as a project. There are those more knowledgeable than I, but I'm a good technician. (I was a bicycle mechanic for many years, and can fix most anything, sometimes with some help from the kind folks here).

Let me know if you'd like help, and if not, K'pla!

RTN2RPN, Michael

Re: It can be fixed....

*Message #12 Posted by **David Smith** on 6 Aug 2003, 3:19 p.m.,*
in response to message #11 by Michael Meyer

I have been fixing up my old bike lately... you go into a bike shop these days and their "mechanics" have never seen downtube shifters and just blink when you ask for a five gear freewheel. It took seven shops before I found one who could rebuild a set of Campy hubs.

I miss fixing bikes, David!

*Message #13 Posted by **Michael Meyer** on 6 Aug 2003, 9:57 p.m.,*
in response to message #12 by David Smith

That's sad. Gone the way of HP quality....

I spent three years at a shop in high school, then 4 years as a pro mechanic at a place called Turin Cyclery in Evanston, IL. Our shop was ranked the number 2 in the country, and I was one of the three "head mechanics." I once stripped a bike down to the bearings (no sealed ones then except a few popping up), repack, recable, and re-rubber,etc. in 60 minutes. I was the best. I lived with bicycle racers. Bikes got the good spots-- we sat on the floor.

There are few things I could ever say I was "the best" at. I'm proud of this. I could listen to the sounds of a bike bouncing on the floor and tell how it was adjusted...I was lucky to work at a store that even rebuilt the bikes that were sold as new.

Of course, it was now almost 25 years ago. As my wife would say, "yeah, yeah; nobody gives a sh*t..."

I actually tried to work at a shop during medical school in Kansas City, but few stores cared about quality. "We'll fix it if it comes back" was pretty much the rule.

I suspect finding a shop with quality as a priority is hard to do. And it does take some natural talent; we hired college students for the summer who knew what to do, good kids-- but never had the feel for how to tighten something to the point of, but not past metal fatique, etc. They did it by rote, not by the art. I might break a bolt now and then, not several a day...

I quess there's a strong connection to the restoration of calculators. Making something look and work the way it is "supposed to"... is a spiritual thing. "Zen and the art of calculator maintenance?"

That's why I like this group and this forum... there IS an appreciation of these values and quality calculators.

Michael

Zen and the art of calculator maintenance

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 7 Aug 2003, 12:06 a.m.,*
in response to message #13 by Michael Meyer

Wow!

Hey, Michel! To be honest, I'm taking these repairs as "therapy" for longer than I can recall.

No prescriptions, just good and conscious practice.

Best regards.

Luiz (Brazil)

Once a head mechanic.....

*Message #15 Posted by **db(martinez,california)** on 7 Aug 2003, 12:33 a.m.,*
in response to message #13 by Michael Meyer

....always a head mechanic. Was that on purpose or was it punintentional?

Re: I miss fixing bikes, David!

*Message #16 Posted by **David Smith** on 7 Aug 2003, 1:29 p.m.,*
in response to message #13 by Michael Meyer

Custom frame built by Trek before they did production bikes... Reynolds 531 tubing. Campy cranks, hubs and shifters. Weinmann concave rims. Suntour Superbe brakes. Phil Wood bottom bracket. Regina freewheel and chain. TA titainium/saphire pedals. Brooks Pro sadle.

Over 60,000 miles on it and it still looks and works like new. Now if I could just find a new freewheel and some proper gum hoods for those Suntour brake levers...

I didn't even make the connection....

*Message #17 Posted by **Michael Meyer** on 7 Aug 2003, 7:59 p.m.,*
in response to message #16 by David Smith

I guess I am a "head mechanic" now!

The bike sounds great. I doubt I have any hoods in my parts box, but just might. I have a spare free-wheel or 2, but don't know what configuration.

They must still sell them, no?

Re: I didn't even make the connection....

*Message #18 Posted by **Freewheels** on 8 Aug 2003, 10:31 a.m.,*
in response to message #17 by Michael Meyer

I really enjoyed the posts in this thread reagarding bicycle racing,bicycle mechanincs, and classic bikes!

But here is my take on the freewheel issue:

I finally got tired of breaking rear axles on campagnolo 6 speed hubs, and have switched to the far superior cassette style rear hubs. You can still get shimano 8 speed cassettes, and with these, you can make new spacers so that you can emulate the 6 speed spacing (or even 5 speed spacing!) of older freewheels. Then, you change out the locknuts and spacers on the axle, taking the nut to nut dimensions down from 130 mm to 126 mm (6 speed). I have not tried it for 5 speed spacing but think it will work--and you can squeeze a 126 into a 120 mm rear end anyway (sometimes!).

What does this have to do with HP? Well, you have to use your trusty HP-41 (or HP-67) to compute the new spacer thicknesses, offsets etc. To use a cheap modern

calculator is blasphemous.

Regards,

Bill Platt

Creative License Redux

*Message #19 Posted by **Michael F. Coyle** on 7 Aug 2003, 5:55 p.m.,*
in response to message #13 by Michael Meyer

Hi Mike,

I was looking in the Archives and saw your request for vanity plate ideas. What did you eventually go for? Some of the suggestions were pretty good, even the ones that weren't mine. :)

Maybe you could put up a photo, too.

- Michael

Re: Creative License Redux

*Message #20 Posted by **Michael Meyer** on 7 Aug 2003, 8:04 p.m.,*
in response to message #19 by Michael F. Coyle

Embarrassingly, I've never followed through. It's a "someday" thing, though.

Sooo..... anything is still possible.

I still like RTN2RPN the best. Nostalgic, like my collecting. Understandable by almost anyone with at least some computer knowledge. And it includes elements of both programming and RPN.

I also like the dual-meaning one: MEM LOST

Fun, but not clearly related to my hobby. Still, universally understandable on some level.....

It may be fixable but...

*Message #21 Posted by **Mike** on 6 Aug 2003, 3:20 p.m.,*
in response to message #11 by Michael Meyer

According to Tom, it was advertized as working. I'm seeing this more and more on ebay. Many shody sellers that are selling junk and leveraging off of collectors prices.

Things to watch out for.

1) Single photos - A single photo is very easy to conceal flaws.

2) Poorly lit photos - Very bright photos are what some people use to hide scratches. Very dark photos can hide other flaws. If you see poor photos, be suspicious.

3) Slight of hand advertizing - Look for what they are not telling you as much as what they are telling you. Some sellers will tell you about a minor flaw but ignore larger flaws. Don't assume that

if they tell you something that nothing is left out. Often they leave things out.

4) DOA guarantee - Ask seller if his DOA guarantee convers partially working or to put it another way, partially dead. One ebay seller offers a DOA guarantee but sells broken items. When you try to collect, he says, it's not completely dead so it's not covered by the DOA. Ask seller if his DOA includes partially broken calculators.

5) Look at other auctions he runs. I saw one seller that said, "can't test card reader because I have no cards." Sounds reasonable, right. But he was selling in another auction, cards that he said he didn't have.

Re: It may be fixable but...

*Message #22 Posted by **Tom Scott** on 6 Aug 2003, 8:26 p.m.,*
in response to message #21 by Mike

Most of your warnings certainly applied in my case. The picture was small and not brightly lighted. The wording was somewhat vague in parts. I did send two e-mails prior to the bidding which he answered somewhat vague terms as well but it is clear now that he was intentionally exaggerating or lying actually.

Tom Scott

Re: It can be fixed....

*Message #23 Posted by **Tom Scott** on 6 Aug 2003, 8:30 p.m.,*
in response to message #11 by Michael Meyer

Thanks, Michael. I've read some of the repair instructions but I think they're beyond my capabilities. However, I appreciate you offer. I have two HP-67s which both work to some degree. All LEDs work and most of the keys work, but not all (at least they way they should). So, I don't know if it's worth your time or not. It certainly would be worth it to me to spend more money to get a good working unit.

Tom Scott

Re: It can be fixed....

*Message #24 Posted by **Michael Meyer** on 6 Aug 2003, 10:03 p.m.,*
in response to message #23 by Tom Scott

Well, it shouldn't cost anything but the postage. I'm glad you have others, though: If you only had one, it would be a guarantee that something would go wrong and kill the one I was working on. It's never happened, but there's Murphy's Law...

Having said that, if you want, I'm happy to fix it up.

Michael

HP67 (1975) problems

*Message #25 Posted by **alan.hurren** on 13 Aug 2003, 5:40 p.m.,*
in response to message #11 by Michael Meyer

My revered HP67 is now show a series of zero's thus:

-00000000000 00 . . . . . does this mean the end of a long enjoyed partnership or can it be restored to full RPN working order ? Sadly the magnetic tape drive ceased to work a couple of years ago but I understand that even this can be resolved.

I literally have scores of manuals but have been unable to use them, although the calculator has operated OK until now.

Who do I contact for assistance - or is the HP67 era now closed ? ? ?

Re: HP67 (1975) problems. Doesn't sound good.

*Message #26 Posted by **Michael Meyer** on 13 Aug 2003, 9:49 p.m.,*
in response to message #25 by alan.hurren

All zeros in the display is usually a sign of a fried ACT (processor) chip. A common end to HP classics, it usually means the circuit was exposed to voltage unbuffered by a battery. I think this is rarer with the 67, as I think the calculator is designed to operate without the battery. Sometimes they just die.

It isn't completely hopeless, though. Amazingly, a processor from a lesser model, such as the common HP-21 or HP-25 can be used to repair the 67. Of course, you have to find a broken Woodstock or be willing to sacrifice a working unit.

I think I have several bad chips in a box, now. My own "group project" 67 went through 2 before becoming stable and happy. (It's been suggested that static damage was the cause, though I've never had problems with any other calculators. I think it was simply bad luck....)

I can't tell you how to go from here... it's up to you. You could wait until you find a "donor" machine, or you can sell it or trade it. I'd be happy to look at it, but it could be awhile until a "donor" chip comes my way, and the more often you try to transplant, the more the chances of permanent circuit board death....

New ones on eBay go from $150 to as high (lately) as $800. Broken, it's roughly worth $50, or at least IMHO (what I'd pay).

Michael

Re: HP67 (1975) problems. Doesn't sound good.

*Message #27 Posted by **David Smith** on 14 Aug 2003, 3:51 p.m.,*
in response to message #26 by Michael Meyer

I have found it all too common for a replaced ACT chip to fail a few minutes after being installed. It could be static electricity or heat stress from desoldering/soldering. I use a high dollar vacuum desoldering system with isolated/heat controlled/static controlled tip, etc and still have problems with replaced chips going legs up in the recovery room. I think the main problem is that I salvage chips from the worst looking, most corroded HP21 or HP25 machines that I can find... garbage out, garbage in...

Re: Well, since I sold you one...

*Message #28 Posted by **Dave** on 8 Aug 2003, 9:24 p.m.,*
in response to message #8 by Mike

Hi Mike,

It would be wonderful if you made your tips generic. There are several people whom I know could benefit from your page, but would probably be too distracted by the calculator specificity. Also, I could refer people to the page without revealing myself to be too nerdy :-)

Be sure to include the story about the "untestable" card reader and the separate auction for cards :-)

David

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norm, take note

*Message #1 Posted by **db(martinez,california)** on 4 Aug 2003, 12:50 a.m.*

I just read an interesting article. It says that printer makers are getting rich off of their proprietary ink cartriges and that if gas cost what ink does; it would take $175,000 to fill your tank. Now that is onehellofa business model.

It would probably only cost $99,000 to fill my small tank, lucky me. No wonder hp doesn't care much about us calculator users (ti, sharp and casio are even worse of course).

http://www.suntimes.com/output/news/cst-nws-zay03.html

Re: norm, take note

*Message #2 Posted by **Ellis Easley** on 4 Aug 2003, 9:37 p.m.,*
in response to message #1 by db(martinez,california)

As Rush likes to point out, at $1 for a 16 ounce bottle, fancy water costs several times as much as gasoline.

Re: norm, take note

*Message #3 Posted by **Paul Brogger** on 4 Aug 2003, 9:45 p.m.,*
in response to message #1 by db(martinez,california)

Geez! You guys, thinking out of the box . . . You should watch where you put this stuff!

If someone from GM drops in, pretty soon we'll be buying gasoline, oil and transmission fluid in big, plastic cartridges, no two of which will be the same. ("Sorry, we're fresh out of Cruiser cartridges. But I have a Hummer-to-Cruiser converter with which you can buy three times your original capacity, but it'll have to sit in the passenger seat . . .")

Don't get these guys started!

Re: norm, take note

*Message #4 Posted by **Speck** on 4 Aug 2003, 11:31 p.m.,*
in response to message #3 by Paul Brogger

Perhaps they should start selling "Computer Health Insurance." After all, some drug makers sell eye drops after glaucoma surgery for about $50 for a tiny bottle (worked out to roughly $20,000 per GALLON!). You could get a "prescription" for new toner, and the cost would be subsidized by everyone else. People would still bitch about the cost of ink, but they would only be paying a fraction of the actual "cost." Call your Congressional representatives.

Anybody know if they sell printer ink in Canada?

Re: norm, take note

*Message #5 Posted by **Ellis Easley** on 4 Aug 2003, 11:42 p.m.,*
in response to message #4 by Speck

How about the fluoride rinse the dentist charges $20 a shot for? What really gets me is that a few years ago, he told me fluoride rinse after a cleaning was nothing compared to using fluoride toothpaste every day, then I guess some vendor or trade magazine article shook him up by showing him how he could mark up a cleaning by 20%!

Yup, I hear yuh

*Message #6 Posted by **Norm** on 5 Aug 2003, 12:57 a.m.,*
in response to message #5 by Ellis Easley

Yup, I hear yuh, always thought the printer cartridges were a ripoff. Likd that specification of $175,000 to fill your gas tank.

Well, what can you do, its not about building an honest product to an honest price anymore ..... its about seeing who you can $crew and how badly.

Maybe I'll have to start thinking like that. Anybody want to buy a large bridge from me, it connects traffic to a major city .

:o)

Re: Yup, I hear yuh

*Message #7 Posted by **db(martinez,california)** on 5 Aug 2003, 11:21 p.m.,*
in response to message #6 by Norm

Norm;

i'd never make it in business; i always thought the "$crew-er" and the "$crew-ee" ought to BOTH enjoy the "$crew-ing"

Check this out, it's a navigation calculator. i remember you expressed an interest in looking at them. If it wasn't for that dam "=" key i'd think of buying it myself.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3039400375&category=11713&rd=1

- d

business practice, old navigation calculators

*Message #8 Posted by **Norm** on 6 Aug 2003, 4:52 p.m.,*
in response to message #7 by db(martinez,california)

Business practice is supposed to be a mutual exchange in which both sides are better off for it (I pour cement for your driveway, you pay me, I wanted the money, you wanted the driveway both sides are happy with the trade).

You mentioned both sides get $crewed but both sides enjoy it..... that would still classify as a win-win situation.

What I am seeing lately in business leaders is an obsession with finding "win-lose" transactions. They dont care what they are winning, just so the other side is losing. They are happy selling buggy whips instead of jet engines, just so long as the customers pay too

much and the vendors are going broke. these types of business leaders would rather shut the business down, than see a scenario where everybody is making it.

True business leaders (gag, dare I mention Bill Gates?) want a great many factions to come out winners, i.e. the vendors and the employees are well-compensated. But business leaders to be wary of are the ones that dont care what the opportunity, the market, or the customers are saying, just so long as they make money and you go broke. Run for your life on those types.

****

old navigation calculators may well be an example where you really can't use it for much.

I'm thinking it has to be an item approved for FAA exams, otherwise why bother learning its idiosyncracies and getting familiar with it.

Therefore if it is no longer approved for an FAA exam, whats the use.

That would point towards using the more recent Jeppesen navigation calculator products.

Re: business practice, old navigation calculators

*Message #9 Posted by **db(martinez,california)** on 6 Aug 2003, 9:34 p.m.,*
in response to message #8 by Norm

Norm; i remembered that you were interested but it looks like i forgot why you were interested. It sure is a pretty unit though, isn't it? - and no, it isn't mine.

wanna be pilot

*Message #10 Posted by **Norm** on 6 Aug 2003, 11:23 p.m.,*
in response to message #9 by db(martinez,california)

I'm just an armchair wanna be pilot, thats all.

I took quite a lot of flying lessons, then stopped rather abruptly.

They say that the theoretical principle of flight is that
the air over the top of the wing flows more rapidly over
the top surface than the bottom surface, thereby generating lift.

But that is wrong. The actual principle of flight is that
the flow of money out of your wallet generates the lift caused by the wing.

However, the lift is only generated if the flow of money is very large. Otherwise the airplane does not fly.

Realizing all of this, I decided that I did not wish to have a flow of money that large so I have left the airplanes and the navigator computers temporarily out of reach for now.

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Just wondering??

*Message #1 Posted by **Naim** on 3 Aug 2003, 8:04 p.m.*

I read the great by Mr Brogger about increasing the memory of a HP42S to 32K. My question is, has anyone found a use for the area where maybe a second RAM chip could be installed? Or is this for some other hardware that was abandoned at some stage. Just wondering [out loud]

Re: Just wondering??

*Message #2 Posted by **Randy Sloyer** on 3 Aug 2003, 10:07 p.m.,*
in response to message #1 by Naim

The 42S shares the same logic board with the 17B/17Bii and 27S. The vacant rom location was used only in the 17Bii for the different text strings to internationalize the calculator.

The detailed answer can be found here: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=266 and look toward the bottom for "XFCN".

Just wondering, too... Did you???

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 3 Aug 2003, 11:32 p.m.,*
in response to message #1 by Naim

Hi, Naim;

I just want to know if you proceed with the upgrade and, in this case, if you succeed.

I am asking about this because I am trying to collect data about which 32K chip have people found to be usefull. I have found three different codes, each one with a different brand label, and in two cases, the donator was a non-working HP48G. Anyway, in two cases, I removed the chip from a deffective sound board. There were two chips in that board and I have already used them.

I have these RAM ID codes/numbers written somewhere, I just have to find the file. Have you taken note of yours, if any?

Another issue: as I see, the HP17BII has the same board and layout, but the HP42 uses a main chip with another package. The question is: would the HP17BII accept a 32KRAM chip as well? Not that I intend doing this, I just would like to know if its O.S. will address the extra 24KRAM. If the answer is Yes, then the HP17BII+ will need no further HW enhancement, only SW additions (if any) and a Kinpo-like design.

Best regards.

Luiz (Brazil)

Edited: 3 Aug 2003, 11:34 p.m.

Re: Hp17BII

*Message #4 Posted by **RR** on 4 Aug 2003, 8:11 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Speaking with experience. No the Hp17Bii cannot make use of the extra RAM space of a 32K chip. It will work (you then HAVE to configure just like the 42s), but it will not see the extra RAM. I never did the experiment on the 27s as I used the 17B for practice before I tackled a valuable 42s.

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PPC ROM on eBay

*Message #1 Posted by **Massimo Gnerucci (Italy)** on 3 Aug 2003, 6:46 p.m.*

My turn to point at eBay craziness: don't you think that $585.23 are a little too much for a PPC rom and manual?

:-)

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3038004160

Massimo

Re: PPC ROM on eBay

*Message #2 Posted by **Dave** on 3 Aug 2003, 8:42 p.m.,*
in response to message #1 by Massimo Gnerucci (Italy)

The bidding is curious, don't you think? The bidder with the most bids is someone who knows well the value of HP Calc stuff, so why so much???

Re: PPC ROM on eBay

*Message #3 Posted by **Steve (Australia)** on 4 Aug 2003, 1:27 a.m.,*
in response to message #2 by Dave

Perhaps it's the one that went "missing" during packaging of the PPC ROMS :-)

Re: PPC ROM on eBay

*Message #4 Posted by **Randy Smith** on 4 Aug 2003, 10:44 a.m.,*
in response to message #1 by Massimo Gnerucci (Italy)

Gee, I only paid $80 about 2 years ago for mine without a manual. Someone else gave me a manual in trade for some slide rules later. But heck, if someone offered me $600 for my getup I might be tempted to sell.

Re: PPC ROM on eBay

*Message #5 Posted by **Raymond Del Tondo** on 4 Aug 2003, 11:30 a.m.,*
in response to message #1 by Massimo Gnerucci (Italy)

Hmm. I paid 100 EUR for mine a few years ago, which came *complete* with module, manual, pocket guide, synthetic card, and some additional PPC paperwork, and it was (and is) like new.

Ok, I bought my first PPC module back in the early eighties, and that one was much more expensive. My HP dealer charged me nearly 500 DM, which is about 250 EUR. But that was twenty years ago, and the module just hit the market...

Raymond

Re: PPC ROM on eBay

*Message #6 Posted by **Gene** on 4 Aug 2003, 11:50 a.m.,*
in response to message #5 by Raymond Del Tondo

Mine was an original, ordered during the actual project itself. I still remember waiting nearly a year after sending in the $95 (1980 $$) to PPC. You can tell the early ROMS because they were engraved with your order number.

What a wonderful Christmas I had when it arrived in mid-December. :-)

Gene

Re: PPC ROM on eBay

*Message #7 Posted by **Ernie Malaga** on 4 Aug 2003, 12:24 p.m.,*
in response to message #6 by Gene

Gene:

> Quote:
>
> What a wonderful Christmas I had when it arrived in mid-December. :-)

Perhaps it was I who packaged your PPC ROM in those old days of 1981. I was one of the "local PPCers" who volunteered during the (nightmarish) shipping day.

Now it's been almost 22 years, and I still remember it...

-Ernie (PPC#6594)

Re: PPC ROM on eBay

*Message #8 Posted by **Dave** on 4 Aug 2003, 5:57 p.m.,*
in response to message #6 by Gene

Yes, Gene, I also remember that looooooonnnng wait. But also, remember that I got TWO for the price of one. My order number with an "A" on one and with a "B" on the other. Turned out to be a deal!

Re: PPC ROM on eBay

*Message #9 Posted by **Andrey** on 4 Aug 2003, 12:14 p.m.,*
in response to message #1 by Massimo Gnerucci (Italy)

Well, only a few weeks ago, a complete set on eBay went for something like $ 255. and was totally complete. I guess everyone was on vacation and missed it (including me) :(((

Re: PPC ROM on eBay

*Message #10 Posted by **Chris Catotti (Florida)** on 4 Aug 2003, 2:14 p.m.,*
in response to message #9 by Andrey

I sold a "module only" in May 2003 that was one of the original "PPC Members Only" distribution for $103.50 on ebay.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2731022589

I could easily have been talked into adding the manual, QRG, etc. for that kind of price.

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HP41CX - hard reset

*Message #1 Posted by **Richard McDonald** on 3 Aug 2003, 4:05 p.m.*

Hi there; The net of my question is "what's the keyboard sequence required to induce a 'memory lost' reset in an HP-41CX. My old, failing memory thought Enter/clx/on would do it, but it doesn't seem to work. I also left the batteries out for 24 hours and that still didn't cause a "memory lost" reset. That was odd.

I'm trying to resurrect my HP41CX that I've owned about 15 years. It's been stored in a dry location, in it's case and I've replaced the batteries periodically.

The last time I replaced the batteries it wouldn't power on correctly. A series of Enter/clx/on sequences will sometimes bring it up after removing the batteries for a few moments. Once I get 0.0000 in the display, I have control of the keyboard and can execute most functions. The display seems fine. Pressing keys and the sides doesn't cause a flutter so I think the contacts are ok. So I think the program memory is messed up and needs to be reset. A PCLPS doesn't seem to clear the offending problem and doesn't seem to complete (I don't see "packing").

Comments and recommendations are most welcome.

Richard McDonald

Re: HP41CX - hard reset

*Message #2 Posted by **Ernie Malaga** on 3 Aug 2003, 4:15 p.m.,*
in response to message #1 by Richard McDonald

Richard:

The hard reset is called "master clear" and is performed by holding down the correction (back-arrow) key while turning the machine on. This feature clears continuous memory and resets flags to their default states.

-Ernie

HP41CX - small remarks

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 3 Aug 2003, 5:31 p.m.,*
in response to message #1 by Richard McDonald

Hi, Richard;

just to add that PCLPS will be effective if executed while at least one program is the current one OR if an specific global label is in ALPHA register. If ALPHA is empty and the calculator is "positioned" to the last program in memory (the one with the permanent .END.), nothing will be cleared. It's also important to keep in mind that all programs after the one you clear with PCLPS will be cleared as well.

As Ernie mentioned, the "Master Clear" procedure is the standard "clear all" resource for the hP41 series, and you should see

```
[MEMORY LOST]
```

if you succeed performming it. As you mentioned, if you pressed [ENTER][CLx][ON] and nothing happend is because this is not the correct sequence; please, do as Ernie explainned and you'll probably achieve a memory clear.

Success. Should you need more advice, please, let us know.

Luiz (Brazil)

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HP 41 cv "Memory lost"

*Message #1 Posted by **Juergen Schneider** on 3 Aug 2003, 6:27 a.m.*

I changed my batteries and the calculators show "memory lost" and switch in the "PRGM" modus and display only on the left site "-)--". Have anyone some idea?

Thanks

Re: HP 41 cv "Memory lost"

*Message #2 Posted by **Thibaut.be** on 3 Aug 2003, 12:28 p.m.,*
in response to message #1 by Juergen Schneider

If you have such a strange display, I'd expect 2 causes

1) low batteries 2) fixing post cracked; try when pressing your calculator just below the display if the problem disappears. A previous thread explained longly how to repair this.

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19c

*Message #1 Posted by **Don Alexander** on 3 Aug 2003, 4:16 a.m.*

someone offered me 150.00 for my 19c is this a fair price for both the buyer and seller.

Re: 19c

*Message #2 Posted by **Dave** on 3 Aug 2003, 1:05 p.m.,*
in response to message #1 by Don Alexander

Depending on condition.... If it is working and in very good cosmetic condition then $150 is on the low side of what you can expect. They can sell for $250-$300.

Re: 19c

*Message #3 Posted by **Don Alexander** on 3 Aug 2003, 8:12 p.m.,*
in response to message #2 by Dave

it is good condition and working even the case looks new I do not have charger or docs for it.

Re: 19c

*Message #4 Posted by **Dave** on 4 Aug 2003, 10:32 a.m.,*
in response to message #2 by Dave

You could expect to get ~ $250 for it +/- EBay variations...

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Dead HP41CX

*Message #1 Posted by **Ben Moss** on 3 Aug 2003, 12:27 a.m.*

Ok, I just got my new HP41CX to work today (look down a couple of threads). I was using a power supply at my university's radio club shack to test it. Right after I got the battery pack to work, a friend of mine walked in and I showed it to him. He looked at the modules, and before I could stop him he said "Wow, look at these!" and pulled one out while the calculator was turned on. According to the manuals, this is a Big Fat No-No.

The calculator seemed to work immediately afterward; I tried some basic math like 3+3 and it gave the right answers. I put it away, and now when I try to turn it on, nothing happens. I know it isn't the battery because I have tried it with the power supply as well.

So, either the calculator died from having the module removed while it was on or it died from me playing with batteries and whatnot. I was very careful with the batteries to never reverse the polarity or give it too much voltage but it's still a possibility. What's the prognosis?

Again, many thanks.

-Ben Moss

Re: Dead HP41CX

*Message #2 Posted by **Hans Brueggemann [GER]** on 3 Aug 2003, 4:25 a.m.,*
in response to message #1 by Ben Moss

ben, i never ever saw an hp41cx being killed by just *removing* modules during operation. most likely, your calc has the typical 'foul keyboard contact syndrome' or 'battery removal amnesia'. the doctors in this forum already wrote a lot about that topic. just dig through the archives.

cheers, hans

Re: Dead HP41CX

*Message #3 Posted by **Randy Sloyer** on 3 Aug 2003, 10:25 a.m.,*
in response to message #1 by Ben Moss

In you have it open, try a hardware reset to clear memory:

Just short out the biggest capacitor on the logic board for a couple of seconds. It should be 470 uf at top left on fullnuts and to the left of the cpu on halfnuts.

If it's not open, hold down the backspace key, press the on button and release the backspace. You should see MEMORY LOST.

41's are pretty hard to kill.

It works

*Message #4 Posted by **Ben Moss** on 3 Aug 2003, 5:10 p.m.,*
in response to message #1 by Ben Moss

It works again! Thank you so much for your help.

I had tried twisting the calculator a little, pressing under the display, and applying pressure in various places. None of that helped. Pressing various combinations of backspace/on (and all other combinations listed in the repair guide) didn't do the trick either - it was the 1" drop that fixed it. I guess one of the internal connections got messed up while I was playing with the battery pack.

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HP35 New Model

*Message #1 Posted by **Scott Elesandro** on 2 Aug 2003, 8:47 p.m.*

What with the much hailed re-entry of HP back into the calculator scene - eg all the hype about new models such as 12CP, 33S, 49G+ etc - I would forego all these new models for a resurrection/remanufacture of the original HP35 exactly as it was made in 1972. HP could have made trillions of dollars by re-manufacturing this world famous model - I would have bought 35 to celebrate!!!! The quality and the feel have never been surpassed - and besides retro is all the rage right now. Come on HP - celebrate 30 years plus in the RPN calculator scene by re-introducing this model and see how us HP drug-addicts respond - you would never regret it!!!!

Re: HP35 New Model

*Message #2 Posted by **Ernie Malaga** on 2 Aug 2003, 10:03 p.m.,*
in response to message #1 by Scott Elesandro

> Quote:
>
> I would forego all these new models for a resurrection/remanufacture of the original HP35 exactly as it was made in 1972.

I'd rather see the HP-45 resurrected. It has always seemed (to me) like the first _useful_ scientific calculator. I always think of the HP-45 as "version 1.0"; the HP-35 seems like a beta release.

But of course the HP-35 could be resurrected as well. Not _exactly_ the way it was in '72, though. The [CHS] function needed work, [x^y] is guaranteed to trip modern calculator users, and the rechargeable batteries... phooey.

Hmmm. HP-35C?

-Ernie

Re: HP35 New Model

Message #3 Posted by on 3 Aug 2003, 4:15 a.m.,
in response to message #2 by Ernie Malaga

What about HP-35CX? Or maybe better HP-35GX?

Re: HP35 New Model

*Message #4 Posted by **Les Bell [Sydney]** on 3 Aug 2003, 4:51 a.m.,*
in response to message #3 by

Yeah, now there's an idea! It would only have one memory, but it would be a BIG one. . .

Best,

--- Les [http://www.lesbell.com.au]

Re: HP35 New Model

*Message #5 Posted by **Troy H** on 3 Aug 2003, 7:26 a.m.,*
in response to message #4 by Les Bell [Sydney]

I think the real point here is that HP have to keep the new generations interested in their calculators and more importantly interested and hooked on RPN. If I were a young school student with limited money and not familiar with RPN, then I wouldn't even consider HP/RPN because their entry scientific calculator with RPN is now the HP48 and too expensive to consider. Even the HP32SII was on the steepish side of expenive and kids will buy cheap algebraic models because they are cheaper eg Canon, Casio etc. A new simple RPN calculator is needed - like the original HP35 (without any of the bugs and limitations, of course) - modernise it a bit for current technology - but keep the essence of the HP35 calculator there. Could be sold for a relatively affordable price and the young ones would buy it - and once that occurs - they're permanently hooked on the RPN breed and become a lifetime repeat customer. This is what happened to me - my first HP was a HP21 - sweet and simple and still a classic - once hooked many other more complex models followed in my inventory - I would never go back to algebraic format. We've nearly witnessed the death nell of RPN and HP calculators - only us HP enthusiasts have redeemed the RPN breed with our pestering of HP. The fact that they brought out too many expensive highly advanced models and neglected the main stream bottom end models like a simple HP35 was probably what caused the recent near-death crisis of HP calculators in the first place. A huge hole has existed for about 2 years because the dropping of the HP32sII - only now is this appalling situation about to be rectified with the HP33S. But still a much cheaper more basic entry level RPN model like the original HP35(modernised)is still needed to encourage the take-up rate by the young ones.

Re: HP35 New Model

*Message #6 Posted by **William** on 3 Aug 2003, 7:59 a.m.,*
in response to message #5 by Troy H

HP are basically in the calculator business as a profit making venture. Although this may come as a shock to HP enthusiasts, HP don't build calculators because they like to keep you guys happy with an endless supply of loss making RPN calculators - shock, horror. The big killer to bringing out new models is the development and design costs these days, so it might be attractive to HP to save costs in bringing out new models by returning to extremely successful and popular past models, and dig out the design blue prints of the HP35 and HP45 - certainly has got to be a hundred fold improvement on the abysmal design exercise we see in the HP49 rubber toadfish, and which they now appear to be carrying over into the HP49G+ which is about to be released (because they're stuck with the HP49 case design and can't afford to change too much because of retooling costs).

Re: HP35 New Model

*Message #7 Posted by **Les Bell [Sydney]** on 3 Aug 2003, 11:40 p.m.,*
in response to message #5 by Troy H

I think that's a reasonable point, but . . .

While schoolkids needs could *mostly* be served by a simple RPN scientific, those who are doing maths are influenced by teachers who want to use a more advanced - especially graphing - calculator as a pedagogical tool. The ones who would most appreciated the orthogonality of an RPN calc are the ones who will be directed by their maths teachers to buy a TI or Casio graphing calc.

These are the ideas that HP flirted with in the 38G ('aplets') and in the Xpander, but which never really got the momentum to knock TI and Casio out of poll position.

An HP45-level machine would be ideal for most schoolwork outside the maths classroom: reducing experimental results in the physics and chemistry classes, figuring out material requirements in the woodwork shop, and so on.

It's those damn mathematicians that have done the damage!

I've tinkered with the Casio calc my son was told to buy for maths classes at his new secondary school, and it's a counter-intuitive mess of arbitrary key combinations when compared with, say, my 41CX. I'm *sure* that a lot of teaching overhead must go into explaining the peculiar keystroke sequences required to get results out of this illogical little nightmare.

Something like the 11C or 32SII would be just about right for the schools market, IMHO.

Best,

--- Les [http://www.lesbell.com.au]

Re: HP35 New Model

*Message #8 Posted by **J.J.** on 4 Aug 2003, 11:21 a.m.,*
in response to message #7 by Les Bell [Sydney]

Don't agree here because most kids buy a calculator based on what they're allowed to take into exams!!! Anything above a simple HP11C class calculator is banned in exams because of the cheat potential of the more powerful machines - there's still some attempt to still try to get kids/students to use their brains a bit.

In some cases, schools take no chances and even ban any programmable calculators from exam rooms. I know that was the case in exams I've done. Pointless for students to buy a complex HP48 or HP49 when all you need (and are permitted) is a reliable HP35 or HP45 class calculator for exams - hence the forced potential huge market for this type of simple machine. People keep hyping the requirement for more powerful, more complex HP's. Well, once you get to the level of the HP49, you might as well not beat around the bush and just buy a pocket PC and put a HP41 or graphing emulator on it (like I've done). But notwithstanding this, I still have a requirement for a run-of-the-mill basic cheap calculator like the HP45 for everyday use as well.

Re: HP35 New Model

*Message #9 Posted by **Ernie Malaga** on 4 Aug 2003, 12:28 p.m.,*
in response to message #8 by J.J.

J.J.:

> Quote:
>
> Pointless for students to buy a complex HP48 or HP49 when all you need (and are permitted) is a reliable HP35 or HP45 class calculator for exams - hence the forced potential huge market for this type of simple machine.

Or a simple slide rule. When I was in college in 1973 (Lima, Peru), that's the only thing

allowed in exams. I still have mine somewhere. They considered calculators "unfair advantage" because so few students could afford them back then -- an HP-45, for example, was $400 or thereabouts.

-Ernie

Re: HP35 New Model

*Message #10 Posted by **Les Bell [Sydney]** on 4 Aug 2003, 5:34 p.m.,*
in response to message #8 by J.J.

Don't agree? But that's what I said!

There seems to be a double standard among teachers with respect to calcs in exams v what they want in the classroom. Companies like HP and TI are producing increasingly sophisticated calcs aimed at the school/college market, but you're saying kids won't buy those calcs because they won't be allowed in exams?

Best,

--- Les [http://www.lesbell.com.au]

Re: HP35 New Model

*Message #11 Posted by **G Evans** on 4 Aug 2003, 11:33 a.m.,*
in response to message #1 by Scott Elesandro

Yea , but I'd rather see the cuddly Woodstocks ..

George

Re: HP35 New Model

*Message #12 Posted by **Patrick** on 4 Aug 2003, 2:09 p.m.,*
in response to message #11 by G Evans

Imagine a much flatter but still contoured Woodstock-like calculator. With an LCD display (sorry, Norm), it wouldn't need to be so thick to accommodate the huge batteries of that era. If it was about a quarter to a half inch thick but about the same size as the old Woodstocks, with a contoured edge to fit the hand nicely, and the power of an 11C, that would be quite a little device.

Of course, I would prefer 15C like capability, but I think that might violate school rules. I think it is important in a small machine to not clutter the keyboard too much. The 10C would be a nice machine had it had a few extras, such as way more memory and some extra programming capabilities.

Just my 2 cents (Canadian -- about 1.4 cents in real money).

Re: HP35 New Model

*Message #13 Posted by **Dave Shaffer** on 4 Aug 2003, 2:23 p.m.,*
in response to message #12 by Patrick

I, too, would buy several HP-35 knock-offs - put one everywhere I was likely to need to reach for a calculator - if the price was right.

The price and feature target could well be deemed to be the TI-30xxxx line. TI makes half a dozen

versions of this, with just about the capability of the original HP-35 (plus some simple statistics - broadens the appeal), for around $10. Thus, TI sucks in the youngens for their TI-8x line when they need/want to upgrade.

If I could buy HP-35 RPN functionality for $10, I'd go wild. HP would then have an entry-level (RPN!) calc, too. I agree that they've ignored the entry-level market.

Re: HP35 New Model

*Message #14 Posted by **Michael F. Coyle** on 5 Aug 2003, 6:56 p.m.,*
in response to message #12 by Patrick

Hi Patrick!

> Quote:
>
> Imagine a much flatter but still contoured Woodstock-like calculator. ... If it was about a quarter to a half inch thick but about the same size as the old Woodstocks, with a contoured edge to fit the hand nicely, and the power of an 11C, that would be quite a little device.

Maybe. But I really like the shape of the Woodstocks and the way they fit into the hand. I'd hate to give that up for a thinner machine.

And nowadays we could do a very powerful machine in that style case. After all, the 34C had 30 keys, just like the Woodstocks.

> Quote:
>
> The 10C would be a nice machine had it had a few extras, such as way more memory and some extra programming capabilities.

It's called the HP-11C. Sorry, no modern equivalent.

- Michael

Re: Exam Calculator

*Message #15 Posted by **Paul Brogger** on 4 Aug 2003, 7:35 p.m.,*
in response to message #1 by Scott Elesandro

O.K., then how 'bout this: Make a basic, ~10-memory RPN model with a two-line LCD display in a solid package with the legendary feel . . .

Incorporate a slot at the top for some kind of standard photo memory stick -- so that the memory "sticks" out about a quarter inch when inserted. (Maybe the memory compartment door hangs open and has a yellow-and-black-striped indusrial warning sticker affixed inside.)

With memory: programmable. Without memory: basic scientific/statistical/financial/numerological/biorhythms/whatever.

Pay the Teacher's Unions (or whatever standards bodies may exist) to certify the thing ***"Exam Safe"***.

Or, adopt a philosophy whereby gettting the right answer, by whatever means, is considered adequate

performance. And take some time to devise questions that can't be answered without some understanding of the nature of the problem, despite the ready availablity of a Cray supercomputer . . .

(Too bad they don't bother to ask us!)

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97S Test connector outlay

*Message #1 Posted by **Erik Wahlin** on 2 Aug 2003, 4:49 p.m.*

I had a few requests to map out my HP-97S test connector. It is a fairly simple thing to build if you can find the IC. Please see http://g.msn.com/9SE/1?http://www.emar-online.com/15xyzx.htm&&DI=293&IG=1d9138f3-ba80-4ad8-a0f6-4de9754a962b&POS=1&CM=WU&CE=1). This company may have some. Please see http://www.colutron.com/97S/97S.htm for the connector details, and http://www.colutron.com/97S/97S2.htm for the diagnostic program used with the connector. I have attempted as best as I can to double and triple check the connections. Please use at your own risk. I assume no liability if you damage your HP-97S.

Edited: 2 Aug 2003, 5:22 p.m.

Re: 97S Test connector outlay

*Message #2 Posted by **Katie** on 3 Aug 2003, 2:58 p.m.,*
in response to message #1 by Erik Wahlin

Eric,

Thanks for the info!

The MM80C98 is the same at the MM70C98 which is still made by National:

http://www.national.com/pf/MM/MM70C98.html

Also the MM80C98 isn't that hard to find. Mouser has them for $2.37: http://www.mouser.com/index.cfm?handler=search.listcategory&Ntt=*80c98*&terms=80c98&Dk=1&D=80c98&N=0

-Katie

Edited: 4 Aug 2003, 11:31 a.m.

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HP-19C Help needed

*Message #1 Posted by **Renato** on 2 Aug 2003, 3:06 p.m.*

Just got this 19C. Non-functional, in rough shape. No battery pack, no battery door.

Would someone tell me:

1- How to open the case - I removed the 5 screws (2 under feet, 2 in battery compartment, 1 in PS socket), but there seems to be a latch somewhere

2- I know it uses 82059 AC adapter, but I only have 82059D - is it ok for the 19C to use a 82059D ?

3- Does it suffer from the common woodstock fragility on the power supply ? In other words, can it be operated with AC power *without* a battery pack ?

thanks,

Renato

Re: HP-19C Help needed

*Message #2 Posted by **David Smith** on 2 Aug 2003, 3:53 p.m.,*
in response to message #1 by Renato

You have the screws out. The bottom of the case is a lot like a woodstock. Also the case halves are somewhat held together by fork pins between the keyboard and the printer board.

Any 82059 charger should work. You do need a battery pack in the machine for it to work (but I don't think it is as delicate as the woodstocks damage wise).

Re: HP-19C Help needed

*Message #3 Posted by **Renato** on 2 Aug 2003, 5:05 p.m.,*
in response to message #2 by David Smith

David,

Thank you. I have the case open - a severe case of battery leakage. Looks like it will require some debugging - lucky me - I´ll enjoy the fun.

What about pinout of the interboard connectors ? - I´ll look for normal DC voltages, before trying to go further. There is some corrosion on the terminal of the diodes on the lower right side of the power supply circuit - four diodes - should be the rectfying bridge. The 1826-0287 IC also has corrosion near it.

Caig Progold cleaned a portion of corrosion. I will work on it .

Thanks again,

Renato

Re: HP-19C Help needed

*Message #4 Posted by **David Smith** on 4 Aug 2003, 4:12 p.m.,*
in response to message #3 by Renato

Corrosion seems to be a rather common problem in these machines. I have seen three or four that were rather badly infested with the green fuzzies. I usually use 91% isopropyl alcohol to start with then go with the more exotic contact cleaners.

A lot of the printer circuitry is very similar to the HP97 and the HP97 service manual on the HPMUSEUM CDROMs can be a help.

Re: HP-19C Help needed

*Message #5 Posted by **Renato** on 4 Aug 2003, 5:55 p.m.,*
in response to message #4 by David Smith

David,

Thank you, again.

I managed to get it to turn on. As the logic-board-to-keyboard connector is corroded, i traced the on-off traces to the logic board side connector and shorted 1-2 to 4-5 . Display turned on with "0.00 80", printer purred and display showed "error".

I´m much pleased that it worked - must have been dead for decades. Now I´ll try to fix the bad connector.

Renato

Re: HP-19C Help needed

*Message #6 Posted by **Michael Meyer** on 4 Aug 2003, 7:36 p.m.,*
in response to message #5 by Renato

Let us know if you get it 100%. For "grins", let me know if the little decimal points in the display are little "hp" symbols. About half I've come across are!

The 19C is still my favorite machine to look at, marvel and admire. I think it's a really special calc.

Others have more power, smaller size, etc. And it's a 71B that I still use to play games and as an alarm clock, and a 67 to do my day-to-day calculating.

Can't explain it....

I guess that other machines had card readers (TI), and there were several amazing models. None that I can recall that were classic programmables with a printer. Too bad there wasn't a card reader stuffed in there somehow.... A pocketable 67/97....

It's just a really cool classic calc. (OK, technically a Woodstock, not a classic.)

I can't explain it, but I suspect you'll understand when you have it all working....

Michael

Re: HP-19C Help needed

*Message #7 Posted by **Renato** on 4 Aug 2003, 8:49 p.m.,*
in response to message #6 by Michael Meyer

Michael,

Yes, the decimal dots are HP logos. This was the first thing I checked when I got it to turn on. C O O L - I could see the logo without any magnification.

Another yes - for the fascination . For me the "purr" sound of a 97 card reader, printer or the 19c printer is fascinating.

Right now I´m just spending time away from the calculator, just wondering if I will try to fix the keyboard connector, or if I will build a cable to operate the machine with the case open. Former is most likely - if there are other things to fix, it might be useful.

Renato

Re: HP-19C Help needed

*Message #8 Posted by **David Smith** on 5 Aug 2003, 2:35 p.m.,*
in response to message #5 by Renato

I'm sure an old Woodstock or HP97 would be able to supply some pins... or are those the really long ones that went bad?

Re: HP-19C Help needed

*Message #9 Posted by **Renato** on 5 Aug 2003, 5:09 p.m.,*
in response to message #8 by David Smith

David,

The gold pins are ok. Corroded connector is the one at the keyboard. I believe it is called a "berg stick" - a row of square holes, in a black plastic housing. Too bad my digital camera went bad (canon S-20 - worst purchase decision i´ve made in the last two years).

Thanks,

Renato

Re: HP-19C Help needed

*Message #10 Posted by **David Smith** on 6 Aug 2003, 3:23 p.m.,*
in response to message #9 by Renato

The HP97 LED module connects to the display driver board with that type of cable and connector. Later machines were soldered on both ends.

Re: HP-19C Help needed

*Message #11 Posted by **Renato** on 6 Aug 2003, 11:50 p.m.,*
in response to message #10 by David Smith

As far as I recall, one 97 and three 91 i´ve opened (all made in Brazil) had display soldered to the logic board.

Renato

Re: HP-19C Help needed

*Message #12 Posted by **David Smith** on 7 Aug 2003, 1:19 p.m.,*
in response to message #11 by Renato

Many of them have one end of the display cable soldered down and the other end in a socket.

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HP49G+

*Message #1 Posted by **Monte Dalrymple** on 2 Aug 2003, 1:53 p.m.*

SInce nobody else has posted a link...

http://www.hpcalc.org/hp49gplus.php

Re: HP49G+

*Message #2 Posted by **George** on 2 Aug 2003, 3:26 p.m.,*
in response to message #1 by Monte Dalrymple

Thank You for the posting!!! I am a surveyor who still uses a HP-48GX as a data collector on the job. After purchasing SMI's latest Robotics Version 7 card, I received a letter stating that the HP48 was discontinued and I should look to the Allegro for any future needs. But this 49G+ has everything that I wrote to HP and requested, such as the SD card slot and USB port. I can't wait to get my hands on one.

Re: HP49G+

*Message #3 Posted by **Raymond Del Tondo** on 2 Aug 2003, 6:11 p.m.,*
in response to message #2 by George

So let's hope it also has a reliable keyboard... else maybe the upcoming 48G+ could be nice.

Raymond

Re: HP49G+

*Message #4 Posted by **Marx Pio** on 3 Aug 2003, 8:00 a.m.,*
in response to message #3 by Raymond Del Tondo

Wow!

IR, USB and SD??...is it a dream?

Pio

Re: HP49G+

*Message #5 Posted by **J-F Garnier** on 3 Aug 2003, 8:05 a.m.,*
in response to message #3 by Raymond Del Tondo

Did you noticed the -4999 to +4999 exponent range? If the HP49+ is based of an emulator, it should be -499 to +499. So I guess it's a mistake. The other figures (12 displayed digits, 15 internal digits) are consistent with the Saturn BCD architecture.

Re: HP49G+

*Message #6 Posted by **Raymond Del Tondo** on 3 Aug 2003, 3:41 p.m.,*
in response to message #5 by J-F Garnier

The higher display is nice, but I wonder how programs will behave, which use the display directly, e.g. games, graphics progs...

The OS had to be rewritten in some places to handle the new display boundaries (at least the constants had to be changed). And for the numeric resolution: Maybe the host CPU can handle the extended resolution, but in the 4x OS the would have been many places to be adjusted...

And for the USB connectivity: Maybe there's a hardware layer which acts as adapter for the serial I/O software of the 49G.

However, it's much too late (or too early) to be an easter egg.

I can hardly wait to see (and maybe get) the 48GII+, you know, the one with the real keyboard;-)

Raymond

Re: HP49G+

*Message #7 Posted by **Speck** on 4 Aug 2003, 11:38 p.m.,*
in response to message #2 by George

Assuming this thing is actually real, I wouldn't be surprised if a few Linux junkies won't want to get their hands on a few as well, just to see what they can do with them. Imagine sitting in EE classes and having access to a version of Octave in your hand (Matlab clone, in case no one is familiar).

And damn, but that thing looks a bit nicer than my 49G. They've still got work to do, though, from the looks of it.

Speck.

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Testing an HP41CX

*Message #1 Posted by **Ben Moss** on 2 Aug 2003, 1:58 a.m.*

I've been using the V41 emulator for a long time and I really like it (kudos to the programmers), so I decided to get a real HP41CX off of ebay as a programming toy. Of course, it has a dead rechargeable battery pack, and I have no charger... (you know the story). I've been reading through the archives about battery options, but I still need a bit of clarification.

1. Apparently the battery pack uses an AC adaptor, and the voltage isn't constant. Is there some way I can try to charge the battery pack I have? I have access to fairly well-regulated adjustable AC and DC power supplies. I will be on the lookout for a real power supply in the meantime.

2. Apparently there is circuitry inside the rechargeable pack. This has made me paranoid. Can I test my calculator by giving it 6 volts DC from a power supply? If so, do I apply +6 to the leftmost gold contact and ground to the rightmost contact, leaving the middle two alone? (looking at the calculator from the back). I would like to know if it works.

I have an HP41CX, s/n 2851S21829. It has a rounded display, I think this makes it a halfnut or something, one of the later models? The rechargeable pack (82120A) has 2 pins for the charger.

Thank you very much. I know this topic has been beaten to death, and I apologize in advance for bringing it up again. If there's a website or FAQ that I've missed please post the link. -Ben Moss

Re: Testing an HP41CX

*Message #2 Posted by **Ernie Malaga** on 2 Aug 2003, 3:15 a.m.,*
in response to message #1 by Ben Moss

Ben:

After suffering rechargeable batteries for years on older HP calculators and cell phones, I rebelled and decided to never use them again if I had a choice. You have to leave the batteries charging for hours, only so they can die on you when you least expect it.

The HP-41 was initially intended to use 4 N-cell _non_-rechargeable batteries. I know they're a bit expensive, but they will give you several months of use without having to worry about recharging them.

On the other hand, I still remember my HP-67. I had to recharge its batteries for 14 hours -- and then the charge lasted only 3 hours (without using the card reader).

Do yourself a favor and use non-rechargeable batteries on your 41CX.

Just my 2Â¢.

-Ernie

Re: Testing an HP41CX - additional info

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 2 Aug 2003, 8:25 a.m.,*
in response to message #2 by Ernie Malaga

Hi Ben, Ernie;

just to add a few additonal info to Ernie's good advices.

About polarity: looking at the back, LCD in the upper side, the leftomst golden contact is the negative one (closer to the square hole used by the charger connector) and the rightmost is the positive: use ONLY 4.8 to 6.2 Vcc external power source. You should not care for the mid ones: they just close the circuit and are not used internaly.

I built a 6Vcc power source with a set of D-side alkaline batteries that I use when reading cards, barcoded data or IR output. Otherwise, I keep standard N-cells inside.

I agree with Ernie that alkalines are actually a good choice, but I still think that when you use extra power-consuming devices, a set of rechargeable would be fine. My thoughts. Anyway, I think that charging batteries for 14 hours and using the equipment for three, four hours tops, is something weird.

I've been using an HP71B with a set of four NiCad and I have other four always charged. I've been using the first set for more than one month and they are running fine, no Low Batt indication so far.

Add 2¢ to Ernie's contribution from my pockets.

Best regards.

Luzi (Brazil)

Re: Testing an HP41CX - yet more info

*Message #4 Posted by **Randy Sloyer** on 2 Aug 2003, 10:01 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Yes, there is circuitry inside the pack, a basic rectifier with current and voltage limiting devices.

The charger input to the pack is 8 VAC, 3VA max. I would recommend charging the pack outside the calculator so you can monitor battery voltage to see if the pack is any good. Connect the AC source to the two side pins and watch what happens on the battery terminals. Voltage that never rises is a shorted pack, voltage that immediately rises to 4 volts and above is an open pack.

While Ernie's suggestion of using alkaline N cells is good, you'll find it an almost impossible task to locate a battery holder. The best method is to buy the cheapest dead 41C you can find on eBay with a holder. You'll still pay at least $40 though. Average price these days is $50 to $60 for a decent shape unit. You can resell the remaining bits and recover maybe $20-$30.

All my rechargeable 82120A packs have been rebuilt with Gold Peak 160 mah 1/3 AAA nickel-metal-hydride cells. They run forever since they have almost three times the capacity of the original ni-cads. http://www.tnrtechnical.com/ in Florida will rebuild your pack for $15 plus shipping. I buy replacement cells from them welded up in the proper orientation and rebuild my own. Takes some patience to split the case open, but it can be done very cleanly with a single-edge razor blade.

Beware of using alligator clips on the gold battery terminals (actually, don't do it), it is a flexible film and will tear. Clip onto a ball of crumpled tin foil and tape in place for testing. There is no current draw to speak of (< 100 ua) so the contact force need not be very high. Only when using accessories does the

power go up.

Edited: 2 Aug 2003, 10:07 a.m.

Re: Testing an HP41CX - additional info

*Message #5 Posted by **Gordon Dyer** on 2 Aug 2003, 10:03 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

You should all try NiMH batteries instead of NiCd. I find they are well worth the extra money for longer life and they are rechargeable.

Thank you! It works!

*Message #6 Posted by **Ben Moss** on 2 Aug 2003, 5:12 p.m.,*
in response to message #1 by Ben Moss

The calculator gives a "Memory Lost" message when I turn it on, so all is good.

The NiCd pack charged to 3.1 volts, so I cracked open the case and found the two dead cells. After "zapping" the cells with a couple of amps the battery pack was at close to 6 volts. It doesn't hold a charge for long, so it will have to be rebuilt, but at least I know the calculator works.

Again, thank you for the help. Regards, -Ben Moss

Re: Thank you! It works!

*Message #7 Posted by **David Smith** on 4 Aug 2003, 4:16 p.m.,*
in response to message #6 by Ben Moss

The 1/2N cells in the pack were only made by Sanyo. They stopped building them a few years back and are just about impossible to find anymore. Possible replacements are 1/3AAA cells. Nicads have less capacity than the originals. NiMH cells can be hard to find in 1/3AAA. Also the 1/3AAA cells will require some shimming because they are a bit smaller than the 1/2N.

Gold Peak does make a 1/2N NiMH cell, but you have to buy 1500 of them. I have never found a distributor of smaller quantities.

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HP 37E repair.

*Message #1 Posted by **Harry (Germany)** on 1 Aug 2003, 6:44 p.m.*

Help, I need help!!
Ok, I don't really deserve help, as what I have done is just too stupid, but anyway...
I am still trying to fix this HP37E. And now I got that 32E for parts (Thanks Stephan!!). So I started working on it again. And.....I droped the chips out of the frame. I had numbered them before, but it came of when I used alcohol to clean the contacts. :(
Now I am not really sure wich chip goes where and wich way round.
Does anyone have a picture handy? What I *think* is correct is this:
The big chip is inserted so I can see the "AMI" at the bottom-end (opposit of the LEDs) of the calculator. Then one silver chip to the top (towards LEDs). This one is missing one pin, the pin that is on the top left (towards LEDs and towards calculator middle). The other silver Chip is the one at the bottom-end, looks the same, has also one missing Pin pointing in the same direction.
I am pretty sure about the silver ones, as I can see where there is no mark on the flexible circuit-board from the missing pin. Are those chips both the same?
In the middle of the two silver ones, there is a little black one. I placed it, so that the hp logo points to the top (LED side) of the calculator. Just like the logos on the silver chips do.

Sorry for beeing that stupid... And thanks for your help.

Regards,
Harry

Stop worrying (whats the correct spelling?)

*Message #2 Posted by **Harry (Germany)** on 1 Aug 2003, 9:30 p.m.,*
in response to message #1 by Harry (Germany)

I figured I can make a working 32E out of the parts too. And that is what I did. It is working now. All I have left to do is make a nice faceplate for it now. Any suggestions on how to do that? The one I have is worn out. I would like to paint i black (its kinda grey now), but how do I get the legends on then?

Regars,
Harry

PS: Stephan, you get more then one beer now, most of the parts in the calculator were good.

IC numbers???

*Message #3 Posted by **Jon** on 2 Aug 2003, 9:05 a.m.,*
in response to message #2 by Harry (Germany)

Please make me know the id number of each chip and I will try to say its position.

Cheers

Jon

Re: IC numbers???

*Message #4 Posted by **Harry (Germany)** on 2 Aug 2003, 5:40 p.m.,*
in response to message #3 by Jon

All I can read is the little black one. It says: IMA?0008 SGP791028. The others are not readable anymore. (This was the same before I used alcohol to clean the contacts)

Regards, Harry

Re: IC numbers???

*Message #5 Posted by **Jon** on 2 Aug 2003, 6:21 p.m.,*
in response to message #4 by Harry (Germany)

Ok: According to one HP-37E I repaired long time ago. The position of the chips was. The closest to the display was 00031, the second hadn´t any readable id, and the third was 1MA10008. So that chip should be the last one. With the other two, just test.

I think this can help you.

Best Regards

Jon

Re: IC numbers???

*Message #6 Posted by **Harry(Germany)** on 3 Aug 2003, 7:13 a.m.,*
in response to message #5 by Jon

Thanks Jon

Re: IC numbers???

*Message #7 Posted by **Harry(Germany)** on 3 Aug 2003, 7:13 a.m.,*
in response to message #5 by Jon

Thanks Jon

All 8-pin chips are in paralell

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 3 Aug 2003, 10:46 a.m.,*
in response to message #2 by Harry (Germany)

Hi, Harry;

if you look at Spice's mainboard layout you'll see that all 8-pin chips are in paralell with each other, say, pins with the same "number" (position) in all of them are connected together with each other. The only exception goes for the C-type models (33C, 34C and 38C), where the upper IC has a separate connection for pin # 8. This is the position where the RAM chip must go. As you have an HP37E, pin # 8 of the first IC is connected with the others as well.

All you need to do is align the IC's in a way that pin # 1 of each chip points to the upper part of the calculator, the LED assembly part, and everything should goes fine. You may check for yourself and you'll

see all of the pins are connected to the same cooper trails.

Success.

Luiz (Brazil)

Edited: 3 Aug 2003, 10:48 a.m.

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MY HP-67 CARD READER AGAIN

*Message #1 Posted by **Jon** on 1 Aug 2003, 3:19 p.m.*

Long time ago I posted the problem I had with the HP-67. It writes but doesn´t read. The problem should be a capacitor. But this unit hasn´t the capacitors described normally. It has three silver cylindrical capacitors in the card reader circuit. So I decided to replace all of them for tantalum capacitors. I have seen they are 22uF, 22uF and 15uF. But once re-assembled nothing changes. It writes but doesn´t read. Any idea???

Thanks in advance

Jon

Re: MY HP-67 CARD READER AGAIN

*Message #2 Posted by **Vieira, Luiz C.** on 1 Aug 2003, 4:56 p.m.,*
in response to message #1 by Jon

Hi, Jon;

once we had a problem in one 82104A, the HP41 card reader (belongs to Gordon Dyer), that was detected as being the magnetic head with an open circuit, one of the coils had a broken wire. I am not sure of what procedure was taken by Gordon to identify the problem, but if one of the wires measures too high resistence to any of the other four, then you found it.

I'd guess an operational amplifier could be the "bad guy", but I do not know the card reader's circuit. I have an HP97 and if I am not wrong, the card reader in both of them is slightly different. What I can tell is that depending on the analog parts of the circuit, you may have an operational amplifier that works fine in a pre-defined gain and current conssumption (e.g. recording) and cannot keep the expected performance in another situation (e.g. reading).

Anyway, based on previous posts, I am taking a lot of care not inducting owner's to search for problems that are hard to be the cause, so I'd also suggest searching for bad contacts, head cleaning, contact strips alignment...

Oh, yes, in time: when I received the HP97 I have it was not able to read or write. At the moment it was switched to ON the card reader's pulling motor started to work and after about three to four seconds it stopped. I checked to see that all metal strips were in contact with their equivalent tabs, as if there was a card already inserted when it was switched to ON. I saw three screws above the metal strips and I adjusted them in a way the strips were close enough to their tabs without touching them. Since then it works perfectly fine, all functional. I don't think this is the same that happens with yours, but you see: the problem was much more simple than short circuited motor drivers, bad connections, controllers, etc. Only adjustment.

Hope you succeed repairing it.

Luiz (Brazil)

Edited: 1 Aug 2003, 4:59 p.m.

Re: MY HP-67 CARD READER AGAIN

*Message #3 Posted by **Gordon Dyer** on 1 Aug 2003, 8:05 p.m.,*
in response to message #2 by Vieira, Luiz C.

You are right Luiz. My card reader had an open circuit coil.
The coil connections are:
Red - Yellow is coil 1
Blue - Orange is coil 2
Black is a screen

You should measure (with a DVM) about 35-40 ohms for each coil and about 1Kohms between coils and the screen with them plugged into the circuit. If they are unplugged then you should measure open circuit between the coils and the screen on a 2Mohm range.
I am relying on memory for the values so don't think they should be accurate!

Re: MY HP-67 CARD READER AGAIN

*Message #4 Posted by **David Smith** on 2 Aug 2003, 3:56 p.m.,*
in response to message #1 by Jon

I had an 82104A reader for the HP41 that had a motor wire too close to the head. It did the same thing. Another possibility is a bad reader chip.

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Meeting

*Message #1 Posted by **Matthias** on 1 Aug 2003, 12:44 p.m.*

My PC has crashed in holiday. I will contact (post here) on august 8th....

Greetings

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HP 29C

*Message #1 Posted by **Kevin Tupes** on 1 Aug 2003, 2:39 a.m.*

I have a HP29C calculator that suddenly stopped. Where can I send it to be repaired?

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"n" function in HP 12C

*Message #1 Posted by **Luc** on 31 July 2003, 11:51 p.m.*

Hi all, Any one know why the HP 12C calculator rounds the calculated value of "n" up to the next higher integer?

Example: for a financial problem, when we solve to get the Number of Payments or Compounding Periods "n", the correct answer is n=3.1 years (just for example), but the HP 12c will answer n=4 years.

Oh, It's surprised.

And, this situation also occur on the Financial Consultant Casio FC-200.

Luc

Re: "n" function in HP 12C

*Message #2 Posted by **Gene** on 1 Aug 2003, 8:39 a.m.,*
in response to message #1 by Luc

Well, in truth, you can't make 3.1 payments in real life. The designers decided that they would report a value for n that would make sure the PV or FV had actually been reached.

In your example, after 3 payments, you haven't quite had enough put in. At 4 payments, you are beyond it. They chose to use 4 rather than 3, and didn't like the "exact" solution for n as noted above.

That said, I wish they had decided to just report the real n and let users round up. Users are not stupid, but that's something calculator designers sometimes forget.

Cheers!

Re: "n" function in HP 12C

*Message #3 Posted by **Luc** on 1 Aug 2003, 8:38 p.m.,*
in response to message #2 by Gene

Hi Gene, Are you "Gene Wright" author of some books in which is "Quantitative Analysis For Business - The Time Value of Money and Basic Business Statistics - Using a Business Calculator"book ? I saw on Amazon, but the book is expensive (as for me - Vietnamese) > 40USD.

OK, thank you for you answer !!!

But in HP 10B, it is not happen that case of "n", HP 10B give a correct answer, it same to answer og TI BAII+.

And HP 12C and Casio FC-200 gave an answer of "n" same together with round up to next interger.

cheers Luc

Edited: 1 Aug 2003, 9:06 p.m.

Re: "n" function in HP 12C

*Message #4 Posted by **Gene** on 1 Aug 2003, 10:20 p.m.,*
in response to message #3 by Luc

Yep, that's me. Sorry for the high price. I can't do a very big print run and that drives unit cost up. :-(

They implemented the solution for n differently in the HP-10B, etc. I dont' know why the HP-12c was made the way it was.

The BAII Plus is a great cheap calculator for business students. If they made a good keyboard it would be fantastic. Our university changed the recommended calculator to the TI BAII Plus last year because of the terrible HP-10BII keyboard.

Sadly, leaked pics of the new business calculators rumored to be coming appear to show the same keyboard. I hope they worked that part out.

Re: "n" function in HP 12C

*Message #5 Posted by **hugh** on 4 Aug 2003, 7:30 p.m.,*
in response to message #1 by Luc

also, the 12c has a special meaning for n input as a non-integer. the fractional part is intended for the odd payment. ie that fractional part of loans to cover the intermediate time before it starts proper.

only as input tho'.

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New HP 49 Plus

*Message #1 Posted by **Richard Garner** on 31 July 2003, 10:59 p.m.*

Hi folks.

Here is more information from the roomer mill at comp.sys.hp48 on the HP 49+.

This was said to be from a reliable source. ???

The hp49G+ 's features:

Electrical CPU: 75Mhz ARM9 Display Size:131 x 80 pixels Display type: Pixel Memory:RAM 512KB 800KB flash ROM IR Port : IrDA Serial port: USB Expansion port: SD card Power Supply: AAA x 3 + CR2032 Auto power OFF: approximately 5 minutes

Material Case: plastic Keys: plastic Size: 184.0 x 87.0 x 23.5 mm 7.2 x 3.4 x .09 in Unit weight: 220 grams 7.7 ounces

HP 49 Plus - O.S.?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 31 July 2003, 11:46 p.m.,*
in response to message #1 by Richard Garner

Hi, Richard;

thank you for the latest news!

BTW, is there any information about the O.S.? Are former ACO folks involved? I mean, did HP keep previous O.S. or the HP49G+ will extend the HP12CP's "saga"? I'm not sure if I'll "pay to know".

I prefer an Xpander than an HP49G+...

Best regards.

Luiz (Brazil)

Re: HP 49 Plus - O.S.?

*Message #3 Posted by **Richard Garner** on 1 Aug 2003, 12:38 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

The information was just posted today, July 31. There was no mention of what the OS would be. There was a mention of a photo, floating around. Requests for a link or copy of the photo by several people have been made, but nothing has been offered by the original poster other than there was a photo.

Thanks, Richard! 8^) (n.t.)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 1 Aug 2003, 9:15 a.m.,*
in response to message #3 by Richard Garner

Surprised no picture is out there yet

*Message #5 Posted by **Gene** on 1 Aug 2003, 10:44 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Since pictures of the new 17BII+ and 19BII+ have been spotted on retailer's yet to be shown pages, I'm surprised no 49G+ picture has slipped out yet.

I'm glad to see that no beta testers are leaking information (assuming as I hope that there IS beta testing), but many times something will be inadvertently posted anyway.

Re: IT'S ALL BS Marketing!

*Message #6 Posted by **Ron Ross** on 1 Aug 2003, 11:02 a.m.,*
in response to message #5 by Gene

While I know Hp will release an Hp49G+, I don't believe it will be anything close to the specs mentioned on the listed post.

Why? Because no marketing genius would let the opportunity go by to release an HP5# super something with the specs mentioned vs staying with a loser dog 49G wimpy + designation for an already labled, market LOSER image that the 49G has generated (frozen Hamster butt blue).

That is why I think the specs are BS. I think HP will release the same Hp49G with maaaybe better buttons, maaaybe a 6 MHZ Saturn (might be more, but probably not much), and a new cable (it would be nice if there were a standard USB port instead) to tie into USB vs RS-232. That is YOUR BIG +. If Hp did anything more, you could bet HP marketing would have stepped in to toute the 2nd coming. And I didn't catch that. Therefore, I conclude the previous.

P.O.J. anyway ...

*Message #7 Posted by **Norm** on 2 Aug 2003, 6:31 a.m.,*
in response to message #6 by Ron Ross

Why get excited, it will be a piece of junk anyway.

This HP-49 stuff is an attempt to build something halfway between a desktop PC running MATLAB and a handheld calculator, not useful.

HP-49 "P.O.J. anyway ..."

*Message #8 Posted by **Karl Schneider** on 2 Aug 2003, 3:11 p.m.,*
in response to message #7 by Norm

Norm wrote:

> Quote:
>
> This HP-49 stuff is an attempt to build something halfway between a desktop PC running MATLAB and a handheld calculator, not useful.

I'd agree completely with that assessment, although it's worth pointing out that an individual copy/license for Matlab costs $1900 -- more than 10x the price of a 49.

It seems that ergonomical improvements have been made and some missing HP-48 features have been added (IR, equation library), but the 49 is still quite cumbersome to use.

Let's hope at least that the obvious bugs have been fixed and the spped has been improved with the new processor.

Good point,

*Message #9 Posted by **Norm** on 2 Aug 2003, 4:56 p.m.,*
in response to message #8 by Karl Schneider

Good point, of course for many collegiate math students, copied software is free.

Re: Good point,

*Message #10 Posted by **Max** on 3 Aug 2003, 8:16 a.m.,*
in response to message #9 by Norm

If your looking at something like the HP49+ you might as well not beat around the bush - get something decent like a pocket PC and put the HP49 emulator on it and get the best of both worlds - PC and Calculator (less frustration).

Re: I don't agree

*Message #11 Posted by **Ron Ross** on 4 Aug 2003, 10:00 a.m.,*
in response to message #10 by Max

While the idea sounds good and performance for high end exotic calculations it is probably even FASTER. But what about plain old button pushing? Sorry, for general calculations (short of FFT's), simple graphs, durability and cost, I want a calculator, not a pocket PC (though, this new 49G+ is really a pocket PC loaded up with an emulator as you just suggested, BUT it comes in a Calculator package).

I may even like it (though, I will have to see it to believe it! and if the buttons SUCK, well, I won't have to say more).

Re: Good point,

*Message #12 Posted by **Håkan Thörngren** on 5 Aug 2003, 10:49 a.m.,*
in response to message #10 by Max

There is nothing more frustrating than trying to use a PC. They should be banned forever.

I hope the hp49g+ gets quality keys, though I see it still lacks a real ENTER key where I want it... sigh... I might get used to it, if that is the only downside with it.

Re: New HP 49 Plus (Photo)

*Message #13 Posted by **Richard Garner** on 2 Aug 2003, 11:40 a.m.,*
in response to message #1 by Richard Garner

I guess the rumors are true of what is to be the new HP 49G+.

Here is the link: http://www.hpcalc.org/hp49gplus.php

excellent link Richard,

*Message #14 Posted by **NH** on 2 Aug 2003, 1:23 p.m.,*
in response to message #13 by Richard Garner

excellent link Richard,

thank you for posting it.

Most interesting feature in the review..... plastic casing with metal paint finish..... surely that could not be that same finish that rubs off in everyday usage ? exposing the molded plastic underneath ???

Well, the only purpose of a business is to make money, and to create maximum equity for shareholders.

Therefore, I approve of the decision to use a disposable finish that will pi$$ off every customer who buys one. It will add wealth to the corporation.

Re: excellent link Richard,

*Message #15 Posted by **Scott** on 2 Aug 2003, 8:20 p.m.,*
in response to message #14 by NH

Thanks Richard for posting this info - you're the greatest. But if the machine doesn't have the all important mandatory trademark CLICK-STOP keys that blazed their way to notoriety with the universe famous HP35, then I'm afraid this will be a major disappointment to all true HP fanatics like myself. No matter how great this machine is, I wouldn't consider buying any HP unless the CLICK-STOP keys are present.

Re: New HP 49 Plus (Photo)

*Message #16 Posted by **Les Bell [Sydney]** on 2 Aug 2003, 8:24 p.m.,*
in response to message #13 by Richard Garner

Dammit! The Enter key is still too small and in the wrong place.

I'll be interested to see what the 48GII looks like - if it's a bit more RPN-friendly it might be worth considering, although I doubt it would offer enough to make me upgrade from my current 48GX - only to perhaps replace it if the GX died.

Best,

--- Les [http://www.lesbell.com.au]

Re: New HP 49 Plus (Photo)

*Message #17 Posted by **Wayne Brown** on 3 Aug 2003, 10:04 a.m.,*
in response to message #13 by Richard Garner

It appears to be at least *marginally* less ugly than the 49G, though it's still pretty bad, and it still doesn't

have a decent **ENTER** key. At least it looks less video-game-ish than the 49G, so it wouldn't be *quite* as embarassing if my colleagues saw me with it...

HP Listening to Customers Again?

*Message #18 Posted by **Paul Brogger** on 4 Aug 2003, 7:23 p.m.,*
in response to message #13 by Richard Garner

The many reported improvements (most notably, I think, the plastic keys) over the 49g suggest that HP is actually listening to customers and users. What a business model!

I may just find some excuse to buy one, despite the lack of a "proper" ENTER key.

Re: HP Listening to Customers Again?

*Message #19 Posted by **Raymond Del Tondo** on 4 Aug 2003, 8:46 p.m.,*
in response to message #18 by Paul Brogger

Let's wait for the 48GII. At least in theory it should have the correct ENTER bar...

Raymond

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HP41CV gone crazy...

*Message #1 Posted by **Marx Pio** on 31 July 2003, 10:14 p.m.*

Hi all

I turned on my beloved fullnut 41 and it started to show ones and fours by itself...Turned off an on again...and it started to scream its name again(41!). Now its ok. but does anybody here believes in digital ghosts that screams 4's and 1's using an old body of an 41??

Luiz ma brother(Tá tudo bem mano??)

Marx Pio

Re: HP41CV gone crazy... (edited 2 times)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 31 July 2003, 10:47 p.m.,*
in response to message #1 by Marx Pio

Tamo aqui!

Long time, no... read!

Man, that's completely awesome! I never heard about this before... But Amazonas has a lot of ghosts, doesn't it? The famous Boto and other jungle creatures... Have you been to the jungle for these days? Just kidding... I'd suggest checking the keyboard for humidity (and you know it's not hard to happen where you are) OR static discharges, if you are in "dried" regions. Keep in mind taht both keys share the same collumn electric contact. In time: your HP41CV, is it a half- or fullnut?

Nice reading your posts again. Keep close! (some não, meo)

I wish I could help a bit more...

Best regards.

Luiz Cláudio

Edited: 31 July 2003, 10:52 p.m.

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HP-97 Power Supply

*Message #1 Posted by **Gordon Dyer** on 31 July 2003, 7:07 p.m.*

I have just got an HP-97 but without power supply.
It has a battery pack fitted.
My HP-71 PSU plug fits and I know it needs ac like the 71 but is it the same voltage?

Re: HP-9x Power Supply

*Message #2 Posted by **Raymond Del Tondo** on 31 July 2003, 7:19 p.m.,*
in response to message #1 by Gordon Dyer

Hi,

HP used the nearly the same standard wall adapter for many machines.

My HP-91 desktop calc came with an 82031A adapter, some of my other machines came with the 82066B adapter.

They both have 8 volts output at 3VA alternating current, so no difference from the electrical side. However, the 82031A plug for the calc has a somewhat different housing, but both adapters fit and work with the HP-91. The 82031A won't fit into an HP 82161A, for example, because the plug housing fits exactly to the HP-9x machines.

Regards,

Raymond

Re: HP-9x Power Supply

*Message #3 Posted by **Gordon Dyer** on 31 July 2003, 7:28 p.m.,*
in response to message #2 by Raymond Del Tondo

Thanks for the help, it is as I suspected, but I wanted confirmation before switching it on!
However the HP-97 seems dead, so I opened it and tested the voltages the main power rails on the output of the regulator went down to zero when I switched the on switch.
Seems as if something is shorting the power rails. I will investigate further....

Re: HP-9x Power Supply

*Message #4 Posted by **Tony Duell (UK)** on 1 Aug 2003, 1:49 p.m.,*
in response to message #3 by Gordon Dyer

The HP97 (certainly, maybe other Topcats too -- I know for a fact the 95C has this) has a circuit to load the AC adapter should the 'battery' voltage attempt to exceed the main +ve supply rail voltage. This is designed to protect the machine if the battery pack goes open-circuit, preventing the sort of damage that's all too common in Woodstocks. If the DC-DC converter circuit fails (this is often due to

a failure of the oscillator transisotor on the CPU board), then this circuit will attempt to pull the battery voltage down to zero. I've seen one draw over 1A from my bench PSU when this happened. As others have mentioned, the HP97 service manual is on the MoHPC CD-ROMs. And my experience suggests a 2N3904 is a suitable transistor to use in the DC-DC converter.

Re: HP-9x Power Supply

*Message #5 Posted by **Gordon Dyer** on 1 Aug 2003, 2:52 p.m.,*
in response to message #4 by Tony Duell (UK)

Thanks for the suggestions, I am investigating....

Re: HP-97 Power Supply

*Message #6 Posted by **David Smith** on 1 Aug 2003, 1:02 p.m.,*
in response to message #1 by Gordon Dyer

The universal 82059 plug goes with the HP97, etc.

The HPMUSEUM CDROM set has the HP97 service manual. There are a few common HP97 power supply problems. The power supply is on the display circuit board. Most problems start with a fried power resistor and can cascade into failure of three or four transistors.

Re: HP-97 Power Supply

*Message #7 Posted by **Gordon Dyer** on 1 Aug 2003, 3:31 p.m.,*
in response to message #6 by David Smith

I have an older set from last year without the HP-97 service manual, maybe I will have to invest in a new set...
Can you tell me the PSU spec from the service manual? Photos I have seen show a much larger PSU than the HP-71 so maybe I need more power...

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HP-35 production lot

Message #1 Posted by on 31 July 2003, 5:20 p.m.

Does anybody know how many of each HP-35 version (1 to 4) were produced?

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HP-9120A belt

*Message #1 Posted by **David Smith** on 31 July 2003, 4:52 p.m.*

Does anybody out there in HP land have the specs for the HP9120 printer for the 9100A/B calculator.

My measurements seem to indicate that it is 196 teeth, 0.08 inch pitch, 0.2 inches wide. But it was pretty far gone to be sure.

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Cheap 41CV on eBay

*Message #1 Posted by **gifron** on 31 July 2003, 4:18 p.m.*

Anyone need a cheap 41CV? "The unit is in good to great cosmetic condition with a small scratch here or there. All buttons, knobs, and switches are good and intact." I thought about buying it for parts, but I think the pictures tell the real story though.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3037467864&category=11713&rd=1

Re: Cheap 41CV on eBay

*Message #2 Posted by **Michael Meyer** on 31 July 2003, 7:30 p.m.,*
in response to message #1 by gifron

That reminds me... I need to go clean the knobs on my collection.... wouldn't want to catch something from a dirty knob!

(Now, once again... the knobs are... where?)

Re: Cheap 41CV on eBay

*Message #3 Posted by **Ellis Easley** on 1 Aug 2003, 8:53 a.m.,*
in response to message #2 by Michael Meyer

I bought a few things from that guy and he seems OK to me. He sells mostly test equipment and I think that text including "knobs" is a little boilerplate that he's used to putting in every auction listing.

Re: Cheap 41CV on eBay

*Message #4 Posted by **David Smith** on 1 Aug 2003, 1:05 p.m.,*
in response to message #3 by Ellis Easley

He does have quite a bit of negative feedback. I have bought a couple things from him before without too much problems. I know some others who thought that item condition was greatly overstated. I think the picture tells the story.

Re: Cheap 41CV on eBay

*Message #5 Posted by **Randy Smith** on 1 Aug 2003, 4:37 p.m.,*
in response to message #1 by gifron

That thing looked positively scary! Good to great cosmetic condition. I would hate to see poor cosmetic condition from this bidder. But at least he didn't have a pic of a museum calc on his auction.

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HP-41 programming question

*Message #1 Posted by **Axel Poqué** on 31 July 2003, 9:31 a.m.*

I'm writing a little program to time the performance of other programs. I figured that the easiest way would be to place the name of the program to time in the alpha register and then start the timing program which would do the following:

```
...           ; start stopwatch
asto T        ; uses T since I want to preserve X
xeq  ind T
...           ; stop watch and display time
```

Is this the right way to do it or is there another possibility (one that doesn't use a stack register)? My documentation is at home so I can't look it up now.

Axel

Re: HP-41 programming question

*Message #2 Posted by **Werner Huysegoms** on 31 July 2003, 10:12 a.m.,*
in response to message #1 by Axel Poqué

```
I use L for it
  ASTO L
  XEQ IND L


Werner
```

Re: HP-41 programming question

*Message #3 Posted by **Axel Poqué** on 31 July 2003, 10:16 a.m.,*
in response to message #2 by Werner Huysegoms

So it's OK to do it this way? And you're right, using L doesn't disturb the stack at all (should have thought of that).

Thanks,
Axel

Edited: 31 July 2003, 10:17 a.m.

Re: HP-41 programming question

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 31 July 2003, 10:21 a.m.,*
in response to message #1 by Axel Poqué

Hi, Axel;

you know, when I bought my HP41CX I began doing time measures for whatever I thought relevant as internal

resources. I once programmend the following:

```
...
RUNSW
XEQ "PR1"
STOPSW
...
END
LBL "PR1"
END
```

This was just to start: time to jump to a program and return. Tehn I added these modifications:

```
...
RUNSW
XEQ "PR1"
...
END
LBL "PR1"
STOPSW
END
```

and

```
...
XEQ "PR1"
STOPSW
...
END
LBL "PR1"
RUNSW
END
```

so I could measure the jumping and return time separately. I also did this:

```
...
RUNSW
LBL "PR1"
STOPSW
...
```

to measure the LBL instruction time. And:

```
...
RUNSW
STOPSW
...
```

for the system time spent since the stopwatch was started and stopped. All of these measures were repeated 10 and 20 times for average and I have them annotated somewhere. As you seem to be in a hurry, I decided to pass you the hint.

If the program to be measured cannot be changed, then te way you describe seems the best one. Anyway, a first measure with a blank LBL"name"END just to capture the jumping ang return would give you some more info. But if you have the chance to change the program to be measure, try this:

```
LBL"MEAS"
CLX
STOPSW
SETSW
RUNSW
LBL"PRG1"
....
(last program step - cannot be STOP or END or RTN)
STOPSW
...
END
```

where PRG1 is the program to be measured and MEAS is the name I gave to the measuring program additional part. This would also give you the chance to measure PRG1 execution time. The only fact is that you cannot add a STOP, or RTN or END in your original program because you still need the clock running. The

other way would be:

```
LBL"MEAS"
CLX
STOPSW
SETSW
RUNSW
XEQ"PRG1"
STOPSW
...
STOP
LBL"PRG1"
....
END
```

As you are aware of the initial jumping time and pre-measuring, after you compute the basic program execution time you just compensate the values.

I hope this is something close to what you have in mind. If not, I'm sorry not helping you the way you want.

Best regards.

Luiz (Brazil)

Edited: 31 July 2003, 10:25 a.m.

Oops! Far from you question...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 31 July 2003, 10:28 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi, Axel;

I'm sorry if I added so much information to your question. After reading Werner's posts and your reply I understood I was far from your request. Maybe you are aware of what I wrote.

If you believe what I wrote is irrelevant, please, let me know, so I'll remove my post. If you believe it is of any help, that's better.

Best regards.

Luiz (Brazil)

Re: HP-41 programming question

*Message #6 Posted by **Axel Poqué** on 31 July 2003, 10:36 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Thanks for your ideas, Luiz.

Since I want to compare different versions of a program to find the optimal way to do it, the overhead of calling the program doesn't matter.

BTW, is there a table somewhere giving the timing of different instructions? Has someone already done this? Or I might just do one myself (I'm on holiday the next 3 weeks, so I've got plenty of time).

Axel

Re: HP-41 programming question

*Message #7 Posted by **hugh** on 31 July 2003, 12:12 p.m.,*
in response to message #6 by Axel Poqué

in terms of instruction timings, i would expect branches to have a sensitive effect. according to the 41c docs, it scans forward to find a local jump destination (lbl 00-lbl14) until END, then wraps to the program start. this would make forward jumps quicker than backward ones.

also, it claims to cache the destinations for 00-14 unless they are over 112 bytes away. im not sure whether it caches labels 15+ (which are 1 extra byte).

Re: HP-41 programming question (edited)

*Message #8 Posted by **Vieira, Luiz C.** on 31 July 2003, 12:26 p.m.,*
in response to message #7 by hugh

Hi, Hugh;

as you mention, all jump destinations are recorded except when calls ment to "short" are used for longer than expected. In this case, computed distance is not recorded and everytime a GTO or XEQ is found, it is computed again.

LBL 15 to 99, LBL "A" to "J" and "a" to "e" may be used for longer calls (I don't remember how far they can be from the related XEQ or GTO), and global labels may be anywhere in main memory that their distance to XEQ and GTO is always saved.

About timming each instruction: I have some relevant measures and as I find my notes I'm postiing them.

My 2¢.

Luiz (Brazil)

Edited: 31 July 2003, 11:49 p.m.

Re: HP-41 programming question (edited)

*Message #9 Posted by **Johnny Billquist** on 5 Aug 2003, 7:51 a.m.,*
in response to message #8 by Vieira, Luiz C.

All local labels can be at any distance. A linear search is made from the jump to the end of the program, and then from the start up to the jump, until the label is found.

GTO and XEQ for labels 00 to 14 save the relative address in the jump instruction so that the jump can be executed faster in the future. But this has a limit on the distance. They always work, but the relative address is only saved if the distance isn't too long. Longer distances will be just the same as jumps to any other label. GTO IND and XEQ IND will (obiovusly) not save the relative address of the label at any time. Also, as soon as you modify a program, all the saved relative addresses are deleted, so that a new computation will occur the next time you run.

Speaking of distances, my memory seems to have some vague notion of a bug in the early C version, where a program could get into problems if it was too large (over 1000 steps perhaps?).

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Enron Hewlett Packard Finan Calculator HP-12C

*Message #1 Posted by **Howard** on 31 July 2003, 7:02 a.m.*

I wonder if this the financial calculator that was used to do all the damage. Its historical value will most probably be greater than its item value. http://cgi.netscape.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3038614791&category=11712

seems like a gimmick

*Message #2 Posted by **Norm** on 31 July 2003, 1:18 p.m.,*
in response to message #1 by Howard

seems like a gimmick because he probably just stuck the logo onto there.

Even so, that trick might fetch a few extra bucks, maybe from some financial person who has admiration for Enron and its officials.

If it is a REAL Enron calculator, there should be some alligator teeth marks in the plastic.

Re: seems like a gimmick

*Message #3 Posted by **David Smith** on 31 July 2003, 4:17 p.m.,*
in response to message #2 by Norm

These are legit machines. Enron issued them to a lot of their people. I have seen them with and without the "Crooked E" on the machine and/or case. I suspect you need the logo on both to be truly legit. They seldom seem to sell for more than normal machines these days.

Re: Enron Hewlett Packard Finan Calculator HP-12C

*Message #4 Posted by **Valhalla** on 31 July 2003, 4:49 p.m.,*
in response to message #1 by Howard

Enron??? Damage??? What are you talking about?? What does enron mean?? Does it make the calc better or something?? One last thing, used to cause what damage??

Just curious.

"|V\a.l/h\a.l/l\a.|"

Re: Enron Hewlett Packard Finan Calculator HP-12C

*Message #5 Posted by **Raymond Del Tondo** on 31 July 2003, 7:26 p.m.,*
in response to message #4 by Valhalla

Hi,

do a google search for enron, then you'll see.

Enron was one of those companies which didn't know how to correctly calculate. Seems they didn't use their E12C's very much;-)

Raymond

On the contrary, Enron calculated flawlessly

*Message #6 Posted by **Norm** on 1 Aug 2003, 3:08 a.m.,*
in response to message #5 by Raymond Del Tondo

On the contrary, Enron DID know how to calculate correctly.

It was a perfect model of business management, something that other business leaders (and the lowly engineering community) should study and learn from.

Enron created maximum equity for the shareholders, exactly according to mandatory guiding gospel of the MBA community.

All you had to do was sell your shares near the market high, when the equity value had reached maximum. And if you didn't then that's your problem.

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hp41c negative battery

*Message #1 Posted by **hugh steers** on 31 July 2003, 6:10 a.m.*

i have acquired a 41c in which the batteries were old and tired, but not leaky. the unit would power up with BAT for a short time only. i put in new batteries and it works fine (new N-cells appear to be 1.4v which is odd).

out of interest i tested the voltage of the old cells. three read out 1.2v and one -0.3v (yes negative). is this just a figment of my test meter's imagination. ie no current, or is it likely for one cell to be hammered more than the others.

just curious?

Re: hp41c negative battery

*Message #2 Posted by **Wayne Brown** on 31 July 2003, 9:02 a.m.,*
in response to message #1 by hugh steers

Yes, that's quite possible. When batteries get low on charge, minor differences in manufacturing cause some batteries to run completely out faster than others. If one goes completely dead then the others that still have a little charge will begin to "reverse-charge" the dead one. That's why you always should replace all the batteries at the same time with fresh ones. Mixing old and new batteries can produce a situation where a significant portion of the new batteries' power is going to reverse-charge the old ones, causing the overall voltage to drop (perhaps lower than the device's requirements) as well as shortening the life of the new batteries.

This is a major cause of death for NiCd battery packs. Letting the pack run all the way down can produce this reverse-charging situation in one or more cells, causing damage to those cells. Often a dead NiCd pack will have several perfectly good cells and one bad one.

Re: hp41c negative battery

*Message #3 Posted by **hugh** on 31 July 2003, 12:04 p.m.,*
in response to message #2 by Wayne Brown

thanks wayne, that makes good sense.

Re: hp41c negative battery

*Message #4 Posted by **Matthias** on 2 Aug 2003, 4:17 a.m.,*
in response to message #1 by hugh steers

In addition to the good explanation Wayne gave, let me tell you, that in most of the cases you can revive this cell by using a charged polarized capacitor which you connect (pos to pos and neg to neg, of course) to the (isolated!) battery. The strong but very short current should remind the cell of its original polarity.

Matthias

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Display for the HP-15C

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 30 July 2003, 11:58 p.m.*

A friend of mine have a HP-15C with its display "broken" (a large dark "blob" on the right corner). Its serial is #2628B92723. It passes on self test, but the display is a mess.

What I need to know if I can replace the display with one from any HP-12C or if HP still repairs it (I think not...)

I have scanned the interior, and it is very different of those I already know. Is just one big golden PCB with keyboard and display on one side and three ICs on the other side, no rubber cover, and just one spring on the battery compartment.

If any of you are interested I can send the pictures.

Regards,

Nelson

Re: Display for the HP-15C

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 31 July 2003, 1:05 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Hello, Nelson;

I repaired many Voyagers, and the new HP12C's have a different alignment for the LCD contact pads. The eariler units, when all of them were still under production, had a different number of pads in both upper and lower LCD frames. The newer HP12C, even the Indonesian units with three 1.5V batteries, have a new LCD with equaly spaced contact tabs that's incompatible with the earlier units.

I once mentioned here that we may probably have hundreds of thousands of earlier HP12C's carcass spread around the world that still have usable battery cover, LCD, case and internals (the keyboard scanner chip is the same for all Voyagers) because new units were available for sale and have probably replaced almost all broken units. This is not true for the other models, mostly the HP11C and HP15C.

If I have a spare LCD I'd gladly send you. Should we find old HP12C's, their LCDs' will surely be of use.

Best regards. Inté.

Luiz Cláudio

Edited: 31 July 2003, 1:59 a.m.

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HP42S: scary moments

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 30 July 2003, 7:57 p.m.*

Hi, all;

again, one new episode of the not-so-unknown Scary Moments.

This time with an HP42S.

Yesterday I was reviving some healthy memories form the time I was a newcomer in the world of the HP42S and I took the previously mentioned Load Flow program in order to verify some storage techniques when dealing with indexed matrices. I remember that when I bought my NIB HP42S (still deceased) and I began to deal with it, I already had an HP28S, an HP15C and an HP41CX, amongst a few others. I also remembered that I took the HP42S as the easiest and most powerful "numeric" calculator. In time: I do not compare a numeric to a symbolic calculator as a whole because there is no way to balance their resources in a fair way.

Well, this is not the subject and, after being corrected once (thanks, Valentin), I'm actually "loosing focus".

I got the HP42S I recently took with the others after cordial and friendly arrangements (hey, R.L.A.) and switch it ON. I created a [100 × 1 Matrix] , pressed [ENTER], [SHIFT][COMPLEX] and while the busy indicator flashes, the low battery indicator turn itself ON, also. "New batteries, please!" I thought. At last, there it was: [100 × 1 Cpx Matrix] and the low battery indicator still ON. I decided to remove the MATRIX menu by pressing [EXIT] ([ON]) and then I store the complex matrix in DT ([STO][ALPHA] DT [ENTER]). Then the nightmare begins: Freddy Kruger and Jason in my back looking at the HP42S vanishing the display and... resting in peace?

New batteries, no batteries for a night, new batteries, shorting batteries connector... Cutter, hands, fingers... Back case removed and let's inspect. As I had an extra 32KRAM chip waiting for the chance to become something more than a number, I removed the original RAM in this HP42S and transplanted it. I did not think that it would put it back to work, but if it returned from the dead, then it would be back as an HP42S+.

I decided to inspect components and I saw a suspicious SMD that seemed to be a capacitor: no polarity marks and a somehow revealing inscription: 102K. I took 102 as 10E2 pF, or 1000 pF or 1KpF or 1nF. What called my attention was the fact that the soldering terminals were too "recessed", meaning it was easy to see a considerable space between the component body and its terminals. I re-soldered it and nothing. I re-soldered the terminals of all remaining components and nothing. I removed the mainboard and added a strip of tape between the foam and the keyboard "sheet" to increase pressure and enhance contacts, but nothing. I was about to give up when I remember that I'm the first one to insist with others not to give up. Then I thought with myself: "Are you a man or a rat?" It took me a couple of minutes till I realize there would be no answer, so I decide to move on. I removed the suspicious capacitor and measure it: nothing! Great! Let me take another capacitor and solder it in place. I searched for another SMD capacitor and the one I found that was closed to 1nF (1n2) was too small and tinny. Well, the HP42S is a 4.5V designed calculator, why using capacitor with a lot bigger isolation voltage? Something was not right. Then I decided to take extreme measures: I used the soldering iron and pressed both terminals till they could touch the body's surface, as I thought they should be. Then I decided to measure it again: I did not understand the reading, one thousand times the one I thought it should be: 1µF. So, I should read 102K as 10E2 × K = 1000Kpf = 1µf. Interesting!

Best regards.

Luiz (Brazil)

Oh, yes, the HP42S? Now it is a working HP42S+, thanks! And please, don't ask me to explain what happened... I'm still collecting my brain, spread around the room.

Edited: 30 July 2003, 8:03 p.m.

Re: HP42S: scary moments

*Message #2 Posted by **Randy Sloyer** on 1 Aug 2003, 12:02 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

The typically blue part marked 102J, above and to the right of the crystal is an inductor. It is part of the step up voltage converter for the LCD display. I believe it is 1000 uh, it measures about 27 ohms.

I've never seen a bad one but it is likely to have fractured solder connections as it is high enough to come in contact with the back esd shield. This means any mechanical shock of the case in that area will land on the solder connections. Check the esd shield for signs of transfer imprinting due to impact. I've seen many a 100uf tantalum memory backup capacitor broken off and rattling around inside the case from the same cause.

An inductor!!!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 1 Aug 2003, 9:23 a.m.,*
in response to message #2 by Randy Sloyer

Hi, Randy;

thank you very much.

After what you post, I'm somehow worried. This means that, in fact, the component was still opened when I measured it, what explains the "remaining" capacitance. When I soldered it in place maybe the extra heating finaly closed the internal broken solder, otherwise the calculator would not be working as it is (passed 24 hours).

I'll check if there is any mark in the ESD protection. But I'll first try to find an inductor with this value. 1KµH or 1KnH?

Thank you very much.

Luiz (Brazil)

Re: An inductor!!!

*Message #4 Posted by **Randy Sloyer** on 1 Aug 2003, 11:01 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I don't know the value from the marking. I could just mail you one, send me an email, I lost yours.

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damaged hp?

*Message #1 Posted by **seth hendren** on 30 July 2003, 2:32 p.m.*

Hello to all!!

This morning i spilled coffee on my hp. i immediately turned it upside down to drain. i then went and got a wet paper towel and wiped the outside off. I thought that i should try to take the top cover off to clean under the keys but i was unable to do so. when i turned the calculator back on i got the great message asking if i wanted to try to recover the memory. when i hit the button it didn't do anything. the only button that seemed to work was the on button. i tried resetting the calculator using a paper clip under the rubber stopper on the back. when i turned it back on the buttons still didn't work. HELP!!!!!!

Re: damaged hp?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 30 July 2003, 3:06 p.m.,*
in response to message #1 by seth hendren

Hi, Seth;

you have which HP48? Or it's an HP49?

In any case, I read here that clear and neutral water is the only way. If you spilled coffe closer the the area between the display and the keyboard, it's exactly where the keyboard connects to the mainboard. Any substance that is "inserted" between both the keyboard "sheets" and the mainboard contact pads will cause problems.

As it is coffe, opening the calculator and removing the mainboard for a cleaning procedure is the most efficient way, but it is actualy the hardest. There are many procedures to open an HP48 and some of them are already described at www.hpcalc.org. I do not knwo exactly where in this site are these procedures available to download, but other contributors will help you better.

I have done it a couple of times and I succeed. In one of them the keyboard "sheet" had its trails "destroyed" by battery leakage and it was not responding to key presses anylonger. As the mainboard was fine, using a "donated" "sheet" recovered the calculator.

If you want to use water to solve the residual coffe, it's also possible and others may guide you as well. I did not try it so far, but I know it's possible and viable.

Wait for other suggestions, please.

Success! Oh, yes; and if you understand Klingon: Qapla'! (thanks, Ernie!)

Luiz (Brazil)

Re: damaged hp?

*Message #3 Posted by **unspellable** on 30 July 2003, 4:28 p.m.,*

in response to message #2 by Vieira, Luiz C. (Brazil)

First remove the batteries.

Second, as a professional photographer, if we got a serious case of salt water, muddy water, etc. in a camera we would remove the batteries, then submerge it in distilled water, rinse and change the water a couple of times and keep it under distilled water until it reached the repair shop. The big mistake was to take it out of the water and let air get to it. The air would cause steel to rust and mud or salt to dry in the works.

In the case of the calculator there is not much in the way of steel to rust, so with a drastic case of coffeeitis I would consider soaking it in distilled water, changing the water a few times, then drying it as quickly as practical. Drain it and use gentle heat from a hair dryer or the like.

Obviously it would be better if you can open it, but opening has its own dangers.

Re: damaged hp?

*Message #4 Posted by **David Smith** on 30 July 2003, 6:23 p.m.,*
in response to message #3 by unspellable

In emergency cases I have used an ultrasonic cleaner loaded with distilled water (remove all the port covers, etc). Repeat three times (change the water each time). Shake out as much water as you can. Place the machine in a very low oven for around 48 hours.

This I'd like to do!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 30 July 2003, 8:00 p.m.,*
in response to message #4 by David Smith

Hi, David;

as always, your tips, suggestions and techniques are thoughtful. This is something I'd like to do, because I believe it's the best solution.

Thank you for sharing these gems.

Luiz (Brazil)

Re: damaged hp?

*Message #6 Posted by **unspellable** on 31 July 2003, 8:04 a.m.,*
in response to message #4 by David Smith

The oven scares me. I had a plastic slide rule that was warped. I got the idea of heating it just enough in the oven to straighten it. All the tick marks and lettering literally fell off!

Re: damaged hp?

*Message #7 Posted by **David Smith** on 31 July 2003, 4:23 p.m.,*
in response to message #6 by unspellable

I have cooked a lot of calculators without problem. My oven can be set to a fairly low temp (I'm not sure how low it is). Most electronics has max allowable storage temps of 50-70 degrees C. Remember that these machines were meant to be able to withstand being left in a closed car... which would probably make a good substitute for an oven... keep out of direct sun.

Re: damaged hp?

*Message #8 Posted by **Ron Ross** on 31 July 2003, 8:21 a.m.,*
in response to message #4 by David Smith

How about this idea. After you rinse two or three times in distilled water, toss a bunch of dry towels in a clothes drier. Heat the dry towels up (very hot). Then pull the towels out and toss your calc into the towel pile. Repeat every two hours or so (this avoids using an oven with a poor lower temperature control that might over heat and melt your calculator). The Towels will heat your calc and absorb the moisture. If you do have an oven that you can trust to keep the temp regulated between 110 and 130 degrees F it would be faster and better. But normal ovens may not be that reliable, Temperatures over 150 F will probably damage your calculator.

Re: damaged hp?

*Message #9 Posted by **seth hendren** on 31 July 2003, 9:29 a.m.,*
in response to message #8 by Ron Ross

Thanks to all but my calculator started working again yesterday afternoon. You can tell it's a little sticky under the buttons but all in all it works. Thanks guys.

Re: damaged hp?

*Message #10 Posted by **Howard** on 31 July 2003, 10:58 a.m.,*
in response to message #8 by Ron Ross

I left my HP42S on a warm windowsill for several hours after shaking it fairly violently edge on to get all the water out. But it seems to me that you could also tie it up in a plastic bag with a couple of those silica gel satchels that come with every electrical appliance you purchase nowdays. After all that is the purpose of them to remove any traces of moisture from the appliance.

Re: damaged hp?

*Message #11 Posted by **Michael Meyer** on 31 July 2003, 7:48 p.m.,*
in response to message #10 by Howard

I'm not sure that silica gel would do the trick quickly enough... the idea of heating is to raise the vapor pressure of the water... then the silica gel could absorb it. I suppose you could put the calc in a vacuum... that'd result in the water vaporizing.

Yes, that's a good option. Take your trusty shuttle to orbit, and throw the calc.... never mind.

I wonder if placing the calculator in the blower side of a vaccum cleaner would work? If the calculator were immersed in the flow, the entire unit would be at a lower pressure, driving out the water vapor, which would be then blown away...

When I clean calc parts, I use this method to dry the cases, boards, etc.... but I'm not sure it would work on a whole calculator.

Just some ideas.

damaged hp?

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Invalid card data

*Message #1 Posted by **mapet** on 30 July 2003, 4:08 a.m.*

Hi, I have "invalid card data" message on... HP 40G !!! The calc has no extension ports... What is going on?

Re: Invalid card data

*Message #2 Posted by **Ellis Easley** on 30 July 2003, 6:41 a.m.,*
in response to message #1 by mapet

It's like in "2001" when HAL starts singing the first song he learned. Maybe HP calculators contain all the code from previous models. See if it will do "x^y" like the HP35!

Did you buy it used?

*Message #3 Posted by **Harry (Germany)** on 30 July 2003, 10:13 a.m.,*
in response to message #1 by mapet

Maybe it has an internal RAM extention that causes that.
I have a HP48S that has 256kb RAM added internally and it displays the same message you have (and beeps) every time it is switched on.

Regards,
Harry

Re: Did you buy it used?

*Message #4 Posted by **Chan Tran** on 30 July 2003, 11:50 a.m.,*
in response to message #3 by Harry (Germany)

The 48s has the same rom as the 48sx which has card slot. The 40g doesn't have a card slot. May be some of the code for the 48 is in the 40 rom

Re: Invalid card data

*Message #5 Posted by **Ron Ross** on 30 July 2003, 11:59 a.m.,*
in response to message #1 by mapet

Well the 40G has the same CAS as the 49G. Check the memory(it is shown in the upper left corner whenever you are in an App). It should be over 200K unless you have loaded up some programs. If it is below 128K, I suspect a memory chip failure, since on a 48Gx this would signify memory corruption of a card and that happens above 128K. The 39/40G's are limited to 256K and that is what is they come with.

Try the command PINIT also (shouldn't work, but it might).

Re: Invalid card data

*Message #6 Posted by **mapet** on 31 July 2003, 3:28 a.m.,*
in response to message #5 by Ron Ross

The calc is brand new. After reset everything is ok now. But I lost all memory... :-(

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HP42S Programming question

*Message #1 Posted by **Harry (Germany)** on 29 July 2003, 7:16 p.m.*

Hi guys,
if I want 110 complex storage registers, how do I get to those bigger than 99? I mean, I would need to acces them indirectly. But that does not work, as I have only complex registers to stor the adress in. And a complex number is not a valid adress.

Regards,
Harry

Some possible solutions...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 29 July 2003, 11:30 p.m.,*
in response to message #1 by Harry (Germany)

Hi, Harry;

I thought about some possibilities:

1 - Use a "named" register; I know it will lead to the use of instructions with more than 1- or 2-byte and you probably don't want this;

2 - If it is a temporary indirect addressing, stack registers may also be used;

3 - Store the complex numbers in a complex matrix other than REGS and index it and live REGS as a real-number matrix. REGS will always be used the way you need, and the indexed matrix data will be accessed by RCLEL, STOEL, ->, <-, ^ and v (four arrows). These are all 2-byte instructions as RCL IND nn and STO IND nn are, and as you'd somehow need to set up initial values and control over the index register, you will also need to set up and control indexed matrix pointers.

I used the third option in a program I wrote when I was finishing my Engineering course. I was the first student in the history of the university I was studying at the time to *stuff* a Load Flow program *in* a pocket calculator (HP42S). My first and only 10 (A+) in the whole Engineerign course.

I was writing the program firstly to run in an HP41CX, but the HP42S "saved the day". A detail: I had to completely rewrite the program in one week after spending a whole weekend "learning" the new features in the HP42S.

If you ned further information, let us know.

Best regards.

Luiz (Brazil)

Edited: 29 July 2003, 11:34 p.m.

Re: Some possible solutions...

*Message #3 Posted by **Harry (Germany)** on 30 July 2003, 10:09 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for the suggestions, Luiz. I will probably use option 3.
What is Load Flow? Is it kind of network analyzing?

Regards,
Harry

Re: Some possible solutions...(edited: wrong info)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 30 July 2003, 2:44 p.m.,*
in response to message #3 by Harry (Germany)

Hi, Harry;

I wrote some wrong data in first post that I corrected here.

Load FLow is the term we used (at the time I was a student at the University) to refer to network analysis programs, you're right. It used to be a common term, I'm not sure about today.

It's a somewhat big program with about 500 lines (I wrote *more than 400 lines*) and uses 1.1 KBytes (I wrote *occupies more than 1.5K bytes*), listing only. The teacher agreeded with the program since I was able to show her that I was using complex arithmetic and no other internal matrix resource except element handling . And I did it! That's why it's too big: accelerated Newton-Raphson's convergency method in a discrete "fashion" and all data editing, handling and post calculus.

Best regards and success in your programs.

Luiz (Brazil)

Edited: 30 July 2003, 4:53 p.m.

Re: Load Flow

*Message #5 Posted by **Jeff** on 31 July 2003, 7:37 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

```
Luiz,
     Yes the term "Load Flow" is still the commonly used
term for the programs that calculate voltage and current
in electric power system networks.  I prefer the term
"Power Flow" myself, because the loads are fixed, and
therefore do not "flow".  Power flows to the loads.  Just
another of my many pet peeves...
     I would like to see that program.  Perhaps you could
send it to Dave to post in the software section for the
42S.
```

Re: Load Flow (edited)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 31 July 2003, 10:21 p.m.,*
in response to message #5 by Jeff

Hi, Jeff;

I found the first version only, still typewritten and with some correction notes. And it's not Newton-Raphson's, it's accelerated Gauss method. I need to find another updated listing, with

minor corrections. I'll scan the pages, load the program in the HP42S (498 lines... What did I have in mind!), send it to the HP48G+ and upload it to the computer so I can list it and use it in a final document. Then I'll add the necessary comments in English (original is completely written in Portuguese) so you and anyone else can follow it.

It's an academic program, developed in 1989, full of remarks, and it has a complete editor that allows you to build all matrices by answering questions about all power loads, sources and buses. This editor consumes part of the program but I had to include it so the teacher would be able to use it by simply reading the instructions and typing input data. No extra "keywork" needed.

After convergence is accomplished, you can perform load calculus with updated data. It's interesting and somehow fun reading all of this stuff again.

As soon as it's ready I'm posting it, you bet!

Best regards.

Luiz (Brazil)

Edited: 31 July 2003, 11:37 p.m.

(deleted post)

*Message #7 Posted by **deleted** on 1 Aug 2003, 7:11 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: Load Flow (edited)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 1 Aug 2003, 9:27 a.m.,*
in response to message #7 by deleted

Hi, Jeff;

I did not restrict the size of the YBus matrix. There is a restriction for the Swing Bus as it must be bus # 1, but this restriction exists because the original HP41CX program was like this. Unfortunately I never finished the CX original version, it stops after the YBus is completed. The original HP41CX version uses X-memory to hold all YBus and in this case it holds a 10-element restricted database.

When I wrote and tested the HP42S version, it was able to build a 16 element YBus. I did not try with an HP42S+ (the way I call the 32K upgraded model) as it was not even mentioned at that time, but as I have one this "big" now, I'll load the program and test it.

Thank you for your interest.

Best regards.

Luiz (Brazil)

Edited: 1 Aug 2003, 9:34 a.m.

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repair hp 27S calculator

*Message #1 Posted by **Bob Plachta** on 29 July 2003, 6:40 p.m.*

I have an HP27S calculator that I've been using for 15 years. Recently the calculator started beeping when I pressed the multiply or divide keys, but still worked okay. Now those keys have started "sticking" sometimes, and I'll have to press them several times before they will display. However, they don't usually beep anymore. Now the plus and minus keys are also starting to stick sometimes, but they don't beep when pressed. Has anyone experienced either of these problems (beeping or sticking keys), and do you know how to fix them? I thought maybe circuit cleaner would help, but I can't get the calculator opened. Does anyone know how to open a 27S. Thanks for any suggestions!

Re: repair hp 27S calculator

*Message #2 Posted by **Randy Sloyer** on 30 July 2003, 12:48 a.m.,*
in response to message #1 by Bob Plachta

Circuit cleaners are not the answer. Don't go there, as they can cause more damage, depending on the formulation.

It sounds like possibly two problems.

One, a loss of connection between the keyboard and logic board. This would explain the multiply and divide key behavior. After opening, you'll have to shim the foam pad that holds the keyboard connector against the logic board to solve this one.

Two, if it beeps and displays "Memory Clear" or "Machine Reset", you might have fractured solder connections on the 8k ram chip or a bad connection somewhere. It will take at least 5X magnification to see the cracks. Very subtle.

See the Rosetta stone of Pioneer opening here: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=5

Post again should you have any questions.

Edited: 30 July 2003, 12:49 a.m.

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HP-71B Strange Behavior

*Message #1 Posted by **Jeff** on 29 July 2003, 1:26 p.m.*

I have tried to turn on my HP-71B and the display shows only > . When the batteries are inserted or the power cord is installed, this is the only thing that happens, nothing works! Is there a master Reset that is different from the ON / sequence? Any ideas? Jeff

Re: HP-71B Strange Behavior

*Message #2 Posted by **Holger** on 29 July 2003, 3:00 p.m.,*
in response to message #1 by Jeff

The manual says if the 71B locks up, do the following:

- Remove power supply, batteries and modules - Hold 'ON' for approximately 30 seconds - Insert batteries and press 'ON'

You should be greeted with MEMORY LOST

Re: HP-71B Strange Behavior

*Message #3 Posted by **Jeff** on 29 July 2003, 7:39 p.m.,*
in response to message #2 by Holger

Unfortunately this did not work. I even tried holding the ON button down for 4 min. Still when the batteries were put in, the same result >. Is there any other ideas to try? Please let me know. Jeff

Re: HP-71B Strange Behavior

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 29 July 2003, 11:41 p.m.,*
in response to message #3 by Jeff

Hi;

is there a chance taht one (or even some) of the keys is stuck? I mean, do all keys "sound" and act the same when pressed? This is just a guess.

I also have observed that some calculators "freeze" for a while and in particualr the HP41 fullnut. In most situations, opening the calculator and shortening the terminals of both big electrolytic capacitors is enough to completely reset the calculator.

I have already opened my HP71, but I did not inspect it for components, I was just "having a look". It is, as all HP calculators, very interesting inside...

Should you try this procedure, please be carefull and make sure you'll shorten only the capacitors in the power supply. Please, take all ESD precautions and use a low-value resistor (about 10 ohms) instead of a straight wire. It's safer.

Best regards, success and let us know what happens.

Luiz (Brazil)

Re: HP-71B Strange Behavior

*Message #5 Posted by **Jeff** on 31 July 2003, 8:54 p.m.,*
in response to message #3 by Jeff

Someone by the name of Doug sent me an e-mail describing a way to correct this problem. Here is the e-mail he sent: "Two things to try. I had the same thing happen with a unit that I purchased brand new and used for a couple years then one day it did about the same. Plug in the adapter, then turn the unit on. Hold the on key for about 30 seconds. Then turn it off and on, then try it. If no result then remove a/c power plug and all batteries, and let it set for 24 hours, not any less. Do not push any buttons once power is removed. After 24+ hours, press the on button and hold down for 2 minutes. Do not press and release even once. It cleared the unit I had and never had it happen again." Voila! This worked. Thanks to all who helped. Jeff

Re: HP-71B Strange Behavior

*Message #6 Posted by **Victor Koechli** on 30 July 2003, 4:25 a.m.,*
in response to message #1 by Jeff

Does the calculator respond to pressing ON and / simultaneously? If so, you could try an INIT: 1 (by simply pressing <ENDLINE>) which is the approximate equivalent of a machine reset (ON + C) on the Pioneers, i.e. it just gets you out of any infinite loops and into a defined state (with USER mode off so all standard functions are available again. It will not destroy any data except maybe, if I remember correctly, the command stack.

Next thing you could try is INIT:2 (ON /, then 2, then <ENDLINE>) which does a ROM check. By the speed of it, I'd think it is merely a checksum test, but it'll still tell if any of the ROMs are faulty.

If the test passes and your machine still won't run, you could have a problem with the RAM or the main PCB. I have no knowledge about the 71s internals but from the amount of RAM initially installed (17.5K) I'd guess that 16K are in one chip and the lower 1.5K are in another. The OS uses the lower addresses first, especialy for its internal purposes, so that's where I'd look for a problem. You could have a hairy crack in a trace on the PCB, for example, which, if you find it, would be repairable.

Keep us posted about any results.

Cheers, Victor

Re: HP-71B Strange Behavior

*Message #7 Posted by **Stefan Hauschild** on 31 July 2003, 6:12 a.m.,*
in response to message #6 by Victor Koechli

I have had this problem a few weeks ago. The calculator was "frozen" and with the known methods nothing was to help. So I removed the batteries and forgot the thing for about two weeks. After that period I gave it a new chance and put some batteries in. The unit responded in a normal way and all was fine. I think there was some capacitor or a high resistance CMOS circuit that held some voltage for a few days. But maybe it was a mechanical problem or wrong temperature... Noone knows :)

Best regards

Stefan

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LED failure

*Message #1 Posted by **Matthias** on 29 July 2003, 1:26 p.m.*

I`ve got a HP67, which is in pretty nice shape, even the card reader still works, just the minus sign for the exponent doesn't show up.

Did anyone have a similar problem, is it somehow likely to be a bad soldering joint, or am I really "lucky" enough to have a damaged LED?

What's your best guess, I'm still hesitant to open it.

Re: LED failure

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 29 July 2003, 4:27 p.m.,*
in response to message #1 by Matthias

Hi, Matthias;

If I am not wrong, all classics have a complete position in the display dedicated to the minus sign for the exponent of ten. From the Woodstocks on, you'll see less digits and a "shared" portion (two or three digits) that act sometimes as least significant digits for the mantissa and others as the exponent of ten.

I'm mentioning these facts because if it is possible to activate all segments in this position then we could verify if it is a matter of bad contact or not. Anyway, based on what you described, all of it may be out of operation. This is not bad, because each digit has a dedicated connection common to all cathodes (in some cases may be anodes) and each anode in all segments taht share the same position (a, b, c, d, etc.) are connected together. This is a common arrangement and is driven by multiplexed signals. You probably know about that, but maybe others don't.

Well, it is possible that a single bad connection is the cause. IN all Classics (HP55, HP65, etc.) and in the HP67, the display is arranged in four blocks with four digits each. I would do the following: I'd open the calculator and identify the block that contains the exponent signal (the rightmost) and I'd carafully and re-solder all of its terminals. If you decide you should test before or inspect to find with pin is not connecting, no problem. To be honest, I'd do the same if I have the time to search for the problem.

Hope this helps.

Success! (I did not spell check the text, so forgive my mistakes, please...)

Luiz (Brazil)

Edited: 29 July 2003, 11:50 p.m. after one or more responses were posted

Re: LED failure

*Message #3 Posted by **Ernie Malaga** on 29 July 2003, 11:39 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz:

> Quote:
>
> Success!

Qapla'!

-Ernie 8^)

My first word in...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 29 July 2003, 11:46 p.m.,*
in response to message #3 by Ernie Malaga

Hi, Ernie!

Thank you! As you have probably noticed, I love learning. In Portuguese it's almost the same as in English, with one single "c" and an extra "o" in the end: Sucesso.

Please, in which language is Qapla' written? Forgive my ignorance 8)

Best regards, my friend.

Luiz (Brazil)

Re: My first word in...

*Message #5 Posted by **Ernie Malaga** on 30 July 2003, 2:04 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

> Quote:
>
> Please, in which language is Qapla' written?

Klingon! According to the Star Trek universe, that's the word for "Success" in that language, and is used as a "farewell" word.

> Quote:
>
> In Portuguese it's almost the same as in English, with one single "c" and an extra "o" in the end: Sucesso.

But it's "Ã©xito" in Spanish and "sukceso" in Esperanto. In Spanish, "suceso" is a big event.

Once I read that "escova" is a brush in Portuguese (but it sounds like "escoba" in Spanish, which is a broom. And "vassoura" was the broom, but that sounds like "basura" in Spanish, which is the trash. If any of this is true (and I have no way of knowing, since my knowledge of PortuguÃªs is extremely limitado), it's got to be quite a source of confusion. Incredible, since Portuguese and Spanish _should_ be more closely related!

-Ernie

Universal knowledge! :^)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 30 July 2003, 2:52 p.m.,*
in response to message #5 by Ernie Malaga

Hi, Ernie;

yes, all Portuguese terms you used are correctly "translated". And you are also right: Português e Espanhol _deveriam_ ser mais próximos (Portuguese and Spanish _should_ be more close {to each other}). 'Get the picture?

Live long and Prosper. :^|

Luiz (Brazil)

Re: Universal knowledge! :^)

*Message #7 Posted by **Ernie Malaga** on 30 July 2003, 3:31 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Obrigado!

-Ernie

Re: LED failure

*Message #8 Posted by **David Smith** on 29 July 2003, 4:34 p.m.,*
in response to message #1 by Matthias

It could be a bad LED, but the HP67 has some really weird circuitry involved in generating the minus signs. There are several transistors on the keyboard used to make them. If I remember right, both minus signs are generated from the same digit driver. Tony Duell could tell you a lot more on the subject.

Re: LED failure

*Message #9 Posted by **Matthias** on 1 Aug 2003, 9:53 a.m.,*
in response to message #8 by David Smith

Thanks David,

would I leave a very naive impression if I asked you who Tony Duell is and how to reach him (just in case he isn't a Borg or thelike and still alive)

Matthias

Re: LED failure

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 1 Aug 2003, 10:11 a.m.,*
in response to message #9 by Matthias

Hi, Matthias;

You're not asking me, but as many of us "walking around this neighborhood" for a while, let me tell you Tony Duell, from England (London?), is not a Borg. And it is not futille!

He knows internals (electronics) of many HP portable devices as he had post many concise and

precious information at this very Forum. Be sure he's a valuable "voice" in here. As David himself, Ellis, Vassilis, J.F. Garnier, Glynn, etc. etc. etc...

Best regards.

Luiz (Brazil)

Edited: 1 Aug 2003, 10:15 a.m.

Re: LED failure

*Message #11 Posted by **Michael F. Coyle** on 1 Aug 2003, 10:57 a.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Hi Luiz!

> Quote:
>
> [Tony Duell] knows internals (electronics) of many HP portable devices as he had post many concise and precious information at this very Forum. Be sure he's a valuable "voice" in here. As David himself, Ellis, Vassilis, J.F. Garnier, Glynn, etc. etc. etc...

Since modesty prevented you from adding your own name to the list, please let me do so now.

- Michael

Re: LED failure

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 1 Aug 2003, 11:37 a.m.,*
in response to message #11 by Michael F. Coyle

Hi, Michael;

I'm flattered; I hope I deserve this honored mentioning of yours. But there are many, many others that should also be mentioned. To be honest, I can not even think of names I would not add...

Thanks.

Luiz (Brazil)

Re: LED failure

*Message #13 Posted by **David Smith** on 1 Aug 2003, 1:13 p.m.,*
in response to message #9 by Matthias

Tony is the Lord High UberPope of all things HP9100 and most things HP classic. He is at Cambridge in England. I don't have his email handy, but he does post in the HPFORUM from time to time. You can search the FORMUM archives for any of his postings or Google him. Be aware that he uses a funky email system and his emails arrive to me as file attachments.

Re: LED failure

*Message #14 Posted by **Jon** on 30 July 2003, 1:52 p.m.,*
in response to message #1 by Matthias

In the Victor Toth´s page you have some information about similar problems. I will try to copy that information and post it. And in the service manual of the HP-97 you have also some descriptions of the led´s working (HP-67 and 97 are very similar)

Cheers

Jon

Re: LED failure

*Message #15 Posted by **Jon** on 30 July 2003, 4:55 p.m.,*
in response to message #14 by Jon

Here you have the promised information. I hope it can help:

Usually, if the same segment is dead across all digits in a calculator, the segment driver is suspect. In the case of the HP-67, the segment driver chip is the smaller of two chips located underneath the LED display modules. It is easy to map this chip's inputs and corresponding outputs. This chip contains seven independent driver circuits. When a single segment is dark across the entire display, chances are that one of the driver circuits is dead. Replacing the entire chip is often not an option, since substitute chips are hard to find. However, a single driver element can be replaced using a 2N4401 transistor. The base of the transistor should be connected to the corresponding input, the emitter to the corresponding output, and the collector to pin 15 of the segment driver chip. Using fine wire-wrap wire, you can place the transistor in such a way so that the keyboard/display PCB still fits snugly against the calculator's plastic backbone, and the case can be closed securely. If the driver circuit in the segment driver chip is shorted, it may be necessary to disconnect (cut) one or both corresponding pins in order for the substitute transistor to work correctly.

Re: LED failure

*Message #16 Posted by **David Smith** on 30 July 2003, 6:27 p.m.,*
in response to message #15 by Jon

The anode driver is a standard off the shelf chip that is still made. NTE even has a replacement in their product line. I cant remember the non-HP part number, but it is something like CA3080 or CA3083. Again the HP67 has weird circuitry driving the sign segments that is independent of the anode driover chip.

Re: LED failure - Conclusion?

*Message #17 Posted by **Matthias** on 2 Aug 2003, 4:01 a.m.,*
in response to message #1 by Matthias

Thanks to all, a good deal of helpful infos you guys can provide indeed. I'm impressed.

That much for the positive side. After a rough evaluation of what I learned from you and the manuals and considering the fact that ALL elements of the display (even the minus sign for the mantissa) but the one for the exponent show up, I have to assume that the LED is likely to be the problem.

So, now some further questions (always assume I'm not an expert like you, I know basics about electronics but I never opened one of those so far): What's the cure? Does every digit have a single 7seg LED, are there groups or is it a complete bank? Can it (to whichever extent I need) still be purchased or can anyone provide it as a spare part?

I waited almost 20a to get one of them, it's supposed to be perfect, even if the only calculations I do nowadays

are how much month will be left after the end of the money, hi.

Thanks again.

Matthias (Germany)

Re: LED failure - Conclusion?

*Message #18 Posted by **Vieira, Luiz C. (Brazil)** on 2 Aug 2003, 8:12 a.m.,*
in response to message #17 by Matthias

Hi, Matthias;

What I can tell you is that HP offered LED digits pack as standard product, so I guess you'll be able to find the same (or equivalent) LED assembly in other HP products or even HP LED assemblies in other brand equipment as well. remember finding a four-digit HP assembly in a portable, battery operated RPM metter, a small, rugged handy tool used in our electric lab when I was in the university. One digit was missing and I and two other guys were assigned to repair it. I was surprised for finding an HP logo stamped in the LED assy.

I think that the only way out is finding a replacement, from a donator unit. Old, trashed equipment may be a source as well. Why not to try? They will be "rated" 1975 to 1982, probably. I hav a Test and Measurement catalog where these LED's are announced. I'll scan the image and post it here later.

Best regards and success.

Luiz (Brazil)

Re: LED failure - Conclusion?

*Message #19 Posted by **David Smith** on 2 Aug 2003, 4:03 p.m.,*
in response to message #17 by Matthias

The problem could still be a bad transistor, etc on the HP67 keyboard. The HP67 middle segments are really weird circuitwise. They are all totally independet of the rest of the segments.

The LED's are packaged like a DIP circuit. Five digits to a package. Your only source is another calculator. All the classic series machines use the same displays. They come with either gold or silver leads. They are not quite the same! The digits are slighty different sizes. There is also a letter on the back of each package. It indicates the relative brightness level. The letter is usually in the range of K to M. One or two letters different is usually a pretty good match.

Re: LED failure - uneducated suggestion

*Message #20 Posted by **Renato** on 3 Aug 2003, 6:04 p.m.,*
in response to message #17 by Matthias

Matthias,

I´ve never examined a classic display module, but I´ve seen 97, woodstock and spice displays. I have a woodstock display module with two bad segments in the third digit, and I don´t think there is anything I can do, except find a parts donator machine.

In your case, I would try to use another segment to indicate exponent sign, by rerouting connections on the display assembly. If this did not work, then i would look for a single , third party led, to indicate exponent

sign. I have no idea if these are feasible, but I think it would be fun to try to make it work.

Good luck,

Renato

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HP-41CV - Card Reader

*Message #1 Posted by **Frank V** on 28 July 2003, 6:51 p.m.*

The card reader on my HP-41CV is not responding. I have tested the same card reader on the HP-41C and it works as expected. I don't know what the problem could be? Can someone out there please guide me in the right direction. Thanks.

Re: HP-41CV - Card Reader

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 28 July 2003, 7:12 p.m.,*
in response to message #1 by Frank V

Hi, Frank;

what you wrote leads to I/O problems (most likely to be bad contact) in your CV. The best remedy would be to open the calculator and clean the contacts between the BATT/IO assembly and the calculator contact pads. You could also test another extension (printer, wand, ROM module) in port 4, the one used by the reader, and see if they also fail.

If the reader works fine in the HP41C, the HP41CV I/O is the first to be checked.

Success. And let us know if you need more advice.

Luiz (Brazil)

Edited: 28 July 2003, 7:22 p.m.

Re: HP-41CV - Card Reader

*Message #3 Posted by **Frank V** on 28 July 2003, 10:58 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for your help Luiz.

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Re: HP-41 Programming Challenge

*Message #1 Posted by **Axel Poqué** on 28 July 2003, 1:15 p.m.*

Just in case this gets buried in the board: I have posted my version of the prime finder program here.

Please post your results or any improvements you might think of.

Thanks,
Axel

Re: HP-41 Programming Challenge

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 28 July 2003, 6:47 p.m.,*
in response to message #1 by Axel Poqué

Hi, Axel;

I made minor changes to reduce proram size (bytes used) but they are not significant so far. As I am able to show an actual improved "version", I'm posting.

For now, congrats! I like seeing others programs. And yours work pretty fine!

Best regards.

Luiz (Brazil)

Re: HP-41 Programming Challenge

*Message #3 Posted by **hugh steers** on 28 July 2003, 7:39 p.m.,*
in response to message #1 by Axel Poqué

here's my entry. it misses out "3".

```
LBL "MOO"
5
LBL 00
STO 00
9
+
6
/
STO 02
RCL 00
SQRT
3
STO 03
/
INT
1
+
3
*
STO 01
XEQ 04
```

```
RCL 00
2
+
STO 00
9
+
6
/
STO 02
1
STO 03
RCL 00
SQRT
ENTER^
INT
STO 01
RDN
XEQ 02
RCL 00
4
+
GTO 00
LBL 01
RCL 01
RCL 01
*
RCL 00
-
SQRT
LBL 02
FRC
X=0?
GTO 03
LBL 04
RCL 03
ST+ 01
RCL 02
RCL 01
X<=Y?
GTO 01
RCL 00
VIEW X
LBL 03
END
```

Re: HP-41 Programming Challenge

*Message #4 Posted by **Harry (Germany)** on 29 July 2003, 6:42 a.m.,*
in response to message #3 by hugh steers

Hi Hugh,

you got a bug in your program. It finds 35 as a primnumber. I think it does not really check for 5 beeing a divider of the number thats beeing tested.
I will look deeper into it now to find where it is.

Regards,
Harry

Re: HP-41 Programming Challenge

*Message #5 Posted by **hugh** on 31 July 2003, 6:06 a.m.,*
in response to message #4 by Harry (Germany)

aaawwl. and i thought i had it nailed.... :-)

after more testing, i am not happy with this submission of mine. it appears to start quite fast and after a minute or so, is way ahead of the division programs listed here. however, its long term performance

suffers because the algorithm can have worst cases later on.

i submitted another program below, which (although a bit long) is complementary to the division programs. its a lot slower at first, but gets better (against division for bigger numbers). say you start at 100,000. its happy.

the ideal agorithm would be some mix of trial division and the "tortoise".

regards,

What About an HP-25 Programming Challenge?

*Message #6 Posted by **Trent Moseley** on 28 July 2003, 10:30 p.m.,*
in response to message #1 by Axel Poqué

You only have forty-nine program lines.

tm

Sometimes I challenge myself... (edited)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 29 July 2003, 1:15 a.m.,*
in response to message #6 by Trent Moseley

Hi, Trent;

I always like to challenge myself first and then I go for the fight!

I tried once to write a program for the HP25 and I did not succeed. It was supposed to compute nPr and nCr (permutations and combinations given n and r). I succeeded writing it for the HP33, that is essentially an HP25 with subroutine and a few extra functionality. I also wrote it for the HP55 and HP38.

The key its the fact that both HP55 and HP38 have [n!], primarily needed to compute both nPr and nCr. Both HP25 and HP33 do not have [n!] and it is necessary to implement it OR add some math simplification based on numbers entered. I simply coded the original nCr and nPr expresions so they fitted in the HP33 memory. The only restriction is that neither n nor r might be greater than 69. Would it be possible to write a program for the HP25 to compute both nPr and nCr? In my program for the HP33C/E, you simply do this:

```
key in:  press:   display
         [f]CLEAR[PRGM]
  n      [ENTER]      n
  r       [R/S]      nCr
          [x<>y]     nPr
```

Pressing [f]CLEAR[PRGM] before [R/S] or before inputting data ensures that the calculator is "pointing" to the first line of the program. I will add the listing below, but should you prefer trying from scratch, you should simply not to look at it |^). I accept challenges if I think I have a chance to succeed, but I do not feel comfortable challenging... I cannot explain why! I'd rather showing what I achieved and ask for new, different, clever solutions.

Thanks.

Luiz (Brazil)

```
Program Listing (HP33E/C)

01   STO 1
```

```
02   Rv
03   GSB 14
04   RCL 0
05   RCL 1
06   -
07   +
08   GSB 10
09   RCL 1
10   GSB 14
11   +
12   ÷
13 g RTN
14 g INT
15   ENTER
16   STO 0
17   1
18   -
19 g x=0
20 g RTN
21   ×
22 f LASTx
23   GTO 17
```

Edited: 29 July 2003, 1:23 a.m.

Re: Sometimes I challenge myself... (edited)

*Message #8 Posted by **Victor Koechli** on 29 July 2003, 2:06 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Actually, by using the n! function, you restrict yourself to n <= 69 on the older calcs, or n<= 253 on then newer ones. By programming a loop instead that keeps multiplying and dividing as needed, you will need more time (and space, of course), but you will get an extended range of input values that the program can compute for.

I have no access to my calcs at the moment (they're at home, of course, and I'm at work right now), but I'll try to find my old HP41 program I wrote for these functions. Our math teacher got a thrill out of presenting problems that could not be solved with the calculator, and that's why I wrote a program to circumvent these limits.

I could, however, write a HP49 program if I find the time to - I have that one at work with me. But it would be fun to see if it fits into the HP25...

Cheers, Victor

Allow me some questions?

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 29 July 2003, 2:34 a.m.,*
in response to message #8 by Victor Koechli

Hi, Viktor;

thank you for the additional information.

In fact, I was aware of the fact that the [n!] limits for a single factorial are not the same when computing nCr or nPr. I tried to mention this fact when I wrote "add some math simplification based on numbers entered", but I simply missed it. Thank you.

I'm not sure if both HP11C and HP15C were the first HP pocket calculators to offer Py,x and Cy,x as standard resources, but I know the algorithm used in both works things out in a way these limits

are surpassed. What I want to know is if it's worth detecting overflow before it happens and mostly if it is possible to do it. I did not take spare time to think of it, but it seems to me it's not possible to detect such overflow occurrence in other way than using calculator's overflow detection after each successive multiplication to accomplish simplified terms for permutation and combination. (did I write a concise, understandable text? I hope so...:)

If I understand it correctly, your program for the HP41 extends [FACT] limits so it computes nCr and nPr with n or c >69 if final result is <= 9.99999999E99. Is it correct?

I'm curious to see it.

About developing a program for the HP49G: I think using RPL would be very interesting, mostly to handle internal factorial limits. What makes me lazy about this is that all RPL models, since the HP28C, already have COMB an PERM as standard resources...

Best regards, Victor.

Luiz (Brazil)

Re: Allow me some questions?

*Message #10 Posted by **Victor Koechli** on 29 July 2003, 5:43 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I have not found a way to detect overflow in advance, so the program has to go for it and see if it overflows or not.

My HP41 program circumvents the limit of FACT by explicitly multiplying and dividing things out. The implementation is not difficult. Consider

$$nPr = \frac{n!}{(n-r)!}$$

For n=7 and r=3, this yields

$$7P3 = \frac{7x6x5x4x3x2x1}{4x3x2x1}$$

leaving only 7*6*5=210 after cancelling out the corresponding factors in enumerator and denominator. Similarly,

$$nCr = \frac{n!}{r!(n-r)!}$$

so

$$7C3 = \frac{7x6x5x4x3x2x1}{3x2x1x4x3x2x1} = \frac{7x6x5}{3x2x1} = 35$$

In the second case, it can be debated whether doing the multiplications (more accurate, but higher risk of overflow) or the divisions (less accurate, lower risk of overflow) first is better. I think I have used an intermediate way doing both alternatingly, so 7C3 is evaluated as 7:3x4:2*5 (=35, at least on the HP49G I have available right now).

I will try to find my program, but be warned: Chances are not that high, it's a long time since. If

I don't find it, let's simply write new programs. It's fun, after all! Let's try to fit it into the HP25!

And let's not forget to thank Harry for starting this challenge, and Axel for restarting the thread.

Cheers, Victor

Re: Allow me some questions?

*Message #11 Posted by **Werner Huysegoms** on 29 July 2003, 8:00 a.m.,*
in response to message #10 by Victor Koechli

```
Well, here's mine.
Some pitfalls:
. If you calculate COMB(8,3) as 8/3*7/2*6, the answer is not correct (it's
56.00000001)
. If you calculate COMB(335,167) you get an overflow, yet
  the answer is < 1e100
. Calculate C(n,p) as C(n,min(p,n-p)) to avoid lengthy calculations (eg
C(1000,999) = C(1000,1))
. C(n,0) = 1


This does it all, and the contents of reg Z are preserved
(and end up in Y afterwards). Answers larger than 1e10 may
be slightly inaccurate due to roundoff errors. Not much I can do about
that.


01*LBL"COMB"
02 RCL Y
03 X<>Y
04 ST- Y
05 X<Y?
06 X<>Y
07 RDN
08 1 E-3
09 *
10 X<> L
11 STO Z
12 ISG L
13 X=0?
14 GTO 00
15*LBL 02
16 RDN
17 ST* Y
18 LASTX
19 INT
20 ST/ Z
21 DSE Y
22 ISG L
23 GTO 02
24*LBL 00
25 RDN
26 CLX
27 1 E3
28 *
29 END
```

Re: Allow me some questions?

*Message #12 Posted by **Werner Huysegoms** on 30 July 2003, 3:04 a.m.,*
in response to message #11 by Werner Huysegoms

I meant of course, that my program *avoided* all those pitfalls.. Werner

Re: Allow me some questions?

*Message #13 Posted by **Werner Huysegoms** on 30 July 2003, 7:42 a.m.,*
in response to message #11 by Werner Huysegoms

```
six bytes shorter, and still keeping the Z-reg
(and even the T-reg in case of C(n,0) or C(n,n)):


01*LBL"COMB"
02 ST- Y
03 X>Y?
04 X<>Y
05 +
06 1 E-3
07 ST* L
08 X<>Y
09 ISG L
10 X=0?
11 GTO 00
12*LBL 02
13 ST* Y
14 LASTX
15 INT
16 ST/ Z
17 RDN
18 DSE X
19 ISG L
20 GTO 02
21*LBL 00
22 RDN
23 1 E3
24 *
25 END
```

Re: Allow me some questions?

*Message #14 Posted by **Eamonn** on 29 July 2003, 3:05 p.m.,*
in response to message #10 by Victor Koechli

Luiz, Victor,

Here is a program for the HP-25 that calculates either C(n,r) or P(n,r) for all cases where C(n,r) and P(n,r) are less than 1e100. The program fits comfortably in the 49 steps of program memory available on the HP-25. I haven't tested these routines on an actual HP-25, but I have tested them on the simulator found on this museums HP-25 page.

The C(n,r) routine is based on the algorithm described by Victor. It makes use of the identity C(n,r) = C(n,n-r), selecting the minimum value of r and n-r for the calculations. In the loop body, the division is done first, to avoid overflows in cases where the intermediate calculations exceed the dynamic range of the HP-25. Since doing division first can result in non-integer results, the final result is rounded to the nearest integer. This routine does work for the case C(355,167), returning a value of 3.0443588e99. Incidentially, the HP-11C also works for this case, returning a value of 3.044358e99. There is a possibility that the final rounding does not produce the correct result, but all the cases I've tested it with seem to work fine so far.

The P(n,r) routine uses the identity P(n,r) = n x (n-1) x (n-2) x ... x (n-r+1). No divisions required here, so the result is always an integer. There is no limitation on the values of n and r, as long as P(n,r) is less than 1e100. For example, P(5000,27) is calculated to be 6.9446225e99.

To use the C(n,r) routine, position the program counter at step 0 if it's not there already, key in n, hit enter, key in r and hit R/S.

To use the P(n,r) routine, position the program counter at step 30 (GTO 30), key in n, hit enter, key in r and hit R/S.

Enjoy,

Eamonn.

[pre] 01 sto 0 ; X=r, Y=n. Store r in R0 02 x<>y 03 sto 1 ; X=n, Y=r. Store n in R1 04 x<>y ; X=r, Y=n 05 - ; X=n-r 06 rcl 0 ; X=r, Y=n-r 07 x<y ; Want to use the minimum of r and (n-r). If r < n-r ... 08 gto 11 ; then skip ahead 2 steps 09 x<>y ; X=n-r, Y=r 10 sto 0 ; store n-r in R0. This will be used as the loop counter 11 1 ; X=1 12 sto 2 ; R2 = result 13 Rv ; Let's preserve the Z register while we're at it 14 rcl 0 ; X = loop counter 15 x=0 ; have we reached the end of the loop yet? 16 gto 24 ; if so, then exit loop (pc + 8) 17 sto/ 2 ; update the result 18 rcl 1 ; recall next numerator factor 19 sto* 2 ; update the result 20 1 21 sto- 0 ; decrement loop count 22 sto- 1 ; decrement numerator factor 23 gto 14 ; loop back (pc-9) 24 rcl 2 ; place the result in X 25 . 26 5 27 + ; round result to nearest integer 28 int ; by adding 0.5 and taking the integer part 29 gto 00 ; done 30 x<>y ; P(n,r) routine. X=n, Y=r 31 sto 0 ; Store n in R0 32 x<>y ; X=r, Y=n 33 1 ; X=1, Y=r, Z=n 34 - ; X=r-1, Y=n 35 - ; X=n-r+1 36 rcl 0 ; X=n, y=n-r+1 37 1 38 - ; subtract 1 from X 39 x<y ; are we done yet? 40 gto 43 ; if so, then display the result 41 sto* 0 ; update result 42 gto 37 ; loop 43 rcl 0 ; display the result [\pre]

Re: Allow me some questions?

*Message #15 Posted by **Eamonn** on 29 July 2003, 3:12 p.m.,*
in response to message #14 by Eamonn

Sorry about the last post - used the wrong formatting code for the listing. This should be easierto read.----------

Luiz, Victor,

Here is a program for the HP-25 that calculates either C(n,r) or P(n,r) for all cases where C(n,r) and P(n,r) are less than 1e100. The program fits comfortably in the 49 steps of program memory available on the HP-25. I haven't tested these routines on an actual HP-25, but I have tested them on the simulator found on this museums HP-25 page.

The C(n,r) routine is based on the algorithm described by Victor. It makes use of the identity C(n,r) = C(n,n-r), selecting the minimum value of r and n-r for the calculations. In the loop body, the division is done first, to avoid overflows in cases where the intermediate calculations exceed the dynamic range of the HP-25. Since doing division first can result in non-integer results, the final result is rounded to the nearest integer. This routine does work for the case C(355,167), returning a value of 3.0443588e99. Incidentially, the HP-11C also works for this case, returning a value of 3.044358e99. There is a possibility that the final rounding does not produce the correct result, but all the cases I've tested it with seem to work fine so far.

The P(n,r) routine uses the identity P(n,r) = n x (n-1) x (n-2) x ... x (n-r+1). No divisions required here, so the result is always an integer. There is no limitation on the values of n and r, as long as P(n,r) is less than 1e100. For example, P(5000,27) is calculated to be 6.9446225e99.

To use the C(n,r) routine, position the program counter at step 0 if it's not there already, key in n, hit enter, key in r and hit R/S.

To use the P(n,r) routine, position the program counter at step 30 (GTO 30), key in n, hit enter, key in r and hit R/S.

Enjoy,

Eamonn.

```
01 sto 0  ; X=r, Y=n. Store r in R0
02 x<>y
03 sto 1  ; X=n, Y=r. Store n in R1
04 x<>y   ; X=r, Y=n
05 -      ; X=n-r
06 rcl 0  ; X=r, Y=n-r
07 x<y    ; Want to use the minimum of r and (n-r). If r < n-r ...
08 gto 11 ; then skip ahead 2 steps
09 x<>y   ; X=n-r, Y=r
10 sto 0  ; store n-r in R0. This will be used as the loop counter
11 1      ; X=1
12 sto 2  ; R2 = result
13 Rv     ; Let's preserve the Z register while we're at it
14 rcl 0  ; X = loop counter
15 x=0    ; have we reached the end of the loop yet?
16 gto 24 ; if so, then exit loop (pc + 8)
17 sto/ 2 ; update the result
18 rcl 1  ; recall next numerator factor
19 sto* 2 ; update the result
20 1
21 sto- 0 ; decrement loop count
22 sto- 1 ; decrement numerator factor
23 gto 14 ; loop back (pc-9)
24 rcl 2  ; place the result in X
25 .
26 5
27 +      ; round result to nearest integer
28 int    ; by adding 0.5 and taking the integer part
29 gto 00 ; done
30 x<>y   ; P(n,r) routine. X=n, Y=r
31 sto 0  ; Store n in R0
32 x<>y   ; X=r, Y=n
33 1      ; X=1, Y=r, Z=n
34 -      ; X=r-1, Y=n
35 -      ; X=n-r+1
36 rcl 0  ; X=n, y=n-r+1
37 1
38 -      ; subtract 1 from X
39 x<y    ; are we done yet?
40 gto 43 ; if so, then display the result
41 sto* 0 ; update result
42 gto 37 ; loop
43 rcl 0  ; display the result
```

Re: Allow me some questions?

*Message #16 Posted by **Werner Huysegoms** on 30 July 2003, 3:00 a.m.,*
in response to message #15 by Eamonn

try C(90,7). It should be 7471375560, but your program returns (probably) 7471375562, if you would have done the calculations as 90/7*89/6*88/5*87/4*86/3*85/2*84, it would have returned 7471375566. That's why I calculate it as 90/1*89/2*88/3 etc guaranteeing integers all along. BTW, there's no need to do the divisions first in your case. Either the result will overflow, or none of the intermediate calculations will. Werner

Updated HP-25 C(n,r) program

*Message #17 Posted by **Eamonn** on 30 July 2003, 8:50 p.m.,*
in response to message #16 by Werner Huysegoms

Werner,

I don't have a HP-25 at hand, but I calculated C(90,7) on a HP-11C, using the algorithm implemented in my original program. It gives a result of 7471375562, as you expected, which is incorrect.

When I checked my program on the HP-25 simulator I didn't come across any failure cases. This seems to be because of the 17 digits of percision that the simulator uses. On the simulator, the program I wrote does return the correct value of C(90,7) = 7471375560.

I had a look at the programs that you wrote for the HP-41 and now I see how you very elegantly avoided the overflow that can occur with the intermediate calculations.

Here is a version of your HP-41 program for the HP-25. It will not overflow for C(n,r) < 1e100 and should return the correct value for C(n,r) < 1e10. It does not preserve the Z register, as your program does, but then again the HP-25 instruction set isn't nearly as powerful as the HP-41 instruction set. It requires the use of several registers, but uses your method to calculate the minimum of r and n-r to save a couple of steps. There's still room to have both this program and the other program that calculates P(n,r) in the 49 steps of HP-25 program memory.

Regards,

Eamonn.

```
01  -       ; X=n-r
02  lastx   ; X=r, Y=n-r
03  x>=y    ;
04  x<>y    ; place minimum of r and n-r in X
05  +       ; X=n
06  sto 1   ; Store n in R1
07  lastx   ; X=min(r,n-r)
08  sto0    ; store in R0. Use as loop counter
09  1       ;
10  sto 2   ; R2 is divisor. Initial value is 1
11  eex
12  3
13  chs
14  sto 3   ; R3 is result so far.  Initial value is 1e-3
15  rcl 0   ; X = loop counter
16  x=0     ; have we reached the end of the loop yet?
17  gto 27  ; if so, then exit (pc + 10)
18  rcl 1   ; recall next numerator factor
19  sto* 3  ; update the result
20  rcl 2   ; recall next denominator factor
21  sto/ 3  ; update the result
22  1
23  sto- 0  ; decrement loop count
24  sto- 1  ; decrement numerator factor
25  sto+ 2  ; increment denominator factor
26  gto 15  ; loop (pc-11)
27  rcl 3   ; place the result on the stack
28  eex
29  3
30  *       ; multiply result by 1e3
31  gto 00  ; done
```

Re: Allow me some questions?

*Message #18 Posted by **Julián Miranda (Spain)** on 29 July 2003, 5:50 p.m.,*
in response to message #14 by Eamonn

I'm not a statistical power user but my 32SII returns 1,6712 e 105 for C(355,167) and my 11C flashes with 9,999999 99 as a result.

Re: Allow me some questions?

*Message #19 Posted by **Eamonn** on 29 July 2003, 6:16 p.m.,*
in response to message #18 by Julián Miranda (Spain)

Oops I mis-typed in my original message.

That should be C(335, 167) = 3.0443588e99, not C(355, 167). C(355,167) is indeed 1.671163e105.

Rgds.,

Eamonn.

Gentlemen, that's amazing!

*Message #20 Posted by **Vieira, Luiz C. (Brazil)** on 31 July 2003, 1:48 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Hi all;

I read the posts in this thread again and I can tell you, if you allow me so: if I am the teacher and these are your answers for the task, I'd never feel more proud for them! I'm impressed.

I think that dealing with "restrictions" is teasing, and dealing with resourceful equipment may be confusing. Using different resources and combining their power so you can achieve results is sometimes a matter of "taste" and specific knowledge.

On the other hand, using all available resources that are not enough to accomplish the task without an specific "treatment" and find a clever "way out" with them is way beyond "taste" and specific knowledge.

I'm amazed.

Best regards.

Luiz (Brazil)

Re: HP-41 Programming Challenge

*Message #21 Posted by **hugh** on 29 July 2003, 8:08 a.m.,*
in response to message #1 by Axel Poqué

heres another idea. also misses 2 & 3. a bit of a tortoise, but should have better linearity.

```
LBL "FOO"
0
STO 04
5
LBL 00
STO 01
0
STO 06
2
STO 08
RCL 01
1
-
STO 07
LBL 05
RCL 07
RCL 07
2
/
INT
STO 09
2
```

```
*
x<>y?
GTO 06
1
ST+ 06
RCL 09
STO 07
GTO 05
LBL 06
RCL 06
x=0?
GTO 03
1
ST- 06
LBL 02
RCL 08
STO 02
1
STO 03
RCL 07
STO 09
LBL 08
RCL 09
RCL 09
2
/
INT
STO 09
2
*
x<>y?
XEQ 09
RCL 09
x=0?
GTO 10
RCL 02
RCL 02
*
RCL 01
MOD
STO 02
GTO 08
LBL 10
RCL 03
1
x=y?
GTO 07
CHS
RCL 01
+
x=y?
GTO 07
RCL 06
STO 09
LBL 11
RCL 09
x=0?
GTO 03
RCL 03
STO 02
XEQ 09
RCL 01
1
-
x=y?
GTO 07
1
ST- 09
GTO 11
LBL 07
2
0
4
6
RCL 01
X<Y?
GTO 04
RCL 08
1
+
STO 08
```

```
4
x<>y?
GTO 02
LBL 04
RCL 01
VIEW X
LBL 03
RCL 04
4
MOD
2
+
STO 04
RCL 01
+
GTO 00
LBL 09
RCL 02
RCL 03
*
RCL 01
MOD
STO 03
END
```

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What to do with new HP-25

*Message #1 Posted by **G Evans** on 28 July 2003, 9:17 a.m.*

I picked up what appears to be an 'as good as brand new' HP-25 , perfect box, manuals, charger, bag, and machine. I fitted new NiCds. Bag even has that new perfume smell.

Should I :

1- Use it instead of my Casio 2- Moth-ball it hoping it appreciates 3- Keep it but do not use it just look at it now and then

I'm concered it might go the way my other 25 went: fried memory chips.

What would you do?

George (UK)

Re: What to do with new HP-25

*Message #2 Posted by **Axel Poqué** on 28 July 2003, 9:28 a.m.,*
in response to message #1 by G Evans

You missed an option:

4- Give it to me for safekeeping :-)

But seriously, I would use it, but I wouldn't take it to work. If you want to use it as your everyday calc I'd suggest getting another cheaper one in not-as-good condition. (I wouldn't want to risk my NIB 41CX at work.)

Axel

Edited: 28 July 2003, 9:30 a.m.

Re: What to do with new HP-25

*Message #3 Posted by **Harry (Germany)** on 28 July 2003, 9:39 a.m.,*
in response to message #1 by G Evans

I would chose option 3. And get another one to play with.
I got a very good 29C that my brother gave to me 5 years ago cause he bought a 32Sii :)). I take it out of its like new box every now and then and I am always happy to see it is still in a very good condition. I would regret it so much if I used it and then scratched it.

Regards, Harry

Re: What to do with new HP-25

*Message #4 Posted by **David Smith** on 28 July 2003, 12:23 p.m.,*
in response to message #1 by G Evans

If you store it, seal the battery pack in a couple of zip lock bags... you don't want to wind up with a corroded machine 20 years later.

If it is in like-new condition I would put it away and get a not so nice one for everyday use.

Re: What to do with new HP-25

*Message #5 Posted by **Chan Tran** on 28 July 2003, 12:33 p.m.,*
in response to message #4 by David Smith

I would definitely use it. I would take good care of it though. It's no fun to have it and not using it. It may worth more later if you save it but then really how much it will be worth? $1000? $2000? Even if I would lose that much money in the future I don't want to miss out the fun of using one.

Re: What to do with new HP-25

*Message #6 Posted by **Frank Wales** on 28 July 2003, 1:40 p.m.,*
in response to message #1 by G Evans

As a matter of interest, where did you pick it up?

Re: What to do with new HP-25

*Message #7 Posted by **G Evans** on 29 July 2003, 6:50 a.m.,*
in response to message #6 by Frank Wales

shush not proud to admit it ! On ebay but it cost quite a bit to outbid .. George

Re: What to do with new HP-25

*Message #8 Posted by **hugh** on 28 July 2003, 3:07 p.m.,*
in response to message #1 by G Evans

ah, that lemony smell...

the 25 really is a nice machine. it fits well in the palm and those buttons operate with a quality not found anymore. even for ready money.

Re: What to do with new HP-25

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 28 July 2003, 11:53 p.m.,*
in response to message #1 by G Evans

Hi, G. Evans;

I'm no collector, instead I'm a user.

That said, if I'm a collector, I'd keep it and never leave home WITH it.

If I intend only having a daily-use calculator, I'd sell it (or trade it) so I can buy (or have) OTHERS and use at least one, cheaper and more powerfull, and keep the remaining one(s) as spare.

My thoughts. I'm no collector.

Best regards.

Luiz (Brazil)

Re: What to do with new HP-25

*Message #10 Posted by **Victor Koechli** on 29 July 2003, 2:13 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Give it to me as a present. You can be absolutely sure that I will take good care of it ;-)

Of course it'll be used every day, as that's what calculators are for in the first place, right? But then again, I'm not a collector, but rather a fan of these machines, and I just *love* to use them.

BTW: Do you think that by just using it from time to time you could fry its RAM chips? I certainly don't hope so...

Cheers, Victor

Re: What to do with new HP-25

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 29 July 2003, 2:48 a.m.,*
in response to message #10 by Victor Koechli

Hi;

I do not think RAM chips would "fry out" just because you are using the equipment, and if so, then you have an equipment with a lazy electronic design.

What I do not know is: would any X-MOS (X == C, P, V, N, whatever...) component be timeless? Of course they are not, and under different circumstances, either bipolar components can be destroyed or altered in such a way they will not work properly.

What in fact bothers me is that there are no replacements and, at least so far, no hardware emulators for these calculators. Once fried, the owner should pray for a donated organ. I found one 32KRAM chip in a sound board that was used in an HP42S and it worked perfectly fine (at least I was not yet called back...). Waht to do if a RAM, or an ACT chip dies? And there is no way to be sure that it's not gonna happen when you switch your calculator ON next time... Current surges are also dangerous in some circumstances, as well as ESD.

I prefer the LCD ones. Although they deal with µA and excessive current would fry them easiear, protection is enhanced in their case. At least I hope so... If not, some of them are still available and are easier to be replaced.

Best regards.

Luiz (Brazil)

Edited: 29 July 2003, 2:51 a.m.

Re: What to do with new HP-25 - thanks for all suggestions

*Message #12 Posted by **G Evans** on 29 July 2003, 6:52 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

thanks for all suggestions !

Now what will YOU do?

*Message #13 Posted by **Harry (Germany)** on 29 July 2003, 1:00 p.m.,*
in response to message #1 by G Evans

Regards, Harry

Yeah, now what will you do?

*Message #14 Posted by **Norm** on 30 July 2003, 11:45 p.m.,*
in response to message #13 by Harry (Germany)

I too will volunteer to help you keep it safely stored away (at my house).

this is what I will do ..

*Message #15 Posted by **G Evans** on 1 Aug 2003, 6:05 a.m.,*
in response to message #13 by Harry (Germany)

I will keep the little Woodstock in its case along side my 35 and 45 in my studio. Every now and then I will allow myself the luxury of some calculations using the 25. When my hands are too dirty I will use my Casio fx-61F for the donkey work.

To be honest for complex math Matlab or Mathcad can save a lot of programming time with good graphics thrown in- but maybe not as much fun !

thanks to you all !

George

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Woodstocks ??

*Message #1 Posted by **G Evans** on 28 July 2003, 9:00 a.m.*

I know this sounds terribly neophytish but why is a 25 called a 'Woodstock'?

What about my 35 & 45 what are they ?

George

Re: Woodstocks ??

*Message #2 Posted by **Thibaut.be** on 28 July 2003, 9:08 a.m.,*
in response to message #1 by G Evans

25 is a woodstock 45 and 35 are classics.

Best regards,

Re: Woodstocks ??

*Message #3 Posted by **Axel Poqué** on 28 July 2003, 9:19 a.m.,*
in response to message #1 by G Evans

These are HP's internal series designations. Take a look at "Series & Code Names". Also note the code names a little bit further down.

Axel

Re: Woodstocks ?? thanks Axel

*Message #4 Posted by **G Evans** on 28 July 2003, 9:25 a.m.,*
in response to message #3 by Axel Poqué

Axel

that answers my question perfectly, thanks

George

Re: Woodstocks ??

*Message #5 Posted by **David Smith** on 28 July 2003, 12:24 p.m.,*
in response to message #1 by G Evans

The Woodstock series was named after the bird the the Peanuts comic strip... small, yellow, cute...

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Looking for Susan Wechsler

*Message #1 Posted by **Heather Mackenzie-Campbell** on 27 July 2003, 12:58 p.m.*

I think Susan Wechsler, who authored articles on the HP71B, is the same Susan Wechsler who attended Woodrow Wilson Highschool Class of 1973. I googled her name and found a possible link to the Susan Wechsler who designed the HP71B. Not surprised.

If you can contact Susan and she did in fact graduated from Wison, Long Beach, California in 1973, please let her know the 30 year reunion is August 8-10th. www.wilson73.com

Heather

Re: High School Reunions

*Message #2 Posted by **Paul Brogger** on 28 July 2003, 9:32 a.m.,*
in response to message #1 by Heather Mackenzie-Campbell

A wise man (wiseguy?) once told me, in anticipation of my own high school reunion, "The most interesting stories will be those of the people who *don't* show up."

I attended, but nearly everyone I'd hoped for wasn't there . . .

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I am confused... Hey, Norm, this may be of interest

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 27 July 2003, 1:43 a.m.*

Hi;

I've been walking around e-Bay announcements and found these two:(I think Norm would like to check the first one)

http://ebay3.ipixmedia.com/abc/M28/_EBAY_3df2cbc5742c01c8fe46bee5c3ee2955/i-1.JPG

http://www.globalarray.net/user/ykwong/HP34Ca.jpg

Well, I am somewhat lost about both prices: the first one is almost 15% of the second one...

What is an HP34C worth?

Images are associated to links; please, just click them to see e-Bay's item.

Luiz (Brazil)

Edited: 27 July 2003, 1:46 a.m.

HP-34C Hi Luiz,

*Message #2 Posted by **Norm** on 27 July 2003, 4:02 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi Luiz,

If a 34C is busted to bits, and good to try and put the bits back into the injection molder and make a new calculator, then its probably good for about $50 on eBay.

If it has a charger, a furry case, and it works, its probably worth about $100 .

Those auctions seem to have the cardboard box and all the manuals. If the calculator works good, either of them might fetch $200 - $260.

Appreciate the update, but I was not going to buy any HP-34C right now. After all, I can't own all of them !!

Not 'til I find my way out of this recession.

Anybody seen any good engineering jobs lately ?

Or maybe its time for me to join the boardroom, and get my key to the executive washroom. I could go with a 7 figure salary, and it should be easy enough..... all I would have to do is discontinue products that are sole-sourced and selling well, oh yeah, and cook the books at quarterly earnings time.

I see... 8^) (n.t.)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 July 2003, 11:17 a.m.,*
in response to message #2 by Norm

Re: I am confused... Hey, Norm, this may be of interest

*Message #4 Posted by **Paul Brogger** on 28 July 2003, 1:21 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

The key to the difference in price is the spelling of "calculater" in the first item's title. It didn't answer a title search for "calculator", and hence had fewer bidders.

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Characteristics:HP 9871A printer

*Message #1 Posted by **Jack T.Lee** on 26 July 2003, 5:02 p.m.*

Dear Friends, I'm looking for the pin assignment of the DC-37 port of the above daisywheel printer.And for the data of the two TO-3 case power transistors from the underside of chassis of the printer (serial voltage regulators) (probably blown out). Any kind help from your party is much appreciated. Many thanks in advance! Best Regards,

Jack

Re: Characteristics:HP 9871A printer

*Message #2 Posted by **Ellis Easley** on 27 July 2003, 9:55 a.m.,*
in response to message #1 by Jack T.Lee

The 98032A Option X71 parallel interface is used to connect the 9871A printer to a 9825, 9835, or 9845 calculator/computer. it might be possible to connect the 9871A to other calculators but the 9825 is the only model I am familiar with.

From the 98032A manual, pages 60-61, "9871A printer Interface":

(This manual is on/in CD6 in the latest Museum CD/DVD-ROMs. I can't look at mine now, my DVD drive is broken! but I have a printed manual)

printer 37 pin connector pin:printer signal name (98032A Interface Connector pin:98032A signal name) [wire color code]

12:CALC7 (A10:DO7*) [90], 13:CALC6 (A11:DO6*) [903], 14:CALC5 (A12:DO5*) [9], 32:CALC4 (A13:DO4*) [97], 31:CALC3 (A14:DO3*) [96], 30:CALC2 (A15:DO2*) [95], 29:CALC1 (A16:D01*) [94], 28:CALC0 (A17:DO0*) [93], 26:GND (A18:GND) [6], 9:CMD (A19:PCTL*) [1], 10:HLT (A21:Preset*) [3], 33:GND (A24:GND) [98], 27:GND (B18:GND) [Inner Shield], 11:FLG (B19:PFLG*) [2], 5:COVER ON (B20:PSTS*) [4], 8:BUFR RDY (B22:STI0*) [5], 7:READY (B23:STI1*) [7], 34:GND (B24:GND) [901]

Also, at the 98032A Interface Connector, pin A25 (Chassis) is connected to the Cable Shield. And the 98032A Configuration Board must have wire jumpers installed at positions 4 and 5. (This configuration board wiring and cable make a 98032A into "Option X71".)

The wire color codes are the same as resistor color codes: 0:black, 1:brown, 2:red, 3:orange, 4:yellow, 5:green, 6:blue, 7:violet, 8:gray, 9:white. When there is more than one color listed for a wire, the first color is the insulation color, the second is the wider stripe, the third is another, narrower stripe.

Re: Characteristics:HP 9871A printer

*Message #3 Posted by **Jack T.Lee** on 28 July 2003, 6:18 p.m.,*
in response to message #2 by Ellis Easley

Many thanks to you,Ellis,for your kind message! It is very helpful to me.I will investigate thoroughly once more the pluggable interface PCB to compare it with your kind info.What type of calcs are you interesting

of? If I can be useful to you,please,ask me.I am very grateful to you for your kind service and I feel obliged myself towards you. I'm still hunting the circuit diagram of the printer in question for making known to me the type of the voltage regulators'transistors to be changed into the good ones. If somebody of your friends would have it(the drawing) or have already repaired that printer,I am grateful in advance for any info message on this matter. The best regards and the best greetings from the Polish Coast to you ,Ellis and to you all,Friends!

Jack T.L.

Re: Characteristics:HP 9871A printer

*Message #4 Posted by **Ellis Easley** on 30 July 2003, 12:15 a.m.,*
in response to message #3 by Jack T.Lee

You're welcome, Jack. I'm interested in all calculators! and many other areas, especially test and measurement equipment.

I don't have a 9871A printer and there is no documentation for it in the Museum CD-ROM set. However, if you can find any HP part numbers on the devices you are wondering about, we might be able to find out what standard component types they are. If they are on the bottom of the unit the markings might have rubbed off, but hopefully there is some marking left.

HP used a fairly regular component part number system, with four digit prefixes for families of components and four digit suffixes. Sometimes they truncated the prefix if space was limited on the device package. Here are some examples of prefixes I found in my service manuals:

```
1818-xxxx memory IC's
1820-xxxx digital IC's other than memories
1826-xxxx analog IC's


1850-xxxx PNP germanium transistors
1851-xxxx NPN germanium transistors
1853-xxxx PNP silicon transistors
1854-xxxx NPN silicon transistors
1855-xxxx FET
1884-xxxx SCR (HP used them for power supply crowbars)
```

However, I found 1820-0477 for an LM301AN op amp, and 1820-0493 for a LM307N op amp (and 1820-0430 for an LM309K +5V regulator) - maybe these were early IC part number assignments made before they developed the system of IC family part number prefixes.

HP also used alpha-numeric prefixes for IC's that they made, such as 1LB3-0003 for the HPIL chip.

I know your printer has TO-3 parts, but I found the following part numbers for TO-220 three-terminal regulators in a digital voltmeter:

```
1826-0122 7805
1826-0396 7815
1826-0214 7915
1826-0527 LM337T
```

This just illustrates that parts of this type have the same part number prefix (1826) and that the part number suffix bears no relationship to the standard part number - HP probably just assigned part numbers sequentially as they were used in designs.

I looked for TO-3 devices in my service manuals. Here are the parts I found:

```
1820-0430 LM309K (+5V regulator - note 1820 prefix)
1850-0021 Delco 2N441 (I think this is a TO-3)
1850-0098 "PNP germanium 300 kHz 250 mA"
```

```
1853-0059 Motorola 2N3791
1853-0063 "PNP silicon selected"
1853-0305 Motorola 2N5875
1854-0063 2N3055 (under "Mfr. Part Number", says 1854-0064 - might be HP selected)
1854-0225 "power NPN silicon" (in Harrison power supplies)
1854-0589 Motorola MJ3772
```

That's all I can find so far! Lots of TO-220's, but not too many TO-3's. All of the transistors were used as series pass elements in voltage regulators. There is a partial HP part number cross reference available - we might have to look in the Archives for it. Let me know if you can read any of the numbers on your devices.

Re: Characteristics:HP 9871A printer

*Message #5 Posted by **Ellis Easley** on 1 Aug 2003, 8:45 a.m.,*
in response to message #3 by Jack T.Lee

I found a few more TO-3 devices in HP service manuals:

```
1826-0123 "-12V regulator"
1826-0631 "IC:regulator"
1853-0310 2N4398 (PNP silicon)
```

Based on pin assignments, I think 1826-0123 is an LM320K-12 or an LM7912CK. Judging by a photograph showing a manufacturer's part number, the pin assignments in the schematic, and the resistor values which were used to set the output voltages, I think 1826-0631 must be an LM350K, an adjustable (1.2-33V) three terminal positive regulator with up to 3A output current.

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15C Keyboard Test Error

*Message #1 Posted by **gifron** on 26 July 2003, 3:04 p.m.*

If a 15C has an "error 9," it has failed the keyboard test. But what does that mean?? All they keys seem to work, it just fails the test. Could a low battery cause this problem? I am asking for a friend who says it has a low battery indicator, but he doesn't have new batteries to test it.

Edited: 26 July 2003, 3:13 p.m.

Re: 15C Keyboard Test Error

*Message #2 Posted by **Randy Sloyer** on 26 July 2003, 5:16 p.m.,*
in response to message #1 by gifron

All bets are off with a low battery indicator. Get new batteries and try again.

Error 9 means a key did not register or was pressed out of sequence during the test.

Re: 15C Keyboard Test Error

*Message #3 Posted by **Valentin Albillo** on 26 July 2003, 5:16 p.m.,*
in response to message #1 by gifron

If all the keys seem to work Ok, there are two reasons why you may get Error 9, one being if batteries are indeed *very* low, and the other being that you (or your friend) aren't pressing the keys in the correct order.

You must press them from left to right, one at a time, beginning with the topmost row, and must press the vertical ENTER key ***twice***, once for each row it spans, i.e: you must press them like this:

```
   - press "Square root"
   - press "e^x"
   - ...
   - press "divide"
-------------------------
   - press "SST"
   - press "GTO"
   - ...
   - press "X"
--------------------------
   - press "R/S"
   - ...
   - press "arrow left"
   - press "ENTER"
   - press "1"
   - ...
   - press "-"
--------------------------
   - press "ON"
   - ...
   - press "RCL"
   - press "ENTER"
   - press "0"
   - ...
   - press "+"
```

If all goes well, you should then get a "15" right in the middle of the display. Else, either you did press one key out of sequence, or then the last key before you get an "Error 9" is malfunctioning.

Please try above sequence and see if this time it passes the test Ok.

Best regards from V.

Re: 15C Keyboard Test Error

*Message #4 Posted by **professorkscc** on 26 July 2003, 10:38 p.m.,*
in response to message #1 by gifron

The owner's manual describes Error 9 as follows:

Error 9: Service Self-test discovered circuitry problems, or wrong key pressed during key test. Refer to appendix F.

Appendix F relates to "Battery, Warranty, and Service Information."

Problem could be batteries?

Hank

Re: 15C Keyboard Test Error

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 26 July 2003, 11:10 p.m.,*
in response to message #4 by professorkscc

Hi, professor;

in digital circuits, voltage levels below a minimum recommendation may cause the most strange and weird behavior, believe me. We're talking about MOS-based digital circuits, and in this case we may have larger voltage ranges, but if you consider that pressing a key in these calculators increases current consumption in about 300%, then having a previous low battery condition may lead to malfunction when a key is pressed, even if it is not when keyboard test is performed.

I observed once that ealier HP15C's with batteries "nearly-to-low-bat-condition" will sign this low-bat condition (flashing *) when performing keyboard test even when no keys are pressed, but will behave oppositely when in normal operation. I think these tests ([ON]&[+], [ON]&[×] and [ON]&[÷]) are like running programs and consume more power than regular use. If this is true, low batteries may cause [Error 9] in a normal unit running keyboard test.

My 2¢.

Luiz (Brazil)

Edited: 26 July 2003, 11:12 p.m.

Re: 15C Keyboard Test Error

*Message #6 Posted by **thibaut.be** on 27 July 2003, 1:51 a.m.,*
in response to message #1 by gifron

Are you sure you pressed twice the <ENTER> key ?

Re: 15C Keyboard Test Error

*Message #7 Posted by **gifron** on 29 July 2003, 3:08 a.m.,*
in response to message #1 by gifron

Thank you all for your inputs. I pulled out an 11C, and found some near dead batteries. It went part way through the KBD test, and got the error 9. With good batteries, it was fine. So I contacted my friend and found out that he got the 15C to pass the KBD test one time out of several. As previously mentioned, it had a low battery indicator - Looks like that's the problem.

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HP41 Battery question

*Message #1 Posted by **Harry (Germany)** on 26 July 2003, 2:19 p.m.*

Does the original HP41 rechargable battery pack have 5 cells? I just put 4 N-size rechargables into the battery-holder and the calculator didn't power up ?!?

Regards,
Harry

Re: HP41 Battery question

*Message #2 Posted by **David Smith** on 26 July 2003, 2:23 p.m.,*
in response to message #1 by Harry (Germany)

Nope, they have four cells...

Re: HP41 Battery question

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 26 July 2003, 2:54 p.m.,*
in response to message #1 by Harry (Germany)

Hi;

maybe it's a silly question, but... Have you tested each cell? Do all of them show the same voltage when measuring with a voltmeter/multimeter? Also, have they all been found with correct voltage, it's good idea to "load" them and check for current intensity. For testing purposes, a 15 ohms resistor should demand about 90 mA, as fully charged NiCad's offer about 1.2Vcc to 1.3 Vcc. If voltage is too low on any battery or current does not reach at least 80 mA in all of them, recharging each sell separately or replacing bad one(s) may be a solution.

Success.

Luiz (Brazil)

Re: HP41 Battery question

*Message #4 Posted by **Harry** on 26 July 2003, 5:50 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Yes I have tested them. And they are all good, as i expected, as they are new. They all have 1.30 to 1.32 Volts and go down to 1.1 at 3 (!) Amps. So thats not where the problem is. The Alkalines all have about 1V and still work fine. I cleaned all the contacts again. Even soldered metal plates to the cells now, because I thought they might not touch the contacts for some funny reason.
Now its getting wired: If I put 4 Alkalines in, it works. If I replace them one by one with rechargables and put the pack in the calculator after each one and turn it on and off again, then I get it working on all 4 rechargables. But if I take the 4 Alkalines out and put 4 rechargables in, it does not.
I have no explanation for this VERY WIRED behaviour.

Regards,
Harry, who goes crazy now

Re: HP41 Battery question

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 26 July 2003, 7:48 p.m.,*
in response to message #4 by Harry

Hi, Harry; (Harald, right?)

if it is like you say, find a place for my brain beside yours, too...

I once had a problem with one alkaline cell, but as you measured all of them, not a way! Actualy weird!

One last possibility: have you thought aobt physical measures? I mean, size? Try "stretchning" the battey compartment's springs a little bit to enhance the pressure.

Success. An let us know what happens.

Luiz (Brazil)

Re: HP41 Battery question

*Message #6 Posted by **Harry** on 27 July 2003, 7:59 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Yes, Harald is correct.
I tried it over and over again. Same behaviour as described. I guess i always need a set of "startup" alkalines to get it running on the rechargables.
Here is one idea i have: When I put the batterys in, the first thing it does is probably to charge the backup capacitor. Now what if it draws a too high current because of the very low resistance of these new rechargables. Do you think that could lock it up then? Maybe I avoid this high current by replacing the alkalines one by one with the rechargables. The alkalines have only 1 Volt per cell left, so the Voltage of the rechargables is higher now and the capcitor has to be charged.
I will get new Alkalines and try replacing those with the rechargables (all four at the same time) maybe that works.

Regards, Harry

Still strange behavior...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 27 July 2003, 11:15 a.m.,*
in response to message #6 by Harry

Hi, Rarry;

I'm following this situation with a particular interest and curiosity. A behavior like this is usualy related to a simple problem that was not supposed to happen. I'm thinking of faulty (dried) capacitor in mainboard, bad contact somewhere which somehow happens when batteries with different dimensions are inserted, and stuffs like this. Based on what you mention, when voltage raises in steps of about .3 volts, the calculator accepts rechargeable batteries. I also understand that if voltage drops of about 1 volt (when you return alkaline batteries back) then it's O.K. But if you change the set completely you'll force an extra 1.2 volt step and the system seems to hang at this point, right?

If in your case you replace a set of nearly exhausted batteries (1 volt each) for a new, fresh set, voltage will be increased in about 2 volts, from 4 Vcc (4 × 1V) to 6 Vcc (4 × 1.5V). I wonder of what's gonna happen!

Mostly I wonder about the cause, the reason. I replaced exhausted batteries for new, fresh ones in almost all of my calculators. Let's not forget that the HP41 was the first LCD calculator from HP and some units get stuck with a high pitch frequency sometimes. I once tracked (with the unit touching my ear) to "see" where it was comming from and I found that it was from the small coil in the power supply and not from the buzzer.

I think that there are situations where the power supply circuits may hang and others taht it will not hang.

I cannot go further from here. I am now waiting to "see" what's gonna happen if you use four new, fresh batteries at once and then you change for the rechargeable pack, say, a reduction in voltage. To be completely honest, I cannot even dare pointing a faulty condition, neither an operational characteristic as a cause for this "behavior".

Let us know as you have new information. Sorry not helping further.

Luiz (Brazil)

Re: Still strange behavior...

*Message #8 Posted by **Harry (Germany)** on 27 July 2003, 2:31 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Thanks for your interest in this strange problem.
I have found annother set of new alkalines. They are exatcly the same as the old ones, but fresh. I put them in and .... nothing, it does not work, same behavior as it shows with the rechargables.
Now I diged my mint HP41CV out of the desk, that I did not really wanna use, but this was driving me crazy. So I did it anyway. Surprisingly - or maybe not surprisingly anymore at this point - it works just fine on all 3 sets, the exhausted Alkalines, the new ones and on the rechargables.
Now please help me, what do I do if my calculator runs on exhausted batterys only?!?

Regards, Harry

Re: Still strange behavior...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 27 July 2003, 2:52 p.m.,*
in response to message #8 by Harry (Germany)

Hi, Harry;

I was driving myself crazy. But now we can be sure that at least all battery sets are working fine. (Hey, Valentin, a "supposingly" useful hint for working calculators kept by collectors: testing each other!).

Have you checked if it is a fullnut or a halfnut?

This is an original MoHPC image.

I remember that the fullnuts have an IC in their mainboard that's the heart of a power supply. I read about this and never called my own attention for it... 'till now.

I'm not sure about how does it work, but there is something that I did not ask you so far: do these four 1volt alkaline batteries cause a low battery condition, say, is the **BAT** annunciator on? If it is not on, chances are that something is wrong with your calculator's power supply. I mean, if there is a voltage sensing component, like a voltage divider, and this(these) component(s) is(are) faulty, then the low battery condition is not sensed in fact. Maybe the 4V from the exhausted battery set is taken as normal voltage, and raising it slowly does not bother the power supply. Let's also think that the same faulty reference informs that anything above 5V is excessive voltage and the circuit does not allow the power supply to turn itself on to protect calculator's circuits. So, connecting anything higher than or equal to 5V instantaneously will not allow the calculator to switch to ON, but changing batteries one by one will not trigger sensing/protective circuits.

I'd first check schematics for this calculator (there are some different types of mainboard for the HP41; I've seen four myself) or inspect the mainboard itself in order to try to "see" any electronic components connected to the power supply IC that would be working as voltage sensing and/or reference. I have no schematics in hands for now, but I'll try to find some further info. Maybe Tony Duell or David Smith or others (I remembered their names because I read some of their posts a few minutes ago) will add other important information.

Success! As I have anything new I'm posting again.

Luiz (Brazil)

Edited: 27 July 2003, 2:56 p.m.

Re: Still strange behavior...

*Message #10 Posted by **Harry (Germany)** on 27 July 2003, 5:47 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Well, first, it is a fullnut (s/n 2127S11343). The BAT indicator is not on after turning it on. But when I run a program it comes on after a few seconds. BTW, thats when I stoped calculating primnumbers. I wanted to put the rechargables in and go on. I didn't know it would get so complicated....
When I bought that calculator about 1.5 years ago it had a strange behaviour too. After putting batteries in for the first time, it had a very dim display that was hardly readable. It got better the longer it was turned on. After like a month with the batteries in it that problem was gone and never appeared again. I have taken the batteries out of it an put back in, sometimes after a month of not using it, and it started with "Memory Lost" but a bright display. I used the same set of batteries all that time. The one that is exhausted now.

Regards, Harry

PS: I did not open it yet, I will probably do that next weekend.

Re: Still strange behavior...

*Message #11 Posted by **Axel Poqué** on 27 July 2003, 3:00 p.m.,*
in response to message #8 by Harry (Germany)

From what you're describing it seems like the voltage regulator circuit of your HP is broken. Electronic circuits need certain voltage levels to operate properly (e.g. 5 V for TTL circuits). Typically the battery/charger voltage of an electronic device is higher than the actual required operating voltage to allow for voltage drops and optimal use of batteries. If the regulator doesn't work, the supplied voltages are too high and can cause strange behaviour or even damage the device.

Axel Poqué

Re: Still strange behavior...

*Message #12 Posted by **Harry (Germany)** on 27 July 2003, 5:51 p.m.,*
in response to message #11 by Axel Poqué

Isn't the HP41 cmos, wich would not have problems with the higher voltage?
The powersupply is definatly the first thing I will have a closer look at when I open the calculator

Regards, Harry

Re: Still strange behavior...

*Message #13 Posted by **Axel Poqué** on 27 July 2003, 6:30 p.m.,*
in response to message #12 by Harry (Germany)

Yes, that may be right, but some other part might have narrower voltage requirements (the display perhaps? or are there TTL support chips? TTL chips do have a much narrower margin - 4.75 to 5.25 V I think). Have you tested if the calc beeps? If this is so, only the display can't cope with the voltage levels.

It would be nice if we had some schematics/specifications, so we could test this theory...

Regards, Axel

P.S.: Viele Grüße aus Aachen :-)

I am quiet sure I know what it is now

*Message #14 Posted by **Harry (Germany)** on 27 July 2003, 8:16 p.m.,*
in response to message #13 by Axel Poqué

I powered it by an external powersupply now, and here is what happened:
If I don't restrict the maximum current, it draws a current of about 500mA when I connect it to the powersupply at a Voltage between 4 and 6.2V.
If the Voltage is below or above (I tested it up to 6.5V) there is no problem and it works just fine.
Once it is connected I can change the voltage and there is no problem

between 4 an 6.2V anymore.
The problem also does not appear when the current is restricted to 50mA, wich makes sence as the Voltage drops when i connect it and then rises again.

All this tells me it is the internal powersupply that is faulty. Its probably the oscillator that does not start oscillating for some reason.

Any ideas what that reason could be?

Regards,
Harry

Re: I am quiet sure I know what it is now

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 27 July 2003, 9:16 p.m.,*
in response to message #14 by Harry (Germany)

Hi, Harry;

an off-topic, relaxing comment: I see that not only we are "night workers" but also completely "workaholics", if that's the way it's spelled... In Brazil it's 22:10 PM, I'm delving into my post-graduation text and as I need a brief pit-stop, I read the posts. Wow!

I read Axel's posts and I would add that this selectivity "sounds me" like semicondutor trick, not exactly passive-component behavior. A few months ago I had an HP41C in hands with hig-current drain only when it was "ON". The LCD driver was the cause, and David Smith mentioned the fact it is a bipolar technology device. As it has capacitive load (LCD segments), current drain for this particular IC is not so much relevant. Anyway, depending on its' internal configuration/arrangement, chances are that depending on voltages supplied to it, a diffeent set of transistors may be switched to ON or OFF. If one of them is bad, high current drain may happen as well for an specific voltage range. I'd not be surprised if you have normal operation after simply replacing the LCD driver (the one with an 'RAYC' in its ID code). The problem is that a donator must be found, no commercial replacements so far.

Best regards and success.

Luiz (Brazil)

Edited: 27 July 2003, 11:03 p.m.

I am quite sure I *don't* know, but...

*Message #16 Posted by **glynn** on 28 July 2003, 12:40 a.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

While not discounting the idea that it may well be an LCD driver, INCLUDING of course the saga Harry recounted about the dim display when he first got the calc, I am perhaps one of those conservative types who like to check spark plugs before going off to

buy a new engine. Unless Harry happens to have a couple of spare known good LCD drivers around, he will also want to look at the most common failure modes of circuits before moving on to the more esoteric.

An oscillator circuit can be designed different ways, of course, and I don't have any knowledge of the HP41. But let us ask if the circuit has any external components to "tune" the frequency of the oscillator. Are any of them not at rated value? Especially capacitors (a good case could be made for replacement of these in lieu of trying to measure them; alternately, temporarily paralleling one in with another sometimes helps figure out what is wrong). What frequency should be output? Is there no output when the calc is acting "hung"? Is the calc in fact inactive, or is the lack of a display leading us to think "hung" when in fact the cpu is active and the output is simply not visible to us?

Visual inspection of contacts, pads, traces can be of value, if only to assure that some corrosion or partially-made contact is not acting like an added resistor in some timing-dependent function. Of course, measurement with voltmeter or even better, having an oscilloscope handy, is useful IF you have ready access to someone who can tell you what voltages you SHOULD be seeing or what waveforms you SHOULD be catching.

I merely suggest that while cannibalizing one machine to test another is very Tempting, leave your good machine good for now and instead gather as much information on this badly-behaving one as you can. I'd be willing to bet it *IS* either failure of a passive component like a capacitor, or a contact/trace/conductive failure near the power-supply circuit. At least, that is my first "intuition".

Hi, Glynn!

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 28 July 2003, 2:26 a.m.,*
in response to message #16 by glynn

Howdy?

You know, I read your post and I think any valid suggestion, analisys, question, reasoning like yours MUST be taken into account.

One of the most "interesting" fact here, if I can classify it so, was the 500mA (½A) current consumption, a considerable high current for the HP41, when the calculator was "hung". And it happens when the calculator is connected to a power supply delivering a very specific voltage range. Out of this range, up or down, there is no more high current.

I "connected" this fact to semiconductors, not to passive components or faulty cooper trails. But you're right, a pre-check for not so complicated causes must be made. A broken cooper trail may disconect two pins and may also cause strange

behaviors. I wrote about this in one of my first posts in this thread:

> Quote:
>
> A behavior like this is usualy related to a simple problem that was not supposed to happen.

It seems I forgot my own words...

Thank you for the enlightment, Glynn.

Best regards.

Luiz (Brazil)

Re: Hi, Glynn!

*Message #18 Posted by **Chan Tran** on 28 July 2003, 12:39 p.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

I read in an article somewhere when the 41 was introduced that it has a voltage regulator that can provide a steady 5V when the battery voltage is from 4 to 6V. So is it possible that the regulator went bad?

Re: Hi, Glynn!

*Message #19 Posted by **Harry (Germany)** on 28 July 2003, 2:44 p.m.,*
in response to message #18 by Chan Tran

Thats exactly what I am thinking. I was talking about the oscillator in that voltage-regulator (or powersupply).

Regards,
Harry

HP41C power supply

*Message #20 Posted by **Ellis Easley** on 30 July 2003, 12:31 a.m.,*
in response to message #19 by Harry (Germany)

You know, there is a 41C service manual on CD5 of the Museum CD-ROM/DVD.

HP41C power supply

*Message #21 Posted by **Ellis Easley** on 30 July 2003, 5:38 a.m.,*
in response to message #19 by Harry (Germany)

I've been looking at the 41C service manual on the

Museum CD5 (schematic on page 36 and power supply Theory of Operation on page 10) and comparing it to the re-drawn 41C schematic that has been available for a while and I think the re-drawn schematic introduces some errors. For one thing, the 14 pin bipolar chip labeled "LCD-DRIVER" on the re-drawn schematic is actually the power supply chip (U2). One of its functions is to provide three voltages (nominally 1.1, 2.2 and 3.3V on pins 4,3 and 2) to the actual LCD driver chip which is part of the Display Assembly. The power supply chip also temperature compensates the three voltages, which is required for consistent display contrast over temperature. Another function of the power supply chip is to monitor the input voltage (the power supply chip gets its operating power on pin 14 from C1 and through CR1 from the battery) and if it falls below 4.2V, it pulls its pin 5 low, which is connected to CPU pin 6 (LLD) - the text says this pin's function is low battery voltage detection.

The Theory of Operation section doesn't go into the details of how the power supply chip generates the 6V Vcc operating power supply but it describes how the CPU turns the power converter on by driving a current into pin 13 (Vci) (from CPU pin 8 through R1) and how once the converter output voltage reaches 6V, the power supply chip drives its pin 6 (Vco) low to signal the CPU (on pin 7) that power is good, with a capacitor (C5) storing the low level (between power converter switching cycles, I think).

My guess is that the resistor (R3) and capacitor (C6) on pin 7 control the time constant of the power supply chip's power converter and that pin 10 (IND) is the converter switching output, driven low to store energy in the inductor (T1), and then when the current is turned off, the counter-EMF of T1 is rectified by CR2 and filtered by C3 to generate Vcc, which is sensed by the power supply chip on pin 9 to control the timing of the switching output on pin 10 to maintain Vcc at 6V.

The service manual Theory of Operation doesn't say anything about the resistor (R2) connected between power supply chip pin 12 and ground (although there might be something about it in the troubleshooting section). The signal is labled "ISET" which would generally mean "current set". Some oscillator chips use a constant current source to charge a capacitor to establish a time constant, so this pin might control that aspect of the power converter. Or the current could control the internal voltage references that determine the output voltage and/or the low battery voltage and/or the three LCD voltages. Or, given that it is named like a current input and the pin next to it (Vci) is described

as a current input, the current flowing from pin 12 to ground might establish the current level into pin 13 that represents a logical "1".

There are a lot of differences in the component reference designators on the service manual schematic and the re-drawn schematic - this might be because the two schematics represent different revisions of the logic board. There are also differences in the pin numbers on the board-to-board connectors on the two schematics. It might be that the person who re-drew the schematic assigned his own pin numbers, if they aren't marked on the PCB's (which could also explain the different reference designators). Also, the re-drawn schematic doesn't have the two transistor circuit that controls the DATA signal from the Phase 2 clock. Since both signals are connected to the CPU, maybe the transistors are eliminated by a revision of the CPU.

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eBay insane price!

*Message #1 Posted by **Michael Meyer** on 26 July 2003, 1:38 p.m.*

Check out this untested TI-59!! And I missed the 19C that went for $125! Strange business.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=11713&item=3036813460

Michael

Re: eBay insane price!

*Message #2 Posted by **Mark Hardman** on 26 July 2003, 1:53 p.m.,*
in response to message #1 by Michael Meyer

I'd say that this is a case of the following:

http://pages.ebay.com/help/community/shillBidding.html

Mark Hardman

Re: eBay insane price!

*Message #3 Posted by **db(martinez,california)** on 27 July 2003, 1:04 a.m.,*
in response to message #2 by Mark Hardman

I have seen "mrperfectlife" bid on TI 58/59 stuff. Using old, or any, TI gear doesn't seem like a perfect life to me but he is legit.

I don't know about the other two suspects, but if Dr. Mike says that they are insane then i'll accept his professional opinion. They are f####'n nuts.

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HP-110 Plus and Machine Language

*Message #1 Posted by **Jeff** on 25 July 2003, 6:22 p.m.*

Can the HP-110 Plus be used to assemble Machine Language for the HP-41? Can this unit be used as a MLDL of sorts?

Re: HP-110 Plus and Machine Language

*Message #2 Posted by **Tony Duell (UK)** on 26 July 2003, 5:58 p.m.,*
in response to message #1 by Jeff

There was official HP41 ROM development software for generic MS-DOS machines and it would run on the Portable Plus. IIRC, it was called 'SDS-II', and included a user language translator, assembler, linker, ROM image creation programs, etc It wasn't what I understnad by an MLDL, though (which to me is a piece of hardware). The docs for SDS-II suggested yuo should use a commercially-available ERPOM or RAM box (I think Eramco was mentioned) to test your ROM images before getting HP to make a custom module for you.

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Xtreme Newbie Question

*Message #1 Posted by **V** on 25 July 2003, 4:43 p.m.*

Newbie Warning> following question is a rookie one.

In system RPL, the programing language, how exactly does error handling work? I wnat to know bout CKN and CK&Dispatch, how do they work, what exactly does Dispatch mean and, just a little curious, does CK stand for anything special?? TY

"\V/"

Doesn't sound like a newbie

*Message #2 Posted by **bill platt** on 25 July 2003, 5:20 p.m.,*
in response to message #1 by V

Mentioning SysRPL in anything resembling a technical question sounds advanced to me. I have a hard enough time finding the time to learn User RPL 6^)

regards,

Bill

Re: Xtreme Newbie Question

*Message #3 Posted by **Raymond Del Tondo** on 26 July 2003, 6:49 a.m.,*
in response to message #1 by V

www.hpcalc.org is the place to find information on SysRPL. First thing should be to read the manual as usual;-) In this case it's called RPLMAN.DOC and can be downloaded from www.hpcalc.org , either as single file and as part of the HP RPL Tools package.

The exist various other documents on SysRPL in the archive.

BTW: CK... are words for argument checking (chapt. 14), error handling/trapping is another chapter (chapt. 16)...

Raymond

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Meeting IV

*Message #1 Posted by **Matthias** on 25 July 2003, 4:42 p.m.*

Hello my dear friends...

Our european HP-Meeting has found a date. It's September 20. I have 9 persons how will join till now (You will get a mail from me). If someone else will join, please write me a short mail...

Matthias

I might come...

*Message #2 Posted by **Harry (Germany)** on 25 July 2003, 7:19 p.m.,*
in response to message #1 by Matthias

but I would need someone who takes me there. Basel is about 550 km away and as I am a student and don't have that much money, I can't afford to drive there. I live near Dortmund and study at Siegen. So if someone near there (I would be willing to drive 150 km or so) is going that would be great!

Regards,
Harry

Re: I might come...

*Message #3 Posted by **thibaut.be** on 26 July 2003, 10:35 a.m.,*
in response to message #2 by Harry (Germany)

If you come to Brussels I can take you over there, or Luxemburg is on my way...

Re: I might come...

*Message #4 Posted by **Harry (Germany)** on 26 July 2003, 2:17 p.m.,*
in response to message #3 by thibaut.be

Thanks for offering. If nobody closer to me is going, I'd be happy if you take me there.

Regards,
Harry

Re: Meeting IV

*Message #5 Posted by **Wlodek Mier-Jedrzejowicz** on 26 July 2003, 8:56 p.m.,*
in response to message #1 by Matthias

Hello, I have only just seen this, and do not know anything about it - maybe someone from the British HP handhelds club could come too? Or is this only for a special group of people?

Unfortunately, the HP Handhelds conference in the US is exactly at the same time :-)

Hoping to hear more soon!

Wlodek Mier-Jedrzejowicz

Re: Hoping ...

*Message #6 Posted by **Valentin Albillo** on 26 July 2003, 9:50 p.m.,*
in response to message #5 by Wlodek Mier-Jedrzejowicz

Wlodek posted:

"Hoping to hear more soon!"

And I'm glad to hear from you ! I was beginning to think that you were dead, or something ... Nice to see that you just needed the right stimulus to give signs of life again ! :-)

Best regards from Valentin.

Re: Meeting IV

*Message #7 Posted by **Matthias** on 27 July 2003, 11:14 a.m.,*
in response to message #5 by Wlodek Mier-Jedrzejowicz

Hi

I´m glad to hear from you too.. Certainly everybody is invited to join our meeting... You know, Basel as a airport 15km in the north.. So, no problem... Do you plan to go to the US party that day?

Matthias

Would it be possible...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 26 July 2003, 10:52 p.m.,*
in response to message #1 by Matthias

Hi, European folks;

greetings from Brazil (as if you don't know...).

Is it possible that some of you (or at least one) keep computers on line and connected during the meeting? If Dave allows it to happen, we could be "e-talking" while you're there. I know that there are other ways to do it, but I only access this forum, no one else. I have no ICQ and I think that chat rooms would allow other "audience". Not that it is a bad idea, only that if people not related to HP decide to rule, we'll be "uncovered".

Well, this is just a suggestion of mine. As Harald mentioned he is 550Km away, let me tell you: you're lucky having no ocean in between, if you understand what I mean. Please, Harald, this is just a general comment, don't take it wrongly or specifically to your situation. I know what it is to be a student and have no resources other than the necessary ones. IN other hand, I'm glad you are close to each other and can organize such events.

I'm glad for you all.

Please, let us know about what happens there.

Best regards.

Luiz (Brazil)

Re: Meeting IV

*Message #9 Posted by **Andreas Stockburger** on 28 July 2003, 2:07 a.m.,*
in response to message #1 by Matthias

Hi Matthias,

do you have my name on your nine-person-list ?! If not please include me.

best regards

Andreas

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HP-01 watch band

*Message #1 Posted by **Erik Wahlin** on 25 July 2003, 4:30 p.m.*

Was the leather watch band on the HP-01 an optional or did some watches come with that type of band? Thanks

Re: HP-01 watch band

*Message #2 Posted by **David Smith** on 25 July 2003, 5:30 p.m.,*
in response to message #1 by Erik Wahlin

I am almost certain that they were all optional except that HP employees could get them directly.

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HP iPAQ PocketPC going to the moon

*Message #1 Posted by **gene** on 25 July 2003, 2:03 p.m.*

http://www.transorbital.net/PressReleases/press030715.html

FOR IMMEDIATE RELEASE

July 15 2003

HP iPAQ Pocket PCs to be Onboard TransOrbital's First Commercial Moon Mission Newly Introduced HP iPAQ h5550 to Facilitate Wireless Communication in Space

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PALO ALTO, CALIF., JULY 15, 2003 - HP (NYSE:HPQ) plans to launch its HP iPAQ Pocket PCs into outer space onboard TransOrbital's TrailBlazer spacecraft, the first commercial mission to gain approval from U.S. authorities to explore, photograph and land on the moon, later this year.

With an early 2004 launch date approaching, TransOrbital looked to the newly introduced HP iPAQ Pocket PC h5550's innovative engineering, mobility, simplicity and ease of use to facilitate wireless communication within the satellite. The handheld device will integrate with the TrailBlazer systems on board the spacecraft to enable TransOrbital to effortlessly synchronize and share data while in space, during transit to the moon and while orbiting the moon.

During subsequent launches, it is anticipated that the HP iPAQ Pocket PCs will be used for wireless communication with cameras that are tethered on the outside of the spacecraft to provide superior video streaming capabilities for display on Earth. Future applications for the devices also may include the ability to communicate via e-mail with the Trailblazer lunar orbiter while it is orbiting the moon and on the moon's surface.

As the first and only private company to be licensed by the U.S. Department of State and the National Oceanographic and Atmospheric Administration for moon travel, TransOrbital believes that important and affordable advances in science, medicine, communications and information technology can be achieved by forming strategic global corporate alliances for space exploration.

"Lunar development requires innovative partners, and HP is an ideal world-class systems provider," said Dennis Laurie, chief executive officer, TransOrbital. "Being the first to send and utilize innovative technology in space, such as HP's iPAQ Pocket PCs on this lunar mission, demonstrates that the moon is now truly within anyone's reach."

"HP is a leader in providing technologies that work to improve the mobile experience, whether on Earth or on a spacecraft traveling to the moon," said Alex Gruzen, senior vice president and general manager, mobile computing

group, HP Personal Systems Group. "We are very excited that TransOrbital is about to include affordable, innovative HP products, such as our iPAQ Pocket PCs, to enhance this first commercial flight to the moon."

TransOrbital's first moon mission will provide HDTV (high definition TV) views of equipment left behind from past Apollo and Russian landings. The mission also will deliver a time capsule containing personal cargo from Earth, including personal messages and artifacts. Media collected during the mission, including a "barnstorming" video filmed as the capsule reaches the lunar surface, will provide TransOrbital with an array of content vital to future scientific and exploratory endeavors, as well as educational and entertainment uses.

In December 2002, TransOrbital successfully launched a test lunar satellite into earth orbit using the International Space Company (ISC) Kosmotras Dnepr rocket. TransOrbital also will use the ISC Dnepr rocket for the moon launch.

ISC Kosmotras is a Russian supplier of launch vehicles for many companies and countries around the world. ISC Kosmotras activities under the Dnepr program are covered by special decrees by both the Russian and Ukrainian governments. The Dnepr LV is developed on the basis of the world's most powerful SS-18 ICBM. Unique for a light-class launch vehicle, the Dnepr is able to deliver 3,500-4,000 kg of payload into low earth orbit. More information about ISC Kosmotras and Dnepr rockets is available at www.kosmotras.ru.

About TransOrbital, Inc.

TransOrbital, Inc. is a privately owned supplier of lunar delivery services, aerospace design, analysis and launch services. Established in 1998, TransOrbital is the first company of its kind authorized by the U.S. government to photograph, explore and land on the lunar surface. The 2003 TrailBlazer spacecraft's primary mission is to return HDTV video and other multimedia content from lunar orbit to market as commercial products, as well as the delivery of both personal and commercial cargo to the moon. More information about TransOrbital is available at www.transorbital.net.

About HP

HP delivers vital technology for business and life. The company's solutions span IT infrastructure, personal computing and access devices, global services and imaging and printing for consumers, enterprises and small and medium business. For the last four quarters, HP revenue totaled $70.4 billion. More information about HP is available at www.hp.com.

Re: iPAQ going to the moon -- who's (what's) gonna work the touch screen?

*Message #2 Posted by **Paul Brogger** on 25 July 2003, 2:34 p.m.,*
in response to message #1 by gene

I want a copy of whatever is the robot finger that will enter data remotely via the iPAQ's touch screen -- I can use to computer-control programming of my HP-42s! ;^>

Re: HP iPAQ PocketPC going to the moon

*Message #3 Posted by **Wayne Brown** on 26 July 2003, 9:23 a.m.,*
in response to message #1 by gene

Of course, iPAQ isn't an HP product. It was created by Compaq, and HP just gets to market it because of the HP-Compaq merger. It's like all their other remarketed stuff, except that this time, instead of buying another company's products, they bought the whole company.

Remember when HP used to be able to design and build things of their own that were good enough to go into space?

"may include the ability to communicate via e-mail..."

*Message #4 Posted by **glynn** on 26 July 2003, 10:18 p.m.,*
in response to message #1 by gene

Trailblazer REPORTS:

45:26:22 Lunar Entry Initiated; on schedule

<<<<<You've Got Mail!>>>>>

Trailblazer detects attempted communication to Ipaq module. Checking...

Trailblazer Email-Command Listen;

Email: Sender Transorbital Central: Header: COMMAND SET (REVISED):

Message: Set LRF Rocket firing mode 4,2,,2 at 48:40:05 for 3 seconds. END MESSAGE

Trailblazer Email-Command sets LRF firing mode to 4,2,,2 for 3.0 secs commmencing at 48:40:05

Trailblazer Email-Command completed successfully. Next message:

Email: Sender Your Wife will love it: Header: Get Viagra online for 50% less:

Trailblazer Command Error 25 {Unrecognized command};???

Message: No doctor visits necessary! Our online pharmacists are on call 24-7 to assist!

Trailblazer Command Error 25 {Unrecognized command};???

Message continues: Get up and Get On with your life! Don't let high prices keep you (and your special loved one) from the happiness you deserve!

Trailblazer Command Error 25 {Unrecognized command};???

Message continues: Our secure website accepts all major credit cards and respects your privacy. Packages arrive in plain, unmarked wrapping via UPS or FedEx.

Trailblazer Command Error 25 {Unrecognized command};???

Message continues: Don't Delay! Grab all the Gusto you can!

Trailblazer Email-Command sets immediate firing mode at 45:29:33;

(3.0-sec burn initiated)

(3.0-sec burn complete)

Trailblazer Email-Command completed successfully.

Trailblazer Email-Command deploying Grabber arm, target "Gusto".

Trailblazer Command Error 07: Target not found, continuing search

<<<<You've Got Mail!>>>>>

Trailblazer detects attempted communication to Ipaq module. Checking...

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33S picture?

*Message #1 Posted by **Arnold** on 25 July 2003, 10:48 a.m.*

I'm also chasing a picture of the new 33S - anyone know where one can be found?

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Advice on HP 25 Charging

*Message #1 Posted by **G Evans** on 25 July 2003, 9:23 a.m.*

The HP25 manual warns against using the battery charger without batteries fitted to the calc.

Can any one say if damage for this reason is common ? The 35 and 45 can be used with chargr alone.

In another thread I requested advice on a 25 that may have its RAM chip damaged (no STO or RCL but ok otherwise).

Could damage to the RAM have resulted for not observing the above ?

George (UK)

Re: Advice on HP 25 Charging

*Message #2 Posted by **Victor Koechli** on 25 July 2003, 9:49 a.m.,*
in response to message #1 by G Evans

In contrast to the Classic models, operating Woodstocks on the charger alone (without a **good** battery installed) is officially discouraged by the manual an can result in permanent damage to the calculator. This seems to be true especially for the HP 25C and 29C with continuous memory as their memory is always connected to the power and even connecting a charger without turning the calc on can damage it!

And: Yes, it may well be that your machine was damaged this way.

Cheers, Victor

Re: Advice on HP 25 Charging

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 25 July 2003, 4:21 p.m.,*
in response to message #2 by Victor Koechli

Hi;

For sure! Voltage supplied by power components to main circuitry when charger is connected and batteries are not may dammage them. Many threads were developed here containing information about this particular subject. Norm Hill found a zener diode that is suitable for this case when correctly connected to batteries' terminals, mostly if this is done inside the calculator. This zener has an id code and Norm is the best person to talk about this. He is the one who researched and found it.

Of course, using this zener diode is enough to prevent such bad situations. Also, this is not a definitive, permanent solution to allow using AC adapter without batteries in Woodstocks, instead it prevents damage when this happens, for example, in case of bad contact.

Success.

Luiz (Brazil)

Re: Advice on HP 25 Charging

*Message #4 Posted by **Albert** on 26 July 2003, 1:45 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hello,

I agree with all these stuff. I put a zener and my HP-25C didn't suffer any problem. I also cut off the plastic soldering under the keyboard (to clean key contacts), and calculator works fine again. Bye.

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Zenrom Manual for Dennis

*Message #1 Posted by **Christoph Klug** on 25 July 2003, 4:29 a.m.*

Dear Dennis,

it was not possible to answer to your email account. Creating a copy is easy....

Best wishes from Germany - Christoph Klug

Re: Zenrom Manual for Dennis

*Message #2 Posted by **db(martinez,california)** on 25 July 2003, 11:20 p.m.,*
in response to message #1 by Christoph Klug

Your the second one this week that had trouble getting to that email account. Why don't the spammers have that problem? I'll email you again using a different account and when we make contact i'll delete this.

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Museum and MLDL2000 proto pictures online

*Message #1 Posted by **Meindert Kuipers** on 25 July 2003, 3:39 a.m.*

All,

I have improved my museum and MLDL2000 proto pictures at www/kuipers.to/hp41.

Meindert

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Ernie, please read.

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 24 July 2003, 11:17 p.m.*

Hi, Ernie are you well?

Remember that a few days ago I tried to send you an e-mail? I asked you for another e-address and you asked me to retry. I did and received this message today: _____

```
The original message was received at Sat, 19 Jul 2003 17:02:54 -0300
from [200.202.212.112]


   ----- The following addresses had permanent fatal errors -----
<kajzero@earthlink.net>


   ----- Transcript of session follows -----
451 <kajzero@earthlink.net>... earthlink.net: Name server timeout
Message could not be delivered for 5 days
Message will be deleted from queue
```

_____

I wonder what's going on. Have you been able to access this e-account?

I want to know if you do not have any other e-address so I can send it again.

If you feel doing this, please let me know by sending me an e-mail.

Thanks.

Luiz.

(to remove this message, please use 12345 as password)

Re: Ernie, please read.

*Message #2 Posted by **Dave Hicks** on 24 July 2003, 11:59 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I'm able to connect to the mail server at earthlink.net from here. Where did that error message come from? It looks like it could be a DNS problem at your ISP.

Thank you, Dave!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 25 July 2003, 12:13 a.m.,*
in response to message #2 by Dave Hicks

Hi, Dave;

thank you for your willing to help.

The rest of the message report is like this.

```
Reporting-MTA: dns; srv1.quantica.com.br
Arrival-Date: Sat, 19 Jul 2003 17:02:54 -0300


Final-Recipient: RFC822; kajzero@earthlink.net
Action: failed
Status: 4.4.7
Last-Attempt-Date: Thu, 24 Jul 2003 17:36:13 -0300
```

When I ask for this message's properties (outlook), I get this:.

```
Return-Path: <MAILER-DAEMON>
Received: from localhost (localhost)
        by srv1.quantica.com.br (8.9.3p2/8.9.3) with internal id NAJ07841;
        Thu, 24 Jul 2003 17:36:13 -0300
Date: Thu, 24 Jul 2003 17:36:13 -0300
From: Mail Delivery Subsystem <MAILER-DAEMON@srv1.quantica.com.br>
Message-Id: <200307242036.NAJ07841@srv1.quantica.com.br>
To: <lcvieira@quantica.com.br>
MIME-Version: 1.0
Content-Type: multipart/report; report-type=delivery-status;
        boundary="NAJ07841.1059078973/srv1.quantica.com.br"
Subject: Returned mail: Cannot send message within 5 days
Auto-Submitted: auto-generated (failure)
Status: RO
```

I am not sure about this, but it seems your concerns proceed. What do you think? I do not know much about this properties' contents, but the

```
Return-Path: <MAILER-DAEMON>
Received: from localhost (localhost)
        by srv1.quantica.com.br (8.9.3p2/8.9.3) with internal id NAJ07841;
```

called my attention.

Thank you again for your help.

Luiz (Brazil)

Re: Thank you, Dave!

*Message #4 Posted by **Dave Hicks** on 25 July 2003, 12:17 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

That does look to me like it's a problem at quantica.com.br (or their upstream DNS). I would send a message to their support address and see what they say.

Re: Ernie, please read.

*Message #5 Posted by **Ernie Malaga** on 25 July 2003, 12:31 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Luiz:

I just sent you a test email; we'll see if you received it. In case you don't, my theory is that the Internet still has quite a few wrinkles to be ironed out. For example, once in a while I come across an interesting link on a web page, click on it, only to be told that the server isn't found. The funny thing is that if I try again two hours later (or two days later) there is no problem. This sort of situation arises when attempting to access web sites in Europe or Asia (not all -- not even most of them, but enough to draw some form of generalization).

Good luck.

-Ernie

Re: Ernie, please read.

*Message #6 Posted by **Ernie Malaga** on 25 July 2003, 6:44 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Luiz:

The email I sent you was rejected. There's a serious problem somewhere.

-Ernie

Re: Ernie, please read.

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 25 July 2003, 9:03 a.m.,*
in response to message #6 by Ernie Malaga

Hi, Ernie;

as I did not receive it at the moment you told you sent it, I presumed that, too.

It seems taht somewhere our providers have no link to close the chain. Weird...

Well, I'l send a message to the local webmaster, but I am almost sure he will not be able to start doing something... But I'll try it anyway.

Best regards, Ernie. And thank you.

Luiz (Brazil)

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$590 ebay auction using MoHP pictures

*Message #1 Posted by **gene** on 24 July 2003, 7:29 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3036770800&category=11713

Shows a picture of the actual unit and the museum page but nothing really lets buyer know the great museum pic is not the real calculator.

Dave?

Re: $590 ebay auction using MoHP pictures

*Message #2 Posted by **Dave Hicks** on 24 July 2003, 11:55 p.m.,*
in response to message #1 by gene

Thanks Gene. I've asked him to credit the pictures.

why can't you hack into the other computer

*Message #3 Posted by **Norm** on 25 July 2003, 1:30 a.m.,*
in response to message #2 by Dave Hicks

why can't you hack into the other computer, Dave,

and replace your MoHP photograph with a picture

of a calculator that had a firecracker stuffed

into it at 4th of July.

Creative advertizing

*Message #4 Posted by **Mike** on 27 July 2003, 4:31 p.m.,*
in response to message #1 by gene

It's funny how many people say stuff like "It may be just a simple problem to fix" as if this is not a problem.

I can just about guarantee that the paper feed rollers are flattened which means you'd have to find a good one from another device. This is not really an easy fix, unless you are experienced with this.

Also, he has cards but doesn't actually say the readers work. I have seen lots of people say these work but they really use "works" to mean it calculates and nothing else.

He really should state specifically if the reader has been tested.

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09877-10002

*Message #1 Posted by **Doyle Bullock** on 24 July 2003, 4:01 p.m.*

I work for the Department of defense and we are trying to locate a copy of HP 09877-10002 Tape Binary Duplicator Tape used with a H.P.9825A calculator. Any help out there?

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HP 42S ROM-versions

*Message #1 Posted by **Harry (Germany)** on 24 July 2003, 9:17 a.m.*

Inspired by Nelson M. Sicuro's post I downloaded emu42 and wanna play with it now.
But now I am not sure wich calculator to use for downloading the ROM.
I have only one 42S, but my dad has another few, I don't have the serial-numbers here though.

Now my question is, what are the diffrent rom versions, where are the diffrences and, how to find out wich Calculator has wich ROM?

Regards,
Harry

Re: HP 42S ROM-versions

*Message #2 Posted by **Nelson M. Sicuro** on 24 July 2003, 9:33 a.m.,*
in response to message #1 by Harry (Germany)

I found somewhere the information to get ROM version: Enter in "test" mode pressing ON and LOG together; then press <- (back arrow) to start the debugger; it will point to a routine that shows the ROM version on screen pressing the decimal point (execute, from the debug). Mine shows in the left "A" and in the right "5". To exit press ON together with SQRT (square root).

Regards,

Nelson

Thanks, I will try that.

*Message #3 Posted by **Harry (Germany)** on 24 July 2003, 9:36 a.m.,*
in response to message #2 by Nelson M. Sicuro

Regards, Harry

Re: HP 42S ROM-versions

*Message #4 Posted by **Thibaut.be** on 24 July 2003, 10:07 a.m.,*
in response to message #2 by Nelson M. Sicuro

More details http://www.finseth.com/~fin/hpdata/hp42s.html

Re: HP 42S ROM-versions

*Message #5 Posted by **Christoph Giesselink** on 24 July 2003, 12:06 p.m.,*
in response to message #1 by Harry (Germany)

For the HP42S the ROM Rev. A, B and C are existing.

In the version screen the character on top left side is the version, the number on top right seem to be the reason of last calculator restart.

On the emulators all three ROM versions have the COMP bug, because this is hardware dependent. Early HP42S with ROM rev. A use an older revision of the 1LR2 Lewis chipset with a bug inside that the COMP bug don't occur. I personally have a late HP42S with ROM rev. A SerNo. 3017Sxxxxx _with_ the COMP bug.

IMHO use the latest Rev. C ROM, the version I use for the Emu42 development.

Christoph

Re: HP 42S ROM-versions

*Message #6 Posted by **Harry (Germany)** on 24 July 2003, 1:08 p.m.,*
in response to message #5 by Christoph Giesselink

Thank you Christoph. I hope it works. The HP42 is at home and I will try that at the weekend.
Your HP28 emulator seams to be interesting too, does it run with either a 28C or a 28S rom-image?

Regards,
Harry

Re: HP 42S ROM-versions

*Message #7 Posted by **Christoph Giesselink** on 24 July 2003, 1:19 p.m.,*
in response to message #6 by Harry (Germany)

Only with a HP28C image. The HP28S hardware is more similar to the HP42S, because they use the same chipset.

More about this in http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=313 and http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=275.

Christoph

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HP 9825A

*Message #1 Posted by **Scott** on 24 July 2003, 8:48 a.m.*

I work for the Department of defense and we have an HP 9825A calculator used in a very old application. We are trying to make a copy of the program tape that is used to prevent loosing the program until newer technology is intoduced over the next several years. We have not been able to have the tape duplicated. Can anyone offer any suggestions.

Re: HP 9825A

*Message #2 Posted by **David Ramsey** on 24 July 2003, 12:03 p.m.,*
in response to message #1 by Scott

Can't you simply load the program(s) into the 9825 and save them back out to a new tape?

Re: HP 9825A

*Message #3 Posted by **Vassilis Prevelakis** on 24 July 2003, 12:42 p.m.,*
in response to message #2 by David Ramsey

```
David Ramsey wrote:
> Can't you simply load the program(s) into the 9825 and save them back out to a new
tape?
```

Programs are OK, but what about data files? You have to read them in, and then save them without messing them up.

BTW have you looked at the 9825 manual? This thing is totally wierd.

**vp

Re: HP 9825A

*Message #4 Posted by **Scott** on 31 July 2003, 7:59 a.m.,*
in response to message #2 by David Ramsey

Apparently there are some files that are protected some way. It will not allow us to copy all the files. Some copy fine others do not. To the best of my understanding there is some type of duplicator tape that allows you to copy the other tapes and the one that we have is bad.

Re: HP 9825A

*Message #5 Posted by **Tracy Vermeyen** on 25 July 2003, 12:18 a.m.,*
in response to message #1 by Scott

Can it be true that the DOD is still using 1980's technology to run an important application? I admire the DOD's frugality in not updating hardware and the quality of HP's older calculators. However, if you think better technology from HP is right around the corner you might be waiting a long time.

Tracy

I'm confused

*Message #6 Posted by **Mike** on 27 July 2003, 4:35 p.m.,*
in response to message #5 by Tracy Vermeyen

You start of by questioning the use of old technology and then turn around and say...

"However, if you think better technology from HP is right around the corner you might be waiting a long time."

Which seems to imply that no new technology is better. So which is it? You seem to be giving an argument for using old HP while at the same time, questioning that.

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Need HP-25 troubleshooting tips

*Message #1 Posted by **G Evans** on 24 July 2003, 5:01 a.m.*

Can any one offer insite into HP-25 repairs?

The STO/RCL function on a 25 does not work but all math functions are OK. Progam store is also no good. Has anyone experienced similar & identified the specific register/program store memory chip that could be replaced?

Also the No 1 key sometimes registers a 3. The KB looks clean enough - could this problem be atributed to a dodgy contact? Any tips on cleaning inside KB in that case?

Any suggestions very welcome.

thanks George (UK)

Re: Need HP-25 troubleshooting tips

*Message #2 Posted by **Victor Koechli** on 24 July 2003, 8:40 a.m.,*
in response to message #1 by G Evans

Looks like your RAM chip is faulty. The stack registers seem to reside inside the CPU and work, but accessing storage registers or program memory fails or reads garbage. Try the following:

- Let the calc warm up for up to an hour. Some Woodstocks have problems with their internal clock signals that correct themselves after a warm up period. See http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=267 for details and possible repair suggestions.
- Carefully search for broken traces on the PCB or loose solderings on the pins of the chips, and repair any problems you encounter. You might also want to check the traces on the PCB with an Ohm meter.
- Replace the RAM chip if you have a spare one available
- Count on one of the more knowledgeable experts in this forum to come up with additional suggestions.

The problem with your keyboard could be related, esp. if you have a clocking problem, but I have not heard of such a symptom yet an cannot comment on it.

Success, and keep us informed! Cheers, Victor

Re: Need HP-25 troubleshooting tips

*Message #3 Posted by **G Evans** on 24 July 2003, 10:15 a.m.,*
in response to message #2 by Victor Koechli

Victor

Thanks for your suggestions, as I replied to Luis, I cleaned all I can inside all looks ok. I was also wondering about clocking problems I will let unit warm up as you suggest. The link you suggested has some interesting insites. Will keep in touch.

many thanks, George

Re: Need HP-25 troubleshooting tips

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 24 July 2003, 8:40 a.m.,*
in response to message #1 by G Evans

Hi, G. Evans;

just to helps us understanding better: what actualy happens when you punch [STO]n or [RCL]n? No [Error] message? The stored value is lost? Please, try [STO]8 or [STO]9 to force an error message.

RAM is shared into program steps and registers. I remember I saw images o fHP25 guts with what seems to be two RAM chips. In this case, I wonder if one of them is used to store program lines ant the other is used to store register data. If the 7 lines by register is internaly, then we can figure that one of the RAM chips contains eight registers, R0 to R7, and the other one contains the LASTx plus 7 × 7 (49) program steps. Stack registers are hold inside ACT big-chip. In this case, if your HP25 cannot hold registers data, chances are it is the type of unit with two RAM chips.

Would you have the chance to open it and describe what exists inside?

Success.

Luiz (Brazil)

Re: Need HP-25 troubleshooting tips

*Message #5 Posted by **G Evans** on 24 July 2003, 10:04 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Luis

Thanks for reply,

I have opened the unit and carefully cleaned PCB and all accesible contacts .

Doing an (X STO n) does not bring any errors but doing a (RCL n) always returns a 0 for any of the 8 registers. (Last X) also returns 0 always.

It will not store progams either. Looks like RAM chip but which one is it ? I can take a pic of insides if the forum allows this ?

George

Re: Need HP-25 troubleshooting tips

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 24 July 2003, 10:24 a.m.,*
in response to message #5 by G Evans

Hi, G. Evans;

about the RAM chip(s), have a look at the bottom of the PCB, close to the batteries contacts. There a big chip, the ACT, and in its left side you'll see one of the ROM chips. The other small chip cloe to it, most likely to be closer to the batteries contacts, is the RAM chip. I saw a unit's picture showing two chips, and if you look at the PCB's layout, you'll see that there's room for a third chip. The HP25C has almost the same layout, with a diferent power supply scheme to allow RAM chips to be fed while the

calculator is OFF.

Unfortunately there's no such know replacement for these RAM chips other than original "donated organs" from deceased units. I hope you're lucky finding the problem. I had some HP25 and HP22 (both use the same RAM chip) and they have no good RAM to donate.

Best regards.

Luiz (Brazil)

Re: Need HP-25 troubleshooting tips

*Message #7 Posted by **G Evans** on 24 July 2003, 11:24 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Luis

I will check this out this week end.

thanks, George

Re: Need HP-25 - Keys

*Message #8 Posted by **JimC** on 24 July 2003, 1:58 p.m.,*
in response to message #7 by G Evans

My 25 had the same keyboard but with different keys; my 4 key pressed sometimes resulted in a 6. I fixed it (not entirely) by dismantling the unit and stuffing a strip of isopropanol soaked paper under the metallic bubbles that form the backplane of the keys. (I can't remember though, what kind of paper I used) I also cleaned the six up as well. This got rid of 95% of my errors.

If I recall, there is a technical article somewhere on this forum on cleaning under keys. I'll see if I can track it down.

Good luck!

Re: Need HP-25 - Keys - article

*Message #9 Posted by **jimc** on 24 July 2003, 2:09 p.m.,*
in response to message #8 by JimC

Well, it took me about 3.5 seconds to find the article. It is called "How to restore classic calculators" - (DUH, what else could it be called?)

http://www.hpmuseum.org/howtohp/howtohp.htm

I didn't use sandpaper, but rather I used a toothpick with alcohol on the "mystery" paper (that I can't remember).

Re: Cleaning Keys

*Message #10 Posted by **Victor Koechli** on 24 July 2003, 6:07 p.m.,*
in response to message #9 by jimc

I have just reanimated some dead keys on a HP 67 with a strip of plain paper soaked in contact spray. I applied some more spray afterwards and operated each contact a dozen

times or two (with the calc off!). Got everything back to perfect working condition.

However, this is not going to help here because the 25's keys cannot be accessed from above, as pointed out by David. If the problem with your keyboard is indeed bad contact, you could try to apply contact spray from the back of the keyboard. There's a convenient little hole behind every single contact where you can apply the spray. I have cured the keys of my own HP 25 this way, although I had to repeat the procedure 3 or 4 times (spray - operate -let dry -assemble - test - disassemble ..., you get the idea).

Did warming up help?

Cheers, Victor

Re: Need HP-25 - Keys

*Message #11 Posted by **G Evans** on 25 July 2003, 9:38 a.m.,*
in response to message #8 by JimC

One of the first things I did when I opened the calc for the fist time was to clean with PCB cleaner(alcohol based) the exposed side of the key pad. This, I must admit, did help A LOT (several other keys did funny things) now only the 1 registers a 3 about once in very 6 to 10 presses.

I will repeat the cleaning as others have suggested .

thanks to all.

George.

Re: Need HP-25 - Keys

*Message #12 Posted by **G Evans** on 25 July 2003, 9:40 a.m.,*
in response to message #8 by JimC

thanks for the link -

I will try to clean it again it helped the first time.

thanks George

Re: Need HP-25 - Keys

*Message #13 Posted by **G Evans** on 25 July 2003, 9:53 a.m.,*
in response to message #8 by JimC

Thanks for the great article by Steve Loboyko.

Just printed it.

George

Re: Need HP-25 troubleshooting tips

*Message #14 Posted by **David Smith** on 24 July 2003, 3:03 p.m.,*
in response to message #1 by G Evans

You RAM chip is toast. This is a VERY common problem. I have seen dozens of HP25 machines that failed in this way. A similar amount failed with a bad ACT chip (the big wide 22 pin chip near the bottom of the circuit board). Only source of parts is another machine. Some HP25 machines have two RAM chips, others only one. The RAM chips are located either to the right of the ACT chip or directly above it next to the battery contacts.

The keyboard problem is caused by (often invisible) contamination on the keyboard. Clean it well with 91% isopropyl alcohol. Keep the alcohol off the LED window and the front keyboard surface.

If the problem persists, the contamination may be on the top side of the keyboard... bad news becuase the keyboard is held in place by a zillion melted heat staked plastic posts. If you cut them loose you can free the keyboard, but getting in back in so that it feels and works properly is VERY difficult. I would recommend using an ultrasonic cleaner. Use three different baths of distilled water. Shake out all the water afterwards and dry it overnight in an oven set on its very lowest setting.

Re: Need HP-25 troubleshooting tips

*Message #15 Posted by **Howard** on 25 July 2003, 12:12 a.m.,*
in response to message #1 by G Evans

Hello, My HP 25 also behavs in very mysterious ways as well. It will not programme unless it has been on the battery charger for several hours. It appears to have to be 11o% charged to operate or else it has to be "hot" (the right hand side of the calculator gets quite hot after it has been on the charger for several hours). Maybe yours is the same. I suggest leaving it the charger for several hours and try it when it is fully charged and still on the charger.

I keep wondering...

*Message #16 Posted by **Victor Koechli** on 25 July 2003, 7:03 a.m.,*
in response to message #15 by Howard

David Smith reports he' seen dozens of fried RAMs and a similar number of bad ACT chips. Many users make the experience that their HP 25s will only run when warmed up for a certain amount of time. And Katie provides at least two possible explanations plus the respective cures for these disorders in her excellent article (http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=267).

I wonder if maybe most of these defective RAM or ACT chip problems could have been resolved in a similar matter, i.e. these chpis were not really bad, but just degraded to some point where even warming up would not suffice to get the calcs running. In that case it would still be worth trying Katie's suggestions on these calcs.

That said, if warming up with the charger (which is usually *very* effective) does not help, get a 20k resistor and a soldering iron and give it a try.

Cheers, Victor

Re: I keep wondering...

*Message #17 Posted by **G Evans** on 25 July 2003, 9:31 a.m.,*
in response to message #16 by Victor Koechli

Victor

No not yet, I will try this weekend and will also try Katie's suggestions.

thanks for you interest will keek the thread posted.

George

Re: I keep wondering...

*Message #18 Posted by **David Smith** on 25 July 2003, 5:34 p.m.,*
in response to message #16 by Victor Koechli

Nope, the chips I have pulled are well and truly bad. The thermal problems of the 25C and 27 are a different problem. I do have a couple of thermally sensitive ACT chips, but they are not very common.

Re: I keep wondering...

*Message #19 Posted by **G Evans** on 28 July 2003, 8:55 a.m.,*
in response to message #18 by David Smith

Any idea, then, what is causing these chips to fry ? Maybe trying to use the calc with charger and no batteries ?

George

Re: I keep wondering...

*Message #20 Posted by **David Smith** on 28 July 2003, 12:26 p.m.,*
in response to message #19 by G Evans

It's definitely a power supply type of problem. The HP67 and HP97 use the same ACT chip. They have a different type of charger system and their chips (almost) never go bad.

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41 Blanknut

*Message #1 Posted by **Andrey** on 24 July 2003, 3:14 a.m.*

Question- What I should I offer for an original and fully functional 41 Blanknut? Know lots about them from the web, but no idea what I should pay for one I stumbled across and is being offered to me. Thanks.

Re: 41 Blanknut

*Message #2 Posted by **Chan Tran** on 24 July 2003, 9:16 a.m.,*
in response to message #1 by Andrey

I sold a 41cx blanknut in excellent condition for $175. The buyer didn't think it was high. I think you can get more for it.

Re: 41 Blanknut

*Message #3 Posted by **David Smith** on 24 July 2003, 3:07 p.m.,*
in response to message #1 by Andrey

Most blanknuts seem to fetch around 50% above a normal machine. Mayby twice normal for an exceptional unit on a good day.

Check Ebay prices for recently completed auctions for an idea of what normal is. For standard nice condition functioning machines figure $100 for a 41C, $150 for a CV, $200 for a CX. Add more for accessories and mint condition. Subtract for corrosion and defects.

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Any information about HP-15C hardware/firmware?

*Message #1 Posted by **Nelson M. Sicuro** on 23 July 2003, 10:22 p.m.*

There is any information about HP-15C hardware/firmware? I think that it is really hard to find outside HP's labs... I'm willing to create a HP-15C REAL emulator, but I really don't know how to start. I'm planning to gather all information about emulators (REAL emulators and ROMs) of HP calculators I can get to create a "virtual" collection... Already have data about: HP-35, HP-45, HP-55, HP-41CX, HP-42S, HP-39G

Best regards,

Nelson

HP-15C Emulator (long)

*Message #2 Posted by **Michael F. Coyle** on 24 July 2003, 1:42 a.m.,*
in response to message #1 by Nelson M. Sicuro

Hi Nelson,

I don't think there is an emulator for *any* Voyager calculator. I'd really like to see one though. Perhaps the time is right to start thinking about writing one.

At the risk of telling you what you already know, I will describe what needs to be done to write an HP-15 emulator. I will also point out any questions we would need the answers to. Perhaps some of the other (very knowledgeable) contributors to this Forum can supply some of the answers. This could be a really interesting project; what I'm really trying to do is entice others into thinking so, too.

First, we would need to know the instruction set of the 15C CPU. The MoHPC Web site describes the Voyager CPU as an enhanced version of the HP-41 CPU (the so-called "nut" CPU). If this is so, most of our work is done.

(QUESTION: Is there any published description of the Voyager CPU? Any comparisons with the 41 CPU?)

Second, we would need a ROM dump to obtain the entire 15C program. Unless someone shows up with an HP-generated assembly listing of the 15, we will have to do it ourselves. This would be done by building some special hardware and reading the bits right from the ROM(s). I have been looking into doing this for the Woodstock machines (specifically the HP-21 and HP-25) and most of what I'm thinking about should work for the Voyagers too.

There is one requirement which absolutely must be met for this to work: *The entire ROM of the machine must be accessible to external probing.* If all the ROM is outside of the CPU, fine. But if the CPU also contains some ROM, it may be impossible to get the bits out. Signs that the CPU has ROM: different part numbers for different model calculators; swapping CPUs between calculators doesn't work. Signs that the CPU is only a CPU: same part number across all models; CPUs will work in different calculators.

(QUESTION: See above. Anyone with Voyager repair experience: what part numbers are Voyager

CPUs? Have you tried swapping CPU among different models? Did it work?)

Third, we would need to know exactly I/O works on the Voyager machines. If there's an article out there, fine. If not, we could probably figure it out by assuming it's similar to the HP-41, then reverse-engineer the firmware and probe the hardware to figure it all out. Hard, but doable. Tools needed: ROM dump, oscilloscope, brain.

(QUESTION: Any published info?)

Finally, we would have to write the emulator itself. Once we've got all the other stuff mentioned above, this is the easy part! The HP-45 emulator written by Eric Smith and modified by Dave Hicks could be used as the starting point since the newer CPUs are similar to the CPU used in the Classic machines. The emulator code itself is well-written and clear and is worth reading if you are unfamiliar with emulators.

(QUESTION: Is there anything I've missed?)

(QUESTION: Is anyone else interested in getting a project started?)

- Michael

HP-12C Emulator: are they actual, true emulators?

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 24 July 2003, 2:08 a.m.,*
in response to message #2 by Michael F. Coyle

Hi, Michael;

Just to add some information. I saw at least two different HP12C emulatos, and one of them I used more often. If I dig my hard drives I'll probably find it.

One of the MoHPC contributors (I do not remember who was he, but it seems to me he is no longer contributing) posted some messages about an HP16C emulator. I still have one of its last versions, and it works fine.

I have seen and tested, but I am not sure if I still have it, a three-models-in-one emulator: HP11C, HP12C and HP15C, user selectable. This last one and the other HP12C I saw have a drawing-graphic interface, while the HP16C and the HP12C emulator I used for a longer time are both picture-quality graphics image. All of them run under Windows.

The only Voyager I saw no related emulator is the HP10C.

Anyway, I'm not sure if these "emulators" are actual emulators, say, I am almost sure that there is no ROM image and no virtual machine (java?), instead a "simulation" is most likely to be, i.e., a program that does everything those Voyagers do but in its own way.

If I find them (the HP12C emulator I think I can find it quickly, if you are interested on using it) I'll let you know.

Best regards.

Luiz (Brazil)

Doesn't anyone sleep around here???

*Message #4 Posted by **Michael F. Coyle** on 24 July 2003, 1:04 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I'm looking at my message and the replies. They were all posted in the dead of night: 1:42 AM, 2:08 AM, 2:24 AM, 2:38 AM.

When do you guys sleep?!?

(By the way, I suffer from insomnia so I'm often up late.)

- Michael

Re: Doesn't anyone sleep around here???

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 24 July 2003, 1:30 p.m.,*
in response to message #4 by Michael F. Coyle

Hi;

sometimes we´ll meet each other around there...

See yah!

Re: Doesn't anyone sleep around here???

*Message #6 Posted by **Valentin Albillo** on 25 July 2003, 4:13 a.m.,*
in response to message #4 by Michael F. Coyle

Hi Michael:

Michael posted:

"I'm looking at my message and the replies. They were all posted in the dead of night: 1:42 AM, 2:08 AM, 2:24 AM, 2:38 AM.

When do you guys sleep?!?"

That's not the correct question. It should be "Where do you guys **live** !?".

For instance, I live in Spain an I'm posting this at 10:10 AM local time, not the seemingly late-night hour that appears reflected in the Forum.

That's not to say that there aren't any people here who actually post late-night messages, but be aware that many are simply posted from very distant foreign countries, where the sun shines in all her splendour (how poetic!) while you're peacefully asleep. :-)

Best regards from V.

Re: Doesn't anyone sleep around here???

*Message #7 Posted by **Ernie Malaga** on 25 July 2003, 4:35 a.m.,*
in response to message #6 by Valentin Albillo

Valentin:

> Quote:
>
> For instance, I live in Spain an I'm posting this at 10:10 AM local time, not the

seemingly late-night hour that appears reflected in the Forum.

Not me! I live in Miami, Florida; my time zone is -5 UTC, and this message, for instance, is being posted at 4:35 AM. That's not unusual for me. So it looks like I go to bed while you're getting up. 8^)

-Ernie

Re: Doesn't anyone sleep around here???

*Message #8 Posted by **Karl Schneider** on 26 July 2003, 6:25 a.m.,*
in response to message #4 by Michael F. Coyle

I think the MoHPC clock is set to Eastern Time (US/Canada/Mexico/other parts of the Americas?).

Re: HP-15C Emulator: Same "Calculator Forensics" result as actual 15C.

*Message #9 Posted by **Paul Brogger** on 25 July 2003, 6:06 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Maybe they don't appear to be "emulators", but the Pocket 15C download I'm trial-running gives the same Calculator Forensics result as is posted on the RSKEY.ORG website for the HP-15C:

arcsin(arccos(arctan(tan(cos(sin(9))))))=9.000417403 [note: "degrees" mode used]

Which is at least indicative of actual emulation.

Some other comparisons should probably be attempted, but I don't have a 15c in hand. (If I did, I wouldn't be messing with PDA simu-/emu-lations!)

By the way, I am just a poor boy, running a monochrome iPAQ 3150, and the slavish simulation of calculator hardware on the touch screen, bad enough on a color display, is just plain unreadable in monochrome. (Too bad, 'cause 15c functionality would be nice to have in my PDA.)

Re: HP-15C Emulator: Same "Calculator Forensics" result as actual 15C.

*Message #10 Posted by **Nelson M. Sicuro (Brazil)** on 25 July 2003, 11:13 p.m.,*
in response to message #9 by Paul Brogger

Too bad that they have it only for PocketPC and not for PalmOS 8-(

If it is a real emulator, how they manage to get the ROM, and how they get to manage the copyrights???

It's *NOT* an "emulator"

*Message #11 Posted by **Valentin Albillo** on 26 July 2003, 7:28 p.m.,*
in response to message #10 by Nelson M. Sicuro (Brazil)

Nelson posted:

"If it is a real emulator, how they manage to get the ROM, and how they get to manage the copyrights??? "

It's not an "emulator" but a *simulator*. However, in their web page they include this statement:

*"Pocket 15C is an HP-15C **emulator** for Pocket PC"*

which probably HP would find interesting, because to actually emulate something you must have the actual ROM code for said device, and it goes without saying that HP is the copyright holder. If, on the other hand, they do NOT use the actual ROM code, then that statement can probably be construed as misleading advertisement, as they would then be selling a *simulator* but advertising it as an *emulator*, which is a rather different beastie.

Curiously enough, in their web page they also include this other statement:

*"We hand painted our calculators. We coded them to function **just like the real ones**"*

Take notice of the *"... **we coded them** to function just like the real ones"*. If they were using the ROM code, I guess they would say it *proudly*, as an *extremely important sales point*, a decisive warranty of quality and utmost exactness for any potentially interested HP-15C fan. But instead, the above statement seems to be pointing in the wrong direction, don't you think ?

Anyway, you can easily check it: just download the trial version of this product, and try out the matrix example I propose in another message of mine in this thread. Do you get the same results ?

Best regards from V.

Re: It's *NOT* an "emulator"

*Message #12 Posted by **Vincent Weber** on 28 July 2003, 10:29 p.m.,*
in response to message #11 by Valentin Albillo

A few points demonstrate clearly that the program is a simulator, and not an emulator:

1) Look into the help file, on the topic 'differences with a real HP-15C'. We learn that the program does not share register & program memory, unlike a real HP-15C. This is clearly a different behaviour that could not just achieved by increasing the RAM size on a emulator.

2) The program patches one of the major drawbacks of the HP-15C, i.e. does not display program steps as keycodes but as alpha mnemos (HP-41C styles).

3) The speed is so fast, compared to any HP-41C emulator I have seen, that I definitetly cannot be a microcode emulator.

I regret this program is not available for Palm. Anyway, even if I do acknowledge that the HP-15C has a few improvements over the HP-41 (recall arithmetic, 12 conditionnales, and above all the complex stack), it still find the HP-41C much more valuable. One thing that amuses me is that HP-15C' core fans argue that with the HP-15C every function is directly accessible on the keyboard. Well, for instance, I compared the number of keystrokes required for matrix operations between the HP-15C and the HP-41 with Advantage module (once you assigned the proper functions to keys). The HP-41 requires much less keystrokes, even though the matrix cannot be recalled on the stack. One simple example: to edit the matrix, even in 'User' mode the HP-15C requires 2 keystrokes to enter an element (1 STO A), while the MEDIT command of the Advantage module requires just ' 1 R/S'. Anyway, I think we would better spend some time on an HP42S emulator/simulator (the latter allowing extensions, such as improving the horrible alpha entry of the 42, and support for algebraic expressions and franctions as on the 32SII). The 42s has the best of '41 and '15C worlds.

My 2 cents. Vincent

Re: HP-15C Emulator: Same "Calculator Forensics" result as actual 15C.

*Message #13 Posted by **Michael F. Coyle** on 25 July 2003, 11:19 p.m.,*
in response to message #9 by Paul Brogger

Hi Paul,

This just means that each result is being properly rounded to 10 places after each result. Maybe it's an emulation, more likely a careful simulation.

I have a Calculator Forensics article 90% written. Maybe I'd better finish it up and post it.

(On your Pocket 15C, try the stuff from the "13 digit precision on HP-15c" thread and see if *that* works!)

- Michael

HP-15C "Emulator": Try this

*Message #14 Posted by **Valentin Albillo** on 26 July 2003, 5:54 p.m.,*
in response to message #9 by Paul Brogger

Paul posted:

"Some other comparisons should probably be attempted, but I don't have a 15c in hand."

I do. Try this: define this 3x3 matrix:

```
          |  1   1/2  1/3  |
   A  =   | 1/2  1/3  1/4  |
          | 1/3  1/4  1/5  |
```

and find its determinant. A real HP-15C gives

```
  det(A) = 0.0004629629590
```

A keystroke sequence to compute that, assuming a master-cleared machine, would be this:

```
f MATRIX 0        clear all matrices
3
ENTER
f DIM A           dimension A as a 3x3 matrix
f USER            set USER mode
f MATRIX 1        reset indexes to 1st row, 1st col
1
STO A             A(1,1) = 1
2
f 1/x             (the "f" is necessary as we are in USER mode)
STO A             A(1,2) = 1/2
3
f 1/X
STO A             A(1,3) = 1/3
2
f 1/X
STO A             A(2,1) = 1/2
3
f 1/X
STO A             A(2,2) = 1/3
4
f 1/X
STO A             A(2,3) = 1/4
3
f 1/X
STO A             A(3,1) = 1/3
4
f 1/X
```

```
STO A            A(3,2) = 1/4
5
f 1/X
STO A            A(3,3) = 1/5
RCL MATRIX A     recall matrix descriptor to X
f MATRIX 9       compute determinant of A
```

For a similar 4x4 matrix:

$$A = \begin{vmatrix} 1 & 1/2 & 1/3 & 1/4 \\ 1/2 & 1/3 & 1/4 & 1/5 \\ 1/3 & 1/4 & 1/5 & 1/6 \\ 1/4 & 1/5 & 1/6 & 1/7 \end{vmatrix}$$

a real HP-15C gives:

```
det(A) = 0.0000001653438744
```

This is a *much* more serious and revealing test than just doing a few trigonometric functions in a row. If your HP-15C simulator (*never* an emulator, there is none) can produce the *same exact* results for these two examples, it will be a real achievement, though allow me to rather doubt it.

Best regards from V.

Edited: 26 July 2003, 6:10 p.m.

Re: HP-15C "Emulator": Try this

*Message #15 Posted by **Nelson M. Sicuro (Brazil)** on 26 July 2003, 10:34 p.m.,*
in response to message #14 by Valentin Albillo

My own HP-42S have results very near of those of the HP-15C. If someone get the HP-42S's ROM and "cut-and-paste" some parts of if to provide the functions of the HP-15C it can be as near as possible of the original, assuming that the 42's ROM is a "41CX+15C grown up" version. Well, I'm guessing...

Internal accuracy (again?)

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 26 July 2003, 11:34 p.m.,*
in response to message #15 by Nelson M. Sicuro (Brazil)

Hi, Nelson;

I'm sure you're aware of this fact, but it's never enough mentioning it again, right?

I performed the same tests in an HP42S and the results go seven (most significant) digits match. I consider that the HP42S has enhanced algorithms when internal accuracy and number of digits is considered. As you deal with programming, you know a lot more about this than I know, so please, if I write anything wrong I'd ask you to correct me.

If you increase the number of significant digits in a floating point system, you'll need to reorganize memory so you can hold intermediate and final results to each math operation, right? Using currently available compilers, your system will be automatically tuned to hold new digits (memory handling). If we are talking about calculators, the analysis will not be so different, mostly when new calculators may have their O.S. previously emulated and virtually updated anytime it's needed.

So, I'd add that the HP42S is an "HP41CX + 15C grown up, 15-digit enhanced" system. I guess it has enhancements not even possible in both HP41CX or HP15C unless their

memory is "logically" reorganized.

My 2¢.

Inté (seeyah)

Luiz Cláudio

Re: Internal accuracy (again?)

*Message #17 Posted by **Nelson M. Sicuro (Brazil)** on 27 July 2003, 1:47 a.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

I think that if one have the patience and determination, this can be done: reverse-egineering of ROM's algorithms an taking only that is interesting for the project. Of course it may be a waste of time. But it is a way to get it done and creating a "new" calculator, but using "borrowed" algorithms and yet getting the same "forensics" results! Of course the internal number of digits can affect the result, but using the same precision may (?) have the same result. I really think that the HP-42S's ROM is a great evolution, following the path of (in the case of 'Solver' and 'Integration') HP-34C --> HP-15C --> (HP-41???) --> HP-42S, expanding precision as it uses more a powerful CPU.

I'm in a personal "quest" of understand the internals of as many calculators I can get and to create my own calculator (virtual or not). I love my HP-42S but I really miss my old HP-15C and its "look and feel". If HP creates a "landscape" "shirt-pocket" version of the 42 it will be a best seller! Ok, dream on... 8-)

Best regards!

Nelson

P.S. you can mail-me privatelly if you want to exchange more ideas...

Re: Internal accuracy (again?)

*Message #18 Posted by **Werner Huysegoms** on 27 July 2003, 5:03 a.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

The 42S carries 12 digits in user calculations, but uses 15 internally, much as the 15C carries 10, but uses 13 internally. A register in the 42S is eight bytes, vs. 7 in the 15C (and 41).

If you would enter into the 42S the exact same matrix you used in the 15C (ie with 0.3333333333 to 10 digits, not 12), you get:

0.000462962959074

and this time the answer agrees to 10 digits.

The matrix you take the determinant from is a Hilbert matrix, notoriously ill-conditioned, meaning that small changes in the matrix will cause comparatively large changes in the result, whatever the algorithm you use. Here, a relative change of 1e-10 produced a relative change of 1e-8 in the result, but then it is only a 3x3 system.

Werner

Thank you, Werner; I did not take it into account!

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 27 July 2003, 10:52 a.m.,*
in response to message #18 by Werner Huysegoms

Hi, Werner;

thank you; I missed that part were the 1/3 is placed with a 10-digit mantissa instead of 12. This is a very important point when we are dealing with accuracy and specific situations.

Best regards.

Luiz (Brazil)

Edited: 27 July 2003, 11:24 a.m.

Re: HP-15C Emulator (long)

*Message #20 Posted by **Victor Koechli** on 24 July 2003, 2:24 a.m.,*
in response to message #2 by Michael F. Coyle

I remember reading somewhere that the 11C has only one chip, whereas my 15C has 3. Could be a sign that there is ROM inside the CPU, at least in the 11C. Can somebody confirm this with his/her 11C?

Just my 2 cents. Victor

of chips in Voyagers

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 24 July 2003, 2:38 a.m.,*
in response to message #20 by Victor Koechli

Hi, Victor;

I have an HP11C with two chips, an HP16C with two chips, an HP15C with three chips and there are at least five HP12C internal layouts, varying from two chips (earlier) to one single chip and currently the 12Cp with a bubble chip, ar what I called the Kimponut.

I saw at least four (maybe five) HP11C and all of them have two chips, as my own fella. I do not knwo anything about the HP10C; shouldn't it be the HP10C taht you heard about having only one chip? Just a thought of mine; it is the low-end and (at the time it was introduduced) "cheapest" Voyager.

Best regards.

Luiz (Brazil)

Re: HP-15C Emulator (long)

*Message #22 Posted by **Nelson M. Sicuro** on 24 July 2003, 9:27 a.m.,*
in response to message #2 by Michael F. Coyle

I have a friend that have a HP-15C with its display with "black blob" problem. But I'm not shure I can convince him to take it apart to trace it's ROM (if possible)... I'm thinking in another idea, a more hard one: build a calculator (not emulator or simulator) based on the best algorithms from the ROMs available and grouping all the functions that we need in one piece. This can be a copyright violation, but I'll try for my own hobby project. I cannot found yet a PC (windows) calculator that is easy of use as a HP-15C or 42S.

Maybe for PalmOS are better ones (portable!), but touching in the screen doesn't have that "click feedback" that we like. If I can code this "all-in-one" calculator in microcontroller's assembler I can built one from scratch using parts from "dead" vintage calculators (case/keys/display). Too crazy? Yes, I think... Anyone else interested?

Regards,

Nelson

Re: HP-15C Emulator (long)

*Message #23 Posted by **Vieira, Luiz C. (Brazil)** on 24 July 2003, 9:46 a.m.,*
in response to message #22 by Nelson M. Sicuro

Hi, Nelson;

Renato, from Campinas - SP, is also working this way. Unfortunately I have not found myself ready to go further, but I've been tracking signals and daring some schematics and control assembly codes, nothing more than that; lack of spare time.

Should you want to contact him, let me know. Or else you can find his posts about this very subject about a week ago.

Luiz Claudio

Re: Any information about HP-15C hardware/firmware?

*Message #24 Posted by **Dave** on 25 July 2003, 10:23 a.m.,*
in response to message #1 by Nelson M. Sicuro

Here's the best 15C "simulator" I've ever seen:

http://www.lygea.com/pocket15cdetail.htm

It may give you some good ideas.

Re: Any information about HP-15C hardware/firmware?

*Message #25 Posted by **Nelson M. Sicuro** on 25 July 2003, 10:43 a.m.,*
in response to message #24 by Dave

It seems very nicelly made, but it doesn't is an emulator, its a simulator and it is for PocketPC... 8-(

Thanks for the link.

Regards,

Nelson

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HP 11C Error 3

*Message #1 Posted by **Phill higgins** on 23 July 2003, 8:53 p.m.*

While working on a program for private pilot navigation: which has one vector of known magnitude and direction and two others (one with a known direction and the other with a known magnitude), I got "error 3" when I tried to STO in registers 8 and 9 only. I have safely put the manual away (where I cant find it) and wonder what "error 3" means and if there is a way of overcoming it. The problem is to find the missing direction and magnitude to make the vectors close the triangle. Phill

Re: HP 11C Error 3

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 9:15 p.m.,*
in response to message #1 by Phill higgins

Hi, Phill;

[Error 3] means the registers you want to access ([STO] or [RCL]) are allocated to program lines. Please, press [g][MEM] and you will see something like this:

```
[P-nn, r-7]
```

This means you have only registers R0 to R7 and permanent RI (index register); also, you have already used up to 147 lines with program instructions.

nn is in the range 0 to 6.

To get rid of [Error 3] you should remove program lines; but this is only "possible" when you have unused or unwanted program lines. If you cannot remove program lines, you actualy cannot use registers R8, R9 and R.0 to R.9, in this case.

Hope this hels.

Luiz (Brazil)

Edited: 23 July 2003, 9:16 p.m.

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Update: 13 digit precision on HP-15c (from Palmer Hanson)

*Message #1 Posted by **Gene** on 23 July 2003, 1:28 p.m.*

AN EXTENDED QUADRATIC SOLUTION FOR THE HP-41 USING THIRTEEN DIGIT CALCULATION OF THE DISCRIMINANT

We start with an arithmetic exercise using the statistical functions of the HP-41:

Consider the numbers:

```
x   = 1.000007

y   = 1.000004

x^2 = 1.000014000049

y^2 = 1.000008000016

xy  = 1.000011000028
```

If the squares and the product are rounded to ten significant digits as is done on the HP-41 and many other HP calculators the small values beyond ten digits are discarded and the values 1.000014000, 1.000008000 and 1.000011000 remain. The rounding process discards the values of 4.9E-11, 1.6E-11 and 2.8E-11. Perform the following sequence from the keyboard of an HP-41:

```
CLSUM                clears the statistical registers
1.000014 ST- 12      negative of the rounded value of x^2 to R12
1.000008 ST- 14      negative of the rounded value of y^2 to R14
1.000011 ST- 15      negative of the rounded value of xy to R15
1.000004 ENTER
1.000007 SUM+        adds x^2 to R12, y^2 to R14, and xy to R15


press RCL 12 and see 4.9000000 -11 in the display
press RCL 14 and see 1.6000000 -11 in the display
press RCL 15 and see 2.8000000 -11 in the display
```

where the contents of registers 12, 14 and 15 contain the values which were discarded during rounding of the squares and product. If you reverse the sequence and do the statistical entry first and then subtract the rounded squares and product from registers 12, 14 and 15 you will find that there are zeroes in those registers.

Another arithmetic exercise using the statistical functions:

Consider the numbers

```
x   = 111,111

y   = 1,111,111,111
```

```
                        x^2 = 12,345,654,321

                        y^2 = 1,234,567,900,987,654,321

                        xy  = 123,456,666,654,321

where in the HP-41 the squares and the product round to

                        x^2 = 1.234565432E10  displayed as 1.2345654 10

                        y^2 = 1.234567901E18  displayed as 1.2345679 18

                        xy  = 1.234566667E14  displayed as 1.2345666 14
```

where to see the actual ten digit mantissas you multiply the displayed values by 1E-10, 1E-18 and 1E-14 respectively. Perform the following sequence from the keyboard:

```
     CLSUM             clears the statistical registers
     1,111,111,111
     ENTER
     111,111
     SUM+             adds x^2 to R12, y^2 to R14, and xy to R15
```

where we expect the rounded values to appear in those registers and do; for example for y^2, by performing the following sequence

```
     RCL 14     1.2345679 18 in the display
     1
     EEX
     18
     CHS        1       - 18 in the display
     X          1.234567901  in the display
```

Now, perform the following sequence which, according to the description of the statistical functions on pages 103-104 of the owner's handbook, should remove the entered values from the statistical registers such that the values in R12, R14 and R15 should be zeroes:

```
     1,111,111,111
     ENTER
     111,111
     SUM-             subtracts x^2 from R12, y^2 from R14, and xy from R15


but,    RCL 12 yields -1
        RCL 14 yields 13,000,000
        RCL 15 yields 45,700
```

The result in R12 can be obtained by subtracting the exact eleven digit square of 111,111 from the HP-41 square of 111,111 with a ten digit mantissa; that is,

1.234565432E10 is 12,345,654,320 - 12,345,654,321 = -1

The results in R14 and R15 can be obtained by subtracting values for y^2 and xy which use truncated (not rounded) thirteen digit mantissas from values which use rounded ten digit mantissas; that is,

```
for R14   1.234567901E18 is   1,234,567,901,000,000,000
                            - 1,234,567,900,987,000,000
                            =                13,000,000


for R15   1.234566667E14 is   123,456,666,700,000
```

```
                          - 123,456,666,654,300
                          =              45,700
```

I obtain the same results with my HP-11C. I believe these results are a part of what was described as "... a tricky property of the Sum+ and Sum- keys whereby certain calculations can be carried out to 13 significant digits before being rounded back to 10" in a footnote on page 208 of the HP-15C Advanced Functions Handbook. I do not get similar effects with older HP calculators such as the HP-33C, HP-67 and HP-80.

Pages 205-211 of the HP-15C Advanced Functions Handbook proposes eight cases for evaluating the ability of a quadratic program to solve difficult cases. It presents a single precision program for the HP-15C which can obtain correct results for only three of the eight cases. It also presents a program which uses the "tricky properties" in a double precision routine which carries twenty digits during the calculation of the discriminant. That program obtains correct results for all eight cases. It uses eleven data registers and is quite slow. An equivalent program on my HP-41C runs for as much as ten seconds to obtain a solution. In 1991 I wrote a single precision program for the TI-59 which uses truncated thirteen digit mantissas as opposed to the rounded ten digit mantissas used with the HP-11, HP-15 and HP-41. My TI-59 program obtained correct results for seven of the eight cases. It failed for the seventh case where the discriminant is the single digit difference between two twenty digit numbers. That program and similar programs for the TI-74, TI-81 and Casio fx-7000G are described on pages 8-13 of the Volume 14 Number 3 issue of TI PPC Notes.

The four cases which a single precision TI-59 program solves correctly but a single precision HP-41C program solves incorrectly all involve discriminants which are calculated as the difference between two numbers 11 or 12 significant digits. One could, of course, devise a case in which the difference between two numbers of 14 significant digits was required and my TI-59 program would fail, but the double precision HP program would succeed. Using the insight into the "tricky properties" of the Sum+ and Sum- functions derived from the numerical exercises above I decided to write an HP-41 program which carries 13 significant digits during the calculation of the discriminant. Such a program should yield correct solutions to seven of the eight cases, use fewer registers and use less run time.

The program follows the convention in the HP-15C Advanced Functions Handbook where the quadratic is defined as c - 2bx + ax^2 = 0 and the discriminant is calculated as d = b^2 - ac . That definition reduces the size of the two parts of the discriminant by a factor of four. The program calculates the terms of the discriminant in two stages. First, the 3 least significant digits of the ac term are accumulated in R15 using the "tricky properties". Then the 3 least significant digits of the b^2 term are accumulated in R14 using the "tricky properties". The 3 least significant digits of ac in R15 are preserved by setting y = 0 during the b^2 accumulation. Finally, the 10 most significant digits of b^2 and ac are calculated in the normal manner and combined before the smaller corrections for the least significant parts are applied. The program uses only the six data registers associated with the statistics functions. The user solves by entering the constants of the quadratic with the sequence c ENTER b ENTER a, and running the program. For real roots the program stops with one root in the display. The second real root is displayed by pressing x<>y. If the solution is complex Flag 0 is set. The program stops with the real part in the display. The imaginary root is displayed by pressing x<>y where + and - signs for the imaginary part are implied. Thr run time is of the order of one second. The program listing follows. Experienced RPN programmers will surely find ways to optimize the program; after all, this is the first RPN program I have written.

```
01 LBLtQUAD
02 CF 00
03 RCL Z
04 CL SUM
05 ST- 15
06 X<>Y
07 ST* 15
08 SUM+
09 CLX
10 STO 13
11 STO 14
12 RCL Z
13 ST- 14
14 ST* 14
```

```
15 X<>Y
16 SUM+
17 RDN
18 X^2
19 X<>Y
20 STO 12
21 RCL 11
22 *
23 -
24 RCL 14
25 +
26 RCL 15
27 -
28 X<0?
29 GTO A
30 RCL 11
31 RDN
32 SQRT
33 X<>Y
34 SIGN
35 *
36 +
37 STO 16
38 X<>Y
39 /
40 RCL 16
41 X =/0?  (X not equal to zero)
42 GTO B
43 CLX
44 GTO C
45 LBL B
46 RCL 12
47 X<>Y
48 /
49 STOP
50 LBL A
51 SF 00
52 CHS
53 SQRT
54 RCL 11
55 /
56 LASTX
57 RCL 13
58 X<>Y
59 /
60 STOP
61 END
```

This program will yield the correct answers to seven of the eight cases proposed in the HP-15C Advanced Functions Handbook. The exception is the seventh case from the text on page 211 where c = 4,877,163,849, b = 4,877,262,613 and a = 4,877,361,379. Then

```
d = (4,877,262,613)^2 - 4,877,361,379 x 4,877,163,849

  = 23,787,690,596,167,587,769 - 23,787,690,596,167,587,771

  = -2
```

so that twenty significant digits must be carried to yield the correct answer for d. The following program is a conversion of the double precision program from pages 208-210 of the HP-15C Advanced Functions Handbook which will solve the seventh case. The program runs for about ten seconds to obtain the solution. The roots are complex with the Re = 0.999979750 and Im = 2.8995463E-10. The HP-15C program requires 84 steps. My translation for the HP-41C requires 88 steps where the increase in steps is the lack of the combined commands such as RCL + which are used in the HP-15C program but are not available on the HP-41C.

```
01 LBLtHPQUAD
02 CF 00
03 STO 04
04 RDN
05 STO 06
06 STO 08
```

```
07 X<>Y
08 STO 07
09 STO 09
10 SCI 2
11 LBL A
12 CL SUM
13 RCL 08
14 STO 15
15 RCL 04
16 /
17 RND
18 RCL 04
19 SUM -
20 RCL 09
21 RCL 15
22 X<>Y
23 STO 15
24 RDN
25 X<>Y
26 RCL 08
27 SUM -
28 RDN
29 SUM -
30 RCL 15
31 ABS
32 RCL 09
33 ABS
34 X<=Y?
35 GTO B
36 ENTER^
37 R^
38 STO 08
39 RCL 15
40 STO 09
41 ABS
42 1 E20
43 *
44 RCL 07
45 ABS
46 X<=Y?
47 GTO A
48 LBL B
49 FIX 9
50 RCL 08
51 X^2
52 STO 15
53 RCL 04
54 RCL 09
55 SUM -
56 RCL 06
57 RCL 15
58 X<0?
59 GTO D
60 SQRT
61 RCL 06
62 SIGN
63 *
64 +
65 STO 16
66 X<>Y
67 /
68 RCL 16
69 X/=0?  X is not equal to zero
70 GTO C
71 CLX
72 STOP
73 LBL C
74 RCL 07
75 X<>Y
76 /
77 STOP
78 LBL D
79 SF 00
80 CHS
81 SQRT
82 RCL 04
83 /
84 X<>Y
85 R^
86 /
87 STOP
```

```
88 END
```

Palmer

Re: Update: 13 digit precision on HP-15c (from Palmer Hanson)

*Message #2 Posted by **hugh steers** on 25 July 2003, 11:14 a.m.,*
in response to message #1 by Gene

i very much like the trick of using the 13 digit precision rather than the "grannies china" version because its a lot smaller and quicker.

root finding and proximal double roots are good examples of why calculators need more precision. theres no reason why new models couldnt work internally to excess of 20 digits. it would help.

unfortunately, hps new range does do this but theyve crippled it. one of the problems of working in binary is that you have to suppress garbage. the 9g supresses at 10^-14 so b^2-4ac still gets 0. if they suppressed at less (eg 2^-80) it would solve the quadratic problem superbly.

http://www.voidware.com/binarycalculators.htm

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HP41 Programming challange

*Message #1 Posted by **Harry (Germany)** on 23 July 2003, 12:16 p.m.*

The challange is:

Write a program that lists primnumbers and there number (I don't know the correct english word for that, what I mean is, the primnumbers should be numbered or "counted").
The main challange is to write a program that is as fast as possible.

The program I wrote searches for a common divider of the number it is testing and the products of the primnumbers it has stored in registers.

Now what you should not do is store the products of primnumbers (that you would have to compute in another way or take out of a book) in registers before the program has found them.
At least not a whole lot of them, lets say you can use all primnumbers no greater than 20. My program takes 2, 3 and 5 as given primnumbers.

This is my program.
It is not perfect and there would still be something to optimize, anyway, it was good enough to beat the program my dad wrote, hehe.
It calculates the first 500 primnumbers in less than 2 hours. I will let you know the exact time as soon as I know (just started it).

Happy programming :)

Regards,
Harry (Germany)

Re: HP41 Programming challange

*Message #2 Posted by **Harry (Germany)** on 23 July 2003, 12:28 p.m.,*
in response to message #1 by Harry (Germany)

At the beginning the program is slowed down a lot by displaying the numbers by "PSE". This takes about 2.2 seconds per primnumber.

Sorry for my bad english, I hope you can read it anyway.

Regards,
Harry (Germany)

PS: 111 primnubers after 12 minutes. The 111th one is 607

Results so far...

*Message #3 Posted by **Harry (Germany)** on 23 July 2003, 1:52 p.m.,*
in response to message #2 by Harry (Germany)

0h 06min: 068th 0337
0h 12min: 111th 0607
0h 32min: 249th 1579
0h 58min: 392th 2693
1h 16min: 482th 3449
1h 27min: 537th 3877
1h 30min: 552th 4003

now the "BAT" indicator has come on, I will have to restart with new Batteries or on the emulator, but then the speed won't be as it should be.

Regards,
Harry

Re: Results so far...

*Message #4 Posted by **Trent Moseley** on 23 July 2003, 6:16 p.m.,*
in response to message #3 by Harry (Germany)

Harry,

I've got the old 67 plugged in the wall using a 49 line program adapted from Peter Henrici's book "Computational Analysis with the HP-25 Pocket Calculator". Later when I have more time I'll run in on my 32Sii. For the record the 67 took 20m 01s to reach the 73rd prime (starting out from 0), the number 359.

tm

Re: Results so far...

*Message #5 Posted by **Victor Koechli** on 23 July 2003, 6:45 p.m.,*
in response to message #4 by Trent Moseley

Could you post the program here so we can participate?

Cheers, Victor

Results so far... Program listing

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 9:22 p.m.,*
in response to message #5 by Victor Koechli

Hi, Victor;

the program is listed in teh image below:

http://members.roadfly.com/harry2211/HP41_prim.jpg

The image file can be also downloaded in the starting post. There is a link Harry posted.

Cheers.

Luiz (Brazil)

Luiz Help Me Out

*Message #7 Posted by **Trent Moseley** on 23 July 2003, 10:43 p.m.,*
in response to message #5 by Victor Koechli

I think Victor is referring to my post that I am using a 49 line program. I dont't know to how to type this out and then somehow post it into the Forum.

tm

Oops! I post a wrong reply...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 11:17 p.m.,*
in response to message #7 by Trent Moseley

Hey, Trent;

I'm sorry; I thought that Victor was asking for Harry's listing; to be honest, I read his post and did not realise it followed yours. Please, forgive me.

About your post, is there anything I can I do for you? I'd gladly help you. If you list your 49-steps program in an HP97 printer or in an HP41's, scan the image and send it to me, I'll type it in for you. Is this what you need? I think I am the one that's confusing stuffs for good... 8*(Sorry!

Whatever you want, let me know. I'd be glad helping.

Best regards.

Luiz (Brazil)

Edited: 23 July 2003, 11:18 p.m.

Here's the Program

*Message #9 Posted by **Trent Moseley** on 24 July 2003, 4:27 p.m.,*
in response to message #5 by Victor Koechli

Prime number program:

001 LBL A 025 x=<y? DSP 0 GTO 3 LBL 0 2 2 STO X 3 STO 3 1 1 030 STO - 3 STO 4 GTO 2 RCL 1 LBL 3 LBL 1 3 010 SQRT STO + 3 STO 2 RCL 4 LBL 2 CHS RCL 2 STO 4 RCL 3 STO + 3 x>y? GTO 2 GTO 5 040 LBL 4 RCL 1 1 RCL 3 STO+ 1 DIVIDE GTO 0 020 FRAC LBL 5 x=0? RCL 1 GTO 4 PAUSE RCL 3 1 024 4 STO + 7 049 GTO 4

tm

SORRY!

*Message #10 Posted by **Trent Moseley** on 24 July 2003, 4:34 p.m.,*
in response to message #9 by Trent Moseley

I did't type in the program in this way. I can see now that this message board is NOT like a word processor! I will try to figure out what to do next.

tm

Re: SORRY!

*Message #11 Posted by **Victor Koechli** on 24 July 2003, 5:25 p.m.,*
in response to message #10 by Trent Moseley

Hihi, such are the dangers in this zoo...

Anyway, I guess you'd have to use [nl] for the line breaks, or enclose the entire listing betwenn [pre] and [/pre] tags.

Thanks anyway for your effort. Looking forward to keep my 25 busy...

Cheers, Victor

All is not lost

*Message #12 Posted by **Jim L** on 24 July 2003, 6:05 p.m.,*
in response to message #10 by Trent Moseley

Trent

On your post, click on Edit Message.

Put [PRE] before your listing. Put [/PRE] after.

Type your password and press Save.

There's more info here

Reformatted: Re: Here's the Program

*Message #13 Posted by **W. Bruce Maguire II** on 24 July 2003, 6:04 p.m.,*
in response to message #9 by Trent Moseley

Trent:

Is this what you intended?

```
001 LBL A      025 x=<y?
    DSP 0          GTO 3
    LBL 0          2
    2              ST* 3
    STO 3          1
    1          030 ST- 3
    STO 4          GTO 2
    RCL 1          LBL 3
    LBL 1          3
010 SQRT           ST+ 3
    STO 2          RCL 4
    LBL 2          CHS
    RCL 2          STO 4
    RCL 3          ST+ 3
    x>y?           GTO 2
    GTO 5      040 LBL 4
    RCL 1          1
    RCL 3          ST+ 1
    /              GTO 0
020 FRAC           LBL 5
    x=0?           RCL 1
    GTO 4          PAUSE
    RCL 3          1
024 4              ST+ 7
               049 GTO 4
```

I have not verified the code or anything; I just reconstructed what appeared to be a multi-column original with line numbers.

Ocassionally skulking,
Bruce.

The Reply of W.B.M. II!

*Message #14 Posted by **Trent Moseley** on 25 July 2003, 12:01 a.m.,*
in response to message #13 by W. Bruce Maguire II

Bruce,

You made my day, I was so frustrated. The program looks the way it should have been. I'm so greatful for your help. Just a note about line 48. As you see, this records the count that Harry in his original post asks for. So now everyone can test it out on different caluclators to give us the fastest run, and more importantly, shave off a few steps. If I have missed something please reply.

tm

Here's my version of the program (long)

*Message #15 Posted by **Axel Poqué** on 28 July 2003, 1:05 p.m.,*
in response to message #13 by W. Bruce Maguire II

Ok, here's my version of the program. I've added a few lines to time the program (lines 06-08, 56 and 58-60), and also the possibility to provide a maximum number to test (say, you want all primes up to 1000).

If we remove the special case of '2' as a prime (by starting at 3 instead of 1), we can reduce the running time of the program by about 25% since we only need to test uneven numbers in this case.

To run it, you put the maximum number to test on the stack, and do an [XEQ] "PRIME1".

```
01 LBL "PRIME1"
02      STO 06          ; last number to test
03      FIX 00          ; set display to show integers
04      CF 29           ; no decimal point
05      0

06      STOPSW          ; start stopwatch (remove lines 06-08 if you
07      SETSW           ; don't want to use the stopwatch)
08      RUNSW

10      STO 07
11      3
12      STO 01
13 LBL 00
14      2
15      STO 03
16      1
17      STO 04
18      RCL 01
19      SQRT
20      STO 02
21 LBL 02
22      RCL 02
23      RCL 03
24      X>Y?
25      GTO 05
26      RCL 01
```

```
 27      RCL 03
 28      /
 29      FRC
 30      X=0?
 31      GTO 04
 32      RCL 03
 33      4
 34      X<=Y?
 35      GTO 03
 36      2
 37      ST* 03
 38      1
 39      ST- 03
 40      GTO 02
 41 LBL 03
 42      3
 43      ST+ 03
 44      RCL 04
 45      CHS
 46      STO 04
 47      ST+ 03
 48      GTO 02
 49 LBL 04
 50      2               ; only uneven numbers (3, 5, 7, ...)
 51      ST+ 01
 52      RCL 06          ; loop if not maximum number
 53      RCL 01
 54      X<=Y?
 55      GTO 00

 56      STOPSW          ; remove if no timing needed

 57      SF 29           ; reset decimal flag

 58      FIX 06          ; 6 decimal places to show time
 59      RCLSW           ; show expired time
 60      VIEW X          ; lines 58-60 can be removed if you
                         ; don't want to time the program
 61      STOP
 62 LBL 05               ; show prime number
 63      CLA
 64      ARCL 01
 65      AVIEW
 66      1               ; count primes
 67      ST+ 07
 68      GTO 04
 69 END
```

I haven't been able to test it on a real HP-41, since I sent mine back for replacement (it suffered from frequent memory losses, if you remember). I ran it in V41 though, where finding all primes up to 100 takes 41 s instead of 56 s.

Axel

Edited: 28 July 2003, 1:09 p.m.

Re: Here's my version of the program (long)

*Message #16 Posted by **Harry(Germany)** on 28 July 2003, 2:37 p.m.,*
in response to message #15 by Axel Poqué

Testing only odd numbers is a good idea. My Program also does not test numbers that can be divided by 3. This is done by increasing the number by 2 and 4 like this:
5 +2
7 +4
11 +2
13 +4
17 +2
19 +4
23 +2

25 +4.....

Regards, Harry

Re: Here's my version of the program (long)

*Message #17 Posted by **Axel Poqué** on 28 July 2003, 3:05 p.m.,*
in response to message #16 by Harry(Germany)

Yes, I know. For this version I only made a simple change which could not negatively affect runtime through the additional required logic - the inner loop stayed the same excpet for the step width. I'm going to try to avoid numbers divisible by 3 (and perhaps 5) now.

Axel

Re: Results so far...

*Message #18 Posted by **Harry (Germany)** on 23 July 2003, 7:23 p.m.,*
in response to message #4 by Trent Moseley

The 32SII is faster than the 67 and the 41 I think.
I would also transfer my program, but the 32 does not provide the 107 register it needs. At least if it is set up to compute all primnumbers up to 1E6.
I have adapted it to an HP48 wich is a lot faster.

Regards,
Harry

Re: Results so far...

*Message #19 Posted by **Trent Moseley** on 27 July 2003, 11:59 p.m.,*
in response to message #18 by Harry (Germany)

Harry,

I haven't heard from you. Have you used the program that I posted after it was reformatted by Bruce?

tm

Re: Results so far...

*Message #20 Posted by **Harry (Germany)** on 28 July 2003, 2:22 p.m.,*
in response to message #19 by Trent Moseley

Yes, I have tested it, although i did not fully understand it. As I expected the speeddiffrence gets more significant with bigger numbers. The 29C I programmed it into was at #1500 after 2 days.

Regards, Harry

Re: Results so far...

*Message #21 Posted by **Axel Poqué** on 28 July 2003, 3:24 p.m.,*
in response to message #20 by Harry (Germany)

Well, the program works much the same way you suggested. Although it tests ALL number for primality, it only tests each number against a sequence of numbers avoiding multiples of 3, up to the square root of the original number (since 4 * 6 = 6 * 4 = 24). The sequence is as follows:

```
 2  3  5                      ; lines 23-31
  +1 +2

  7  11  13  17  19  23 ...   ; lines 32-39
+2 +4  +2  +4  +2  +4  +2 ...
```

I hope this clarifies things a bit.

Axel

Edited: 28 July 2003, 3:30 p.m.

Re: Results so far...

*Message #22 Posted by **Harry (Germany)** on 28 July 2003, 4:46 p.m.,*
in response to message #21 by Axel Poqué

Yes, I see it now. To be honest, I did not spend too much time on analysing it. But now I did.

Regards, Harry

Re: Results so far...

*Message #23 Posted by **Harry** on 28 July 2003, 4:50 p.m.,*
in response to message #21 by Axel Poqué

My program also stops when it reaches the square root of the number that is beeing tested. Thats why I had to store the biggest prime number that is in the product in addition to the product itself.
The disadvantage of my program is 1st its length (It is twice as long as the other one) and second its need for memory. It needs 108 registers if I want to search for primnumbers up to 1E6.

Regards,
Harry

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Display Full Mantissa 41CV

*Message #1 Posted by **bill platt** on 23 July 2003, 10:08 a.m.*

Hello,

Does anyone know whether you can show the full 10 digit mantissa in the 41 series? I do not find this ability descibed in the owner's handbook and programming guide. In other words, when you have a big exponent number, some way to toggle viewing the mantissa, as you can on the voyagers and pioneers.

regards,

Bill

Re: Display Full Mantissa 41CV

*Message #2 Posted by **Thibaut.be** on 23 July 2003, 10:14 a.m.,*
in response to message #1 by bill platt

A full mantissa option does not exist by itself, but you can choose the largest FIX which is [GOLD KEY] FIX 9

You'll get 9 figures after the comma.

Re: Display Full Mantissa 41CV

*Message #3 Posted by **bill platt** on 23 July 2003, 10:40 a.m.,*
in response to message #2 by Thibaut.be

Thibaut,

thanks! So, this means that any really large or small numbers will only display 8 digits in the MAntissa, because of the Exponent display tasking up space.

Regards,

Bill

You could type up the PPC ROM routine for "MT"

*Message #4 Posted by **Gene** on 23 July 2003, 10:44 a.m.,*
in response to message #3 by bill platt

You could type up the PPC ROM routine for "MT" (ManTissa), which you can run to show the entire mantissa regardless of display setting.

Anyone have the listing handy for Bill?

Re: You could type up the PPC ROM routine for "MT"

*Message #5 Posted by **Ernie Malaga** on 23 July 2003, 12:02 p.m.,*
in response to message #4 by Gene

Gene, Bill:

All 13 lines of the MT routine are listed on page 339 of the PPC ROM manual, which is included in the MoHPC CDs/DVD:

```
29 LBL "MT"
30 CLA
31 STO M
32 ASTO M
33 INT
34 X!=0?
35 (Append x'00')
36 X=0?
37 (Append x'A0')
38 CLX
39 ST+ M
40 X<> M
41 RTN
```

Note: The line numbers begin with 29 because of the way routines are stored in the PPC ROM. They don't matter. Also, you may want to replace the RTN with an END.

Typing this routine requires using either a Byte Grabber in order to make it possible to type up the synthetic lines. The MoHPC page for the HP-41 contains a link to a page that describes how to create the Byte Grabber key assignment.

Finally, if you don't want to mess with synthetics AND you can spare the contents of both the T and LASTx registers, you can simply perform a multiplication or division by a suitable power of 10, which will eliminate the pesky exponent from the display. Example:

Supposing the HP-41 shows "1.2345678E-12", you simply multiply the result by 1E12 (EEX 12 x).

-Ernie

Edited: 23 July 2003, 12:07 p.m.

Re: Display Full Mantissa 41CV

*Message #6 Posted by **Chan Tran** on 23 July 2003, 10:51 a.m.,*
in response to message #3 by bill platt

Fix 9 does not display all digits in the mantissa if the number is too small or too large to be displayed in fix format. However, recall the X register to the alpha register and view the alpha register you can see all 10 digit mantissa and the 2 digit exponent.

Full Mantissa 41CV TNX!

*Message #7 Posted by **bill platt** on 23 July 2003, 4:02 p.m.,*
in response to message #1 by bill platt

Gene, Ernie, Chan Tran, Thibaut,

Thanks a lot for your help---this forum is FUN!

Now you've got me curious about nibbles and synthetic programming.....uh-oh, I'm getting sucked in.....

Best regards,

Bill

Re: Full Mantissa 41CV TNX!

*Message #8 Posted by **Ernie Malaga** on 23 July 2003, 4:55 p.m.,*
in response to message #7 by bill platt

> Quote:
>
> Now you've got me curious about nibbles and synthetic programming.....uh-oh, I'm getting sucked in.....

Too late to run away. You've just been infected with the SP virus! 8^)

-Ernie

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About that HP37E I am trying to fix

*Message #1 Posted by **Harry (Germany)** on 23 July 2003, 9:40 a.m.*

As I posted a while ago, I got a faulty 37E. The powersupply is not working. Now I got annother spice, a 32E, (the 37E was my first one) and I used the 32Es powersupply to test the 37E. It still did nothing. Then I realized that the LEDs were badly corroded inside too, and after swaping those too it works!! The powersupply should not be a big problem to repair, as I have that working one to look at and measure on (Thanks to Luiz for the excelent pictures and enlightening me on that jumper :)). But do you have any suggestions on how to restore the LEDs?

Regards, Harry (Germany)

Re: About that HP37E I am trying to fix

*Message #2 Posted by **Jon** on 23 July 2003, 3:09 p.m.,*
in response to message #1 by Harry (Germany)

Harry:

I am am afraid you need a spare part. Any solderless spice display will work.

If you can repair it post the solution. I have two of those "internally corroded" displays.

Best Regards

Jon

Re: About that HP37E I am trying to fix

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 8:54 p.m.,*
in response to message #2 by Jon

Hi Jon, Harry (I wrote your name wrongly in my e-mail; sorry)

Just to add to Jon's correct note that if you find a working LED module in one soldered Spice and you are carefull enough removing it without dammaging it, it will work fine as well. I have already done that...

About restoring the "corroded" microscopic 7-segments LED blocks: I completely agree with you, Jon; I cannot see a better way than using a spare LED module. Harry, be patient and you'll surely find a "donator". Spices are not so rare.

Good luck, Harry. And let us know what happens. (thanks for mentioning the drawings; my pleasure)

Luiz (Brazil)

Re: About that HP37E I am trying to fix

*Message #4 Posted by **David Smith** on 23 July 2003, 4:53 p.m.,*

in response to message #1 by Harry (Germany)

If the connecting pins are corroded you can clean them with alcohol and lightly sand them with extra-fine grit sandpaper. Treat the pins with a corrosion inhibitor if you can find it. This should get the display up and running.

VERY occasionally the corrosion can get up under the LED lens and affect the bonding wires to the LED chips. This usually only affects a small portion of the display. It is not repairable.

Re: About that HP37E I am trying to fix

*Message #5 Posted by **Harry (Germany)** on 23 July 2003, 5:09 p.m.,*
in response to message #4 by David Smith

That is exactly what happened to my LEDs. I can see crystals arround all the boding wires through the lenses.

I will keep the calculator for spareparts...

Regards, Harry

Re: About that HP37E I am trying to fix

*Message #6 Posted by **Stephan (Germany)** on 23 July 2003, 7:09 p.m.,*
in response to message #1 by Harry (Germany)

Dear Harry,

I have a spare 32E at hand, which is corroded, but LEDs seem fine. I don't have time and pations to give it a try. If you want it for free, please drop me a line. In case it works out, I would be pleased to receive a bottle of beer of your home town as reward.

Best regards,

Stephan

passwd to delete this message: 12345

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HP-48GX display indicators

*Message #1 Posted by **Axel Poqué** on 23 July 2003, 8:25 a.m.*

All 4 display indicators (ALPHA, BAT, BUSY & CONNECT) of my HP-48GX are always on, regardless of mode and/or battery status. Does anybody know what could cause this? Is this perhaps an indicator for a faulty display or contact problems, or just a flag setting?

Axel Poqué

Re: HP-48GX display indicators

*Message #2 Posted by **Raymond Del Tondo** on 23 July 2003, 9:47 a.m.,*
in response to message #1 by Axel Poqué

I suspect it to be a display contact problem.

Somewhere here on this site there are/were articles/postings related to this topic.

Have you tried applying (carefully) some torsion on the calculator case?

What about installed software, and/or new batteries?

Raymond

Re: HP-48GX display indicators

*Message #3 Posted by **Axel Poqué** on 23 July 2003, 10:59 a.m.,*
in response to message #2 by Raymond Del Tondo

The calculator has had this problem for quite some time now (several years - I just didn't know who to ask before), so it's not a battery issue. I have a 1 Mb RAM card installed, but the indicators stay on when I remove it. There's only one additional program installed at the moment, because I lost the contents of the RAM card recently when its battery died, and I didn't bother to reinstall until now.

Flexing the case doesn't change anything.

When I change the contrast setting, the indicators do not change - they have always maximum contrast (is this normal?).

Axel

Re: HP-48GX display indicators

*Message #4 Posted by **Ron Ross** on 23 July 2003, 11:11 a.m.,*
in response to message #3 by Axel Poqué

On the newer 49 and 39 series, this indicates a problem with the battery circuit (high drain due to diode

problem, maybe in past you inserted a set of batteries backwards?). That said, a set of batteries will only last for a couple of weeks to a couple of months vs normal useage on a set of batteries should be 3+ months under even heavy use.

I have a 39G that was replaced with the same problem, but it was still under warrenty. But it didn't seem to use up batteries any more than my daughters other 39G either.

Re: HP-48GX display indicators

*Message #5 Posted by **Axel Poqué** on 23 July 2003, 5:00 p.m.,*
in response to message #4 by Ron Ross

Well, I know that I once inserted at least one battery backwards; but I discovered it immediately and put them in the right way. I can't remember if my problem started then, though. (I hope I didn't damage it.)

Up until about 3 years ago I used my HP-48GX almost daily for about 6-8 hours, a set of batteries used to last about 6 weeks then. Now I use it much less and I really can't tell how long a set of batteries lasts.

I'll probably back everything up and try a complete reset (as someone suggested) and see what happens.

Thanks, Axel

Re: HP-48GX display indicators

*Message #6 Posted by **unspellable** on 23 July 2003, 5:51 p.m.,*
in response to message #5 by Axel Poqué

Putting one out of the three cells in backwards will result in the battery voltage being at about 1.4 volts with the correct polarity, same as a low battery condition, and should not cause any harm to the hardware. The calculator would probably just not run. It might cause loss or corruption of the memory though.

Re: HP-48GX display indicators

*Message #7 Posted by **Roberto Flores** on 24 July 2003, 12:55 a.m.,*
in response to message #1 by Axel Poqué

Hi... I have a 49G that had the same problem (bought used). Last week I decided to swap the lcd screen (with a "donor" 39G) and this took care of the problem, my 39G now displays the indicators and my 49G works flawlessly. Now you know what to do... find an old 38G or 39G and replace that screen. Hope this helps.

Regards;

Roberto

Re: HP-48GX display indicators

*Message #8 Posted by **bill platt** on 24 July 2003, 5:54 p.m.,*
in response to message #7 by Roberto Flores

Roberto,

I remember you posting about this----but was it here, or at comp.sys.hp48?

Some of you guys here in this forum are damn good at taking apart machines that were not designed to be serviced, and you manage to perform the electonic equivalent of brain or eye surgery.

I am impressed, amazed, and perhaps even a bit intimdated. I have not had so much luck myself so far with calculator surgery :-(

regards,

Bill

Don't give up...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 25 July 2003, 12:02 a.m.,*
in response to message #8 by bill platt

Hi, Bill;

I see and read your posts here and let me tell you something: I think no one likes to post about losses, both because it's not a good thing to read about and may also cause lack of confidence in others.

I was not completely successful in all of my surgeries. I still have a deceased HP42S with 32K RAM, I could not repair some calculators sent to me sometime ago, but I feel I can do better.

We have a big advantage against doctors: we can kill our patients and resuscitate them anytime we want, even after days, months passed after they're "put to deep sleep".

I am a lot careful, I do not feel as having the rights to go beyond what I know I can, mostly when I have someone else's equipment in hands. A couple of months ago I was given an HP41CV, halfnut, with an intriguing behavior: only 64 registers available. What did I do? I disassembled it all, scanned its "guts" and allowed people to "see" the inside of a halfnut in a way many have never seen before. After that, I put all stuff back, soldered all necessary junctions and it woke up the same way it was before: only 63 registers. Now I use it as my first "fake" HP41C halfnut. Yes, I rebuilt it in a fulnut HP41C's original case.

I only give up when I "see" no way out and there is no one else to show me another alternative. Before getting acquainted with the MoHPC "environment" I had three HP41 disassembled and out-of-order. I was able to bring two of them back to life. The third one I'm using as an "organ donator". As I have seen in some movies: "Someone must do this job", right?

Best regards. And don't give up... Use a faulty experience to compose a new, successful one.

Luiz (Brazil)

Re: Don't give up...

*Message #10 Posted by **bill platt** on 25 July 2003, 8:24 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Tnx 4 the encouragement. BTW, my 41cv fullnut--the one that I have not fixed yet----before it wierded oit on me, when I went to empty program space, it would say "Reg 63" or "end Reg 63" or something. Does this mean I only had 63 registers, too?

Regards,

Bill

Re: Don't give up...

*Message #11 Posted by **Vieira, Luiz C (Brazil)** on 25 July 2003, 8:59 a.m.,*
in response to message #10 by bill platt

Hi, Bill;

based on what you say, chances are you have only a faulty RAM IC, maybe more. When you force a [MEMORY LOST] condition and execute SIZE 000, you get [00 .REG. 63] in PRGM mode, right? After doing that try one of these:
[RCL] 64 128 [RCL][SHIFT][.] X (i.e. RCL IND X) 192 [RCL][SHIFT][.] X

If any of these does not generate [NONEXISTENT] then you have only one faulty RAM chip. In this case, and of course, being it a be a fulnut, chances are you can repair it with a donated RAM from another CV. Fulnuts have all RAM chips as separate, discrete package. Halfnuts have an hybrid chip with all ROM, RAM and display driver (R2D2) in one single resine package that cannot be serviced.

Would you please check it out and let us know?

Best regards.

Luiz (Brazil)

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HP41 Bank Switching & HEPAX Question

*Message #1 Posted by **Meindert Kuipers** on 23 July 2003, 4:26 a.m.*

Now that the basic functionality of the MLDL works I am trying to figure out the best way to implement bankswitching in the MLDL2000 design. I would like to know if I understand the behavior correctly:

The ENBANKx (x=1,2,3,4) enable the relevant bank in the page the instruction is executed from. I assume that the behavior of the instruction is not defined for the system ROM's (page $0, $1 and $2)? Are there any other exceptions? In the source for V41 some exceptions are mentioned but these are pretty hard to implement.

I also assume that the two pages in a port (for example $8 and $9) are totally independent.

When in standby the state of the Bank Enable does not change? After Deep Sleep or Power Down the Bank Enable state of all ROMs returns to Bank 1?

Other question about HEPAX: it supports two extra instructions, one to write protect a RAM page and one to relocate HEPAX to an empty page. In the current architecture of the MLDL2000 these instructions cannot be implemented. Can anyone comment to the fact what would happen to the functionality of HEPAX if these special instructions (only used by HEPAX AFAIK) function as NOPs?

Thanks,

Meindert

About Bank Switching, RAM/ROM-Boxes, MLDL, HEPAX... and so on.

*Message #2 Posted by **Diego Diaz** on 23 July 2003, 6:03 p.m.,*
in response to message #1 by Meindert Kuipers

Hi Meindert, folks,

First of all I must say I've been following your MLDL2000 work since the beginning, I have no microcontroller experience at all so I can't be of any help for you in that sense.

Anyhow, I'm quite handy with wires & chips (IC's... well... and fried potatoes also ;-) BTW I've just finished my own (breadboard-prototype) ROM Box, starting from the original Lynn A Wilkins MLDL as published in PPCJ V9N3.

I've done some modifications:

- As I was not interested in the RAM area, I rub the related components off.

- 2732 & 2716 pairs might be a good solution with '82 eyes, but nowadays, EPROM's are more easily found in bigger capacities and those older models are scarcy and non price competitive.

- Further more, the 10bit 41's word implementation in the original MLDL was extremely complex with 2 last bits (MSB's) multiplexed into an 8bit 2716 word for every four 2732 word... !? Well I simply place the 10 bits

into two consecutive words of a 2764 or 128 or 256 or 512 (the last gives you the full 32k-words available for the 41's four extension ports) then read the Least Significant Byte from the odd address, send them to the ISA line, and at the proper time read the remaining two bits from the even address. So one only shift register is needed to drive the ISA line output and one only EPROM is needed to hold the "module" (or modules) data. Yes, you throu 6 bits away for each word but who cares?

- Several other minor "improvements" regarding the state counter and some gates saved here and there, and the whole thing is working.

Sorry, up to here I'm pretty sure I've told you nothing new, but I'm willing to share my experience so other can see that there is no mystery in bulding an (EP)ROM-Box for the 41.

Up to this point I've not implemented the bank switching capability for that, mainly because I have not a full knowledge about the way it works, but I've been doing my homework and here you are what I've found out:

- Bankswitching instructions ENBANK1, 2, 3 & 4 ($100, $180, $140 & $1C0 respectively) are NOP's for the 41 mainframe OS.

- Wichever module's willing to handle with them must reserve some specific memory addresses for the RETURNing, namely $XFC7, $XFC9, $XFCB & $XFCD (X beeing the hex value for the address four MSb's.

Address:..Instrucions

$XFC7:....$100, $3E0

$XFC9:....$180, $3E0

$XFCB:....$140, $3E0

$XFCD:....$1C0, $3E0

This MUST be present in every 4k bank of the module.

Obviously if a module is only going to handle Banks 1 & 2 it has no need to implement the corresponding returnings for Banks 3 & 4.

- Once the swithching has been performed, is in the internal module electronics in wich the responsibility of handling it relays, so the enabled bank is the one that can be seen at this specific 4k address area. This is why you can (e.g. in the HEPAX) relocate the address the module responds at, and override the "hardwired" B3 & B4 address lines to the I/O ports.

Remember this is an "at first glance" approximation of the bankswitching behavior, I've got a lot to learn about it yet and, of course, it may not be accurate in some points, so take it AFAIK and excuse me for the possible mistakes.

Some others out there sure can enligthen us with a deeper knowledge regarding this issue.

Cheers from the Canary Islands.

Diego.

Re: About Bank Switching, RAM/ROM-Boxes, MLDL, HEPAX... and so on.

*Message #3 Posted by **Jeff** on 24 July 2003, 6:16 p.m.,*
in response to message #2 by Diego Diaz

I have and can get any number of the 2716 and 2732 EPROM's. If you need some please let me know. Also, I am interested in redesigning the SRAM section of the MLDL as the TC5504AP-2 units are not available, as far as I know. I would like to find a one chip to do it all if possible. Any suggestions? One possible solution posted last week was to use an 8 bit SRAM chip in place of two 1 bit chips, and waste 6 bits (tie them to ground, perhaps through a resistor). Also, is there a way to increase the RAM on this unit to something more than 4K? Jeff

Re: About Bank Switching, RAM/ROM-Boxes, MLDL, HEPAX... and so on.

*Message #4 Posted by **Diego Diaz** on 24 July 2003, 7:39 p.m.,*
in response to message #3 by Jeff

Hi Jeff,

First, thanks for your offer about 2732/16 EPROMS, I also have a huge amount of them, but the main question is that using a single chip for the ROM data greatly simplifies de circuit. I think that earlier designs used that configuration due to excesive cost of 2764 or 27128 chips circa '82 (only a guess).

Regarding the RAM question, the same rule is applicable, TC5504AP-2 must be almost impossible to find and are by no means recomendable for a new design. In my opinion you'd better try the previous thread advice, take any 8bit low power static RAM in the market and multiplex the access for the lower 8 and upper 2 bits.

Of course you can place as many 4k words pages as you can, provided you have no other modules in the same address space, wich means that you can have as much as 32k words of RAM space with all four I/O ports address space available (even 40k words if no other peripheral is connected as you can also use Pages 6 & 7). So you can accomodate two 16K bytes RAM chips (e.g. HM65256 or the alike).

Nevertheless you must save some space for the RAM read/write routines wich must be present to alow the use of said RAM.

Hope this help.

Kind regards.

Diego.

Re: About Bank Switching, RAM/ROM-Boxes, MLDL, HEPAX... and so on.

*Message #5 Posted by **James** on 24 July 2003, 7:49 p.m.,*
in response to message #3 by Jeff

> Quote:
>
> ... redesigning the SRAM section of the MLDL as the TC5504AP-2 units are not available, as far as I know. I would like to find a one chip to do it all if possible.

A quick look through DigiKey shows there are 16 bit wide SRAM chips available from Cypress, but they are in awkward packages (TQFP etc.), and it looks like the low power 16 bit SRAM only comes in low voltage versions (<= 3.6V). (You don't want a fast SRAM, as you couldn't run it off batteries.)

eg. go to http://www.cypress.com/ and click MicroPower SRAMs.

Toshiba has some low power 5V 16 bit SRAMs, also in awkward packages:

http://www.toshiba.com/taec/cgi-bin/display.cgi?table=Category&CategoryID=232

eg. TC554161A,-L, 256K x 16, 5V 54 pin TSOP II:
http://www.toshiba.com/taec/components/Datasheet/554161a.pdf

However, even if you can find a single chip part, I would avoid going this route... the more exotic the part, the harder it is going to be to get (more) in small quantities, and the more it will cost. Generic 6264 (8K x 8) parts are going to be available at a good price for ages.

HTH,

James

Re: About Bank Switching, RAM/ROM-Boxes, MLDL, HEPAX... and so on.

*Message #6 Posted by **Meindert Kuipers** on 25 July 2003, 3:32 a.m.,*
in response to message #5 by James

Get the biggest SRAMs you can get. The usage is all defined in your address decoder and you can always tie unused address lines to zero. I would not take 16-bit SRAMs, these are somewhat exotic.

I have just posted pictures of my breadboard prototype MLDL2000, and that uses a 4 mbit SRAM. This was not available in DIL, so I soldered a little board together(just do not drink too much coffee ;) The picture location is at

www.kuipers.to/final%20for%20web/original/P5200175.jpg The empty socket is for the FLASH Eprom, which was not available in the SO32 package

Problem today is that most of these parts are all 3V.

Consider FLASH Eproms instead of the classic. Programmers are cheap (unless you already have one) and fast and you do not have to spend 20 minutes erasing them under UV light.

Meindert

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Re: 2 articles about it

*Message #1 Posted by **Robert Blaschke** on 23 July 2003, 4:24 a.m.*

Hi all,

after browsing some of the wonderful PPC CDs within the last nights I found an appropriate article in Datafile Vol.5, No.2, March, April 1986.

It's from Mark Power and says:

"Screen Scroll Bug I have recently discovered a bug in the error handling of my HP41CV (serial number 2349S40141). The problem is demonstrated by running the program given below.

01: LBL TST

02: CLX

03: "** HP41-CV *"

04: AVIEW

05: LBL 01

06: SF 25 (Ignore error)

07: SIN (Short delay)

08: GTO 01 (No LBL error)

09: GTO 01 (Do it again)

10: END

It seems that the calculator forgets that there is a message on the screen and treats it like the running symbol and scrolls the screen when the machine performs the GTO which creates he error. If you stop the program and look at the ALPHA registers you will see that the original message is still intact. This bug is not of great importance but I hope someone will put it to good use.

Mark Power"

There follows a remark from the editor: "(Ed - This is one of the display bugs which all HP41's have. These bugs are described in Appendix C of "Extend Your HP41".)"

Now let's take a look into W.A.C. Mier-Jedrzejowicz' great book:

"Display bugs

(...) If you VIEW or AVIEW something and execute an instruction that clears flag 25 then the contents of the

display will move around just as if they were the "flying goose". Enter and run the following short program:

LBL "DSPL", PI, SF 25, "?", AVIEW, SF 60, LBL 01, ATAN, GTO 01, END

SF 60 generates an error and clears flag 25. Flag 50, the message flag is cleared at the same time, but the display is not cleared, so the HP-41 acts as if the display had been cleared and the "flying goose" was in it, but actually moves whatever is in the display. The ATAN is just a delaying tactic, without it the display would move too quickly in the LBL 01 loop. You can use this bug to display your favourite message while a program is running, but the message must not be more than 12 display positions long (it can contain extra punctuation though). You can experiment with interesting displays, for example try the string " . , . , . , . , . , ," instead of the "?" in the program above. Reference: PPCCJ V6N8P24"

That's for the moment. Now we have 3 different examples for creating this nice effect and there is no more need to wonder about flag 99 ;-) In case I find more interesting articles about this fyling goose replacement I'll let you know.

Best regards and happy programming

Robert

Edited: 23 July 2003, 4:28 a.m.

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Difference in CX roms?

*Message #1 Posted by **Sean McNamee** on 23 July 2003, 1:20 a.m.*

My co-worker has a halfnut (rounded corner) CX, mine is the older type. On mine, typing shift-ON causes the clock to be displayed, but not on his. Is this just a flag setting? Or are they different in the ROM encoding?

Re: Difference in CX roms?

*Message #2 Posted by **Les Bell [Sydney]** on 23 July 2003, 1:24 a.m.,*
in response to message #1 by Sean McNamee

I have a half-nut 41CX here, and shift-On works exactly as expected. I don't know of any flag that affects this, nor any ROM differences. My initial response is that his unit may be faulty.

Best,

--- Les [http://www.lesbell.com.au]

Re: Difference in CX roms?

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 1:29 a.m.,*
in response to message #1 by Sean McNamee

Hi;

this sounds bad... Bad contact, bad environment, bad feelings. Any CX, AFAIK, calls the clock when [SHIFT][ON] is pressed. I do not remember seeing any flag that would suppress or override this feature.

In any case, if there is no trouble, try a [MEMORY LOST] procedure and call the clock with [SHIFT][ON]: all flags should be reset to default values and it must work after that.

If your co-worker is sure it's not an ordinary CV with X-Functions and Time module built inside, I'd be suspicious about it.

Also, try [CAT][2] and see if it behaves like the HP41CX [CAT][2]: only headers must be shown instead of all available function for each attached ROM.

Going further, try [XEQ][ALPHA] ED [ALPHA]. If this results in [NONEXISTENT], this is not an HP41CX.

Success. And let us know what happens.

Luiz (Brazil)

Another Thought

*Message #4 Posted by **Les Bell [Sydney]** on 23 July 2003, 1:33 a.m.,*
in response to message #1 by Sean McNamee

The 41CX manual describes Shift-On as being like switching the calculator off, then on before displaying the clock (which is why it has an effect on flags 12 through 20). However, [XEQ] CLOCK does not do this.

So, you might gain an insight by investigating whether [XEQ] CLOCK behaves the same way.

Best,

--- Les [http://www.lesbell.com.au]

Faulty battery?

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 1:47 a.m.,*
in response to message #4 by Les Bell [Sydney]

Hi, Les Bell;

after reading your post I thought about another possibility, too. A few days ago I found a weird problem: one HP41 did not switch to ON. The LCD flashed the 0.0000 and vanished fast. I tried another battery set with a different holder and it worked fine. But its battery set and holder showed the same problem in two other calculators. I decided to measure batteries voltage while switching the calculator ON, and I found an weird behavior. Battery voltage was O.K. with calculator OFF. When ON was pressed, voltage dropped to less than 2 Vcc and the calculator could not switch to ON. I measured each battery and voltage was O.K. in all of them. I decided to load each of them and measure current intensity. There it was: one of them was not able to reach 1 mA. I replaced it and tested current intensity when the calculator is switched to ON: has a peak that goes beyond the steady maximum current (program running or key pressed). I have no precision instruments (not yet) to measure this current peak, but I'll find a way to measure it soon.

Based on this and after reading your post, I think this possibility should also be taken into account. If BAT indicator is present, I'd also suggest trying with a new set of batteries. Who knows?

Best regards.

Luiz (Brazil)

Low battery, CLOCK and [SHIFT][ON]

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 2:08 a.m.,*
in response to message #4 by Les Bell [Sydney]

Hi Les Bell, Sean, folks;

I had a look at the HP41CX Owner's Manual, Vol. II, and found something in p. 383.

If the batteries are low, either CLOCK or [SHIFT][ON] will turn the "computer" to OFF. The fact is that the low battery condition may also be "sensed" when the calculator is switched to ON but this condition does not prevail, what would gives us a low battery condition without BAT annunciator. I'd still suggest testing the unit with a fresh battery set. Just in case...

Success.

Luiz (Brazil)

Edited: 23 July 2003, 2:09 a.m.

Re: Low battery, CLOCK and [SHIFT][ON]

*Message #7 Posted by **Sean** on 23 July 2003, 2:50 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

OK - that's it. 1) I KNOW it's a CX (Used ED on it, saw the "CX" on the case), and 2) I KNOW the battery was low.

You guys figure EVERYTHING out!

Re: Low battery, CLOCK and [SHIFT][ON]

*Message #8 Posted by **Les Bell [Sydney]** on 23 July 2003, 3:03 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Hi, Luiz:

By George - I think you've got it!

Best,

--- Les [http://www.lesbell.com.au]

Re: Low battery, CLOCK and [SHIFT][ON]

*Message #9 Posted by **Victor Koechli** on 23 July 2003, 4:02 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Low Batteries are usually the cause for this beaviour. You can easily see why:

Most 41s (all I have ever held in my hands, anyway) produce an audible sound when the CPU is running. Just program an eternal loop and start it, then hold your ear at the back label - you will hear a low hissing noise. Press R/S to stop the program, and it's gone.

When you press [SHIFT] + [ON], you will hear the CPU run as it turns the calc off, then back on. After that, the CPU will run until it's time for the first display update. That is, in CLKTD mode, where seconds are not displayed, the CPU will run continuously for up to 1 minute, until it's time to turn the minutes. After that, the 41 sets an internal timer, and the CPU will turn off until it's time to update the diplay again. Do this in CLKT mode, and you will hear the CPU quickly turn on and off every second after the initial continuous period is over.

As this can use quite some battery power, it's easily possible that you see no BAT indicator, but the clock will still not turn on. Same with the Card Reader, BTW.

Besides that, I remember reading somewhere that the 41 knows at least two different low power levels, and obviously only one can be communicated via the BAT indicator. Don't know which one, however.

Cheers, Victor

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HP-42S Emulator??

*Message #1 Posted by **Nelson M. Sicuro (Brazil)** on 23 July 2003, 12:50 a.m.*

Hi All! Where do I find the HP-42S emulator (HP42X)?? The original page said that this program is discontinued... Very sad! I own a HP-42S (S/N:2945B20860, ROM A-5), and it's display is getting bad. I need some alternative to use it on my PC (through Emu48) or even better if there is a emulator for PalmOS! As I don't have any means to download it's ROM to my PC, how do I get it? I'm thinking in create a Emu42 based on the Emu48... (as soon I translate-it to Delphi!)

Regards,

Nelson

Re: HP-42S Emulator??

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 1:20 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

Hello, country mate!

J. F. Garnier wrote an emulator for the HP42S, but I am not sure if the HP42X is the one he wrote. I'll try to find his e-mail address and I'll contact you later, O.K.?

First time around here? Good to "see" country folks. Where are you?

If you feel fine about it, e-mail me. There are other two contributors in here that live in São Paulo.

Inté! (seeyah)

Luiz Claudio

Edited: 23 July 2003, 1:21 a.m.

Re: HP-42S Emulator??

*Message #3 Posted by **Nelson M. Sicuro (Brazil)** on 23 July 2003, 10:36 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hello! I'm living in Curitiba, and I'm also a HP's calculator lover. I used to own a HP-15C but in 1989 I changed it by my atual HP-42S (if I had the money in that time to keep both!) My actual effort is to make a PalmOS based HP-42S emulator, some sort of porting of Palm's version of Emu48 but with 42S hardware. But this is not an easy quest! I'm a Systems Analist and Programmer (Assembler and Delphi/Pascal) and another (hobby) project of mine is to create a HP-55 (and/or HP-41CX) emulator in hardware, Microchip's PIC based with LCD display or any vintage LED display I can get.

Best regards!

Nelson

Re: HP-42S Emulator??

*Message #4 Posted by **J-F Garnier** on 23 July 2003, 4:45 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Although I wrote a HP-42S emulator (very basic, DOS based, semi-graphic text mode) some years ago, I never made it public. It was only a tool to study HP-42S internals. You can use the work from Christoph Giesselink, his HP-42 emulator sources are available, and he designed a fast method for ROM transfer.

Jean-Francois

Re: HP-42S Emulator??

*Message #5 Posted by **Nelson M. Sicuro** on 23 July 2003, 10:13 p.m.,*
in response to message #4 by J-F Garnier

I downloaded his emulator already, but I cannot read my HP-42S's ROM because I don't have any other IR reciever besides my Palm M125, but I don't have any software that reads HP IR printing data. 8-(I really want to read my own ROM, it is a bug-less version (no COMB bug) "A" version! I'm working in translate all the information I gathered about the Saturn processor and HP-42S to Delphi and 68K assembler (Palm), mostly rewriting from scratch. I'm not a "nativelly C speaking" guy, but I'll try anyway.

I have another crazy idea, about converting the ROM itself to 68K platform (sort of cross-compiling) and I/O converting to PalmOS API to run nativelly on my Palm. This could be really fast!

Best regards,

Nelson

Re: HP-42S LCD

*Message #6 Posted by **Randy Sloyer** on 23 July 2003, 8:14 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

If your 42S LCD is failing (black spots), you can find a replacement in a 17B/17Bii or 27S. They all use the same LCD.

Re: HP-42S LCD

*Message #7 Posted by **Nelson M. Sicuro** on 23 July 2003, 10:38 a.m.,*
in response to message #6 by Randy Sloyer

Thanks for the tip. As soon it gets bad (it only show some black spots in the left non-character area) I'll try to get one of these to replace it or search for some service to repair it.

Regards,

Nelson

Re: HP-42S Emulator??

*Message #8 Posted by **Richard Garner** on 23 July 2003, 9:54 a.m.,*
in response to message #1 by Nelson M. Sicuro (Brazil)

If you look at all of the requests for a 42S emulator here and on comp.sys.hp48, there is a need for one that does not require you to have a degree in computer science and a computer workshop to download ROMs. I am one of those that would like to have and need a 42S emulator, but I do not have the computer background nor equipment to download the ROM. My thoughts are if you are going to offer an emulator for people to use, then you should provide all the components so people like myself who need it can use it. If neccessary charge something for it. I would rather pay $20-$30 for something that is complete and I can use, than to download something for free and not be able to use it because the most important item to make it run is beyond my ablility to aquire.

Re: HP-42S Emulator??

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 23 July 2003, 11:40 p.m.,*
in response to message #8 by Richard Garner

Hi Richard, guys;

Maybe you already know about what's written below, but it is always worth posting, right?

There is a time-consumming procedure that requires an HP42S as a source and any HP48 with INPRT program. Unfortunately this requires a lot of key pressing.

Based on the excelent Craig Finset's database, if you press [ON][LOG] and [<-] you get into standard Pioneers' memory browser/scanner (if I am not wrong, all printing capable Pioneers have it: HP17B/BII, HP27S and HP42S). Then you move the pointer to address 00000 and go pressing [COS] as many times as you can afford. Each time [COS] is pressed, data shown in the display (16 nybbles, or 8 bytes) is sent through the IR port. Any HP48 running INPRT will collect this IR sequence and "convert" it to a valid binary stream sequence. If you "upload" ROM contents in separate strings, the HP48 can be used to concatenate them or you can "join" them together after copying them all to a PC. The last ROM byte is the one at address # $1FFFF_h$.

As I said, it is a time consumming task. But it is not too hard to find resources to accomplish it. Now, about available time...

Success.

Luiz (Brazil)

Edited: 23 July 2003, 11:40 p.m.

Re: HP-42S Emulator??

*Message #10 Posted by **Richard Garner** on 24 July 2003, 1:23 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

The point I am trying to make is, if I DO NOT have access to a 48G and I DO NOT have access to a 48G to PC cable, how do I get a 42S ROM image to use in an emulator.

Example:

This has not happened to me, but could be a possibility.

You are out on a job site, a delivery truck, by accident, backs up over the table being used as a work bench. The 42S is crushed into a lump of shattered plastic on the ground with no hope of being fixed. This is the only calculator you own and the only HP around. eBay prices are too high to buy a

replacement. Downloading an emulator is the only option left, but the emulator says the ROM image must come from your own 42S. There is no 48G and no PC cable.

How do I get the ROM to use in the program?

I'm sorry if I'm beating a dead horse here, but I am trying to look out for the people that are truly needing a solution to their problem and are hitting a brick wall.

I see what you mean... Sorry! : ((n.t.)

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 24 July 2003, 2:32 a.m.,*
in response to message #10 by Richard Garner

(deleted post)

*Message #12 Posted by **deleted** on 24 July 2003, 7:39 a.m.,*
in response to message #10 by Richard Garner

This Message was deleted. This empty message preserves the threading when a post with followup(s) is deleted.

Re: HP-42S Emulator??

*Message #13 Posted by **Christoph Giesselink** on 24 July 2003, 11:48 a.m.,*
in response to message #12 by deleted

Nothing to say more, that's the current situation.

Christoph

Re: Preemptive Dump?

*Message #14 Posted by **Paul brogger** on 25 July 2003, 7:44 p.m.,*
in response to message #12 by deleted

Buuuuuttttttt . . .

If you dump and archive your -42s ROM *before* it gets kissed by the truck, wouldn't you be guaranteeing your right to use that ROM image henceforth? (Until, that is, you dispose of the calculator itself?)

Then, even with a smashed calculator, you'd be in a position to make legal use of its ROM . . .

(I'm no lawyer, so any damages incurred by following this advice are strictly limited to twice what you paid for the consultation.)

There is a warning...

*Message #15 Posted by **Vieira, Luiz C.** on 25 July 2003, 7:54 p.m.,*
in response to message #14 by Paul brogger

Hi, Paul;

Since the HP41, HP introduced a warnning in calculators' manuals about internal routines and programs. HP states they own their "copyright protected" and their use and/or copy in

other systems is an infringement to their copyright protection. You have the right to use the calculator, not it's internal programs; it's assumed HP is refering to the programs developed to control the calculator itself.

After the HP41, many portable devices from HP allowed I/O activity and therefore, in almost all of the cases, downloading their O.S. was a matter of time. You'll notice that in the first HP41 manuals there's no explicit mentioneing to internal programs, but after the halfnuts it's clearly written.

At least that's what's written. Just to add a few more data.

Luiz (Brazil)

Notice about internal programs: correcting previous post

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 25 July 2003, 11:58 p.m.,*
in response to message #15 by Vieira, Luiz C.

Hi;

I decided to search for the warnings, and I fond the Notice that mentions them. Their text is basicaly as follows:

> Quote:
>
> The programs that control your HP*model_ID* are copyrighted and all rights are reserved. Reproduction, adaptation, or translation of those programs **without prior written permission of Hewlett-Packard Co.** is also prohibited

Well, at least there's hope. My previous post was not accurate: HP *may* allow their use.

I found the text in manuals of the following models:

HP42S, HP28S, HP17BII, HP19BII, HP48, HP49.

I tried to find the same notice in existing HP41 manuals and I was not successful. My mistake.

Best regards.

Luiz (Brazil)

Edited: 26 July 2003, 12:10 a.m.

Re: HP-42S Emulator??

*Message #17 Posted by **Nelson M. Sicuro** on 24 July 2003, 9:08 a.m.,*
in response to message #10 by Richard Garner

I am in the same situation here. Yesterday I found here in the Articles section a very interesting one about the signaling of the IR Printer. This can be used to build a IR-reciever-to-serial converter (with a PIC microcontroller). I'm putting this idea in my PIC's project list. If (or when) I can do this I'll tell you about.

Best regards,

Nelson

Re: HP-42S Emulator??

*Message #18 Posted by **Christoph Giesselink** on 24 July 2003, 11:45 a.m.,*
in response to message #17 by Nelson M. Sicuro

You can find the full specifiaction of the HP82240B printer protocol here http://www.hpcalc.org/hp48/docs/programming/82240bte.zip.

Christoph

Re: HP-42S Emulator??

*Message #19 Posted by **Nelson M. Sicuro (Brazil)** on 24 July 2003, 12:45 p.m.,*
in response to message #18 by Christoph Giesselink

Thanks for the link, I'll take a look.

Regards,

Nelson

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HP Power Calcs

*Message #1 Posted by **Valhalla** on 22 July 2003, 9:14 p.m.*

Hi all: First of all, id like to say that i am not a collector, i only get calcs that i like and "use". So far, i have a 17Bii, 48Gx and a 49g, which have been quite usefull to me. I was wondering, what other calculators are powerful?? i am not interested in colectability, but in power and capability.

TY

"V(a)lh(a)ll(a)"

Re: HP Power Calcs

*Message #2 Posted by **Richard Garner** on 22 July 2003, 10:11 p.m.,*
in response to message #1 by Valhalla

The 41CX, 42s and 15c are all good power user calcs.

Hard to "enumerate"... (edited)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 22 July 2003, 10:14 p.m.,*
in response to message #1 by Valhalla

Hey, Valhalla;

It's somehow hard to enumerate which one is "more" powerfull than the others. To be honest, there will be many "tendencies" and fair, healthy disagreements.

I have my own choice: the latest ones re more "resourceful", but at their time, each HP calculator was intended to be the best. Oops; I see owners from other brands that are getting their flames ready to launch...

An HP35 was the most powerfull pocket calculator at the time it was introduced. Yes, it was the first one, but it was indeed powerfull. The Xpander was too advanced for its time. Neither HP staff could understand it... well, I'm probably overestimating them :^) At least they showed to the world they know what hammers are for, right?

You already have, so far, the "top-of-line" from HP: HP48 and HP49. The HP17BII is the second-in-chain, good choice indeed. There are others to come, being HP49G+ and HP48G*whatever* (I forgot, sorry). They will probably add more memory, a Kinponut processor, bad keyboard and up-to-date, whoopy design. And probably in colored versions, who knows! (I wrote about this at this very forum in 2001...).

I have the same ones, and I'd add others, too powerfull for their time: HP65, HP29C, HP67/97, HP34C, HP15C, HP41CX, HP42S, HP28S, HP48SX, HP48GX, HP49G. If you want to know about financial, I'd add: HP80, HP27, HP38C, HP12C, HP18C, HP19BII.

Any suggestions? Changes? This is my top-of-line list; others will probabbly comment it. (I did not add the HP71B because for me it's a calculator/computer. A hybrid. An X-Men device... (|^)

Best regards.

Luiz (Brazil)

Edited: 22 July 2003, 10:16 p.m.

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Xpander auction ending in 1 hour

*Message #1 Posted by **Scott** on 22 July 2003, 4:22 p.m.*

Take a look at this Xpander auction ending in about 1 hour.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3035922485&category=20335

What about it?

*Message #2 Posted by **Jim L** on 22 July 2003, 4:59 p.m.,*
in response to message #1 by Scott

Is there something wrong with it?

Re: What about it?

*Message #3 Posted by **Scott** on 22 July 2003, 5:10 p.m.,*
in response to message #2 by Jim L

Nothing wrong with it that I know of. It looks like it is in perfect condition.

Then why post it here?

*Message #4 Posted by **Jim L** on 22 July 2003, 5:12 p.m.,*
in response to message #3 by Scott

?

Re: Then why post it here?

*Message #5 Posted by **Scott** on 22 July 2003, 5:29 p.m.,*
in response to message #4 by Jim L

Sorry, I just thought it would be fun to watch. Auctions will often determine the true value of a collector's item. You don't have to watch if you don't want to.

Re: Then why post it here?

*Message #6 Posted by **Paul** on 22 July 2003, 5:49 p.m.,*
in response to message #5 by Scott

You're Scott Seelye, the husband of Jennifer Seelye who is selling the item - right? There's a classifieds forum here for advertising your auctions. For determining value, we do that after the auction ends :-)

Re: Then why post it here?

*Message #7 Posted by **bill platt** on 22 July 2003, 6:13 p.m.,*
in response to message #6 by Paul

Scott Seelye had a different E-mail---at the domain mac dot com.

this scott is at westernpulp dot com. Not neccessarily the same person?

Anyway, western pulp looks like it makes neat stuff.....but that's outside the purpose of this forum!

1234 to delete.

regards,

Bill Platt

Re: Then why post it here?

*Message #8 Posted by **Paul** on 22 July 2003, 6:32 p.m.,*
in response to message #7 by bill platt

Yes I noticed but email addresses are a dime a dozen. Actually less than that!

Anyway, Scott can tell me he's not if he wants to or Dave could help us out by checking his IP if we really wanted to know :-)

The main issue for me is that the stated rational for this thread is equally good for every HP on ebay and we'd get swamped if they all got posted here.

Re: Then why post it here?

*Message #9 Posted by **Raymond Del Tondo** on 22 July 2003, 7:49 p.m.,*
in response to message #8 by Paul

That's right.

And did you notice the new Xpander ad? I wonder how many units were in that garage;-)

Raymond

Yes, I see what you mean (no text)

*Message #10 Posted by **bill platt** on 22 July 2003, 8:51 p.m.,*
in response to message #8 by Paul

!

Re: Xpander auction ending in 1 hour

*Message #11 Posted by **Jennifer Seelye** on 23 July 2003, 12:37 a.m.,*
in response to message #1 by Scott

Hello, I don't think my husband noticed that there was another board for classifieds. We always get a kick out of watching auctions the last hour & he probably thought other collectors would enjoy it too.

In terms of my ad I listed in the classified section, I contacted the person at the garage sale & was able to get a couple others last night. So far I know of 2 other people who bought some at that same garage sale. I think I will sell one more now and save the other for a few years.

I am sorry if his message bothered anyone here.

Anyway, have a great week! Jennifer

Re: Xpander auction ending in 1 hour - funny that

*Message #12 Posted by **Tom (UK)** on 23 July 2003, 7:29 a.m.,*
in response to message #11 by Jennifer Seelye

"Hello, I don't think my husband noticed that there was another board for classifieds."

Did you husband also not notice that (out of the hundreds of HP calculators on ebay over the last week or so) that the one he highlighted was the one you were selling? Hmmmmm - I think he did.

"We always get a kick out of watching auctions the last hour & he probably thought other collectors would enjoy it too."

But in this case your enjoyment is enhanced by the fact you are getting a buck as well as a kick.

There is something that confuses me...

*Message #13 Posted by **Harry** on 23 July 2003, 8:33 a.m.,*
in response to message #1 by Scott

Why do people sell HP calculators at a garagesell for a few bucks? Don't they know about ebay?

Regards Harry, who has never seen an HP calculator for sell at a flea market in Germany

Re: There is something that confuses me...

*Message #14 Posted by **Raymond Del Tondo** on 23 July 2003, 10:01 a.m.,*
in response to message #13 by Harry

Actually I have seen (and bought) the one or other HP calc on flea markets in Germany, but that was long time ago, and not very efficient. Of course it's easier to get some goodies in and around Corvallis, since there are many HP employees, and it was the former 'calculator' division.

However, some of my best HP calculators are those I got for free from colleagues, friends, or relatives.

Raymond

Re: There is something that confuses me...

*Message #15 Posted by **Jennifer Seelye** on 23 July 2003, 2:05 p.m.,*
in response to message #13 by Harry

I see hp calculators all the time at garage sales but we live in Corvallis where HP is the largest company in town and most people use HP everything.

In the past I never looked twice at the calculators since usually they are $10-$75 at garage sales. I know they are worth the price they are asking but I don't currently have a use for these, I get by just fine with the

few calculators that I already have. After reading the wonderful information on this website, I now know that there is a market for many of the calculators that I see. I will be taking a closer look at those calculators from now on.

I am always amazed at what people sell at garage sales for little or no money and the other things that they want a lot of money for. The $1500 Le Corbusier chairs I buy for $20 each, yet I see items that are sold at Kmart for $50 & they want $40 for that one. But that is what keeps me going to those sales, it is a treasure hunt.

Have a great day, Jennifer

Re: There is something that confuses me...

*Message #16 Posted by **unspellable** on 23 July 2003, 5:53 p.m.,*
in response to message #15 by Jennifer Seelye

Garage sale rule #1: You never know.

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Math pac vs. Advantage pac

*Message #1 Posted by **Sean McNamee** on 22 July 2003, 3:36 p.m.*

If I already have the Advantage pac, is there any reason to get the Math pac? I'm talking about funtionality, and not collecting purposes. It looked like the Fourier and Hyperbolic fcns on the math pac were not included in the advantage pac. Can someone verify this? Also, would the Fourier functionality be present (I assume) on the circuits pac? (I plan on getting this)) Anything from the Math pac missing on the advantage? Thanks, Sean

Re: Math pac vs. Advantage pac

*Message #2 Posted by **Karl Schneider** on 23 July 2003, 3:06 a.m.,*
in response to message #1 by Sean McNamee

Sean --

I have both. Just from memory, the Advantage Pac does not contain the Math Pac's Fourier analysis, hyperbolics, and triangle solutions.

Both have routines for rootfinding ("SOLVE") and numerical integration, but the Advantage Pac's routines are better. RPN programs for these functions on the Math (Simpson's Rule integration) and machine-coded functions (sophisticated Romberg method integration) on the Advantage. Both modules have the same functions for complex-valued inputs.

The Math Pac is a 4 kB module; the Advantage Pac is a 12 kB module.

[Shameless solicitation:]

I have an extra Math Pac that I'll sell to you for $10 + shipping. This is probably about the going rate; they're very common.

Re: Math pac vs. Advantage pac

*Message #3 Posted by **Sean McNamee** on 23 July 2003, 4:14 a.m.,*
in response to message #2 by Karl Schneider

$10? Cool! I'll take it! Thanks!

Please send the details of how you'd like to process transaction...

Thanks again!

Still available?

*Message #4 Posted by **Sean McNamee** on 25 July 2003, 4:27 p.m.,*
in response to message #2 by Karl Schneider

Karl - if you still want to sell your extra Math Pac, I'd like to buy it. You can contact me at

seanmc42@hotmail.com

Thanks.

Well... I also sell a Math Pac...

*Message #5 Posted by **Etienne Victoria** on 27 July 2003, 8:10 a.m.,*
in response to message #4 by Sean McNamee

Hi all,

Sorry for solliciting shamelessly here...but...

I also sell a Math Pac + original box & english doc for 10 euros.

Shipping to Europe...because object value looks low compared to shipping costs.

If anybody's interested

Etienne

Re: Well... I also sell a Math Pac...

*Message #6 Posted by **Sean** on 27 July 2003, 7:06 p.m.,*
in response to message #5 by Etienne Victoria

Thanks. Karl & I have worked something out w/his, but someone else might be interested...

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eBay and Classified Adds here

*Message #1 Posted by **Valentin Albillo** on 22 July 2003, 4:10 a.m.*

You may also try here:

Vintage Calculator Forum

Best regards from V.

Edited: 22 July 2003, 5:00 a.m.

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zenrom manual?

*Message #1 Posted by **db(martinez,california)** on 22 July 2003, 1:04 a.m.*

Is there a downloadable version of the zenrom manual anywhere? Someone i met has one but no manual and would like to maybe use it. As an asside: i think his is a pirated copy burned onto one of those old eproms, and maybe not a complete copy at that.

Re: zenrom manual?

*Message #2 Posted by **Christoph Klug** on 22 July 2003, 4:31 a.m.,*
in response to message #1 by db(martinez,california)

I can send you a copy of the Zenrom manual in paper form...

Best wishes from Germany - Christoph Klug

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NORM's CORRECT!

*Message #1 Posted by **Trent Moseley** on 21 July 2003, 10:27 p.m.*

We need more posts for the HP-34C (I would love to own one), 25C, 67, 15C, 16C, and 42S. In particular the 67. It seems that it was buried by the advent of the 41Cxxx. I can't remember the time frame.

tm

Re: NORM's CORRECT! (long)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 22 July 2003, 12:12 a.m.,*
in response to message #1 by Trent Moseley

Hi Trent, folks;

I've been wondering sometime ago about programming and usage. As you may have noticed, I think working calculators should be used. I mentioned this fact in an isolated post where Valentin agreed with me, but also showed me (and others as well) that reasons are for storing an working calculator. O.K., not only convincing but also correct points.

After that I thought about Valentin's teasing challenges and I remembered some people here, me included, tried their (our) own challenges. Most of them, if not all of them, were answered by others. I also copied and saved a post by someone that's not a regular contributor (to be honest, I remember this only post by him) explaining the way he used RPN to solve electrical problems. A very "literate" description, you bet.

I still develop and translate programs from one "calculator" (system) to another, mostly for fun. I do not give up doing this, I go as far as I can to accomplish the task. To be honest, there are about fifteen programs I want (and need) to translate from RPN (HP41) to RPL (HP48) and I cannot find the "large and spare" time to do it. The fact is that the first of these programs uses loops that constantly update registers contents in order to achieve an expected result. The truth is that these loops are custom root-finders, and I did not take the time to "depict" them so I can "see" the original expression and use local RPL resources to find roots. It's teasing and fun to do, also keeps some parts of our brains working and alive, if you understand me. If it is not fun doing, I see no reason to do so. Maybe plenty bux in my pocket...

Well, I use about all of the models I have for my own delightful moments, but as a teacher, I must be close to the students and their own resources. So far, only two of the many students I had brought HP calculators to my classes: one HP32S (I tried the harder I could to trade it, but the owner did not want to :(for "personal reasons") and one HP48G. The HP32S' owner gave up studying and the HP48G's owner gave up using it and bought a CASIO...

What to do? Teaching them how to use their own calculators. I get each available model in the classroom and I figure out the fastest, easiest way to convert from DEGress to RADians, compute trigs (direct and inverses) in DEGrees and RADians mode (I only explain what GRAD stands for, but I do not use it in class), convert from polar to rectangular and vice-versa in each of them. Then I show how to use it all to perform complex arithmetic and apply it to vectors and impedances. I think this helps them finding useful applications to their small, key-filled magic boxes. If they understand how to use them, they will not try to make them give answers everytime their keys are pressed. Instead, when the problem is solved, calculators are good to help

with numbers *since the correct operations are performed*. I do not say stuffs like: "Press this and that keys and you'll find the answer". Instead, I say "How do you compute this value? Use sine of the angle times the amplitude, right? How do you compute sine of this angle in your calculator? How much is it?" Then each one gives the answer, and when there are different answers, I tease them to find where they were wrong. In most cases, they are able to find their own errors and they exchange their calculators with the others till they find their own errors. It's amazing to see some of them going from one desk to another and showing their classmates how did they find their answer. Everyone learns a bit with each other. Too bad they do not find RPN calculators easily... In fact, most of them are worried in learning the subject, and as a teacher I must accept it as good thing because it IS actually what teachers want.

Here, at MoHPC forum (thanks Dave and all of you, guys) is the place I find people to talk about RPN, RPL, stack manipulation, programming and the like. I'd like very much to discuss programming techniques, daily use, etc. I prefer not restricting to this or that fact, instead I'd like to see what others are doing. If what I'm doing is not the best way, let me see another, better way. When I was teaching programming basics, I used to say: "If your program gives the correct results for a given set of parameters, it is already the best program. If you want to reduce its size and enhance it's performance, it's a matter of goals and needs." I also always emphasized the fact that programming and using a language are related subjects, but should never be taught at the same time. Programming is a matter of recognizing a problem, finding its solution and teaching someone else how to do this. A programming language is the tool to teach a programmable machine how to do this in its own way, and it's sometimes not too close to the way you understand it. As I have students that naturally speak Portuguese, their understanding of "printf", "scanf", "if...else", "for" and "while" is not as natural as for English speakers. And most of them do not relate their understanding of English with those "keywords".

Sorry; I'm getting out of focus.

I know some will disagree with me, but I take programming as the best part a computing device may offer. Mostly a portable, continuous memory, resourceful computing device as a calculator can be.

Wow! All of this to express my own wishes to participate in any thread where usage, programming calculators and the like is the main subject. I like to use and program them as much as I like to understand how they work and to repair them. If it's worth accepting me as handy, count on me. Actually, I support.

Best regards.

Luiz (Brazil)

Edited: 22 July 2003, 12:16 a.m.

Re: NORM's CORRECT! (long)

*Message #3 Posted by **Harry** on 22 July 2003, 7:33 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

When I was in school I was the onlyone to use an HP calculator. I was used to it as I had it since I was 12 and I had played with my dads 45 and 25 since i was 6 years old or so. In all those years I went to school, I found only one classmate who was willing to let me explain to him how RPN works. The next day he showed up with a brand new HP 32SII.

In 1998 I started studying electronics engeneering, and about 35% of the students had HP calculators. Most of them HP48s. I saw one 42S and 2 32s.

In 2002 I started going to a diffrent University and had to take some of the beginners classes again, because my credids could not be transfered. Only about 5% or less of the students had HP calculators in thoses classes, most others have TIs and some have Casios. So in only 4 years there has been a significant

change in the popularity of HP cakculators.

And this might be a result of many teachers NOT beeing like Luiz, but just telling the students what buttons to press. Also it might be a result of HP not selling decent Calculators anymore....

Regards, Harry

Luiz's CORRECT! (medium)

*Message #4 Posted by **Valentin Albillo** on 22 July 2003, 7:51 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi, Luiz:

Just a few good-humoured comments to your post, I know you like comments, so there you are ...

Luiz posted: *"I think working calculators should be used."*

Definitely. I only own calculators I use or intend to use, no way the're staying unmolested for ages in some glass cabinet or vitrine, gathering dust and drying their capacitors out for lack of use. If properly used, quality calculators such as vintage HP's or Sharp's won't degrade noticeably.

"There are about fifteen programs I want (and need) to translate from RPN (HP41) to RPL (HP48) and I cannot find the "large and spare" time to do it."

Taking into account that you recently got an HP-71B, why don't you translate them for that machine instead ? That would serve you for training purposes and to get your '71B legs' so to speak. Or are you 'chickening' already out at the 71B ? ;-)

"One HP32S (I tried the harder I could to trade it, but the owner did not want to :"

What kind of teacher are you ? If he were my student, no way he could've get out of the classroom with that 32S still under its ownership, I would have made him an offer he couldn't refuse. There are many, many resources available to a determined teacher, don't forget who's boss in the class ...

"the HP48G's owner gave up using it and bought a CASIO..."

Now, why would he do such thing, I wonder ? Imagine, giving up a 48 for a CASIO ... unthinkable ... when there are so many excellent SHARP handhelds out there ... or TI's ... or even Kinpo's, come to think of it ... ;-)

"Too bad they do not find RPN calculators easily..."

Yes. If they did, we could perhaps coerce them into revealing their source ...

"When I was teaching programming basics, I used to say: "If your program gives the correct results for a given set of parameters, it is already the best program. If you want to reduce its size and enhance it's performance, it's a matter of goals and needs."

Could it be that the developers of Windows were among your past pupils, perchance ? That would explain why most every Windows program (Windows itself included) seems to take mega-amounts of RAM and disk space and yet be pretty slow, where in the past all serious programmers would do their best to optimize their programs to the max, RPN programmers included. If Bill Gates thinks like you do, that would explain it all: Why waste any extra money or effort, when you've already got the "best program", as per your criterium ?

"Sorry; I'm getting out of focus."

No need to worry ! There are a number of photoretouching packages such as Adobe Photoshop that can restore focus to most anything, yourself probably included ! As it seems that losing the focus is second-nature to you, I'm sending you a fully registered copy one of these days ! :-)

"If it's worth accepting me as handy, count on me. Actually, I support."

Uh ? I didn't get this one. Could you repeat it slowly, please ? :-)

Best regards, Luiz. One can always count with you to enlighten any thread, no matter how obscure or boring (not that this was so) !.

Edited: 22 July 2003, 8:09 a.m.

Keep the vein, keep the vein! Still on the mood...(slightly edited)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 22 July 2003, 12:09 p.m.,*
in response to message #4 by Valentin Albillo

Hi Valentin, guys;

You, Valentin, do not let things cheap, ahn? ;^) Thanks for your always welcome words.

> Quote:
>
> (...) Or are you 'chickening' already out at the 71B ? ;-)

Not at all! The fact is that most of the times, I intend to reduce program "size", and BASIC needs text to be typed in... I'm lazy! Yes, there are shortcuts in the HP71 keyboard and you can also customize it. And I'm aware of the fact that, in many circumstances, reading a BASIC program listing allows faster understand of its primary purposes. Neither RPN nor RPL allow this so easily, and in some cases, this is almost impossible. Also, there's a need to enhance original programs to some sort of multiline and graphics output. It helps analyzing results when you have three, four or even five related answers at the same time in the same "screen". As I do not have the TV/monitor IL adapter, only the original HP71B one-line LCD, I'll have to generate the RPL versions firstly. Yes, the HP71B's LCD accommodates many well-organized results in one single "prompt" if the programmer uses strings correctly. But wait for me: I'm collecting a bunch of questions about the HP71, some of them related to LEX and BIN programming... Be sure I'm getting used to it; I'm doing my homework... Amazing machine!

> Quote:
>
> If he were my student, no way he could've get out of the classroom with that 32S still under its ownership, I would have made him an offer he couldn't refuse. There are many, many resources available to a determined teacher, don't forget who's boss in the class ...

For the records: it was a *she* (pretty little one, you bet) and the HP32S was a gift her father received from a later deceased brother (her uncle). What to do? :(

> Quote:
>
> Imagine, giving up a 48 for a CASIO ... unthinkable ... when there are so many excellent SHARP handhelds out there ... or TI's ... or even Kinpo's, come to think of it ... ;-)

If it is an HP15C, you'd be asking for his address so you could send him a bomb... and I'd give it to you, of course :^) But there is another story. One of the students at the university was trying to sale an HP15C so he could buy an HP12C. As others were looking for an HP12C as well, I was contacted by him and we made a deal: I completed the money he needed to buy the HP12C (Chinese model). He was so happy (me too, of course!)... My first HP15C came with the original box and I thrown it away after getting worn out, about twelve years ago. This one came with the original, somehow worn, box. I'm keeping it "alive and well", believe me. 8^)

> Quote:
>
> Could it be that the developers of Windows were among your past pupils, perchance ?

Remember: programs *must work first*... No chance! ;^)

> Quote:
>
> One can always count with you to enlighten any thread, no matter how obscure or boring

Very kind of you, thanks, I'm flattered. Mostly when comes from guys like you, so much dedicated to the best of everything. And we're lucky having this forum crowded of people like this (I actually mean it, no pun intended). The only "problem" is that I like communicating... alot!

Best regards V, folks.

Luiz (Brazil)

Edited: 22 July 2003, 3:29 p.m.

Valentin's CORRECT! (rare)

*Message #6 Posted by **Valentin Albillo** on 22 July 2003, 7:56 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

The subject says it all: it's rare that Valentin's correct.

Specially when he's in a good-humoured vein ... :-)

Sorry for the nonsense, and best regards from V.

HP-34C (67, 25, ...) programs

*Message #7 Posted by **Valentin Albillo** on 22 July 2003, 4:44 a.m.,*
in response to message #1 by Trent Moseley

Hi, Trent:

If 'posts' does include programs and articles, I've got some unpublished ones, namely:

```
HP-25/25C & equiv:  50+
    HP-67 & HP-97:  50+
           HP-34C:  40+
  HP-11C & HP-15C:  20+
           HP-16C:   2+
     HP-41C/CV/CX:  40+
            HP42S:   2+
           HP-71B:  20+
   SHARP machines: 100+
```

as well as a large number of hints, tips, 'challenges', 'quizs', and similar. I intend to publish them all, if at all possible, in Datafile and in a future web site of mine, the only problem being it takes an awful lot of time and work to write, format, and proofread an 8/10 pages article (several days), so it will be a slooooooow process. Also, Datafile has limited space so I can't submit more than one article or so for publication every other month, for a maximum of some six a year, if at all. So, it'll take a number of years till all my programs and articles get published that way :-)

Being fully aware of this bottleneck, I considered the possibility of publishing them here, in the Museum of HP. To that effect, I would be willing to submit them to the Articles Forum, but the catch is they are in PDF format. Some months ago, I exchanged a number of e-mails with this Forum's David Hicks, re the possibility of creating a new section specifically intended to upload PDF documents, but David argued that that would make it quite difficult if not impossible to access them from PDAs, and that was it.

Frankly, I don't quite see why access from PDAs would be so important that it's preferable that 0% users have access to said materials (i.e., not publishing the materials at all) instead of 90% (say) users being able to download them. It's clear that even PDA users can eventually connect from a PC and download them as well, it's something that would affect them only on the fly, while far from a PC, and nevertheless there are many other already present contents equally difficult to access. So it would seem logical to publish said PDF materials as such, so that people accessing the site using a non-PDA device (say a PC) would be able to download them, but anyway I'm sure David knows best.

Nevertheless, it's a real pity, as I feel that PDF is the right format for the articles, because it allows full reproducibility, including fonts, tables, graphics, everything like it originally appeared in print, the user would in fact get a real facsimile of the original. Much of this would be lost if uploaded as HTML or plain vanilla text, and I'm not for it.

Should David reconsider the possibility of actually creating this new section, I would certainly obligue by submitting a number of my articles, both past and future, in PDF format. Otherwise, I'll probably create a site of my own to make them available, eventually.

Best regards from V.

Re: HP-34C (67, 25, ...) programs

*Message #8 Posted by **Ellis Easley** on 27 July 2003, 12:42 p.m.,*
in response to message #7 by Valentin Albillo

Is there any chance you could store your articles in the Museum's FTP site and then write brief Articles Forum abstracts (with suitable disclaimers regarding the .pdf documents) to introduce and link to your .pdf articles?

Re: HP-34C (67, 25, ...) programs

*Message #9 Posted by **Valentin Albillo** on 27 July 2003, 8:12 p.m.,*
in response to message #8 by Ellis Easley

Ellis posted:

"Is there any chance you could store your articles in the Museum's FTP site and then write brief Articles Forum abstracts (with suitable disclaimers regarding the .pdf documents) to introduce and link to your .pdf articles?"

Thanks for your interest, but the point is, since I have so much material and so little time, not duplicating efforts is essential. All materials are in PDF format, which I find best for facsimile documents, and that's the way they stay. A brief article for the Articles Forum can never be brief,

because that's not my style, and would mean duplicating something that's already done and existing as a PDF, a very considerable effort if there are a large number of articles involved.

That said, don't worry. If Mr. Hicks is not amenable to the idea of creating a section specifically for PDF documents (and it seems he is not, as he hasn't commented at all on my suggestion, either personally or publicly in this forum), I'll simply put them in a web site of mine, as stated, to be set up in a near future. Space would be the only problem, but PDF articles tend to be rather small (40-50 Kb), so plenty of them can fit in a modest amount of Mb.

By the way, I'm beginning my summer holidays within 24 hours, so please forgive me if I don't reply to any further postings till next August 20th, or so.

Best regards from V.

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HP 71B and the 82162A

*Message #1 Posted by **Wayne W Wayenberg** on 21 July 2003, 5:18 p.m.*

Can I use the HP 82162A Thermal Printer/Plotter with my HP 71B Calculator.

Re: HP 71B and the 82162A

*Message #2 Posted by **Raymond Del Tondo** on 21 July 2003, 6:07 p.m.,*
in response to message #1 by Wayne W Wayenberg

I'm sure you can use the HP-IL printer with your HP-71, at least if you have the HP-IL interface module for the HP-71.

Raymond

Re: HP 71B and the 82162A

*Message #3 Posted by **Vassilis Prevelakis** on 23 July 2003, 12:46 p.m.,*
in response to message #2 by Raymond Del Tondo

The 82162A is a normal HP-IL device. You can print to it from any HP-IL controller (incl the 71B).

I have even printed to a 82162A from an HP-IPC (which has HP-IB) via the 82169A HP-IB to HP-IL converter.

**vp

Re: HP 71B and the 82162A

*Message #4 Posted by **Raymond Del Tondo** on 23 July 2003, 1:10 p.m.,*
in response to message #3 by Vassilis Prevelakis

Hi,

I also have an IPC and an 82169A. Which steps are required to transfer data (save/restore files) between an IPC and, say, a PC equipped with an Interloop HP-IL ISA card? Could it work with Trans41? Trans41 simulates, amongst other things, an HP-IL mass storage device.

Thanks in advance.

Regards,

Raymond

Re: HP 71B and the 82162A

*Message #5 Posted by **J-F Garnier** on 23 July 2003, 4:48 p.m.,*

in response to message #4 by Raymond Del Tondo

Hello Raymond,

I guess that Trans41 emulates a HP9114 compatible mass storage, which doesn't use the same protocole than the IPC.

Jean-Francois

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Hp 41c Keyboard

*Message #1 Posted by **41Jeff** on 21 July 2003, 4:38 p.m.*

Does anyone know what the design fatigue life(cycles or number of keypresses) of the dome springs(belleville type) used on the 41c kepboards? 500,000 or infinite life - 2,000,000.

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SPICES KEYBOARD

*Message #1 Posted by **Jon** on 21 July 2003, 1:24 p.m.*

Hello everybody:

Some time ago I asked in this forum the way to remove the keyboard label of these calculators. I have had success (thanks everybody). Now I must place the label in the new calculator. Which is the best glue?. I don´t like the "super glue".

Thanks again

Jon

Re: SPICES KEYBOARD

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 21 July 2003, 3:03 p.m.,*
in response to message #1 by Jon

Hi;

I'm not sure how hard it was for you to remove the keyboard faceplate. I had no difficulty at all, because in my case, both faceplates were plastic sheet.

Based on what I saw, I think that it is not difficult to elect another sort of glue to settle them in place. I think "superglue" is NOT the best choice. I'd try some silicon-based glue, the one that would allow the thinnest foil betwen the faceplate and the case itself.

If there is another "laminar" glue available, I'd try, too. If I am not wrong, Ellis Easley (if it is wrongly spelled, forgive me) mentioned that there is this kind of "laminar glue" available. It comes in waxed paper so you apply it to one of the surfaces to be glued and remove the waxed paper. Then you have a "glue foil", ready to be applied to anywhere you wish.

If it did not confuse you, I think it will help finding the best glue.

Success. And please, let us know about what you achieve.

Luiz (Brazil)

Re: SPICES KEYBOARD

*Message #3 Posted by **David Smith** on 21 July 2003, 4:04 p.m.,*
in response to message #1 by Jon

#M Super-77 spray adhesive. Availavle at most hardware and hobby stores. Clean off all the old adhesive first. I use white gas (camping stove fuel) or ligher fluid.

Re: SPICES KEYBOARD

*Message #4 Posted by **Jon** on 21 July 2003, 5:24 p.m.,*
in response to message #3 by David Smith

Hi Luiz and David:

I have made a test with that "both sides" glue with waxed paper that Luiz reported, but the problem is how to remove the glue from the key holes (hard work). I will clean everything again and try with the spray (I don´t know if it is available in Spain with the same denomination).

Cheers

Jon

I should have mentioned that...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 21 July 2003, 6:05 p.m.,*
in response to message #4 by Jon

... you should use paper strips instead of using a complete cover. I thought it was not necessary to mention...

I'm sorry!!!!! <<<<<<:^((((((((

Luiz (Brazil)

Re: SPICES KEYBOARD

*Message #6 Posted by **Ellis Easley** on 27 July 2003, 12:52 p.m.,*
in response to message #4 by Jon

Yes, the acrylic transfer adhesive is tricky to cut through when it is not embedded between two layers of non-adhesive material, because it wants to stick to the knife! In actual use, it is applied in a solid layer to a solid layer with the release liner on the other side, and then the sandwich is cut with a die. I wonder if the 3M 77 spray adhesive is more like acrylic adhesive or like rubber cement (or contact cement)?

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New RPN calculator

*Message #1 Posted by **Roland.** on 21 July 2003, 9:51 a.m.*

Can anybody tell me when HP issues the successor of the HP 32S? I understood it would be the HP-33S?

calculator collecting like stock market

*Message #2 Posted by **Norm** on 21 July 2003, 1:11 p.m.,*
in response to message #1 by Roland.

Calculator collecting is now like the stock market..... You have to peer into the future and be right about.

Say you own 5 units of HP-15C . That's like 5 shares of stock. Now you have to figure out what the future holds, will they go up or down in future.

How about 32Sii , if HP makes a really nice successor model, and releases it (HP-33S ??) then your share value of 32Sii will abruptly fall.

So guess the future then..... I'd guess that as long as "HP" is holding the calculator division (and that's analogous to a bunch of deep-jungle monkeys swinging on vines having a piece of test equipment like a spectrum analyzer in tow with them) then I'd say they are not capable of releasing a decent calculator.

Therefore I'd predict that HP-33S will be a piece o' junk, same as it has always been thus far.

Therefore I'd rate other collectible calculators as a "hold" or maybe even a "buy". The only thing that will make the collectible calculators plummet in value, is if the calculator division went where it belonged.... which is to Agilent..... like as if those monkeys brought the spectrum analyzer back to the dirt road, so that the guys in the jeep could take it back to civilization, but U see, that is not very likely to happen.

- Norm

Re: calculator collecting like stock market

*Message #3 Posted by **hugh** on 22 July 2003, 11:48 a.m.,*
in response to message #2 by Norm

it certainly is. the other month, i was considering entering the 20S futures market. a retailer had 6 new in stock in those red&white boxes (rather than the blister pack version). i thought about buying all 6.

in the end, i wussed out. i have bills to pay and all :-)

sell some puts

*Message #4 Posted by **Norm** on 22 July 2003, 7:08 p.m.,*
in response to message #3 by hugh

maybe you should have sold some puts or bought some calls.

But if you think the pricing of 20s will go down then you better short-sell the market.

Just make sure that you dont go beyond the limits of your trading account.

:o|

Re: calculator collecting like stock market

*Message #5 Posted by **bill platt** on 22 July 2003, 8:53 p.m.,*
in response to message #3 by hugh

I bought 4 of em for 20 bucks 4 months ago, and only have 2 left--the others were bought by co-workers when they found out!

Norm, love the simile, I'm still laughing!

*Message #6 Posted by **james (UK)** on 23 July 2003, 8:42 a.m.,*
in response to message #2 by Norm

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Problems with HP41C

*Message #1 Posted by **hugo (belgium)** on 21 July 2003, 8:21 a.m.*

Hello everyone,
I recently got an HP41C from my brother who hasn't used it anymore sincefor more than 10 years. There were no batteries inside anymore, but there was a little greenish color on the battery contacts. I tried with batteries from my 41CV- but the C didn't wake up. So i decided to open it and polish the battery contacts and the contacts between the upper and bottom part of the calculator (which were also a little green). After cleaning, all contacts were bright yellow (OK i thought), but after reassembling and testing with good batteries, it did not wake up...
What could i do next? Is there some testing procedure possible to find the cause? (unfortunately i am not an electrical engineer and i do not have testing equipment besides a multimeter)

I would be very happy to bring this machine back to life because it is a beautiful oldie, with the "steep" buttons! (S/N 2026A01398)
Thanks for any hints, Hugo

Re: Problems with HP41C

*Message #2 Posted by **Thibaut.be** on 21 July 2003, 8:41 a.m.,*
in response to message #1 by hugo (belgium)

Hi Hugo,

Yes, contact oxydation are a pain. Most probably your zebra connectors are also oxydated - you will need to open your calc and clean this up.

Problems with HP41C

*Message #3 Posted by **hugo (belgium)** on 21 July 2003, 9:19 a.m.,*
in response to message #2 by Thibaut.be

Hello Thibaut,
i suppose you mean with the zebra connectors the ones between the under- and upper part of the calculator? These i have already cleaned- are there other sensitive connectors?
Hugo

Re: Problems with HP41C

*Message #4 Posted by **Chan Tran** on 21 July 2003, 9:35 a.m.,*
in response to message #3 by hugo (belgium)

Did you try the battery holder from the good calculator. The spring in the holder could be corroded too.

Re: Problems with HP41C

*Message #5 Posted by **Victor Koechli** on 21 July 2003, 9:54 a.m.,*
in response to message #3 by hugo (belgium)

If your 41C is a fullnut (no rounded edges around the display - see the HP41 pictures in the museum), it has a second connector that could have failed. It's underneath the main electronics board. To get to it, you have to losen the two nuts that hold the board down. These also provide the pressure necessary to ensure contact between the electronics board and the keyboard.

Two things could cause problems there: Corrosion or cracked screw posts. You can always try to remove corrosion if that's the problem, and there are several sources of information on how to repair cracked screw posts. I don't know about halfnuts - I have never opened one so far. I think they, too, can corrode, but the screw posts are no longer critical to the conection. Would make it a bit easier, then...

The problem is that these posts are extremely fragile and are easily damaged just by unscrewing the nuts. Therefore, I would first try again to fix the contact you already cleaned, between the battery/port assembly and the keyboard. Clean it again very carefully using very fine (1000 grit) sandpaper, then apply a contact spray to both the board and the felx circuit. Repeat if necessary. Hold the two halves togehter without inserting the screws and see if you can get the machine to life. Sometimes pressing on one side or the other or slightly moving the top half against the bottom suddenly produces a sign of life.

You should only dissassemble the lower contact if all of the above doesn't lead anywhere. And of course, make sure the problem is not the batteries ;-)

Tell me if this helps. Cheers, Victor

Re: Problems with HP41C

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 21 July 2003, 9:45 a.m.,*
in response to message #1 by hugo (belgium)

Hello, Hugo;

Please, look at the pictures below (they are composed with some layers, that's why there are borders around mixed parts, O.K.?)

http://www.logeng.com.br/images/fn_int_01.jpg

This is what you see whn you open the calculator and remove the battery contacts assy (black protective plastic sheet is not shown)

http://www.logeng.com.br/images/fn_int_02_a.jpg
http://www.logeng.com.br/images/fn_mainboard_front.jpg

If you (carefuly) remove the mainboard, you'll see that there is a connector made with a lot of golden-plated wires. There's a chance you'll need to CAREFULY clean both the connector itself and the pads under the mainboard.

http://www.logeng.com.br/images/fn_int_03.jpg

You should also remove the connector and clean the keyboard connecting pads.

Chances are you have cracked or broken screw posts. If the srews are not tighten (not too much), only enough to achieve the contact between the mainboard and the battery assy with the keyboard, the "power supply" from batteries will not reach the mainboard's contacts. Also, if the mainboard cannot communicate with the LCD, no "image" will come from it.

If you need more advice (say, about broken posts), let us know.

Success.

Luiz (Brazil)

It took me long to post...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 21 July 2003, 9:56 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Hi Hugo, Thibaut, Chan Tran, folks;

I was setting images up and I took too long to post. Now I see Hugo have already done what he was supposed to. The images are no longer needed, though.

Hugo, if the calculator still does not swithc to ON as there is nothing in the LCD, try [SHIFT][BEEP] to confirm it's not ON indeed; maybe you have it working and there are problems in the LCD.

Some newer minboards need thin plastic washers to increase pressure in the small mainboard so it firmly connects with the keyboard. If you have the means to enhance this pressure, it would worth trying.

Success.

Luiz (Brazil)

Problems with HP41C

*Message #8 Posted by **hugo (belgium)** on 21 July 2003, 10:36 a.m.,*
in response to message #1 by hugo (belgium)

Hi Thibaut, Chan,Victor and Luiz,
thanks all for the good advice, i will need some time to try it all out! i will post a message again when i am through the list...
Of the items mentiones: i do not have broken screw posts (all four screws work OK) but perhaps the connectors are not yet clean enough. The beep i already tested: no sound- so it is not only the display that does not work. The 41C i have is one without rounded corners so i will have to check that second connector also. To test the C, i used my batteries and the battery case of my 41CV (that works with the card reader- so the batteries will be OK). But i have noticed that when i take the batteries out of the CV and leave them out a while, this calculator also has difficulties to start up. I have to remove all modules and the card reader, reinsert the battery pack to get it working again. Perhaps also a sign of corrosion somewhere? And when it starts up, sometimes i have a MEMORY LOST.
Anyways thanks already for all advice! Hugo

Re: Problems with HP41C

*Message #9 Posted by **Thibaut.be** on 21 July 2003, 10:55 a.m.,*
in response to message #8 by hugo (belgium)

Hugo,

As we live in the same country I could have a look and try my luck on your calculator... drop me an e-mail (I live around Brussels) if you want to arrange a meeting.

Best regards,

Thibaut

Battery contacts ????

*Message #10 Posted by **Jon** on 21 July 2003, 1:21 p.m.,*
in response to message #8 by hugo (belgium)

Hugo:

You should also try to look for broken battery contacts. Sometimes they look nice but are broken in the middle (where the battery is in contact). It is very easy to check it. Just place a piece of aluminum paper in each contact. You must guarantee there is contact in the borders, not just in the middle. I have found that problem in 2 of 4 HP-41C, Cv,Cx that I have repaired. If that´s the problem make us know. It isn´t so hard to repair.

Jon

...It works again!!!

*Message #11 Posted by **hugo (Belgium)** on 22 July 2003, 3:39 a.m.,*
in response to message #1 by hugo (belgium)

Hi all,
I cleaned all contacts again, including the one between the PCB's inside. After reassembling, it works again! Although i do not exactly know which contact has posed the problem, i am vary happy to see this 41C alive again.
Thanks for all good advice! To my opinion, this is not just a forum, it is a quick and very efficient HP helpdesk!!
Best regards, Hugo

Re: ...It works again!!!

*Message #12 Posted by **Victor Koechli** on 22 July 2003, 6:45 p.m.,*
in response to message #11 by hugo (Belgium)

Congratulations, Hugo, on your successful repair. I know how it feels: I just repaired a defective HP 41C myself in much the same manner. These machines are soooo beautiful...

Cheers, Victor

Good news, indeed!

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 22 July 2003, 8:46 p.m.,*
in response to message #11 by hugo (Belgium)

Congrats and thank you, Hugo! 8^)))))

thank you for sharing the success, too.

Best regards.

Luiz (Brazil)

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Hp-85 on ebay

*Message #1 Posted by **Sean McNamee** on 21 July 2003, 12:17 a.m.*

Not exactly sure if anyone here would be interested, but:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3036475467&category=11713

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How about chatting?

*Message #1 Posted by **Sean McNamee** on 20 July 2003, 10:59 p.m.*

Do any of you guys use chat rooms, like yahoo provides? We could have an hpmuseum room - cool! (Yeah, I'm a big geek...)

Re: How about chatting?

*Message #2 Posted by **Matthias** on 21 July 2003, 4:52 a.m.,*
in response to message #1 by Sean McNamee

I use the ICQ chat

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Can anyone comment on the Lygea HP15C emulator?

*Message #1 Posted by **Emmanuel Verbeeck** on 20 July 2003, 5:20 p.m.*

Being quite amazed at the typical eBay prices for HP15C (typically $300+ for scratched/incomplete ones), I was looking for some good Windows-based emulation.

I have found a Windows CE / pocket PC emulator done by Lygea (see http://www.lygea.com/pocket15cdetail.htm).

Do any of you use this? Thanks for your opinion.

Re: Can anyone comment on the Lygea HP15C emulator?

*Message #2 Posted by **Victor Koechli** on 21 July 2003, 2:42 a.m.,*
in response to message #1 by Emmanuel Verbeeck

As far as I can see, you can download and try it for 14 days for free.

You could do that and then post your experiences here ;-)

Cheers, Victor

Emulator ? What emulator ?

*Message #3 Posted by **Valentin Albillo** on 21 July 2003, 8:26 a.m.,*
in response to message #1 by Emmanuel Verbeeck

Here's some enthusiastic opinion (and endorsement), if a bit brief:

HP-15C emulator

Anyway, this product is *not* an "emulator" at all, but a *simulator*. A real *emulator* runs a bit-perfect copy of the original ROMs in an emulated original CPU. This exactly mimics the full behaviour of the machine being emulated, bugs and all, limitations and all.

On the other hand, this HP15C *simulator* just tries to imitate more or less what the original 15C did, but it goes on changing things (more items in the display, more program steps, more memory) and you can be sure that many original 15C programs *won't* run on it as they would run on a real or emulated HP-15C. I can certainly write a number of perfectly legal HP-15C programs that won't run as intended on it, if at all. And for nearly all HP-15C programs doing some kind of extensive calculations, you can bet that your simulated results *won't* match the real ones.

Mr. Kahan and the rest of people involved in the design of the HP-15C algorithms took really *extreme* efforts to guarantee accuracy, stability, convergence, and such, to an extent never before seen (and probably after, as well) on a handheld calculator. I very much doubt that this simulator does include such ultra-finely tuned algorithms, and most probably relies blindly on greater native precision (typically 16 digits) to cater for any lack of refinement.

In a worst-case scenario, you could find yourself with the simulated Solve failing to converge to the correct solution (a la HP12C Platinum), failing to find an existing solution, or finding a solution that isn't, you just have a look at the **HP-15C Owner's Handbook** and **HP-15C Advanced Functions** to see the *many pitfalls* awaiting for non-optimized algorithms to fall into. I guess the people who wrote the routines for the 12C Platinum did just that, blindly relying on greater native accuracy and faster CPU, and we all have seen the results: non-convergence, lack of reliability, and utter inefficiency.

In a nutshell, I think that calling this product an "emulator" is a *gross* misrepresentation, and I wouldn't trust its answers, specially when using the advanced functions: matrices, complex, solve, integrate. I trust my HP-15C, because I know the who's and the what's behind it. Just read this unbelievably good article by Mr. Kahan, who's one of the fathers of the real HP-15C, and once you've read it, see if you would trust an HP-15C simulator to deliver the goods:

Mathematics written in sand (105 Kb PDF document)

If you really need an RPN emulator for your PC, you could do much worse than to get one of the freely available 41C emulators. One of the very best does perfectly emulate an HP-41CX, synthetics and all, complete with Advantage ROM and other modules also perfectly emulated. Actually, it's pretty indistinguishable from having a real, loaded HP-41CX inserted on your very screen, photorealistic cosmetics included. There's almost nothing you could do with a real or emulated (not simulated) HP-15C that you won't be able to do with this emulated 41C. I use it to write all my 41C programs and articles, for instance. And it's free. I don't know if some version is available for PocketPC or other PDA devices, but certainly a real emulator is the way to go.

Best regards from V.

Edited: 21 July 2003, 8:35 a.m.

Emulators for Woodstocks and Spices?

*Message #4 Posted by **Michael F. Coyle** on 21 July 2003, 6:48 p.m.,*
in response to message #3 by Valentin Albillo

I know that emulators are available for some Classic models (35, 45, 55) the 41 and various Saturn machines.

But does there exist a real honest-to-God emulator for any of the Woodstocks, Spices, or Voyagers?

I haven't looked at everything that's been published out there, but all I've seen are simulations, which are OK, but not the Real Deal.

I'd like to do an emulator but don't have enough info yet.

Anyone?

- Michael

Re: HP 25 Java simulator ... here, in this same MoHPC site

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 26 July 2003, 8:44 a.m.,*
in response to message #4 by Michael F. Coyle

There is an excellent HP25 simulator here at the MoHPC (Simulators page), as the source code is available, you can adapt it to run off-line...

Re: HP 25 Java simulator ... here, in this same MoHPC site

*Message #6 Posted by **Michael F. Coyle** on 26 July 2003, 4:11 p.m.,*
in response to message #5 by Andrés C. Rodríguez (Argentina)

I do like this simulator. The only problem I have with it is that it is very slow to respond to button presses. Sometimes it takes a couple of seconds for the display to update. It's very disconcerting.

Would running it off-line make it any faster?

(I use the HP-45 emulator a lot. It has a less-polished user interface but at least it responds instantly.)

- Michael

Re: Emulator ? What emulator ?

*Message #7 Posted by **X-V** on 21 July 2003, 8:33 p.m.,*
in response to message #3 by Valentin Albillo

Posted by Valentin Albillo: "(...)Best regards from V."

Whoops, V is already taken lol, gonna have to change it. I guess ill stick to X-V or something like that.

regards

"|V2|" (not definitive) AKA "\V/"

Re: Can anyone comment on the Lygea HP15C emulator?

*Message #8 Posted by **jimc** on 21 July 2003, 9:06 a.m.,*
in response to message #1 by Emmanuel Verbeeck

I gave it a try on my Toshiba PDA and I was favourably impressed. I didn't try it for longer than the 15 day trial period however.

Re: Can anyone comment on the Lygea HP15C emulator?

*Message #9 Posted by **Gordon Dyer** on 21 July 2003, 8:10 p.m.,*
in response to message #1 by Emmanuel Verbeeck

I have used it in trial mode for a while and it is excellent! You have to get used to the sideways screen but that suits the calc well.

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RamBOX

*Message #1 Posted by **Matthias** on 20 July 2003, 4:38 p.m.*

Is it possible for anybody to rebuilt a RamBOX, so that this powerfull instrument would become a Xmas present for some of us? What would be the problem for this? I know that there are some hardware designers like Christoph Klug that could perhaps built this... I would buy it...

Re: RamBOX

*Message #2 Posted by **Emmanuel, France** on 20 July 2003, 5:52 p.m.,*
in response to message #1 by Matthias

```
dear matthias,
First you have to find plans.
They are certainly not available as public domain.
May someone be able to understand a 4K RAM MLDL plans?!
Yours.
```

Re: RamBOX

*Message #3 Posted by **Raymond Del Tondo** on 20 July 2003, 6:12 p.m.,*
in response to message #2 by Emmanuel, France

Hi,

maybe in some PPC Technical notes are some hints. AFAIR the ERAMCO compatible design is or was available somewhere.

PPC Journal CD's ?

Or perhaps Meindert has an idea ? ;-)

Raymond

Re: RamBOX

*Message #4 Posted by **Matthias** on 20 July 2003, 6:16 p.m.,*
in response to message #2 by Emmanuel, France

Is a opened RamBox not enough? You only need the plan of the print, do you? Second you need a system software... W&W is ok...

Re: RamBOX

*Message #5 Posted by **Emmanuel, France** on 20 July 2003, 6:45 p.m.,*
in response to message #4 by Matthias

```
I have a W&W 32K RSU too.
But only 28K are available (4K RAM out of order).
I opened it, there's a lot of CMS and connexion are really
```

```
thin between components and some hidden behind them.
May be Jean-François would be better than me.
Please contact him: jfgarnier@wanadoo.fr
```

Re: RamBOX

*Message #6 Posted by **Meindert Kuipers** on 21 July 2003, 2:38 a.m.,*
in response to message #1 by Matthias

Do you mean to rebuilt an original old design? I am working on a completely new design that is a RAMBox! See the specifications at www.kuipers.to/hp41.

Meindert

Re: RamBOX

*Message #7 Posted by **Christoph Klug** on 21 July 2003, 7:32 a.m.,*
in response to message #6 by Meindert Kuipers

Dear Meindert,

It makes much sense, that you complete your actual design (working with modern technologie and parts).

Rebuilding existing Eramco or W&W Ram-Box solutions is too much work and some storage IC parts not available today or exotic and hard to find.

The "traditional" Eramco and W&W Ram-Box solutions are absolutely nice parts for active HP41 user and for any collector. Unfortunately Ram-Box systems hard to find.

Up to now (and for future times) Zeproms are the leading solution for concentrating maximally power in only one HP41 plug in port...

Best wishes from Germany -Christoph

Re: RamBOX

*Message #8 Posted by **Meindert Kuipers** on 21 July 2003, 9:19 a.m.,*
in response to message #7 by Christoph Klug

Christoph,

Can you actually make the ZEPROMS or just program them?

Meindert

Re: RamBOX

*Message #9 Posted by **Grant Goodes** on 21 July 2003, 10:30 a.m.,*
in response to message #8 by Meindert Kuipers

Yeah, my question exactly. I have a dual-Zeprom programmer, but no Zeproms, and haven't been able to find any. The guy I bought the programmer from had a stock of unmounted Zeprom EPROMs, but threw them out! If anyone (Christoph?) has Zeprom that they'd be willing to sell me (don't need the voltage convertor, and can be totally blank, which would normally make it pretty useless to people), I'd be willing to pay well for it.

grant..

Re: RamBOX

*Message #10 Posted by **Matthias** on 21 July 2003, 11:03 a.m.,*
in response to message #9 by Grant Goodes

Cool, and I'm looking for a ZEPROM burner and do not get on.. ZEPROMs I have some....

Re: RamBOX

*Message #11 Posted by **Raymond Del Tondo** on 21 July 2003, 2:19 p.m.,*
in response to message #10 by Matthias

Hi Matthias,

too late. I used to have a very huge Zengrange ZEPROM programmer with 8 (EIGHT) ZEPROM module slots. I traded it away a while ago ...

Raymond

Re: RamBOX

*Message #12 Posted by **Matthias** on 21 July 2003, 4:11 p.m.,*
in response to message #11 by Raymond Del Tondo

Grrrrrrrrrrrrrr.....

Re: RamBOX

*Message #13 Posted by **Peter** on 22 July 2003, 10:45 a.m.,*
in response to message #12 by Matthias

Don't say so, Matthias, it's a nice piece...

-peter

Re: RamBOX

*Message #14 Posted by **Jeff** on 21 July 2003, 8:02 p.m.,*
in response to message #7 by Christoph Klug

I am currently building the old version of the MLDL posted in the PPC Journal some years ago. The only IC's that I cannot find are the 4k x 1 Static Ram, TC5504AP-2. Does anyone know where these can be found?

Re: RamBOX

*Message #15 Posted by **James** on 22 July 2003, 4:44 a.m.,*
in response to message #14 by Jeff

> Quote:
>
> I am currently building the old version of the MLDL posted in the PPC Journal some years ago. The only IC's that I cannot find are the 4k x 1 Static Ram, TC5504AP-2. Does anyone know where these can be found?

I suggest you use an 8 bit SRAM chip in place of two 1 bit chips, and waste 6 bits (tie them to ground, perhaps through a resistor).

HTH,

James

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non-calculator collections

*Message #1 Posted by **Sean McNamee** on 20 July 2003, 4:00 p.m.*

Besides calculators, what other collections do users of this forum collect? ...just curious...

Re: non-calculator collections

*Message #2 Posted by **Fred Lusk** on 20 July 2003, 5:56 p.m.,*
in response to message #1 by Sean McNamee

Sean…

I collect dust :-)

Seriously, though--I used to collect coins, but sold most of my modest collection about 20 years ago to help finance my first house. Unfortunately, I was in college when Bunky Hunt tried to corner the silver market and wasn't paying attention. For a short time, my silver dollars, silver half dollars, and silver quarters were worth about four times what I ended up selling them for just a few years later.

Now, I collect maps of all types: topo, highway, aeronautical, geologic, atlases, National Geographic, star charts, etc. Very few are worth anything more than face value…I just like looking at them. I have at least 3,000 individual maps and perhaps 30 atlases, plus some computerized maps. My collection is only partly organized. Yet another project I need to get to. As a civil engineer and geography buff, collecting maps seems like the natural thing to do.

I also collect pins from places I visit, but I only have about 100 of those. Most of these are on a hat I used to use for hiking before it got too heavy.

I guess I collect books, too, but not in an organized fashion. I read about 40 books a year, mostly history, science, etc (and maybe one novel every other year). My wife reads maybe 30 books a year, mostly fiction. Some books we buy, some we get from the library. Several years ago, when we had about 1000 books, my parents decided to sell their house and buy a smaller one. They had at least 5000 books and didn't want to move them all. They took membership in the Book of the Month Club very seriously! They gave me first shot at their library and I took about 1200 books. Some are still in boxes because I don't have enough bookshelf space.

I have had a subscription to National Geographic since I turned 5 and have kept every issue (I'm 44 now). Several years ago, I went to a used book sale and added the previous years back to my birth.

I "collect" waterfalls. By that I mean, when we travel, I like to see and photograph as many waterfall as I can. I actually started a database of waterfalls in California, but my plate has been too full to work on it much. Besides, a woman by the name of Ann Marie Brown wrote a very nice book titled "California Waterfalls" which serves my purpose just fine.

That's enough of my life story.

Fred

Re: non-calculator collections

*Message #3 Posted by **Sean McNamee** on 20 July 2003, 9:44 p.m.,*
in response to message #2 by Fred Lusk

Wow! Those are fun! Especially the books and maps, by my own tastes... I have all my college textbooks related to my degree (EE), and most of the others. But I hardly have a "collection" - especially compared to something like yours. However, I was in an old bookstore night before last and it had a collectibles section, where I picked up a nice hardbound "Dracula" by Bram Stoker, and a nice edition of "The Original Illustrated Sherlock Holmes" with lots of cool, old-style drawings. Neat!

Re: non-calculator collections

*Message #4 Posted by **Fred Lusk** on 20 July 2003, 10:49 p.m.,*
in response to message #3 by Sean McNamee

Sean…

One of my prizes is "Peck's Bad Boy and His Pa". Hard to explain, but one of the funniest books I have ever read. The author (George W. Peck) was a newpaper publisher and later mayor of Milwaukee and governor of Wisconsin. The book is based on columns Mr. Peck wrote for his newspaper. The central figure is the "Bad Boy", a mischievious young to mid-teenager. He gets into all sorts of trouble, but of a kind MUCH less serious than we hear about today. He mostly pulls pranks on people. His father is the main victim, but so is the grocery man he tells most of his adventures to.

I actually have two copies of "Pecks". The first copy is the one my father read to me when I was a kid, and my grandfather read to him. It was printed in 1900, which is even 12 years before my grandfather was born. The second copy my wife bought me for Christmas several years ago. It was printed in the 1880's and is in better shape.

I also have some old Roman coins my wife got off e-bay from a dealer back east. Several of the coins show the figure of Constantine. They're actually not very valuable because they are not very rare and the condition is so-so (my wife spent about $30 for seven coins). Even so, it's really cool to have them. I help teach sixth grade sunday school at our church. The first half of the year deals with church history, and the coins are a big hit since Constantine is considered the first Christian emperor, though how Christian he really was is open to debate.

Fred

Re: non-calculator collections

*Message #5 Posted by **db(martinez,california)** on 20 July 2003, 6:03 p.m.,*
in response to message #1 by Sean McNamee

I just counted. I have 180 old bottles that i either dug up while excavating buildings or traded my duplicates for. They are on 12 shelves in my enclosed porch windows and provide quite a bit of privacy. Most came out of 100 year old privies. My favorites are an 1880's "Kellogg's" Kentucky whiskey bottle with a screw cap made of only-god-knows-what, a blue triangular "Owl" brand poison bottle, and a +/- 1890 blob top "XLCR" (excelcior) mineral water bottle from right here in river city; it's deliciously primative.

I also have a rather extensive collection of Plomb (not plumb!) tools, half of which i inherited from my dad. Since they comprise most of my english wrenches; i guess they are not a collection. They are just beautiful old greasy or rusty tools. My favorites have "VB" ingraved on them.

My ex wife (aka the formerly lawfully wedded mistake) said that i collect women. I can think of at least three ways that that is a filthy thing to say but with what i had to pay to get rid of her; it certainly rates her low on (at least) my scale of desireable collectables.

Re: non-calculator collections

*Message #6 Posted by **Sean McNamee** on 20 July 2003, 6:37 p.m.,*
in response to message #5 by db(martinez,california)

Yes, well, you know the saying: "Why are divorces so expensive? - Because they're WORTH IT!"

;)

Re: non-calculator collections

*Message #7 Posted by **db(martinez,california)** on 20 July 2003, 11:09 p.m.,*
in response to message #6 by Sean McNamee

When someone here posts an economic opinion such as "it's worth it" i assume he has worked it out on an RPN HP calculator and i always believe him (or her). In my case i'm sure. The price of her shrink bill & prozac and my ear plugs used up all my discressionary income.

Speaking of money well spent; I FOUND A WORKING 38C AT THE FLEA MARKET TODAY FOR A BUCK!!! Sorry for shouting. I'm just all happy and excited.

Re: Working 38C

*Message #8 Posted by **jimc** on 21 July 2003, 3:37 p.m.,*
in response to message #7 by db(martinez,california)

Congratulations db! Finding a working 38C (for a buck?) is an awesome thing! (me, I really like the little kick my heart does when I find something I have been scouring the earth for)

I like to read about how other people find calculators - kinda gives me hope, y'know?

Re: non-calculator collections

*Message #9 Posted by **gifron** on 21 July 2003, 1:46 a.m.,*
in response to message #1 by Sean McNamee

Fossil watch tins, and lisence plates of states I've driven through.

This is a great forum

*Message #10 Posted by **Renato** on 21 July 2003, 1:45 a.m.,*
in response to message #1 by Sean McNamee

Sean,
Congratulations for starting one of the most interesting threads of this forum in recent times.

Fred: If you would like to write about your HP-related story, I expect it to be as interesting as your books-related story. If I may ask - please write.

DB: nice posts, my lack of experience on the subject does not allow me to write anything about your expensive experiences (lucky me...). Anyway, i´m happy for your 38c finding. I myself bought four of those in a calculator repair shop (about $7 each).

This forum gang is a bunch of great guys. Makes me proud just being a frequent reader.

Renato

Re: This is a great forum

*Message #11 Posted by **Fred Lusk** on 22 July 2003, 1:32 a.m.,*
in response to message #10 by Renato

Renato…

I will try to write up my HP story and post it in a day or two.

It is a story full of danger (those darn TI's), intrigue, and lots of number crunching.

Fred

Re: non-calculator collections

*Message #12 Posted by **Mike (Stgt)** on 21 July 2003, 3:52 a.m.,*
in response to message #1 by Sean McNamee

Mugs. Simple, cheap, but nice coffee-mugs. And women. The main reason why I have so little time for my calculator collection. <G>

Ciao.....Mike

Re: non-calculator collections

*Message #13 Posted by **Wayne Brown** on 21 July 2003, 7:36 a.m.,*
in response to message #1 by Sean McNamee

I have a small collection of slide rules (only about 2 dozen so far).

Re: non-calculator collections

*Message #14 Posted by **Laurence Carr** on 21 July 2003, 9:45 a.m.,*
in response to message #1 by Sean McNamee

HI

I collect TRIANG MINIC SHIPS!and have a collectors web site dedicated to these ships at http://www.minicships.com if you want to find out what these are.

Laurence Carr Classic Calculators (UK) http://www.classiccalculators.com

Re: non-calculator collections

*Message #15 Posted by **Guillermo Castarés** on 21 July 2003, 10:27 a.m.,*
in response to message #1 by Sean McNamee

Slide Rules. The URL of site showing my little collection is "http://ar.geocities.com/reglasdecalculo/index.htm".

I also say I collect "billetes kapicua". I dont know how to call they in english. I am talking about "money

papers" with serial numbers that can be read from left to right or right to left with the same result. For example "56444465". Ok. I really have only one. But it's the biggest "collection" that I have seen ;^)

Regards, Guillermo

"kapicua" = palindromic

*Message #16 Posted by **Valentin Albillo** on 22 July 2003, 6:02 a.m.,*
in response to message #15 by Guillermo Castarés

and, by the way, it's "capicua", not "kapicua" ! :-)

Best regards from V.

Re: non-calculator collections

*Message #17 Posted by **Grant Goodes** on 21 July 2003, 10:42 a.m.,*
in response to message #1 by Sean McNamee

I collect Pinball machines. I used to collect stamps, SF firts-editions, camera gear, etc., but found that most of these areas are dominated by profit-motive, and are ultimately a bit pointless (I mean that, for example, stamps are no longer just a utlilitarian object, but a good portion of their "purpose" is to sucker collectors into spending more money).

Pinball machines are actually quite afordable, and whatever time and effort I put into restoring one directly translates into increased resale value. They are VERY fun to play and it is very rewarding to bring a trashed/abused game back to life. And, I get to use all my grade-12 electronics skills, which have otherwise been obsoleted by the modern style of electronics design (which has come to resemble software rather than hardware in most senses).

grant..

Re: non-calculator collections

*Message #18 Posted by **unspellable** on 21 July 2003, 11:42 a.m.,*
in response to message #17 by Grant Goodes

I don't know that I would say that I am a calculator collector. Debatable.

I am a slide rule collector and a gun collector.

One aspect of calculators vs slide rules, is that if you are generally familiar with slide rule operation you can pick up the operation of a new one in a matter of seconds in most cases. Even with a few specialized scales you can learn most inside of an hour. (There are exceptions.) After living with my HP 28S and HP 48SX for some years, I am finding it will take days to really learn the TI, Sharp, or Casio programmables I recently picked up.

I am already finding that I do not like the fact that I don't seem to be able to set up a simple program that has a user interface like a function button. For example, on my HP 48SX I write << INV SWAP INV + INV >> and then 'PARA' STO. Now I can put two numbers on the stack, push PARA and I have the parallel combination. Can't seem to do this on the algebraic types. You have to call up a program and then enter values. The odd thing is that I have slide rules with this function. Now with something like 2300 functions on the 48 series, you'd think they could have included this one. It's not even in the EE PRP Pac. Now if they saw fit to put this on a slide rule where the number of available functions is rather limited by the available real estate and the cost of engine divided scales, you'd think it was useful enough to be

included among 2300 functions.

Re: non-calculator collections

*Message #19 Posted by **bill platt** on 21 July 2003, 11:54 a.m.,*
in response to message #18 by unspellable

Hi unspellable,

See how easy that program was for you to write? That's why it is not included---cause it's so easy to do!-^)

Besides, it gives you the chance to feel satisfaction at having made your own useful program.

Regards,

Bill

Re: non-calculator collections

*Message #20 Posted by **unspellable** on 22 July 2003, 9:26 a.m.,*
in response to message #19 by bill platt

Bill,

All you say may be true of my HP 28S or HP 48SX, but it does not seem to hold when I come to an HP 38G or a TI 83 or a Sharp 9300C or a Casio fg7300.

Me too!

*Message #21 Posted by **Sean McNamee** on 21 July 2003, 5:29 p.m.,*
in response to message #18 by unspellable

Well, since I started this thing: So far I have: 48SX 48GX 28S 71B 200LX 15C 41CX and a non-working 45

Unspellable: also,

Sig P228 Taurus 608 Para c7.45 S&W 629 S&W 1006 Taurus 650 S&W 1076

Mossberg 500 Savage 110 (.308)

Soon to be getting a Kimber Stainless Target II in 10mm!

Parallel equivalence

*Message #22 Posted by **Valentin Albillo** on 22 July 2003, 10:08 a.m.,*
in response to message #18 by unspellable

Hi, unspellable:

unspellable posted:*"I am already finding that I do not like the fact that I don't seem to be able to set up a simple program that has a user interface like a function button. For example, on my HP 48SX I write << INV SWAP INV + INV >> and then 'PARA' STO. Now I can put two numbers on the stack, push PARA and I have the parallel combination. Can't seem to do this on the algebraic types"*

Assuming you consider an HP-71B as being of "algebraic type", you can do it as simply as this:

```
10 DEF FNP(X,Y)=1/(1/X+1/Y)
```

then you can instantly use it right from the command line or in calc mode, like this:

FNP(3,4)+5*COS(PI/3)-FNP(2,6)+7*FNP(FNP(3,5)-FNP(1,4))

say, i.e. just like any other built-in function. As you can see, you may use the result of an FNP as input for another FNP. If you want to reduce typing, you can assign "FNP(" to any user key, so you would only need to press said key, key in your arguments separated by a comma, then press ENTER to get your parallel equivalent computed and displayed, the 71B will automatically close the parenthesis for you (in Calc mode). I guess this is as simple and convenient as it gets.

As for the SHARP models, assuming they are programmable in BASIC you can do something like this, for most models:

```
10 "=" INPUT X,Y: PRINT 1/(1/X+1/Y)
```

where the "=" means this small `program' is assigned to the shift-equals key, so in DEF mode you would simply press shift-equals and there you are, a "?" would appear, just enter both values separated by a comma, press RETURN or ENTER, and the parallel equivalent is computed and displayed. It's reasonably straightforward, don't you think ? If the particular model's BASIC does allow user-defined functions, the technique for the 71B above applies, too.

For one-argument functions, there's an even simpler solution for the SHARPs: suppose you want to compute exp(-x*x) for any given argument x. The 'program' would be:

```
10 "=" AREAD X: PRINT EXP(-X*X)
```

Then, in DEF mode, you would simply key in your x and press shift-equals. The value already in the display will be read into variable x, without asking you anything, and the computed value will be displayed, like this

```
    2  [shift-equals] -> 0,01831563889
```

This is as 'button-pushing' as possible for those models ...

Best regards from V.

unspellable: PARA on HP 48SX

*Message #23 Posted by **Tizedes Csaba** on 1 Aug 2003, 6:33 p.m.,*
in response to message #22 by Valentin Albillo

Hi,

I write it on HP 48SX:

<< -> x y << x INV y INV + INV >> >> 'PARA' STO

and use it like:

Set 'SYM' flag ON.

'PARA(3,5)' [ENTER] [EVAL] or 3 [ENTER] 5 [PARA] or 3 'A' STO 5 'B' STO 'A' [ENTER] 'B' [ENTER] [PARA] [EVAL] etc...

Try it with 'SYM' flag OFF.

Csaba

Ps. To Valentin:

"...*FNP(FNP(3,5)-FNP(1,4))" it's unworkable, but I see, what are you want! (Change '-' to ',' and it's will be correct.)

Csaba

Re: non-calculator collections

*Message #24 Posted by **John** on 21 July 2003, 4:21 p.m.,*
in response to message #1 by Sean McNamee

I'm not a HP collector, only a most devoted user. I have had my 48sx since the day it was introduced. (Before that a 41cx.) I have made a number of short convenient programs, like 'STSM' which sums everything on the stack, 'REAL' and 'IMAG' which separates the terms in a complex, 'TRIAN' which gives the area of a triangle from three known sides. This has been very convenient in my work with site maps, etc. Otherwise, I collect Aristo slide rules - I'm supposed to have the most important private collection of those. Then, I have collected Art-Nouveau items, from jewelry to furniture, now unfortunately become a most expensive field which I can no longer afford (I started in the early 60s). I also used to collect Leica items, now also too expensive. To this other interesting subject below: I'm also divorced. However, I'm wondering about how many other divorced men still have joint bank accounts with their former? Keys to each other's homes? Keys to each other's cars? Being welcome to the former wife's beautiful country side residence (incl. her excellent cooking) every weekend? Well, those are some of my privileges...lucky me? (We are both 68 and she's still my only love...well, besides my pristine 1965 SAAB MonteCarlo...)

Re: non-calculator collections

*Message #25 Posted by **Speck** on 21 July 2003, 10:14 p.m.,*
in response to message #24 by John

I'd have to agree with John--I'm not a collector of HP stuff. And I don't care what anybody says about them: I both like, and use, my 49G.

As far as collections go, I collect N scale model railroad cars. Mostly Micro-Trains Line, but I collect others, too. I've also got a few engines and a half a dozen or so structure kits. One of these days they'll all stop being a collection, and will actually be trains running around on an actual layout instead of hiding in their boxes and sitting on my display shelf.

Speck.

'65 Saab Monte Carlo?...

*Message #26 Posted by **Karl Schneider** on 21 July 2003, 11:28 p.m.,*
in response to message #24 by John

Never heard of it! From your e-mail address, I see that you are in Norway. Was that model ever imported to the US? Also, is the engine 2-stroke or 4-stroke? I think 1965 was the last year that Saab made the smoky 2-strokers...

Re: '65 Saab Monte Carlo?...

*Message #27 Posted by **John** on 22 July 2003, 5:35 a.m.,*
in response to message #26 by Karl Schneider

Most MonteCarlos were exported to the US. Mine spent some years in Denver before being shipped back to Scandinavia. It has a 2-stroke engine with three carbs. Rather than running on an oil mix, it has an oil tank under the hood with a pump that injects oil into the bearings. So it doesn't emit any blue smoke. Among the standard eqpt was a dash board with 'professional' instruments, a Nardi wood and aluminum steering wheel, a pull-out map table for the navigator, etc. These cars are now very rare, mine is the only one in Norway. Since this was at a time before electronic calculators, I still have my Stevens Rallye Calculator on the navigator's table, plus a nice Curta.

Re: '65 Saab Monte Carlo?...

*Message #28 Posted by **unspellable** on 22 July 2003, 9:23 a.m.,*
in response to message #27 by John

Seems to me I've seen mention of this same '65 SAAB Monte Carlo at the International Slide Rule Group.

Re: non-calculator collections

*Message #29 Posted by **DougT** on 21 July 2003, 8:27 p.m.,*
in response to message #1 by Sean McNamee

My other equally geeky collecting hobby is Star Wars Lego sets. Just the Classic stuff, none of that Episode I or Attack of the Clones schmaltz. The major difference from HP calculators is that Lego is *still making* cool sets. Naturally, my wife thinks it's crazy for a 40 year old to be collecting either, but hey, it's the engineer in me...

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HP-25 manual revisions

*Message #1 Posted by **David Smith** on 20 July 2003, 3:22 p.m.*

Has anybody out there ever seen a Revison "D" of the English language HP-25 user manual or any revisions later than "G"? I noticed that among the 30+ copies of this manual that I have seen, there were no Revison "D" copies.

Re: HP-25 manual revisions

*Message #2 Posted by **Bill** on 20 July 2003, 4:24 p.m.,*
in response to message #1 by David Smith

Dave, Just checked and I have the following:

Revision C Dated August 1975.

Revision D Dated November 1975.

These are the HP 29 Owner's Handbooks, 00025-9001.

Bill

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Who knows more about this?

*Message #1 Posted by **Matthias** on 20 July 2003, 11:10 a.m.*

I've got this EPROM interface from a collector in Europe. On the backsides print there is "WDT - EPROM Interface HP41C". CAT 2 shows "BSH 1A" and a lot more, but I do not know if this is the content of the installed EPROMS (I can not remove them, sorry)...

http://www.hp-collection.org/Pic1.jpg http://www.hp-collection.org/Pic2.jpg

Who knows something about this? I think it's a burner, but what is the manufactor, what is the original case, ... Any infos are wellcome. Thanks

Re: Who knows more about this?

*Message #2 Posted by **Emmanuel, France** on 20 July 2003, 11:30 a.m.,*
in response to message #1 by Matthias

```
Please Matthias,
1. Immediatly protect the Eprom windows against UV.
2. There's two 2764 Eproms and may be a 2716 or 2732.
3. Are the Eproms sold on the printed board?
4. Could you disassemble the ROM?
5. Eprom Burner but not necessary for HP-41
6. ...
I use a Mountain Computer IL Eprom Burner
```

Re: Who knows more about this?

*Message #3 Posted by **David Smith** on 20 July 2003, 3:08 p.m.,*
in response to message #1 by Matthias

It looks like the EPROMS are installed in low profile screw machine type IC sockets. From the pictures it does not appear that they were programmable while in circuit. You probably had to remove them and program them externally.

It is strange that there are three of them. Most ROM boxes used two chips to generate the 10 bit wide instructions. Perhaps there was a way of loading two different ROM images and switching between them.

Re: Who knows more about this?

*Message #4 Posted by **Meindert Kuipers** on 20 July 2003, 3:59 p.m.,*
in response to message #3 by David Smith

Two 2764's means a total of ROM images. The smaller EPROM must be a 2732, containing the U2 bits for the 4 ROMs. There is no way that these can be programmed in circuit, and from the excellent picture it shows that the EPROMS are in sockets. I would certainly follow the advice to put a label on the EPROMS to prevent UV light getting in. There is no harm in removing the EPROMS from the sockets as long as it is done very careful so the pins are not bent.

It would be interesting to get the full CAT 2 list.

Meindert

Removing EPROMS - my advice

*Message #5 Posted by **Tom (UK)** on 21 July 2003, 12:35 p.m.,*
in response to message #4 by Meindert Kuipers

EPROMS (like most chips) can be damaged by static. Even though they may still work small static discharges can affect device life and reliability.

Before removing them get some conductive foam (this is normally 1/4 inch thick, black and doesn't spring back into shape very well). Failing that get a polystyrene ceiling tile and cover it with baking foil.

Remove the devices with a small screwdriver, working them out about 1mm at a time at each end so they come out 'square'. Do this on a (dry and clean) metal kitchen sink as this will act as a good ground. Touch the metal of the sink often to discharge your body.

After removal, immediatly press into the conductive foam / baking foil. You could also simply wrap them in the baking foil but this would mean you can see what's inside.

I would certainly put something over the window to stop the data being erased (note that a flash may have alot of uv energy - so don't photograph them again unless you cover the windows up!)

There is a funny story about flash photography and telephone exchanges. Ask if you want to know.

AFN - Tom.

Re: funny story about flash photography and telephone exchanges

*Message #6 Posted by **Ellis Easley** on 27 July 2003, 10:58 a.m.,*
in response to message #5 by Tom (UK)

I'd like to hear that story! Here are couple of related stories:

One pretty well-known story is that the stepping relay, which was used in the first dial telephone systems, was invented by a man named Strowger who was one of two morticians in his town. The wife of the other mortician was the town's telephone operator, and whenever a caller asked for a mortician, she connected them to her husband!

The other story has to do with an effort to develop a recordable CD by Memorex when it was part of Tandy Corporation. One of the engineers who worked on the project later worked in my department, after Memorex gave up on the recordable CD. He told us that Memorex had the recordable media working but a photo flash would wipe out all the data.

Re: funny story about flash photography and telephone exchanges

*Message #7 Posted by **David Smith** on 28 July 2003, 12:29 p.m.,*
in response to message #6 by Ellis Easley

Didn't Tandy get sued for hyping that read-write CD, driving their stock price up, then never getting it to market?

funny story about flash photography and tape drives

*Message #8 Posted by **Dave Shaffer** on 29 July 2003, 12:14 p.m.,*
in response to message #7 by David Smith

We used to use computer tape drives (7-track and 9-track -- anybody remember those?!) to record directly our radio astronomy data (we just wrote bits as fast as the drives could go: 720 kbs was about the limit). This was the late '60s.

Once, during an attempt to document the beginning of an experiment, I took a flash picture of one of the guys next to a tape drive. At the flash, the drive took off. Apparently, one of the photocells which were used to sense the tape position in the vacuum loops and provide feedback information to the take-up and supply motors interpreted my burst of light as an out-of-tape situation, which the drive then tried to "fix."

Re: funny story about flash photography and telephone exchanges

*Message #9 Posted by **Ellis Easley** on 30 July 2003, 1:22 a.m.,*
in response to message #7 by David Smith

I'm not sure, I never heard of such a lawsuit. I've been trying to remember the time-frame of that project. I'm pretty sure that another project was underway about the same time - the "Digital Compact Cassette" which Philips had specified and for which Tandy designed a recording deck. That one actually shipped but I think it didn't sell. It wasn't 4mm DAT, it used a tape cassette that looked like a regular Compact Cassette but it contained a high quality tape and sound was recorded on it digitally - the way it was explained to me, just the coefficients of an FFT were recorded (I don't know if this is true). The idea was to provide something better than regular cassettes to record your CDs on ("for personal use") - but maybe not so good that it would make the record companies mad. I remember reading that as part of an agreement to allow consumerization of DAT, the record companies were going to notch out all energy at 3 kHz on commercial audio CD's, then the DAT recorder would have to refuse to record unless there was some energy there, presumably from a live source. I've wondered what that (notched CD) would sound like! The recordable CD was going to be audio only at first, assuming the data reliability wouldn't be too good, and regular CD Audio error recovery would make it good enough for audio. Then as they worked out the bugs, they would make a recordable CD-ROM computer storage peripheral. So the time frame was after CD-ROM was available. I seem to recall that it was intended to be re-writeable from the outset - maybe that was too ambitious! But whatever the technical reasons why it didn't fly, it would still have been necessary to overcome the objections of the record companies.

Re: funny story about flash photography and telephone exchanges

*Message #10 Posted by **Tom (UK)** on 29 July 2003, 8:22 a.m.,*
in response to message #6 by Ellis Easley

Been away for a few days, here's the story told to me by my electronics teacher (who used to work for the monopoly telephone company in the UK - GPO):

An new exchange was installed and running, someone wanted to take a photo of the instalation (I think for promotion or to prove the meter readings?) and had to use a flash gun as the exchange was dark. They took the photo and the exchange 'crashed' for no apparant reason. The exchange was rebooted and all was well. Sometime later another photo was taken and again the exchange crashed.

Can you guess why?

Well - the story goes that the circuit boards had EPROMs without lables. The light energy from the flash gun was NOT enough to erase them but was enough of a energy 'kick' to make the circuits malfunction (E = hf). This is one of the reasons for putting lables over the windows of the EPROM.

I can testify that when probing silicon die in open topped packages that circuit performance changes when you have light on them - I would imagine that the number of photons coming from a photo flash gun would be enough to stop a circuit working for a milisecond or so.

Tom.

Re: funny story about flash photography and telephone exchanges

*Message #11 Posted by **Ellis Easley** on 30 July 2003, 12:45 a.m.,*
in response to message #10 by Tom (UK)

> Quote:
>
> I can testify that when probing silicon die in open topped packages that circuit performance changes when you have light on them ...

I've heard of that too - apparently every silicon junction will behave as a photodiode.

Re: funny story about sheep and telephone exchanges

*Message #12 Posted by **Paul Brogger** on 29 July 2003, 10:30 a.m.,*
in response to message #6 by Ellis Easley

While we're on the subject of funny telephone circuits . . .

In the pre-Internet days, our library information services company had to lease and monitor its own network of multi-drop telephone lines connecting participant libraries with a shared database.

Our Montana (or maybe it was Idaho -- the memory is getting hazy) line suddenly started falling over randomly. As was typical in these situations, we had to get in touch with the regional telephone company and have them trace the circuit, leg-by-leg, to try to isolate the problem.

In the end, it was found this particular problem was caused by a rancher grounding his electrical fence to a local telephone junction box. Apparently, every time one of his sheep brushed the fence, libraries in the region lost their connections to our online system!

Re: Who knows more about this?

*Message #13 Posted by **Victor Koechli** on 20 July 2003, 5:11 p.m.,*
in response to message #1 by Matthias

WDT could have been 'Weinert Datentechnik', which is now Cynox (www.cynox.de). Perhaps there's still somebody there who knows something...

Cheers, Victor

Re: Who knows more about this?

*Message #14 Posted by **Mike (Stgt)** on 21 July 2003, 4:11 a.m.,*

in response to message #1 by Matthias

"BSH" is obviously for 'Bausparkasse Schwäbisch-Hall'. AFAIK they used Blanknuts. Pls keep this device save and sound till we meet in August. I'll show you some more about that BSH.

Ciao.....Mike

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hp calculator batteries

*Message #1 Posted by **Jennifer Seelye** on 20 July 2003, 2:12 a.m.*

Hello, We bought another hp calculator this weekend at a garage sale. It is in very good condition except the model tag is missing & the batteries are dead. After looking at pictures I determined that it is a 12c. Not quite as good a buy as the xpander from last weekend but not bad for $2.

Anyway, where is a good place to buy batteries for these calculators? I see calculators ALL the time that have dead batteries. I would like to keep a supply on hand to test these when I see them. I already printed the list from this site of rarity (it didn't help me today with no model # but we were guessing it was an 11c).

Also, which batteries will be needed to test most calculators? Are there 4 or 5 common types of batteries for hp's or are there more like 40 or 50 types?

Are there other good collectible brands to watch for?

Thanks for your help & suggestions, Jennifer

Re: hp calculator batteries

*Message #2 Posted by **Raymond Del Tondo** on 20 July 2003, 7:44 a.m.,*
in response to message #1 by Jennifer Seelye

Hi,

most common in HP LCD calculator are:

- LR44 (Pioneer series, Voyager series (10C,11C,12C,15C,16C)) These should last for at least 5 to 10 years in the Voyagers.

- N, Lady (HP-41,Clamshell series)

- AAA, Micro (Stretched Pioneers (HP-48..))

I don't count the 'new' models from the last two years, and the older LED models all use rechargeable pacs.

Raymond

Other collectibles

*Message #3 Posted by **Valentin Albillo** on 21 July 2003, 9:13 a.m.,*
in response to message #1 by Jennifer Seelye

Hi, Jennifer:

Jennifer posted: *"Are there other good collectible brands to watch for?"*

Indeed. You'd be well advised to be on the look for SHARP Pocket Computers. These are small handheld devices, some similar in size to the HP-12C you just acquired (other are a little larger but always pocketable), very good quality and extremely performant, which can be found at nearly throw-away prices, because people still haven't noticed its 'collectibility', to coin a word. They already command reasonably good prices on eBay, and are on the rising, look at these very recent auctions for example:

Sharp PC-1403

Sharp PC-1500A

Sharp PC-1250

Sharp PC-1211

I've seen some models (such as the SHARP EL-5100, 5100S, and 5101) reach $200 and more, and other equally desirable models (SHARP PC-1350, PC-1360, PC-1600) can reach $100-150 and more. If you want to know just how they look like so that you can recognize them on sight, visit this site:

Sharp Pocket Computers

Taking into account that they can be found for $1-5 at most garage ('garbage') sales, you can see the chance for profit. Specially since they are on the rising and there are more and more people who recognize quality when they see it and are more than willing to collect them.

Best regards from V.

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I think I did not understand this auction's subject

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 11:06 p.m.*

Hi, folks;

I'm sorry posting about such an off-line subject, but I saw so many auctions over the same theme I decided to see what was that about. It looks like those "MAKE MONEY FOR FREE!" messages I saw posted at the MoHPC forum sometime ago.

Have you seen this auction? There are some others like this. I tried to figure it out: it seems someone found a way to "acquire" (if it is the right way to use the verb) goods for no cost or about no cost. And now he/she is trying to sale the "way to do it".

Is it the auction's actual "subject"? If so, there is nothing to do with an specific "free HP48GX". This way, is it legal at e-Bay?

I just want to understand.

Thanks.

Luiz (Brazil)

Edited: 19 July 2003, 11:11 p.m.

Re: I think I did not understand this auction's subject

*Message #2 Posted by **Raymond Del Tondo** on 19 July 2003, 11:26 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi,

I don't know if it's legal, but IMHO this 'auction', like many similar ads, is just trash. I think it offers no real gain. It's like I would charge you money if I told you a way to make your house secure, namely by closing and locking the doors;-)

However, you remember the guy who offered different stuff on eBay for a relatively low BIN price, and then charged the 'winner' a massive amount for shipping...

Regards,

Raymond

If I am not wrong...(edited)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 11:40 p.m.,*
in response to message #2 by Raymond Del Tondo

Hi Raymond, Mark, guys;

I remember reading one auction where the seller mentioned his/her Grandma was too slow packing and it would cost...(?)

There are lots of things too much more important in the world than using the Grandma as an excuse, right?

Thanks, Raymond! Anyway, I still think the seller should not announce it as a free HP48GX.

Best regards.

Luiz (Brazil)

Edited: 19 July 2003, 11:44 p.m.

Re: If I am not wrong...(edited)

*Message #4 Posted by **Raymond Del Tondo** on 20 July 2003, 9:39 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Like Mark, I followed some of the items to their origin. It seems there's something like an eBay feedback pushing gang at work. Most of them do virtually nothing than giving and receiving positive feedbacks.

Maybe this could be interesting for the eBay legal department...

But OTOH, the sellers may just change their eBay pseudos, and start over again. So I fear there will always be some junk kids like those.

Raymond

Shill, spills, thrills

*Message #5 Posted by **bill platt** on 20 July 2003, 2:26 p.m.,*
in response to message #4 by Raymond Del Tondo

I too have followed stuff---Like this:

I found a 71B at auction, so I looked in the seller's feedback, and found the auction in which he had bought the unit, then I went into the previos seller's feedback, and found the auction when He bought it....

Interestingly, by the time the trail dropped, tyhree back, The 71b had been purchased for 250 bucks. That buyer sold it for about 130 (so lost some money, seems to me) and then that guy's action went for around 80 bucks----and so two epople in the cahin lost money----

But this was an unusual case, where I think there were actually fully ligitamate people buying and selling (at unwise prices) as I could see both buy and sell transactions in their records.

Most of the "power sellers" show NO buying activity, and most buyers show NO selling.

Further, I think there is a lot of shilling going on--because it is so EASY to do it!

Look at the bidders--almost all the time, you find a bunch of 1, 2, or 3 transaction bidders---now some of these are ligit----just new and inexperienced (I only have 10 feedbacks myself!). But others are surely shills.

Follow the experienced and successful buyers, and you will discover that tehy manage to buy stuff for WAY below the median price----calckidd is an excellent example. I have gone inot a number of acutions where "he" shows up, and he never stays in the running ifit goes anywhere near median price. If you check his records, you dicover that he gets stuff for way cheap---a 7Bfor like $50, a 48GX for like $25 or $35, etc.

So the savvy auction buyer make s a careful study of not only the product, but also the legitimacey of the auction.

Best regards,

Bill

Re: I think I did not understand this auction's subject

*Message #6 Posted by **Mark Hardman (LED)** on 19 July 2003, 11:27 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Its interesting to note that the seller has been registered for less than 24 hours and already has 16 positive feedbacks posted. If you follow each feedback to the original item, they consist of auctions for $1.00 or less selling an ebook, joke, etc. Each of these auctions openly promise positive feedback will be posted within 24 hours. This seller essentially purchased what looks like a bona fide eBay account in less than a day!

Let's see. Can you spell S-C-A-M?

How do you spell 'scam' in French, German, Korean, etc.?

Mark Hardman

Re: I think I did not understand this auction's subject

*Message #7 Posted by **Emmanuel, France** on 20 July 2003, 4:17 a.m.,*
in response to message #6 by Mark Hardman (LED)

Right. And he was only the buyer?!

Re: Not a registered user!

*Message #8 Posted by **gifron** on 21 July 2003, 1:29 a.m.,*
in response to message #7 by Emmanuel, France

I guess eBay didn't like his way of doing business either...

Re: I think I did not understand this auction's subject

*Message #9 Posted by **gifron** on 21 July 2003, 1:35 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

I checked into this deal (but did not buy it). Basically, they send you contact information for electronics manufacturers. You are to promote yourself as a retailer, and ask for a free sample of the product, which some mfr's will provide. You may in fact receive something free of charge, but every scam has its price.

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I think I did not understand this auction's subject

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CMT-300 multimeter for HP-41

*Message #1 Posted by **Bill Jensen** on 19 July 2003, 7:26 p.m.*

I have a CMT-300 Programmable Recording Multimeter for the HP-41, but have no manual, and haven't been able to locate one at any of the usual locations. Does anyone know where I might find a manual?

Thanks

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Another 41cx Q:

*Message #1 Posted by **Sean McNamee** on 19 July 2003, 7:05 p.m.*

How do I resize a file? I'm looking at the 41 extended fundtions manual, and I found flsize, but that only returns the size. Do you have to create a new file, and copy the data between the two?

Again, thanks...

Re: Another 41cx Q:

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 8:01 p.m.,*
in response to message #1 by Sean McNamee

Hi,

there is a way to resize ASCII and data files only in the HP41CX; the Extended Functions does not have this resource.

The function is RESZFL. File to be resized must be the working file, and the integer part of the number in X-register defines the number of registers that the file will contain.

Hope this helps.

Luiz (Brazil)

Edited: 19 July 2003, 8:02 p.m.

Re: Another 41cx Q:

*Message #3 Posted by **Victor Koechli** on 19 July 2003, 8:09 p.m.,*
in response to message #1 by Sean McNamee

RESZFL does just that: Put the number of registers you want to allocate to the file in the X register and execute RESZFL - voilà. You can increase or decrease a file's size this way. To force a size reduction of a data file even if used registers (those with a value orher than zero in them) would be lost supply the desired file size as a negative number.

RESZFL works on the current file, you cannot specify a file name. To make your file the current one you can use SEEKPTA (with the file name in the Alpha register and zero in X) or EMDIRX (with number of the file in X; e.g. if your file is the fourth in Extended Memory as listed by EMDIR or CATALOG 4, then you would put 4 in X and execute EMDIRX).

Actually, only the 41CX can resize a file this way, as RESZFL is not in the Extended Functions module, but only in the CX Extended Functions.

Hope this helps. Kind regards, Victor

Re: Another 41cx Q:

*Message #4 Posted by **Sean McNamee** on 19 July 2003, 8:30 p.m.,*
in response to message #3 by Victor Koechli

Thanks guys - one thing: since it is NOT part of the extended finctions, and is particular to the CX version of the 41, where in the hpmuseum CD-set of docs would I have found this? The index for calc manuals indicates that the documentation of the 41CX is the 41C/CV manual plus the extended functions manual - neither of which mention this function, ... ??

Thanks again

Re: Another 41cx Q:

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 9:12 p.m.,*
in response to message #4 by Sean McNamee

Hi, Sean;

the fact is that the HP41CX has an specific set of manuals. The exclusive CX functions, Time and X-functions related, are ony mentioned in the HP41CX Manuals.

Appendix I of the HP41CX Owner's Manual treats these differences. It is only six pages long. If you want, I can scan these pages and send them to you. In this case, should I use the e-mail you post here or another one?

Let me know.

Luiz (Brazil)

Re: Another 41cx Q:

*Message #6 Posted by **Sean McNamee** on 20 July 2003, 2:41 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hey - thanks! I guess the determining factor would be size. If they end up > 1M, please use seanm@cisco.com. Otherwise, the seanmc42@hotmail.com should be fine.

Re: Another 41cx Q:

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 20 July 2003, 2:11 p.m.,*
in response to message #6 by Sean McNamee

Hi, Sean;

your PDF with the comparison is on the fly right now.

As I mentioned in the e-mail, there is still another chapter (7 pages) describing [ED], a CX-exclusive ASCII-file editor. Please, read the e-mail and let me know what else you want.

Best regards.

Luiz (Brazil)

Re: Another 41cx Q:

*Message #8 Posted by **Sean McNamee** on 20 July 2003, 3:16 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Thanks! Regarding ED, that is described in one of the manuals I have (the extended funtions, I think), so I have used it - ED makes editing ascii files TOO easy! One issue I am having is that my pdf viewer (xpdf) runs REAL slow on my system, so just going to the next page is frustrating. I will most likely be taking the 41C/V manual to Kinkos for printing, possibly the extended manual, and your scans as well.

Thanks again!

Re: Another 41cx Q:

*Message #9 Posted by **Guillermo Castares** on 20 July 2003, 10:13 a.m.,*
in response to message #1 by Sean McNamee

I have written this little program and for me it's very useful:

01 LBL 'CUTFL

02 FLSIZE

03 ASROOM

04 7

05 /

06 INT

07 -

08 RESZFL

09 END

Put the file name in the alpha register and run the program. The file will be reduced to the minimun size without loosing information.

I normally create the file bigger than necesary, then I fill it it with the data, and finally I run this prog.

I hope that someone find it useful.

Regards, Guillermo

Re: Another 41cx Q:

*Message #10 Posted by **Sean McNamee** on 20 July 2003, 3:22 p.m.,*
in response to message #9 by Guillermo Castares

Cool program! I had the same idea, but hadn't coded it yet! What kinds of info do you guys keep in your calcs? Right now I have the names of a few of the file commands I thiink I might forget (as a new user).

Anyway, thanks for the great responses!

Another 41cx Q:

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11C - 2 Sellers same pic

*Message #1 Posted by **M. Anthony** on 19 July 2003, 6:34 p.m.*

2 different sellers on ebay have same picture. Item #'s 3035669969 & 3035970399

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HP71B: two questions

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 5:40 p.m.*

Hi, HP71B users;

my turn to ask questions.

I received one e-message mentioning the HP71B's ROM version. How can I know which version is mine? Serial # or some specific command?

I remember that BASIC variables are all set to "0" (empty?) and all definable variables for an specific BASIC environment exist anytime a program "call" their contents. This is not the same with C, where variables not "declared" in a program are taken as "error" if called. Anyway, based on what I saw so far, used variables in the HP71B consume memory space. Is there a way to list varable names already used somehow?

Thanks for any help.

Luiz (Brazil)

Edited: 19 July 2003, 5:41 p.m.

Re: HP71B: two questions

*Message #2 Posted by **Emmanuel, France** on 19 July 2003, 5:58 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

```
VER$ should give you the version of your HP-71B and plugged ROMs. If I remember well...
Yours.
```

Re: HP71B: two questions

*Message #3 Posted by **Sean McNamee** on 19 July 2003, 6:27 p.m.,*
in response to message #2 by Emmanuel, France

...and my turn to pay you back ;) Yes, VER$ gives version info, and DELETE ALL deletes the space used by variables. Also, you can DELETE specific vars by name.

Re: HP71B: two questions

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 6:44 p.m.,*
in response to message #3 by Sean McNamee

Hi, Sean;

thank you for the information. I read that DESTROY *names* and DESTROY ALL would "erase" variable contents. I was not know about DELETE being used the same way.

Now, is there a way to know which variables have their contents changed before "erasing" (deleting,

destroying) them? I thought about listing their names. Is it possible?

Thanks again.

Luiz (Brazil)

Re: HP71B: two questions - oops

*Message #5 Posted by **Sean** on 19 July 2003, 6:50 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Sorry - I meant DESTROY. Not DELETE. I tend to mix both of those as well as PURGE up.... I really have no idea about listing variables, let me find my manual and take a look.... (will post results)

Thanks Emmanuel and Sean

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 6:45 p.m.,*
in response to message #2 by Emmanuel, France

Hi, Emmanuel;

thank you. As Sean confirms your answer, you actualy remembered it well.

Best regards.

Luiz (Brazil)

Re: HP71B: two questions

*Message #7 Posted by **Victor Koechli** on 19 July 2003, 7:49 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

DESTROY <var> can be used to free the memory used by individual variables, and DESTROY ALL will delete all allocated variables in the current environment.

However, I have not found an obvious way to list the variables currently allocated. You would probably have to consult the Software IDS to find out where this information is stored, and peek it from the HP 71's allocation tables.

Cheers, Victor

That's what I was affraid of...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 8:13 p.m.,*
in response to message #7 by Victor Koechli

Hello, Victor;

I was affraid I'd have to "peek" RAM positions in order to seek for variables. I'm not aware of how is data organized in the HP71's RAM, I believe I'll find this information in the Internal Specs documents, as you mentioned.

I'd be delving into this subject with more "energy" if I had an HP71B, say, eighteen years ago, when I was actualy programming and working with assembly code. But I'll find the time to go further somehow.

Thanks a lot.

Luiz (Brazil)

Edited: 19 July 2003, 9:32 p.m.

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Two questions on 41cx programming

*Message #1 Posted by **Sean McNamee** on 19 July 2003, 2:53 p.m.*

It seems that you use GTO .nnn to get to a line #, but only a line # within the current program - how do I get to/edit/delete a program which I did not give a label to? (Meaning it doesn't have a LBL in it) This is unlike the 15C, where line #'s are global...

Also, where can I find detailed info on the math pac and other ROMS? I only found cursory info here...

THANKS!

Re: Two questions on 41cx programming

*Message #2 Posted by **Ernie Malaga** on 19 July 2003, 3:09 p.m.,*
in response to message #1 by Sean McNamee

Sean:

You should always use a global label in all your programs, if only to avoid the scenario you have described. To access a program that has no global label, you'll have to use the CATALOG function:

1. Execute CATALOG 1 and immediately press [R/S] to stop it.

2. Now go through the catalog by pressing [SST] time after time. You can also press [BST] to go back some entries.

When you reach a spot in the listing that has two ENDs in succession, you'll have it. That's the program without global label. Press [<-] to exit the catalog. You'll be placed (I think) at the END of that program. In any case, from now on you can use GTO . nnn at will.

-Ernie

Re: Two questions on 41cx programming

*Message #3 Posted by **Axel Poqué** on 19 July 2003, 3:22 p.m.,*
in response to message #1 by Sean McNamee

Finding a program is simple:

Enter CATALOG 1 (shift ENTER 1), and immediately press R/S. This puts you in the program catalog. Now you can step through the catalog using SST/BST. Programs without labels are identified via their end statement (eg. "END 18"). If you found the program you wanted, press <-. Now you can execute the program by pressing R/S, edit it in PRGM mode, or delete it with CLP (press XEQ ALPHA CLP ALPHA to exeute CLP, then ALPHA ALPHA, since CLP clears the current program if you don't supply a label).

For information on ROMs you could try ordering the MoHPC CD set, it has probably more manuals than you'd ever need

Axel

Re: Two questions on 41cx programming

*Message #4 Posted by **Thibaut.be** on 19 July 2003, 3:25 p.m.,*
in response to message #3 by Axel Poqué

You can also go to the other program with GTO.<ALPHA>PROGNAME<ALPHA>

Re: Two questions on 41cx programming

*Message #5 Posted by **Sean McNamee** on 19 July 2003, 4:11 p.m.,*
in response to message #3 by Axel Poqué

SCHWEET! I love this forum! Experts galore! Thanks guys! BTW: I DO have the CD set, but couldn't find the answer in the manual (looking at the programming section, didn't konw about using CAT command this way...). Cool.

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New pictures

*Message #1 Posted by **Matthias** on 19 July 2003, 10:37 a.m.*

Holidays: Finally I had the time to update my homepage. First of all I set up the HP part of it:

- 16 new pictures of calculators of my collection. - 8 new pictures of accessiores - new sale/trade list in .pdf for download

Everything can be seen unther http://www.hp-collection.org (the HP-collection is german AND english, also the guestbook). Feel free to comment the page and to find faults.

Matthias

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The 13 digit capability of the 15c (From Palmer Hanson...former TI PPC editor)

*Message #1 Posted by **gene wright** on 18 July 2003, 11:37 p.m.*

Hi all. This is part of an email that palmer hanson sent me. He is famous for being the editor of the TI PPC Notes for many years and to us HP fans as part of the Fast Calendar Printer challenge from around 1980. He had the fastest TI calendar printer program, which Roger Hill amazed us all by beating it with a very fast big 41c program. Anyway, what are your thoughts about the material below?

Valentin, this would seem to be right up your alley. :-) Remember, guys...Palmer hasn't spent years programming HP's, so if his program overlooks something, be NICE. :-) --Gene

---------- I have mentioned earlier that I was trying to understand the 13 digit capability which appeared in a footnote in the HP-15C Advanced Functions Handbook. I think I understand some of it and I used it to write a quadratic program for the HP-41 which uses 13 digits in the calculation of the determinant. I have added the draft of my documentation to this e-mail. When I figure out how to make attachments I will send it by that format. What intrigues me is the existence of a truncated (not rounded) 13 digit capability in an HP product. Do you remember the old HP vs TI comparisons in which the HP folks insisted that ten rounded digits were superior to thirteen truncated digits? AN EXTENDED QUADRATIC SOLUTION FOR THE HP-41 USING THIRTEEN DIGIT CALCULATION OF THE DETERMINANT We start with an arithmetic exercise using the statistical functions of the HP-41:

```
Consider the numbers  x   = 1.000007
                          y   = 1.000004
                      x^2 = 1.000014000049
                      y^2 = 1.000008000016
                      xy  = 1.000011000028
```

where the squares and the product round to 1.000014, 1.000008 and 1.000011 respectively on the HP-41. Perform the following sequence from the keyboard:

```
     CLSUM                clears the statistical registers
     1.000014 ST- 12      negative of the rounded value of x^2 to R12
     1.000008 ST- 14      negative of the rounded value of y^2 to R14
     1.000011 ST- 15      negative of the rounded value of xy to R15
     1.000004 ENTER
     1.000007 SUM+        adds x^2 to R12, y^2 to R14, and xy to R15

     press RCL 12 and see 4.9E-11 in the display
     press RCL 14 and see 1.6E-11 in the display
     press RCL 15 and see 2.8E-11 in the display
```

where the contents of registers 12, 14 and 15 contain the values which were discarded during rounding of the squares and product. If you reverse the sequence and do the statistical entry first and then subtract the rounded squares and product from registers 12, 14 and 15 you will find that there are zeroes in those registers. Another arithmetic exercise using the statistical functions:

```
Consider the numbers  x   = 111,111
                      y   = 1,111,111,111
                      x^2 = 12,345,654,321
```

```
                      y^2 = 1,234,567,900,987,654,321

                      xy  = 123,456,666,654,321

where in the HP-41 the squares and the product round to

                      x^2 = 1.234565432E10  displayed as 1.2345654 10

                      y^2 = 1.234567901E18  displayed as 1.2345679 18

                      xy  = 1.234566667E14  displayed as 1.2345666 14
```

where to see the actual ten digit mantissas you multiply the displayed values by 1E-10, 1E-18 and 1E-14 respectively.

```
Perform the following sequence from the keyboard:

     CLSUM            clears the statistical registers
     1,111,111,111
     ENTER
     111,111
     SUM+            adds x^2 to R12, y^2 to R14, and xy to R15
```

where we expect the rounded values to appear in those registers, and for example for y^2, by performing the following sequence

```
     RCL 14     1.2345679 18 in the display
     1
     EEX
     18
     CHS        1       - 18 in the display
     X          1.234567901  in the display
```

Now, perform the following sequence which, according to the description of the statistical functions on pages 103-104 of the owner's handbook, should remove the entered values from the statistical registers. If so, the values recalled from R12, R14 and R15 should be zeroes. But,

```
    RCL 12 yields -1
    RCL 14 yields 13,000,000
    RCL 15 yields 45,700
 /[pre]
The result in R12 can be obtained by subtracting the exact eleven digit square of 111,111 from
the HP-41 square of 111,111 with a ten digit mantissa; that is,
 [pre]
          1.234565432E10 is   12,345,654,320
                            - 12,345,654,321
                            =              -1
```

The results in R14 and R15 can be obtained by subtracting values for y^2 and xy which use truncated (not rounded) thirteen digit mantissas from values which use rounded ten digit mantissas; that is,

```
for R14   1.234567901E18 is   1,234,567,901,000,000,000
                            - 1,234,567,900,987,000,000
                            =                13,000,000

for R15   1.234566667E14 is   123,456,666,700,000
                            - 123,456,666,654,300
                            =              45,700
```

I obtain the same results with my HP-11C. I believe these results are a part of what was described as "... a tricky property of the Sum+ and Sum- keys whereby certain calculations can be carried out to 13 significant digits before being rounded back to 10" in a footnote on page 208 of the HP-15C Advanced Functions Handbook. I do not get similar effects with older HP calculators such as the HP-33C, HP-67 and HP-80. Pages 205-211 of the HP-15C Advanced Functions Handbook proposes eight cases for evaluating the ability of a quadratic program to solve

difficult cases. It presents a single precision program for the HP-15C which can obtain correct results for only three of the cases. It also presents a program which carries twenty digits during the calculation of the discriminant. That program obtains correct results for all eight cases, but uses eleven data registers. It is also quite slow. An equivalent program on my HP-41C runs for as much as ten seconds to obtainn a solution. In 1991 I wrote a similar program for the TI-59 which computes using truncated thirteen digit mantissas as opposed to the rounded ten digit mantissas used with the HP-11, HP-15 and HP-41. My TI-59 program obtained correct results for seven of the eight cases. It failed for the seventh case where the discriminant is the single digit difference between two twenty digit numbers. That program and similar programs for the TI-74, TI-81 and Casio fx-7000G are described on pages 8-13 of the Volume 14 Number 3 issue of TI PPC Notes. The four cases which a TI-59 program solves correctly but a single precision HP-41C program solves incorrectly all involve discriminants which are calculated as the difference between two numbers of more than 10 significant digits but less than 14 significant digits. Using the insight into the "tricky properties" of the Sum+ and Sum- functions derived from the numerical exercises above I decided to write an HP-41 program which carries 13 significant dgits during the calculation of the discriminant. Such a program should yield correct solutions to seven of the eight cases, use fewer registers and use less run time.

The program follows the convention in the HP-15C Advanced Functions Handbook where the quadratic is defined as c - 2bx + ax^2 = 0 and the discriminant is calculated as d = b^2 - ac . That definition reduces the size of the two parts of the discriminant by a factor of four. The program calculates the terms of the discriminant in two parts. The 10 most significant digits of are calculated in the normal manner. The 3 least significant digits are calculated using the "tricky properties". The most significant parts are combined before the smaller corrections for the least significant parts are made. The program uses only the six data registers associated with the statistics functions. The 3 least significant digits of the term ac which are accumulated in R15 are preserved by setting y = 0 during the accumulation of the 3 least significant digits of b^2 in R14. The user solves by entering the constants of the quadratic with the sequence c ENTER b ENTER and running the program. For real roots the program stops with one root in the display. The second real root is displayed by pressing x<>y. If the solution is complex Flag 0 is set. The program stops with the real part in the display. The imaginary root is displayed by pressing x<>y where + and - signs for the imaginary part are implied. Thr run time is of the order of one second. The program listing follows.

```
01 LBLtQUAD
02 CF 00
03 RCL Z
04 CL SUM
05 ST- 15
06 X<>Y
07 ST* 15
08 SUM+
09 CLX
10 STO 13
11 STO 14
12 RCL Z
13 ST- 14
14 ST* 14
15 X<>Y
16 SUM+
17 RDN
18 X^2
19 X<>Y
20 STO 12
21 RCL 11
22 *
23 -
24 RCL 14
25 +
26 RCL 15
27 -
28 X<0?
29 GTO A
30 RCL 11
31 RDN
32 SQRT
33 X<>Y
34 SIGN
35 *
36 +
37 STO 16
38 X<>Y
39 /
```

```
40 RCL 16
41 X =/0?  (X not equal to zero)
42 GTO B
43 CLX
44 GTO C
45 LBL B
46 RCL 12
47 X<>Y
48 /
49 STOP
50 LBL A
51 SF 00
52 CHS
53 SQRT
54 RCL 11
55 /
56 LASTX
57 RCL 13
58 X<>Y
59 /
60 STOP
61 END
```

This program will yield the correct answers to seven of the eight cases proposed in the HP-15C Advanced Functions Handbook. The exception is the seventh case from the text on page 211 where

```
c = 4,877,163,849, b = 4,877,262,613 and a = 4,877,361,379.  Then

   d = (4,877,262,613)^2 - 4,877,361,379 x 4,877,163,849

     = 23,787,690,596,167,587,769 - 23,787,690,596,167,587,771

     = -2
```

so that twenty significant digits must be carried to yield the correct answer for d. The following program is a conversion of the double precision program from pages 208-210 of the HP-15C Advanced Functions Handbook which will solve this case. The program runs for about ten seconds to obtain the solution. The roots are complex with the Re = 0.999979750 and Im = 2.8995463E-10. The HP-15C program requires 84 steps. My translation for the HP-41C requires 88 steps where the increase in steps is the lack of the combined commands such as RCL + which are used in the HP-15C program but are not available on the HP-41C.

```
01 LBLtHPQUAD
02 CF 00
03 STO 04
04 RDN
05 STO 06
06 STO 08
07 X<>Y
08 STO 07
09 STO 09
10 SCI 2
11 LBL A
12 CL SUM
13 RCL 08
14 STO 15
15 RCL 04
16 /
17 RND
18 RCL 04
19 SUM -
20 RCL 09
21 RCL 15
22 X<>Y
23 STO 15
24 RDN
25 X<>Y
26 RCL 08
27 SUM -
28 RDN
29 SUM -
30 RCL 15
31 ABS
32 RCL 09
33 ABS
```

```
34 X<=Y?
35 GTO B
36 ENTER^
37 R^
38 STO 08
39 RCL 15
40 STO 09
41 ABS
42 1 E20
43 *
44 RCL 07
45 ABS
46 X<=Y?
47 GTO A
48 LBL B
49 FIX 9
50 RCL 08
51 X^2
52 STO 15
53 RCL 04
54 RCL 09
55 SUM -
56 RCL 06
57 RCL 15
58 X<0?
59 GTO D
60 SQRT
61 RCL 06
62 SIGN
63 *
64 +
65 STO 16
66 X<>Y
67 /
68 RCL 16
69 X/=0?  X is not equal to zero
70 GTO C
71 CLX
72 STOP
73 LBL C
74 RCL 07
75 X<>Y
76 /
77 STOP
78 LBL D
79 SF 00
80 CHS
81 SQRT
82 RCL 04
83 /
84 X<>Y
85 R^
86 /
87 STOP
88 END


Palmer
```

Re: The 13 digit capability of the 15c (From Palmer Hanson...former TI PPC editor)

*Message #2 Posted by **hugh steers** on 19 July 2003, 3:44 p.m.,*
in response to message #1 by gene wright

interesting indeed.

this is a good example of something superficially trivial but actually complicated to do properly. of course anyone can bang out the textbook quadratic formula. but there are times like these examples when it just doesnt work.

i too have been through the material int the 15c advanced function handbook. i am wondering what is the most stable implementation of this problem (and more generally, polynomial roots). i dont really like the "trick" of using the stats to access extra precision as a general method, although theres no harm in making use of it on the

15c where its available.

here are some ideas ive tried...

(1) use the textbook formula and let d=b^2-4ac go a bit wrong, but then polish the roots using a single newton iteration with no loop. to fix d~0 multiple root problems, i add a small "hack" factor to the roots (eg multiply resp (1+1e-7) and (1-1e-7)) before the newton iteration and this works well to recover information lost in `d'. if you perform the newton iteration in complex mode and add a complex perturbation instead, you can also recover errors in the sign of d. ie whether you've got complex roots or real ones. what happens is the complex roots become real if d < 0 and shouldnt have been.

BUT, case7 fails in the above. this is because the newton iteration winds up repeating a b^2-4ac style calculation that leads to bits being lost. basically case7 has numbers too large to handle.

(2) compute the roots as eigenvalues of a hessenberg matrix. ive tried this too. ive also wondered if theres a suave way of using the matrix functions of the 15c to make this work with very little programming. anyway, you balance the matrix and this helps bad coefficients a lot. all the cases work except case7 again! where the algorithm doesnt notice the complex part and thinks you have two (slightly different) real roots.

this method is much more complex, but surprisingly stable. the other win is, memory permitting, you have a program for arbitrary roots of real-coefficient polynomials.

Very interesting post; thanks, Gene!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 3:57 p.m.,*
in response to message #1 by gene wright

Hello, Gene;

I printed it and read, did not try any of the examples neither the programs, but it's not exactly necessary to do it, because the text is quite clear and the subject is very well explained.

Thank you again for sharing with us all.

Best regards.

Luiz (Brazil)

No, thank Palmer!

*Message #4 Posted by **Gene** on 19 July 2003, 4:40 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

It is a real shame TI quit making higher end programmables when they did. The TI group had a lot to offer and the friendly competition helped both sides learn how to program better.

If only TI had introduced the TI-59 follow-up machine (The TI-88) instead of shelving it.

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we need more HP-34C posts

*Message #1 Posted by **Norm** on 18 July 2003, 10:01 p.m.*

we need more HP-34C posts ..... otherwise I run out of things to talk about

:o|

I'm sure there are other subjects as well (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 July 2003, 11:22 p.m.,*
in response to message #1 by Norm

Hey Norm, Mr. Analog guy...

What's that you're talking about?

You talk about LED's, analog stuff, Electronics in general... All of these subjects (and a lot more) fit here, too.

Wanna talk about HP34C programming and usage as well? RPN techniques? All of these subjects apply to other HP calcs, as well. The HP11C has many resources available in the HP34C; the HP15C offers solve and integrate as well. Programming the HP34C is not much different of programming the HP67/97 and both HP11C/15C.

And what about batteries? Woodstocks, Classics, Topcats and Spices use, as standards, rechargeable batteries. Not only the HP34C.

Power sources and power supplies also need analog knowledge. I thought I would read something from you when the subject was standard voltage references for calibrating the 3421A.

See? I'm a nosy guy, as you have already stated... Sometimes I talk too much, I know that. But if I do not ask, how will I know what's the answer?

I've been dealing with some routines for small electrical computations. Some of them fit in the HP34C. Have you tried something like this?

Sometimes I fell as looking for some thread to post messages, but I feel that I'd not add too much after all that's been posted. And sometimes I also wrote more than I should and it may bother some people. But I feel as if I'll always find place if I keep reading.

I think I wrote too much again...

What do you use your HP34C for? Now I'm curious: do you program as well or prefer using it as a daily support?

Best regards. In time: where in the h..k is Captain Zener?

Luiz (Brazil)

P.S. - you were mentioned here... See what I mean?

Edited: 18 July 2003, 11:28 p.m.

Like HP 45 (long)

*Message #3 Posted by **bill platt** on 18 July 2003, 11:42 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz,

You don't write too much--you are always a good read!

So, for old calculators, I reported here that I inherited an old HP 45 with a corroded battery pack. So just tonight, I cleaned out the compartment (I like these classic compartments MUCH better than that absurd gold-plated mylar disaster-waiting-to-happen foisted on the 41). And then I ran down some alkalines until they read 1.25 volts on my father's old US Army Signal Corps Volt-Ohmmeter (Simpson Model 324)-- It is much more fun testing vintage equipment with other even older vintage equipment--and I temporarily wired her up...

So, in short, she WORKS! WhooHoo!!

At first, she was sensitive to pressure on the on-off slider and would only function right if I put light pressure there. But then she apparently warmed up, and worked just fine.

One curiosity, though, is that after running continuously for 10 minutes, the alkaline cells became quite warm. I guess the 0.50 Amps rating stamped on the back is for real! I hope this is not a sign of trouble....

So, next is a more time consuming part---building a new battery pack---but I see some more resources here on that.

Oh, and this calculator got daily use for an engineer's entire career--she shows the wear and tear of a consciensious owner--but all the buttons still work just fine (much better than my recently acquired beat-up 15c) although some of them are a bit softer than others. I think it is really a wonderful thing that this product, made in the 70's--the time of Viet Nam, Israel-Arab Conflict, OPEC Oil Embargo, Stagflation, Disco, Double-knit Polyester, Toxic Waste, LSD and the Clean Water Act, has lasted so long after so much use! (Like, you expect old Victorian Iron to age gracefully, but 70's plastic--what a wonderful surprise!).

Here's the heretical statement--she reminds me of my father's old TI from the 70's---the shape of the keys, layout, the whole RED LED Brick thing---except just more SOLID and SERIOUS (so i guess not so heretical of me after all...)

OH, and serial number:

1349A 20320

regards,

Bill Platt

Edited: 19 July 2003, 12:03 a.m.

Hey Bill,

*Message #4 Posted by **Norm** on 19 July 2003, 2:34 a.m.,*

in response to message #3 by bill platt

Hey Bill,

I think it is really a wonderful thing that this product, made in the 70's--the time of Viet Nam, Israel-Arab Conflict, OPEC Oil Embargo, Stagflation, Disco, Double-knit Polyester, Toxic Waste, LSD and the Clean Water Act, has lasted so long after so much use!

You left out "Brady Bunch".

It was the time of "Brady Bunch".

I just watched the "Brady Bunch movies" a movie plus sequel from the 1980's, very sarcastic and cynical. Even the movies made for a good look backwards in the rear view mirror..... according to the movie plot, the Brady's were still wearing their polka dots and flowers and bright polyesters even in the 1980's, except by then all the punk rockers in black leather are giving them the bird.....

It all fits together ... The olden days were better !!

And the Partridge Family;-) (no text)

*Message #5 Posted by **bill** on 20 July 2003, 10:36 p.m.,*
in response to message #4 by Norm

!

Re: we need more HP-34C posts

*Message #6 Posted by **tony** on 19 July 2003, 12:50 a.m.,*
in response to message #1 by Norm

Norm, I don't have a 34C, but I have a 38C. I leave my cell phone sitting next to it. When a txt message comes in it drives the 38C crazy!! It seems to write and run a 38C program!! Honest. Great error sequences.

Old HP calculators are radio stations

*Message #7 Posted by **Norm** on 19 July 2003, 2:38 a.m.,*
in response to message #6 by tony

Everybody knows that old HP calculators are radio stations.

You set up teh calculator to run a program, and then you set it next to an AM band radio. It's very interesting.

We were doing that even back when those units were brand new.

If it goes wacko with a cellphone next to it, that's just showing the reverse susceptibility, something that we did not try to observe in the olden days.

I would suggest not doing that..... keep the calculator away from the cellphone so not causing the unit to malfunction..... while unlikely, it could cause some sort of permanent silicon damage ("2 disease").

I kind of like the old calculators behaving like radio stations..... "FCC Part 15 sucks!"

Re: Old HP calculators are radio stations

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 19 July 2003, 1:21 p.m.,*
in response to message #7 by Norm

Hi, Norm:

Switching the "large" currents of a LED multiplexed display is a good manner to make a lot of electric noise... As you are an analog guru, yu may even be able to calculate the power of such noise. While I consider myself a digital EE, from your same timeframe, I also did a little of analog work certainly of little value (using LM340, CA3140, SN723, etc...)

As the LED current varies with display settings, a PAUSE with a 1 in the x-register and with FIX 0 "sounds" different than a 0 on FIX 9. As students, we used this rather crude technique to signal program status while working on other things. I described this trick in my article "Calculator Memories from Argentina", posted in the Memories Forum. Indeed, the HP41 BEEP was a welcome improvement for such purposes!

While I respect your HP34 fondness (I used a friend's -34 for a while around 1980), my favories are HP25, 41 and 42.

Regards,

Andrés

PS: And also thanks a lot for CZ duty protecting all those Woodstocks and Spices out there!!

Re: Old HP calculators are radio stations

*Message #9 Posted by **Ernie Malaga** on 19 July 2003, 3:11 p.m.,*
in response to message #7 by Norm

Norm:

The static produced by the classic calculators is nothing compared to that produced by early TI calculators such as the SR-51A. I remember testing this on an AM radio, and the TI produced much more static.

-Ernie

Re: Old HP calculators are radio stations

*Message #10 Posted by **Axel Poqué** on 19 July 2003, 3:42 p.m.,*
in response to message #9 by Ernie Malaga

I just tried a few of my calculators:

My HP-41CX (built 1988) is clearly audible, you can hear keypresses and programs, and you can also hear it count down to sleep mode (a slowly rising high-pitched noise, which ends when the calc shuts off). Attaching a printer (and using it) changes the noise quality as well.

The HP-48GX (1994) is also clearly audible, although is not as loud as the 41. Individual key presses sound a bit like a cash register or a printing desktop calculator.

I also tried a 1976 TI-30 - the loudest part is the LED display, you can tell the number of digits displayed from the noise level, but calculations (trig functions) have their charcteristic noise, too.

A ~1990 Casio fx5000p has also a clearly audible display driver, the 8-segment part of the display

produces an almost clear tone, while the dot-matrix part is rather noisy.

...oh the fun of playing around with calculators :-)

Axel

I tried to send you an e-mail, Ernie.

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 19 July 2003, 8:21 p.m.,*
in response to message #9 by Ernie Malaga

Hello, Ernie;

I tried to send you an e-mail and I received this message:

```
The original message was received at Sat, 19 Jul 2003 17:02:54 -0300
from [xxx.xxx.xxx.xxx]


   ----- The following addresses had transient non-fatal errors -----
<kajzero@earthlink.net>


   ----- Transcript of session follows -----
451 <kajzero@earthlink.net>... earthlink.net: Name server timeout
Warning: message still undelivered after 4 hours
Will keep trying until message is 5 days old
```

Should I try to send the message to another e-mail address or simply wait?

Best regards.

Luiz (Brazil)

Edited: 19 July 2003, 8:26 p.m.

Re: I tried to send you an e-mail, Ernie.

*Message #12 Posted by **Ernie Malaga** on 19 July 2003, 8:53 p.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

Luiz:

The address you used is correct. I thought maybe you had neglected to remove the NOSPAM string, but you did.

I do not have any other email addresses. Try it again, please.

-Ernie

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Semi-blanknut 41CX

*Message #1 Posted by **David Smith** on 18 July 2003, 3:59 p.m.*

I recently came across a rather strange HP beastie. It is an HP41CX blanknut, but the upper rows of keycaps have the shot molded legends. These keycaps on a standard blanknut do not have shot molded legends.

The keyboard background is a standard blanknut unlabeled black. The front label is gold and just says "Hewlett Packard" without any "41CX".

This unit came with an HP-IL interface to a custom data acquisition box.

Re: Semi-blanknut 41CX

*Message #2 Posted by **Gordon Dyer** on 18 July 2003, 6:58 p.m.,*
in response to message #1 by David Smith

Sounds like a special made for a company.
Can you post photos?
Thanks.

Faked blanknuts

*Message #3 Posted by **Mike** on 18 July 2003, 7:03 p.m.,*
in response to message #1 by David Smith

I once saw a 41 that was purported to be a blanknut. However, under close inspection, it looked like the key legends had been buffed off.

The blank keyboard background had the tabs (that fit in slots) that you see on a normal blank overlay.

So, it looked like someone just faked a blanknut. Pulled the old legend off and applied a blank template (forgot to remove the tabs and buffed off the key legends.

Is there any way to tell a blanknut other than the blank background and missing labels on the keys?

Re: Faked blanknuts

*Message #4 Posted by **David Smith** on 19 July 2003, 2:42 p.m.,*
in response to message #3 by Mike

This one is definitely the real thing. Proper blanknut background and the front label is correct for a blanknut. No signs of buffing, etc. Also it came from a very reliable source (a university junk pile... for free). I won't have any way to do digital photos for a while.

I suspect that it was either a custom-custom ordered unit or HP accidentally picked up a normal keyboard and applied the blanknut labels to it when sombody ordered Option 001.

I have a couple of HP25C units that had similar manufacturing errors. One has a 25C front label without the "Continuous Memory" script on the keyboard. Another has the "Continuous Memory" script but a normal HP25 front label. Both came from sources (and at prices) that had no motive to mess with faking.

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HP 25 -> HP25C

*Message #1 Posted by **Victor Koechli** on 18 July 2003, 7:54 a.m.*

Hi all, I'm wondering if it is possible to turn an 'ordinary' HP 25 into an HP 25C. Can it be done? Thanks, Vic

Re: HP 25 -> HP25C

*Message #2 Posted by **David Smith** on 18 July 2003, 3:46 p.m.,*
in response to message #1 by Victor Koechli

The easiest thing to do is drop a 25C circuit board into a 25 case/keyboard. Otherwise you would have to mount the 25C RAM chip onto the HP25 circuit board and modify the power supply, etc.

Re: HP 25 -> HP25C

*Message #3 Posted by **hugh** on 18 July 2003, 7:26 p.m.,*
in response to message #2 by David Smith

ha! on the ti-57 you could do this in software :-)

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[OT] Babelfish automated translations :-)

*Message #1 Posted by **Valentin Albillo** on 18 July 2003, 6:02 a.m.*

Re the subject of automated translations recently seen on this site, when I have to use them in order to translate some text to a language I know next to nothing about, the best strategy I've found to diminish the danger of sending out utter nonsense is to translate *back* to English the resulting foreign translation. If the translation back to English is still sort of understandable, then there's a good chance that the foreign text is also more or less correct.

On the other hand, if the translated-back text has nothing to do with the original, you can bet that the foreign text is garbage too, and it will do you no good to actually send it that way. In that case, try to reformulate your original English text using simpler constructions and words, till the translated-back text comes out ok.

Want some funny examples ? Look at these results I've just got using Babelfish (Altavista's Babelfish Translations). Sending out the translated Spanish text without back-translating verification would make you sound like a Martian, and a pretty dumb one at that ... (as all Spanish-speking visitors will see, the translated spanish text is already utterly absurd, but translating it back to English is just kinda surrealist ! :-)

- Original English: **The spirit is willing but the flesh is weak**

  Correct Spanish translation: El espiritu es fuerte pero la carne es debil

  Babelfish's translation to Spanish: El alcohol está dispuesto pero la carne es débil

  Babelfish's translation back to English: ***The alcohol is arranged but the meat is weak***

- Original English: **A nod's as good as a wink to a blind horse**

  Correct Spanish translation: A un caballo ciego, le da lo mismo que le digas que si con la cabeza o que le guiñes un ojo

  Babelfish's translation to Spanish: Un cabeceo tan bueno como guiña a un caballo oculto

  Babelfish's translation back to English: ***A as good pitching as yaws to an hidden horse***

- Original English: **All work and no play makes Jack a dull boy**

  Correct Spanish translation: Todo trabajo y nada jugar hacen de Jack un chico aburrido

  Babelfish's translation to Spanish: Todo el trabajo y ningunas marcas Gato del juego un muchacho embotado

  Babelfish's translation back to English: ***All the work and no marks Cat of the game a dull boy***

- Original English: **Do unto others as you would have them do unto you**

  Correct Spanish translation: Haz con otros lo que quisieras que hicieran contigo

  Babelfish's translation to Spanish: Haga a otros pues usted hizo que hicieran a usted

Babelfish's translation back to English: ***Do to other because you caused that they did you***

- Original English: **I'm considering parting with a mint 41 for a nib 15c, display ok, no mushy keys, will throw in a couple of blank mag card pacs for good measure**

  Correct Spanish translation: Estoy considerando deshacerme de una 41C en perfecto estado por una 15C nueva en su caja, pantalla perfecta, sin teclas duras de accionar, de regalo incluire un par de paquetes de tarjetas magneticas virgenes

  Babelfish's translation to Spanish: Estoy considerando el dividirme con una menta 41 para una semilla 15c, autorización de la exhibición, ningunas llaves pesadas, lanzaré en un par de los pacs en blanco de la tarjeta del mag para la buena medida

  Babelfish's translation back to English: ***I am considering dividing to me with a mint 41 for a seed 15c, authorization of the exhibition, no heavy keys, will send in a pair of pacs in target of the card of mag for the good measurement***

  This last, typical example, is even *worse* in the Babelfish Spanish translation than it looks, because the Spanish translation for "mint", which is "menta" has nothing to do with *quality* or *pristine*, it's just an aromatic *plant*. This means "menta 41" is utter *nonsense*, seems like a brand name for some kind of aromatic liquor or something.

  Similarly, "llaves" (translation of "keys") are those things you use to *open doors* and such, and have nothing to do with the keys you use in a keyboard, that would be "teclas" in Spanish. So "llaves pesadas" (literally "heavy door keys") makes you think of those big room keys you're provided with in some hotels to prevent you from carrying them out in your pocket and losing them. Pretty *far* from the original meaning of "mushy keys", uh ? :-)

Best regards from V.

..

Edited: 18 July 2003, 7:52 a.m.

Re: [OT] Babelfish automated translations :-)

*Message #2 Posted by **David Smith** on 18 July 2003, 3:45 p.m.,*
in response to message #1 by Valentin Albillo

The last time I checked (German <--> English) FREETRANSLATION.COM seemed to do quite a bit better job than BABELFISH.

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12c Platinum Perpetuity challenge

*Message #1 Posted by **tony** on 18 July 2003, 4:17 a.m.*

If you have an unemployed 12cP, see if it will solve for i for this transaction:

f CLEAR FIN

360 n

100 PV

10 CHS PMT

i

My 12cP has taken 3.25 hours on this so far. I was wondering if all 12CP behave the same way. The answer is 10. This is a really elementary transaction, but even the gold 12C makes rather a meal of it, taking 25 seconds (normally it finishes within 12 or so seconds). I have heard that the 12CP is "sold out" in Hong Kong, and wonder if this is happening elsewhere. maybe a new ROM is in the works? If so, then this n=360 example will be a good test of it.

Re: 12c Platinum Perpetuity challenge

*Message #2 Posted by **Pierre Brial** on 18 July 2003, 7:47 a.m.,*
in response to message #1 by tony

My 12C made in Malaysia in 1999 take 24.28" to perform the test. I'm surprised of the bad result of the 12cp. May be it isn't as smart as the nice pictures of it on hp website let believe ? Or may be the 1970-80 calculator advanced technology is definitely lost now ?

All the Best

Pierre

Re: 12c Platinum Perpetuity challenge

*Message #3 Posted by **tony** on 18 July 2003, 1:06 p.m.,*
in response to message #2 by Pierre Brial

Yes, the gold 12C is rock-solid. My 12CP is still "running" after 12 hours now. Very good battery life!<G>

The funny thing is I am sure this test did work before, but maybe I just finished it with ON ON <G>

I don't think I've seen any TVM implementation by HP or otherwise (Sharp, TI) where an elementary case like this never converges.

Yes, apparently the 12C source code was "lost" by HP, which is quite bizarre in itself! The old knowledge is not lost, it is just a little more tricky to implement than at first glance. Compound interest has an almost trivial appearance, as (1+x)^n, where x is typically a "small" number, *seems* so simple. I guess the 12CP i-solving is just an example of what can happen if a company simply "outsources" software development to the cheapest provider, assuming that "anybody can do this trivial stuff"? All we need is another development cycle, probably.

The 12CP just needs a new ROM.

n=360,PV=10,PMT=-1 will be a good check of it :)

Re: 12c Platinum Perpetuity challenge

*Message #4 Posted by **Pierre Brial** on 18 July 2003, 3:59 p.m.,*
in response to message #1 by tony

I just try the test with another old "grognard", a TI-59 bought in 1979. There is a TVM program in the standard module. It takes 1' 42" to solve the problem. Less good than the 12C, but far best than the 12cp ! Someone have an hp-80 (the first financial calc !) to try Tony's test ?

All the best

Pierre

Re: 12c Platinum Perpetuity challenge

*Message #5 Posted by **Doug Burkett** on 18 July 2003, 10:44 p.m.,*
in response to message #4 by Pierre Brial

<<I just try the test with another old "grognard", a TI-59 bought in 1979.>>

The TI Voyage 200 Finance flash app finds the result in less than one second.

I had planned to get a 12cp for my wife so I could permanently add her 28C to my collection. Guess I'll wait.

P.S. 'gorgnard' - I love that word ...

Re: 12c Platinum Perpetuity challenge

*Message #6 Posted by **bill platt** on 18 July 2003, 4:35 p.m.,*
in response to message #1 by tony

Hi Tony,

Where is Norm when we need him? OK, I'll fill in for him....."there is only one way to improve the platinum--put it on the railroad tracks and come back after the midnight freight train has rolled through."

Judging from the number of bugs I have heard about here and at comp.sys.hp48, it seems that this product should be cancelled--or re-designed.

Did you here about the programming bug? Apparently it cannot handle a GTO if it is placed past line 252 (or is it 253)?

And there are others.....

Regards,

Bill

Re: 12c Platinum Perpetuity challenge

*Message #7 Posted by **Ernie Malaga** on 18 July 2003, 8:23 p.m.,*
in response to message #1 by tony

Tony:

Your post reminded me of a similar case with IBM System/36. In this minicomputer, you could perform calculations

in its Operation Control Language (OCL) like this:

// EVALUATE P1=1000000000/1

...which would divide 1E9 by 1. Simple? You bet. The problem was in IBM's implementation -- repeated subtraction. So the poor machine had to repeat 1E9 subtractions. That IBM could implement such brain-dead algorithm I still find unbelievable.

I never ran this test, but similar ones (with less zeroes).

-Ernie

Re: 12c Platinum Perpetuity challenge

*Message #8 Posted by **tony** on 18 July 2003, 9:15 p.m.,*
in response to message #7 by Ernie Malaga

Interesting! Yes, would be slow<G>. But would at least finish - I stopped by 12CP after about 13 hours. I assume it would simply run the batteries flat, and probably wipe my program memory as well.

Re: 12c Platinum Perpetuity challenge

*Message #9 Posted by **Les Bell [Sydney]** on 18 July 2003, 8:42 p.m.,*
in response to message #1 by tony

My 41CX with Financial Pac took 28 seconds.

Seems to me that the 12CP is a fitting symbol for the New HP.

Best,

--- Les [http://www.lesbell.com.au]

Re: 12c Platinum Perpetuity challenge

*Message #10 Posted by **tony** on 18 July 2003, 9:10 p.m.,*
in response to message #9 by Les Bell [Sydney]

yep, the financial pac is pretty stable. I just tried my 41cx with the PPC ROM "FI" and it gives the 10 almost instantly (~1 second I guess) The "FI" article in PPC ROM User's manual pp148-164 is an absolute classic. Got me interested in TVM when i saw it back in 1982. Graeme Dennes and Don Dewey did a great job.

To be fair on the new HP I'm sure quite a lot of effort went into the 12CP. Maybe just one final iteration of the ROM is required. Maybe two :-)

Re: 12c Platinum Perpetuity challenge

*Message #11 Posted by **Thomas Cox** on 18 July 2003, 9:04 p.m.,*
in response to message #1 by tony

Try the same problem on HP 48GX with built-in TVM solver, get correct answer in about 2 seconds. Same approximate time on TI Advanced Business Analyst.

How can one rate a calculator as satisfactory unless it can correctly solve routine problems in a reasonable amount of time?

Re: 12c Platinum Perpetuity challenge

*Message #12 Posted by **tony** on 18 July 2003, 9:29 p.m.,*

in response to message #11 by Thomas Cox

yep, after the 12C all HP TVM run on the faster Saturn chip, which probably disguises algorithmic deficiencies. Seems like the 12CP managed to escape from beta-testing too soon!

Maybe it should be code-named "Houdini" :)

Or maybe HP have a cunning plan to issue another ROM anyway, after a public beta-testing phase.

In a way it lives up to it's name, "Platinum" if one remembers the broad nosed "platypus", or the "platykurtic" distribution, and interprets "broad" as meaning "long time". Yes, indeed, maybe it will produce an answer to this perpetuity, a new category of "answer" ... not a real number or an imaginary number but .. a platy-number<G>

Accuracy × Internal # of digits

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 18 July 2003, 11:44 p.m.,*
in response to message #1 by tony

Hi, folks;

I could not help myself not adding an spiced comment: could we consider the following situation as feasible?

If, only if, original HP12C code was kept and a virtual HP12C runs to emulate it (most likely it's not what happens here), what's the chance that the interactive [i] computing that used to deal with 12-digit mantissa numbers now runs with a 16-digit base? What sort of approach we would find as for "A=B?" when iteractive calculus goes from (+) to (-) around the "zero" a lot of times more frequently? If the iteractive procedure converges with 12-digit mantissa numbers in a couple of seconds, what would it happen if the same process now handles a 16-digit mantissa base number? I'm not sure if I read this informatin here, but the HP12cP processor handles 16-bit mantissa numbers. If original HP12C code runs in an emulator that handles 16-bit mantissa numbers, I understand that at least relational operators will be simulated in the 16-digit "machine", and they will return "true" or "false" based on that. I wonder about what sort of beast we are dealing with...

Well, this is just a guess.

Luiz (Brazil)

Re: Accuracy × Internal # of digits

*Message #14 Posted by **tony** on 19 July 2003, 12:44 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

I don't know the answer. Visually the 12cp has a 10 digit mantissa. Arithmetically the 12cp processor seems to be fine. My impression is that the i-solving exit criterion is somehow "too tight". Only slightly so - it is hard to find cases that seemingly never converge. Also the i-solving algorithm itself is apparently inefficient - my guess is there is a simple coding mistake as it is quite easy to slow it down this way. In a way it is a remarkable under-achievement - who would have thought HP could have invented the worst i-solver ever seen in any financial calculator ever manufactured? That is what seems to have happened. I have never seen anything like it, made by HP, Sharp or TI. Makes it VERY collectable! I am sure the traditional HP quality will show in the next version :)

Worst case of wishful thinking

*Message #15 Posted by **Valentin Albillo** on 19 July 2003, 1:12 a.m.,*
in response to message #14 by tony

Tony posted:

"In a way it is a remarkable under-achievement - who would have thought HP could have invented the worst i-solver ever seen in any financial calculator ever manufactured?"

Noone, because as you fully well know, though you pretend not to, HP "invented" nothing. This "worst i-solver" was "invented" by Kinpo, which is the real manufacturer of the piece of crap called HP-12C Platinum. HP had nothing to do with this, except commission Kinpo to manufacture said crap and pay the bill.

"Makes it VERY collectable!"

Only if you happen to collect crap and garbage. Would you also call the HP6S, etc, "very collectable" ? I'm glad I'm no such kind of collector.

"I am sure the traditional HP quality will show in the next version :)"

Worst case of wishful thinking I've ever seen, unless you're saying it tongue-in-cheek. How on Earth can "traditional HP quality" show on any calculator NOT manufactured by HP ? If your, say, excellent cook aunt Gussie were to commission her excellent cookies to some cheap-as-hell Taiwanese cook, would they still be aunt Gussie's "traditional quality cookies" ? Come on !

HP will *never* again put on the market anything but Kinpo crap, real garbage if I ever saw one, at luxury prices. I know of several business people very fond of the original HP-12C that wouldn't touch an HP-12CP with a ten-feet pole.

If HP collecting means having to acquire, pay for, and pretend that one likes, such filthy products, I'm extremely happy having turned to collecting vintage Sharp machines instead. That's quality, man.

Best regards from V.

Re: Worst case of wishful thinking

*Message #16 Posted by **tony** on 19 July 2003, 3:28 a.m.,*
in response to message #15 by Valentin Albillo

Valentin - I live in hope. For me the 12CP is quite close to being useful, in spite of it all. I know HP sort of out-sourced it, but as it is branded "hp" I assumed they must take an interest in its quality.

I will agree with you if there is no replacement, or if they publically just pretend it is wonderful, but I like to give them a second chance.

Re: Worst case of wishful thinking

*Message #17 Posted by **Ernie Malaga** on 19 July 2003, 3:20 p.m.,*
in response to message #16 by tony

> Quote:
>
> Valentin - I live in hope.

"Blessed be those who hope for nothing, for they shall not be disappointed."

-- Murphy's Laws

Like you, I used to hope that HP would wake up and smell the coffee. It hasn't. It isn't. And, more than likely, it won't. I have no choice but to side with Valentin.

-Ernie

Sharp

*Message #18 Posted by **bill platt** on 19 July 2003, 10:49 p.m.,*
in response to message #15 by Valentin Albillo

Hi Valentin,

Do you have one of these?

http://home.earthlink.net/~plattdesign/

It is really built like a tank, and running fine.

regards,

Bill

Re: Sharp

*Message #19 Posted by **Valentin Albillo** on 21 July 2003, 4:24 a.m.,*
in response to message #18 by bill platt

Thanks for bringing it to my attention, but I only collect machines I intend to use and write programs for, and those are always high-end models, which in the case of the Sharp machines means programmable in BASIC, from the Sharp PC-1211 upwards.

The only exception is a wonderful Sharp EL-5101, which can accept an 80-step algebraic formula but it's not fully programmable. Not that it matters at all, as both this model and the rest of its family (EL-5100, 5100S, etc) are arguably the most beautiful calculators ever released.

Best regards from V.

Call off your dogs, guys!

*Message #20 Posted by **Karl Schneider** on 19 July 2003, 1:53 a.m.,*
in response to message #1 by tony

Y'all --

Despite the modest numbers involved, this problem is anything but numerically "routine"! Furthermore, the ratio of interest paid to principal is 36:1 (10x360 / 100)-- not very realistic.

Tony's challenge:

> Quote:
>
> If you have an unemployed 12cP, see if it will solve for i for this transaction:
>
> ```
> f CLEAR FIN
> 360 n
> 100 PV
> 10 CHS PMT
> i
> ```

Filling in some "blanks" in the problem:

```
FV = 0
1 pmt/yr (if not using 12C/P)
END mode for payments
```

I, like others, got quick answers of 10% interest, using the 17Bii, 48G, and 49G (my 12C is at my workplace). However, just by doing the cash flow, you will see that exactly 10% is NOT a valid solution. The actual solution is just under 10%, by some amount not representable by the number of working digits in the calculators.

-- At 0% interest, only 10 payments are required, so 360 payments causes an overpayment of, e.g. $3500.

-- At 9% interest, amortization still results in overpayment, after which the interest (now being paid to the borrower) explodes into a FV of $3.3 x 10^14!

-- At 10% interest, $10 accrues on the $100 principal, matching the $10 payment for the period. At this rate, the principal will NEVER get paid. (Regrettably, some people get into credit-card traps like this.)

On the 17Bii, 9.99999999999% is as close as one can enter to 10%, resulting in an FV of 79,500 -- not very close.

If N = 285 payments, however, the 17Bii gives i = 9.99999999998%, which gives an exact solution.

So, in short, the "classic" units quickly give a very close, but incorrect answer to Tony's problem, while the 12CP gets lost trying to arrive at the unreachable correct answer. The former approach is certainly more "graceful" and therefore preferable, but we shouldn't call the 12CP incompetent solely on the basis of this problem.

-- Karl

Re: Call off your dogs, guys!

*Message #21 Posted by **tony** on 19 July 2003, 3:19 a.m.,*
in response to message #20 by Karl Schneider

Almost any tvm problem represented on a finite digit mantissa/exponent machine has the characteristics you mention - more than one solution for one of the parameters, either just in units in last place, or in the large. That's the nature of compound interest and the software has to handle it. The example i gave is just the tip of the iceberg.

12CP TVM algorithm and Tony's example

*Message #22 Posted by **Karl Schneider** on 20 July 2003, 3:26 a.m.,*
in response to message #21 by tony

Tony stated,

> Quote:
>
> Almost any tvm problem represented on a finite digit mantissa/exponent machine has the characteristics you mention - more than one solution for one of the parameters, either just in units in last place, or in the large. That's the nature of compound interest and the software has to handle it. The example i gave is just the tip of the iceberg.

I agree with your sentiments, and believe that some sophistication was lost in the 12CP's TVM algorithm. The original HP models handled these "impossible-to-solve-accurately" cases gracefully by provided the closest possible answer, then stopping. The 12CP, by contrast, probably toggles *ad infinitum* between two or more nearby results that aren't good solutions.

However, the example you provided is not quite "elementary" (as you suggested), or "routine", as Thomas Cox suggested. In fact, the quick answers other calculators provide are *not correct* within reasonable accuracy. The *calculated* future value in your example is extremely sensitive to small changes in the interest rate, making the interest value literally impossible for the machines to find, using their built-in financial equations with the number of significant digits available.

The "closest possible answer" of interest rate provided by the 12C and other originals in this example and in similar ones, is the one at which accrued interest balances the payment:

```
i = -PMT * 100 / PV
```

Using this solution for "i", FV = -PV can correctly be calculated for the 17Bii (although FV = 0 was originally requested); the 12C will incorrectly calculate FV = 0.

Using the calculated value of "i" and FV = 0, neither the 12C nor the 17Bii will be able to calculate N, and

they will tell you with an error message. Does the 12CP? -- probably not.

Can you provide a specific example in which the 12CP cannot calculate a correct answer that it ought to be able to, or takes way too long to do so? I would suggest trying a more-conventional TVM problem, with total payments not greater than 5x the principal.

Regards from Karl S.

Re: 12CP TVM algorithm and Tony's example

*Message #23 Posted by **tony** on 20 July 2003, 4:02 a.m.,*
in response to message #22 by Karl Schneider

Ok here is one with PMT=0 where the 12CP gives the wrong answer for i.

n=E7 i=E-14 PV=1 PMT=0 solve for FV=-1.000000001

resolve for i. the 12CP instantly gives zero exactly. the 12C gold gives 9.999999995E-15

So, the 12CP thinks that n*PMT+PV+FV=0, which is incorrect. Here we see the opposite extreme to the 12CP providing no answer in a finite period of time - a wrong answer instantly.

Instead of the perpetuity, which was an example of a loan, let us make this one a savings case with PMT=1, and set "END". Solve for FV=-10,000,001.01 (requires i=E-14)

Resolving for i on the 12CP takes 0ver 10 minutes and gives E-13. resolve for FV again and you get "5" instead of "1' in the last place.

By contrast the gold 12C gives 1.999999799E-14 in 4 seconds. This is an excellent answer as *all* i =>E-14 and under 3E-14 give the FV, and 2E-14 is in the middle of this range.

The 12CP takes over 10 minutes to give a really silly answer.

Re: 12CP TVM algorithm and Tony's example

*Message #24 Posted by **Victor Koechli** on 20 July 2003, 5:39 p.m.,*
in response to message #23 by tony

Here are the results from my 48GX Rev. R (1995):

- 0 for i instantly for the first example
- -10'000'001.005 for FV, then 9.9999989975E-15 for i (again instantly) for the second example. So i, in this case, is just below the lower limit of acceptable values.

I guess this, again, is a limited precision issue.

I'm no expert, but is there a way to set up calculations like these differently, so we could get better answers?

Regards, Victor

Re: 12CP TVM algorithm and Tony's example

*Message #25 Posted by **tony** on 20 July 2003, 4:20 a.m.,*
in response to message #22 by Karl Schneider

sorry I am not too used to using this message board. what I wrote was not just "sentiments". No compound interest problem is really more elementary that any other, but that one is pretty simple, as they go. I really don't know what you mean by realistic - everybody's use is different. TVM is just a calculating engine. If

you can input a problem it is nice to be able to resolve for a variable. That's all. It's not a question of "sophistication" is it? It's just a bit strange to get no answer or a wrong answer, particularly where the 12C gold was/is just fine.

You asked for me to provide examples where the 12CP is slow at solving for i. Is that necessary? Just about anything where PMT#0.

BTW I just posed the original case to see if anyone else with a 12CP could try it - Im hoping for a new ROM to appear. It just seemed a good test example. It had FV=0. Well it could have been almost anything I guess, as it gets discounted heavily. Why do you call it unrealistic?

Re: 12CP TVM algorithm and Tony's example

*Message #26 Posted by **tony** on 20 July 2003, 6:02 a.m.,*
in response to message #22 by Karl Schneider

Hi Keith - me again. You really raised a whole lot of issues. Forget about the FV thing. The PV is not at all sensitive to i. You mention N - of course yes that OFTEN is completely inteterminate. None of this is anything special. It's all just standard compound interest, which TVM is designed to handle. It's a question of functionality only, over the full range of problems. if you can input an i and solve for anything else then you should be able to re-solve for i - if not there has to be a well-defined reason. In the perpetuity case there is no good reason for the 12CP failure to resolve for i.

If you think the 12CP is toggling between two values and just cannot decide which one to choose, which values might these be?

You said i suggested that the perpetuity thing was elementary, and someone else suggested the same, but you think it is complex. Ok here is a challenge for you. Give us an example that you think is elementary and I'll see if i can convince you it is really incredibly complex. All the problems are really much of a muchness in this respect.

The reason i said to forget about the FV thing above is that I know that when the 12c solves for i in that case it does NOT use the FV as a focus - it uses the PV. Looking at that one again i would call it not just elemntary, but elementary in the extreme. It is a classic case where the answer is blindingly obvious. It is really sad that the 12CP fails miserably. Oh, dear, I'm starting to agree with Valentin!!!!

Thanks for your post! keith i hope you don't work for HP or Kinpo!!<G>

I wish this discussion board had an e-mail list option.

A response to Tony's spewings [LONG]

*Message #27 Posted by **Karl Schneider** on 20 July 2003, 6:06 p.m.,*
in response to message #26 by tony

Tony,

In your last three posts, I can see that you have a certain amount of knowledge about using a TVM program, but I didn't see very much clear analytical thought or coherent writing. Some of your statements even suggest a lack of maturity.

For the record, the name is "Karl", not "Keith" or "keith". No, I don't work for HP or Kinpo, but I have extensive experience with software that is based on iterative solution processes (power flow on an electric network), and passed a course in economic analysis that included TVM and cash-flow analysis.

I would suggest that you deepen your own understanding of the mathematics of TVM, by studying the 12C manual, working through cash flows step-by-step, and perhaps even reading a textbook such as "Engineering Economic Analysis".

I don't have a 12CP, and doubt that I would buy one. It looks like an inept "upgrade", with unrefined algorithms, as well as design changes and functionality enhancements that are ill-conceived.

Here are my responses to just a few the statements in your last three posts:

> Quote:
>
> Ok here is one with PMT=0 where the 12CP gives the wrong answer for i. n=E7 i=E-14 PV=1 PMT=0 solve for FV=-1.000000001 resolve for i.

Good grief! I asked for a "realistic" application of TVM, and you provide an example with 1 million payments at an interest rate of 0.00000000000001%! That doesn't look anything like an auto loan or mortgage in the real world. Granted, it's interesting to "test the robustness" of the software, but we should be determining how well the 12CP works as an everyday tool.

> Quote:
>
> the 12CP instantly gives zero exactly. the 12C gold gives 9.999999995E-15 So, the 12CP thinks that n*PMT+PV+FV=0, which is incorrect. Here we see the opposite extreme to the 12CP providing no answer in a finite period of time - a wrong answer instantly.

The 17Bii also gives i = 0.00, but this may just represent a choice not to display decimal digits of "I%YR" beyond its limits of precision. BTW, n*PMT+PV+FV=0 is correct if i = 0.

> Quote:
>
> Instead of the perpetuity, which was an example of a loan, let us make this one a savings case with PMT=1, and set "END". Solve for FV=-10,000,001.01 (requires i=E-14)

No, no, no. "END" refers to payments at the end of the period, as is done for loans (e.g., purchase of auto and homes). "BEGIN" refers to payments made at the beginning of the period, as is done for leases (e.g., autos and apartments). It's in the manuals.

> Quote:
>
> sorry I am not too used to using this message board. what I wrote was not just "sentiments". No compound interest problem is really more elementary that any other, but that one is pretty simple, as they go. I really don't know what you mean by realistic - everybody's use is different. TVM is just a calculating engine. If you can input a problem it is nice to be able to resolve for a variable. That's all. It's not a question of "sophistication" is it? It's just a bit strange to get no answer or a wrong answer, particularly where the 12C gold was/is just fine.

I can't find a coherent point in that army of words, but I see what you're trying to say. Your original example was one in which *none* of the calculators is able to compute the exact answer that solves the equation to a close tolerance, because it requires more significant digits than they have. Your original example had N*PMT = 36*PV. That amounts to interest charges 35 times as high as the amount borrowed! Would you buy a house for $200,000, then pay $7 million in interest? Your example was computationally "stiff" (hard to solve) because of this, and it was realistic only to a loan shark.

"Sophistication" in the algorithms involves identification of situations like this, and handling them gracefully, even if the exact answer that meets desired accuracy cannot be obtained with the equations and available precision. The 12CP appears to not to have this sophistication -- it seems to execute the standard equation in an eternal quest for the unobtainable precise answer. The other models pragmatically give the best answer they can, and then stop. "Sophistication" is not equivalent to "complexity".

I would suspect that the 12CP handles routine, conventional problems about as well as the others. Here's one (my auto loan from 1986 -- 12% annual interest (!) with monthly payments):

n=48; i=1; PV=8400; FV=0. Solving, PMT=-221.204218. Can the 12CP re-solve for "i"?

How about this one (a 30-year mortgage at contemporary low interest rates):

n=360; PV=175,000; PMT=-1000; FV=0. Solving, i = 0.46316% (or, 5.558% per year, nominal)

> Quote:
>
> Hi Keith - me again. You really raised a whole lot of issues. Forget about the FV thing. The PV is not at all sensitive to i. You mention N - of course yes that OFTEN is completely inteterminate. None of this is anything special. It's all just standard compound interest, which TVM is designed to handle.

Huh?? It's true that PV is not sensitive to "i" in that problem, but I don't believe that N "OFTEN is completely inteterminate *(sic)*" -- only in these examples where the function f(n,i,PV,PMT,FV) = 0 is not solved to a close tolerance in the first place.

> Quote:
>
> If you think the 12CP is toggling between two values and just cannot decide which one to choose, which values might these be?

i = 10.00000000 and i = 9.999999999. Compute FV for those values, using a 17Bii or a 10B if you have one.

> Quote:
>
> You said i suggested that the perpetuity thing was elementary, and someone else suggested the same, but you think it is complex. Ok here is a challenge for you. Give us an example that you think is elementary and I'll see if i can convince you it is really incredibly complex.

That doesn't even deserve a response, wise guy.

> Quote:
>
> All the problems are really much of a muchness in this respect.

Say what???

> Quote:
>
> The reason i said to forget about the FV thing above is that I know that when the 12c solves for i in that case it does NOT use the FV as a focus - it uses the PV.

In order to solve for any one of the five variables, fixed input values of each of the other four is required. It must solve f(n,i,PV,PMT,FV) = 0 for "i". Only in the case of "i" must this be done iteratively; direct anlgebraic equations can be written for the other four variables. That's why they solve faster.

> Quote:

> Looking at that one again i would call it not just elemntary, but elementary in the extreme. It is a classic case where the answer is blindingly obvious.

Better look at it again, Tony. Run the cash flows -- A value of "i" such that payment = accrued interest means that FV = -PV, not FV = 0.

> Quote:
>
> Oh, dear, I'm starting to agree with Valentin!!!! Thanks for your post! keith i hope you don't work for HP or Kinpo!!<G>

Valentin is a lot more intellectually coherent that you are, Tony. Grow up, or at least get some sleep before you post again.

> Quote:
>
> I wish this discussion board had an e-mail list option.

"keith", here, does not.

Re: A response to Tony's spewings [LONG]

*Message #28 Posted by **tony** on 20 July 2003, 9:39 p.m.,*
in response to message #27 by Karl Schneider

Karl, very sorry i annoyed you and called you the wrong name. A total mistake!!! I am used to writing e-mail offline. I hestitate to write any more, in case i give the wrong impression. No worries. I'm real happy to email you in private - just email me at th@csi.com. I think i was tired when i wrote my posts. Technically they are not totally unsound. About n being indeterminate:- it is when PV=-FV or FV=-PV or, for PMT @ END mode, when PMT/i is between -PV and FV. It is surprising how often this happens. Also n is indeterminate if i=0 and PMT=0. BTW this is different to the error 5 conditions given for n in the 12C (and 12CP) manual - there they say PMT<=-PV*i which is true for the "=", but not for the "<" unless FV is less than -PV. You keep mentioning FV in that perpetuity case - it is the volatility of the PV that you have to look at. I should say I have studied, used and written about compound interest a lot over the last 30 years, not that that in itself is any guarantee that there might be any actual truth in what i write. To be honest, it can be a very boring topic - which means hardly anyone takes the time to get it right, because nobody is really interested anyway.

I don't want to argue with you in detail so i thought i would make a few general points. Is that OK? If you want to write about me like you have done in your post I would appreciate it if you did it to me personally in a private e-mail and not too much more in public. is that OK?

I really didn't realise my writing was so bad as you mention. It's amazing what strong feelings a TVM program can bring out!!!!!! I couldn't believe it when i saw the subject wording you used.

I must have given the impression i was being too clever or something in giving those examples. I'm sorry you didn't like them. They are realistic for some problems. i still have a letter from the consultant behind the 12C written 20 years ago where n=E7 is used to make the 12C do a calculation using continuous payments.

Repartee' with Tony about TVM

*Message #29 Posted by **Karl Schneider** on 20 July 2003, 11:14 p.m.,*
in response to message #28 by tony

All --

I admit to being a bit miffed about the "hope you don't work for HP or Kinpo" remark, but I admit that I was overly snarky, and made several factual errors in my last post. I see them; no need to point them out. I wanted to post an edited version, but Tony replied first.

Tony and I will smooth it over.

Best Regards,

Karl

None of my business, but...

*Message #30 Posted by **Vieira, Luiz C. (Brazil)** on 20 July 2003, 11:55 p.m.,*
in response to message #29 by Karl Schneider

Hi;

I cannot help myself not congratulating you both. I admire such respectfull actions. Please, take my post as sincere admiration for such nobel gesture of yours. I think most problems in the whole world would never prevail if such mutual respect is taken as priority.

Be well.

Luiz (Brazil)

(if any of you believe this post of mine should be removed, the password is 12345)

Re: None of my business, but...

*Message #31 Posted by **tony** on 21 July 2003, 12:07 a.m.,*
in response to message #30 by Vieira, Luiz C. (Brazil)

Luiz, thanks for the post! Kudos more to Karl than me as I was the one who annoyed him. Cheers, Tony

Re: Repartee' with Tony about TVM

*Message #32 Posted by **tony** on 21 July 2003, 12:04 a.m.,*
in response to message #29 by Karl Schneider

Karl - no worries. Thanks for your post. I did put a <G> after asking if you worked for HP. BUT I know a <G> often goes mis-read. Cheers, Tony

Re: A response to Tony's spewings [LONG]

*Message #33 Posted by **tony** on 20 July 2003, 10:57 p.m.,*
in response to message #27 by Karl Schneider

Karl - I forgot to say that i for the loans you mention would probably take about 45 seconds to resolve on the 12CP. Also perhaps i have been not forthcoming enough on that perpetuity example - it's just that i have little time to write. Suppose i come into money - in the form of $10 a month for 30 years. However this is a very risky stream of income, perhaps related to gold production in the far east. How do i value it? I have to use a high interest rate - even as high as 10% a month. There we have it. The high interest rate reflects to low *probability* of actually receiving the income stream. Is that so unrealistic? In fact in some countries interest rates are generally quoted "per month". They can be a lot higher in countries other than the USA.

Funny, my beta 12cp solves the perpetuity problem in 3 minutes!

*Message #34 Posted by **Gene** on 21 July 2003, 10:16 a.m.,*
in response to message #22 by Karl Schneider

Have no idea why!

It solves 360 N; 100 PV; -10 PMT; 0 FV

in about 3-4 minutes. Returns 10 as i.

This is the unit that turns off whenever a program hits a R/S or GTO 0000 instruction!

Go figure!

New units have fixed this "OFF" problem...

*Message #35 Posted by **Vieira, Luiz C. (Brazil)** on 21 July 2003, 12:21 p.m.,*
in response to message #34 by Gene

... but it cost a "reasonable" price :)

Edited: 21 July 2003, 12:21 p.m.

Re: Funny, my beta 12cp solves the perpetuity problem in 3 minutes!

*Message #36 Posted by **tony** on 22 July 2003, 10:41 p.m.,*
in response to message #34 by Gene

Thanks for testing it on your unit Gene - lucky the test didn't take too long ;-) Another funny thing is the 12C makes rather hard work of this one - it takes 25 seconds. But the 38C and 37E do it in 4 seconds flat (they must have better initial guesses, whereas I think the 12C just uses 1/n as the guess for i).

Actually when I ran this one on the 12CPt I was expecting it to take about 4 minutes - couldn't believe it when it just kept going.

Again: Accuracy × Internal # of digits (edited)

*Message #37 Posted by **Vieira, Luiz C. (Brazil)** on 22 July 2003, 11:23 p.m.,*
in response to message #36 by tony

Hi Tony, Gene, guys;

after reading your post mentioning that both HP37 and HP38 (both probably share the same basic firmware) need 4 seconds instead of 25 in the HP12C, 3 minutes in Beta HP12cP and some hours in the commercial HP21cP, I felt curious about one thing: do Spices have the same internal accuracy that Voyagers have? I mean, if original HP12C needs 25 seconds and both Spices need only 4 seconds, would they have different internal accuracy? If there are fewer digits to compare, the same iteractive loop may converge in less counts. In the HP12C, amortization has its accuracy in accordance with display settings, i.e., number of digits. I did not test so far, but I think that the more digits you set, more time is spent to compute a more accurate result.

Maybe it's just a wild guess, maybe clock (frequency) is the answer. But after what happened to the HP12cP, I'm trying to collect information.

My thoughts, only.

Luiz (Brazil)

Edited: 22 July 2003, 11:33 p.m.

Re: Again: Accuracy × Internal # of digits (edited)

*Message #38 Posted by **tony** on 23 July 2003, 6:04 a.m.,*
in response to message #37 by Vieira, Luiz C. (Brazil)

Luiz, I am not sure about internal accuracy, but suspect Spice and Voyager are very similar. My guess is that for this TVM example, the 38C uses a better starting point than the 12C. Normally their i-solving performance is pretty similar - taking 15 seconds or so. I remember reading somewhere that HP put a lot of effort into the initial guess of pre-12C TVM. But I think the 12C uses an improved algorithm (more powerful at converging), which is not as dependent on the initial guess... but not independent thereof - in fact the 12c can take up to 40 seconds where it should really take about 4.. ,and on the 12C they don't really worry too much about the initial guess, probably using something like 1/n. Earlier TVM really needed an accurate starting point as they were slower to converge.

Actually you can pretty much "see" the 12C i-solving algorithm in the "*I" routine in the 41C "Advantage ROM" - which is more nicely coded than the "Finacial Decisions Pac". The "*I" code follows the methods outlined in Prof kaplan's "Maths in the Sand".

I have thought about your earlier post of a few days ago - about the extra accuracy of the 12CP chip, and also Valentin's post about Prof. Kaplan's "Maths in the Sand", and the hypothesis that somehow Kinpo were able to "drop" the 12C gold code into the new chip. I am not a hardware guy, or a low level software guy, but it is quite conceivable that the 12C code includes a routine for EXPM1 for example - and we can be sure Prof. Kaplan would not have wasted any code space on that - it would compute to the required accuracy and no more. If Kinpo left that unchanged and allowed it to run on more digits than intended something is bound to go wrong. The algorithm relies on an accurate EXPM1, or some co-relative, just to compute accurate values.

I always thought the 12C iterated on '1+i/100' (or its inverse) , and that explained the way it truncates its answers (in an entirely practical way) and also its speed. If the 12CP is doing the same it will delve into realms of accuracy the rest of the 12C code may not be "in harmony" with. It does *appear* to do just that from some examples I have tried - my guess is that the 12CP chip has about 4-5 digits of extra internal accuracy avaibale (compared to the 12C).

This hypothesis does almost seem to explain some of the 12CP behaviour - like where it actually produces a wrong answer - a very bad sign. Maybe when it takes forever it is wandering up and down a broad step function, where it should be on a nice smooth curve.

I don't think it explains all the peculiarities I've seen, but that could be because of my limited imagination. Also I could be quite wrong about how scalable the 'EXPM1' routine might be. For all I know it may be fine, or Kinpo consultants tried to enhance it, but the end result is, well, to be honest, almost unusable when solving for i.

Also, surely HP are aware of this problem and yet new units are still being pushed onto the market. I am maybe very naive to hope for a new ROM. I did actually hear that HP were going to make some sort of "announcement' about the 12CP, but it didn't happen, yet ...

Cheers, Tony

Are you joking ?

*Message #39 Posted by **Valentin Albillo** on 23 July 2003, 7:24 a.m.,*
in response to message #38 by tony

Tony posted:

" ...and on the 12C they don't really worry too much about the initial guess, probably using something like 1/n"

Nope and nope. They *do* worry VERY MUCH about the initial guess, and they *do not* use *"something like 1/n"*. Just look at this paragraph taken from the same Mathematics Written in Sand document you mention but that you don't seem to have paid proper attention to (the paragraph does refer to the HP-92 but applies equally well to the HP-12C, which includes even more refinements to make it work for *non-integer n*, basically consisting in iterating over the logarithm instead of the variable proper):

"To cope with huge n on the HP-92 , Roy and I approximated the root x of the financial equation *asymptotically* (as n goes to infinity), and used the leading term as a first guess for the iteration. Despite having to recognize several cases, the approximation is quick and, when n is large enough that it matters, accurate to over *five significant decimals*."

So, you see, they worry enough that they generate and use an *asymptotic expansion* for the relevant equation, then consider *several distinct cases*, and they are rewarded by an approximation accurate to FIVE (!!) significant decimals, to begin with. I'm sure many financial models would give their souls to be able to get so accurate an initial *approximation* that most would consider it the outright answer. Obviously, this is a far cry from *"don't really worry too much"* and an even farther cry from *"something like 1/n"*.

Mr. Kahan goes on to say:

"Further details are not needed to make my point: Every day, hundreds of thousands of people employ powerful financial calculators that are convenient, fast and reliable because of Physical, Chemical, *and now Mathematical technology* more intricate than they imagine."

Yes, it *was* that way, then. That is, till HP did throw everything to the trash bin, 12C source code included, as well as the ultra-expert attention to detail that made them their reputation, and subcontracted a Taiwanese *cheapo* to put something on the market at the minimum possible cost.

QA ?? Who cares !! As long as there are users like yourself, not minding shelling out their hard-earned bucks for a pathetic piece of crap, and then wasting their time trying to understand why said crap doesn't work like it should, HP will feel justified in acting like they do. Not that it matters, really,

The proper thing you should have done is to return that *thing*, perhaps you can still get your money back.

Best regards from V.

Re: Are you joking ?

*Message #40 Posted by **tony** on 23 July 2003, 5:23 p.m.,*
in response to message #39 by Valentin Albillo

Valentin, no I was not joking at all. I can *tell* by doing examples that the 12C does not have the same initial guess as pre-12C HP Financial calculators. Note carefully that the *12C* itself is *not* mentioned until after the word "Later" below - this is significant:

"Dennis and I used related transformations to solve related equations for Internal Rates of Return on the hp-38E and C , whose [IRR] key will cope with over 2000 cash-flows. Later, to cope with a revised version of the financial equation above that, unlike the original, makes sense when n is not an integer, Rich and I used yet another

transformation in the hp-12C ; we used ln(y) instead of y as the independent variable in the equation above with terms cjyj , and applied Newton's iteration to its logarithm. Although each iteration cost now more time than before, the theorem continued to guarantee convergence which was rapid from every starting point regardless of n . Further details are not needed to make my point:"

Note that now Prof. Kahan suddenly makes the additional remark that convergence is "rapid from every starting point regardless of n." I say suddenly because in the previous paragraph he is talking about the HP92 an the problem of huge n. Note he carefully lists the machine names and the 12C is excluded.

The 12C has quite a different i-solving "speed profile" to pre-12C calculators, consistent with it not using any asymptotic guesses.

Cheers, Tony

Re: Are you joking ?

*Message #41 Posted by **tony** on 23 July 2003, 7:20 p.m.,*
in response to message #39 by Valentin Albillo

Valentin, here is evidence to show that the 12C does not use the same asymptotic guess as the 38C. Consider a loan with PV=100 and PMT=-10 in arrears, and FV=0. The asymptotic guess for i is 10. Here are the solution times in seconds on the 12C and on the 38C, as n gets larger:

n...12C...38C

E2...20...10

E4...30....5

E8...40....5

The 38C gets faster as the problem gets more "asymptotic", indicating it starts closer to the asymptotic answer. The 12C gets slower, indicating that it starts further and further *away* from the answer.

Cheers, Tony

Re: Are you joking ?

*Message #42 Posted by **tony** on 23 July 2003, 10:16 p.m.,*
in response to message #39 by Valentin Albillo

Valentin,

> Tony wrote: " ...and on the 12C they don't really worry too much about the initial guess, probably using something like 1/n"

> Nope and nope.

I still think the answer is actually yes and yes, for the 12C.

> They *do* worry VERY MUCH about the initial guess, and they *do not* use "something like 1/n".

> Just look at this paragraph taken from the same Mathematics Written in Sand document you mention but that you don't seem to have paid proper attention to (the

paragraph does refer to the HP-92 but applies equally well to the HP-12C, which includes even more refinements to make it work for non-integer n, basically consisting in iterating over the logarithm instead of the variable proper):

I know that paragraph does *not* apply to the 12C. It might appear to from your reading, but the 12C is not mentioned. The hp-92, -37E, -38E and -38C are mentioned.

> "To cope with huge n on the HP-92 , Roy and I approximated the root x of the financial equation asymptotically (as n goes to infinity), and used the leading term as a first guess for the iteration. Despite having to recognize several cases, the approximation is quick and, when n is large enough that it matters, accurate to over five significant decimals."

here is the next sentence, which you omit:

"Therefore, nobody has to wait more than about a dozen seconds, long enough for fewer than 100 multiplications, after pressing [i] on the hp-92, -37E, -38E or -38C , no matter how big n may be."

> So, you see, they worry enough that they generate and use an asymptotic expansion for the relevant equation, then consider several distinct cases, and they are rewarded by an approximation accurate to FIVE (!!) significant decimals, to begin with. I'm sure many financial models would give their souls to be able to get so accurate an initial approximation that most would consider it the outright answer. Obviously, this is a far cry from "don't really worry too much" and an even farther cry from "something like 1/n".

Oh yes i agree that is a far cry from what i wrote. I wrote about the 12C. That applies explicitly to pre-12C.

It is almost trivial to determine asymtotic guesses for TVM problems, and the accuracy of course gets better "when n is large enough that it matters".

>Mr. Kahan goes on to say:

>"Further details are not needed to make my point: Every day, hundreds of thousands of people employ powerful financial calculators that are convenient, fast and reliable because of Physical, Chemical, and now Mathematical technology more intricate than they imagine."

> Yes, it was that way, then.

Agreed. But the 12C itself is not a great example. If you set up n=10,PV=10,PMT=-1 and FV=0 you have a transaction with interest rate zero. Try it on the 12C. It takes *15 seconds* and returns this in the display: -7.757450 -12 Try it on the 38C - solving for i gives an instant zero.

> That is, till HP did throw everything to the trash bin, 12C source code included, as well as the ultra-expert attention to detail that made them their reputation, and subcontracted a Taiwanese cheapo to put something on the market at the minimum possible cost.

That is the story we are told about the source code. But, one never quite knows. Maybe HP didn't manage the source code ownership properly. I'm sure it will be sitting on a CD ROM somewhere.

> QA ?? Who cares !! As long as there are users like yourself, not minding shelling out their hard-earned bucks for a pathetic piece of crap, and then wasting their time trying to understand why said crap doesn't work like it should, HP will feel justified in acting like

they do. Not that it matters, really,

Fair enough, you are welcome to your opinion. No worries. I do care, I think. And, apart from the built-in i-solving, I find the 12CP more useful than the 12C, because of the 253 program lines. Think of the fun you could have with all those lines Valentin ;-)

> The proper thing you should have done is to return that thing, perhaps you can still get your money back.

Thanks for you advice - really, you made me think twice<G>

Cheers, Tony

Overkill

*Message #43 Posted by **Valentin Albillo** on 24 July 2003, 5:09 a.m.,*
in response to message #42 by tony

Frankly, Tony, I think yours is a case of overkill.

If you're right (which is debatable), then you're right, point taken.

But posting THREE LONG messages in a row to my single one, before I get even a chance to reply to the very first one, is overkill, and makes me think you couldn't decide on your answer in the first place. I was thinking about replying to them, but frankly, seems to me that you tend to discuss everything too passionately and don't know when to stop (just look at this very thread), and I'm not for entering never-ending discussions with anyone, free time is too scarce and valuable to waste it that way.

I suggest that in the future you should begin by making up your mind about what you really want to say and how to say it, and post a single, to-the-point reply. If afterwards you feel that something needs adding or changing, edit it by all means, but don't post again re-hashing once more all your arguments.

Else, posting one long message, then another, then another, IMHO only helps to give a bad impression on your arguing skills and makes the potential reader less eager to read your posts, present and future.

Best regards from V.

Re: Overkill

*Message #44 Posted by **tony** on 24 July 2003, 9:34 a.m.,*
in response to message #43 by Valentin Albillo

Valentin, fair enough. Maybe I simply should have replied "No, I am not joking". ;-)

Cheers, Tony

Re: Again: Accuracy × Internal # of digits (edited)

*Message #45 Posted by **bill platt** on 23 July 2003, 9:49 a.m.,*
in response to message #37 by Vieira, Luiz C. (Brazil)

Luiz,

I am sure you probably all ready know this, but just the other day, I decided to compare some of

my calculators regarding precision. So I did a simple trick of taking the sine of a number, and then taking the sine of that reuslt, etc, for lots of iterations (say 20 or 30).

You end up with a really small number. So, my results "grouped" my calculators as folows, regarding the resulting manitssa:

Group A) HP-45

Group B) HP 15c, HP 11c

Group C) HP 32sii, HP 20s, HP48GX

Note that the displayed mantisssa of the 48GX is larger than those displayed on the Pioneers; however, the round-off was at the last digit, so they appear to be coming the same internal precision.

By the way, the difference between these groups, after 26 iterations, was at the fifth or seventh mantissa position (I can't remember now). That is pretty darn close.

Anyway, I am afraid that this is probably not really news after all.

1234 to delete.

Regards,

Bill Platt

Limit of Sin(Sin(Sin(...)))

*Message #46 Posted by **Valentin Albillo** on 24 July 2003, 4:48 a.m.,*
in response to message #45 by bill platt

Hi Bill:

Bill posted:

"I did a simple trick of taking the sine of a number, and then taking the sine of that reuslt, etc, for lots of iterations (say 20 or 30). You end up with a really small number"

In case you are interested, the limit of applying *infinitely many* sine functions to any real number is *zero*, i.e:

```
lim [ sin(sin(sin(...sin(x)...))) ] -> 0
```

though the convergence to zero is *extremely* slow. It begins relatively fast, but after several thousand sines it slows to a crawl. This is easily seen considering the Taylor series expansion for sin(x):

```
sin(x) = x - x^3/6 + ...
```

where you can see that for very small x, sin(x) is *nearly identical* to x, except for an extremely tiny error term (- x^3/6 + ...). If x is very small, (- x^3/6 + ...) is *much smaller*, and that is the *only* thing that gets you nearer to zero as you take yet another sine. So the rate of convergence gets slower and slower the nearer to zero you are.

Also, a very curious fact is the shape of the resulting function y=sin(sin(sin(...sin(x)...))) as you take more and more sines. With just one sine, you get, of course, a perfectly sinusoidal curve, with amplitude 1. But as you apply more and more sines, the shape gets *squarer and squarer*, with smaller amplitude. The limiting shape tends to a *perfect square wave* with an amplitude tending to *zero*.

If you've got a PC, or even some reasonably fast programmable handheld with a decent graphics screen (say a SHARP PC-1350, 1360, or 1600), give it a try ! It's amazing to see the wave turning more and more square, though you'll need to re-scale because its amplitude also gets smaller and smaller. This is a very rewarding empirical result, and it's not difficult to prove it theoretically as well.

Best regards from V.

Re: Limit of Sin(Sin(Sin(...)))

*Message #47 Posted by **bill platt** on 24 July 2003, 5:59 p.m.,*
in response to message #46 by Valentin Albillo

Valentin,

Thanks for your excellent and informative reply!

But, you are taking the sine in RADIANS, yes? I was doing this but in DEGREES, which of course gives a totally different sort of result and decays much more rapidly.

I have not yet plotted---actually I have too much work to do before going on holiday Saturday----but I maybe will try then?!

Best regards,

Bill Platt

somebody get me a mathematician ... limit sin(sin(...

*Message #48 Posted by **Norm** on 24 July 2003, 7:16 p.m.,*
in response to message #47 by bill platt

Although we presume it will very slowly get to zero, there are mathematical formulas for that. It's possible that it will NEVER get to zero, and instead the ultimate limit is something above zero.

I'm not saying either way, because i dont like that kind of math work. But a mathematician could prove whether or not it reaches zero.

YES, you'd want to do that in radians.

Re: somebody get me a mathematician ... limit sin(sin(...

*Message #49 Posted by **Werner Huysegoms** on 25 July 2003, 4:22 a.m.,*
in response to message #48 by Norm

No, it will reach zero... For if it doesn't, and the limit would be some number a>0, then sin(a)<a - contradiction.

that's not a proof.

*Message #50 Posted by **Norm** on 25 July 2003, 5:40 p.m.,*
in response to message #49 by Werner Huysegoms

Common sense would suggest that it does go to zero, as you are saying.

But what you just said does not constitute a mathematical proof.

It would be possible to prove it mathematically.

Considering that the Taylor series disappears to the 3rd power, it is possible that maybe it does not get to zero.

I would be interested in seeing a genuine and complete mathematical proof.

Re: that's not a proof.

*Message #51 Posted by **Paul Brogger** on 25 July 2003, 7:49 p.m.,*
in response to message #50 by Norm

I would be interested in seeing a genuine and complete mathematical proof.

I would be MORE interested in watching YOU come up with one!

(Do you mind if I look over your shoulder for a while?)

;^>

Re: that's not a proof.

*Message #52 Posted by **Werner Huysegoms** on 26 July 2003, 12:59 p.m.,*
in response to message #50 by Norm

Alright, second go.

If f(1,x) = sin(x) and f(n,x) = sin(f(n-1,x))

Let lim(n->oo) f(n,x) = a Taking the sine on both sides: lim(n->oo) f(n+1,x) = sin(a) or a = sin(a), or a=0

mathematically correct enough?

Best Regards, Werner Huysegoms

maybe that was a proof, college nightmares

*Message #53 Posted by **NH** on 26 July 2003, 1:59 p.m.,*
in response to message #52 by Werner Huysegoms

Thanks Werner, that is looking more like a proof.

If you were bullsh*ting me I probably wouldn't notice but at least it looks right.

I took some very advanced math in college (trusty HP-34C at my side..... 1981 - 1985) and that included differential equations, calculus in 3 dimensions, LaPlace transforms, Z transforms, and calculus in "n" dimensions.

So I used to know how to prove the limit of something as N went to infinity.

I take great personal pride in the fact that I forgot it all.

However I still get the standard post-college nightmares that I am late for the big test, and I dont know the answers, and I skipped the class for 6 weeks continuous, and I am sitting in the back row taking the test but I forgot to put on blue jeans so I am wearing only underwear,

but I hope that nobody notices (and its all happening at the same time, until I wake up).

YEAH thanks a lot math professors, all that study and it gives me nothing but)*)(*^^%@#% nightmares, and the majority of engineering or other technical degree'd people report similar nightmares after college.

At the present juncture, all that study (not to mention competency) doesn't even produce a stinking income, the Carly Fiorina, the Mafia, the Ford/Firestone, and the Enron goons have pretty well shut down engineering and any decent or otherwise innovative products, and fullest contempt for those who can innovate is now in-session.

Now I have got a brand new nightmare ..... "would you like fries with that?" I have to wonder why I bothered learning all that stuff, I should have simply learned to sell insurance and then I could discontinue perfectly good products in exchange for granting myself christmas bonuses and pay raises.

MBA's also have post-college nightmares

*Message #54 Posted by **Norm** on 27 July 2003, 1:02 a.m.,*
in response to message #53 by NH

Apparently post-college nightmares are based upon the worst-case scenario's that we spend the whole 4 years not letting it happen (I didn't study, I'm flunking out, I'm late to class)....

Those scenario's didn't happen, because we were diligent. Afterwards, we get the nightmares as though we did not have integrity and those things really happened.

M.B.A. POST COLLEGE NIGHTMARES:

* Show up at the wrong fraternity and miss the mandatory hazing of new members.

* Drank so much beer at the frat party that you throw up on the beautiful fraternity gal U wanted to take to bed and then never speak to again.

* The latest $75,000 check from Dad bounced, the day before you are required to take delivery of the new Mazerati at the dealership downtown.

* You forgot to buy off the professor at the dinner party last Saturday, so now you have to take the final exam for real... and of course you dont know the material.

* You need to get into executive management at GE, and you forgot to buy a case of wine for your buddy's dad and now maybe you don't have that in you needed.

OF COURSE, these things didn't actually happen to MBA's, but they get these nightmares because it did not really happen that way.

How about cutting MBAs some slack?

*Message #55 Posted by **Gene** on 28 July 2003, 10:18 a.m.,*
in response to message #54 by Norm

Is this really necessary? I know full well the irritation at the apparently stupid decisions made by some in marketing and those with MBAs with regard to calculators over the years.

But this is starting to get tiresome, at least for me. Should I start abusing engineers? What good will that do?

Legitimate beefs are fine, but let's consider calling off the constant harping. Ok? :-)

Gene

Re: How about cutting MBAs some slack?

*Message #56 Posted by **Axel Poqué** on 28 July 2003, 10:42 a.m.,*
in response to message #55 by Gene

I don't know if this relates to MBAs or marketing, but (at least for me) the main problem of HP (or any other of todays companies) is their focus on shareholder value instead of customer satisfaction (note that I didn't say 'consumer') as their prime indicator for success. And since it is easier to boost shareholder value by reducing costs (laying off people, escpeially those with experience, that is) and selling increasingly larger quantities of increasingly inferior 'products', such inconveniences like quality and good engineering are no longer needed.

Sorry for venting a bit.

Axel

Re: How about cutting MBAs some slack?

*Message #57 Posted by **Gene** on 28 July 2003, 2:18 p.m.,*
in response to message #56 by Axel Poqué

Actually, shareholder value IS the appropriate goal for a company. After all, the company belongs to the shareholders and management is their agent.

However, the problem results when management and/or shareholders focus on the short-term instead of the long-term.

Long-term thinking to increase shareholder value will not short-change customers. You must keep customers happy or you won't stay in business long-term. If you're not in business, shareholders have no value.

That said, a focus on customer satisfaction is of course very important, provided making customers happy fits

with adding shareholder value.

For example, customers would be very satisfied with a $500 car price from a manufacturer, but if they made those customers very happy, they'd not make the shareholders very happy.

Another example, shareholders would be very happy with a company selling $30,000 cars made of crap, but since customers would notice this and never return, the shareholders would only be happy short-term.

Has to all fit together. Really can't have one without the other.

Where HP went wrong (or present tense if you like), was by not really knowing their customer. If you don't know what your customer wants, then decisions you make won't make the customers OR shareholders happy.

I'm with Alex, nope, no slack (your speaking Swahili)

*Message #58 Posted by **Norm** on 28 July 2003, 8:14 p.m.,*
in response to message #57 by Gene

Gene wrote:

> Actually, shareholder value IS the appropriate goal
> for a company. After all, the company belongs to
> shareholders and management is their agent.

> However, the problem results when management and/or
> shareholders focus on the short-term instead of the
> long-term.

I think this sounds like Swahili. It does not make sense, except in the narrow viewpoints of the super-rich class of business owners who don't care about anybody or anything. It is a selfish focus purely upon who owns the company.

I know what will happen now, comes a thought of socialism vs. capitalism. Now, I am no commie, Gene, I am a graduate of Rush Limbaugh or Mike Savage or both, take your pick, I breathe red white and blue, I believe in freedom not taxation, etc etc. However how much money did we make when we flew Voyager past the planets?? How much did we make when we grabbed rocks off the surface of the mooon ????? How much money is made by visiting the bottom of the ocean or how much money does AGILENT make by offering a unique

machined & polished test-fixture at $500 a pop that they only sell 10 units per year ??????

Did you know that the Boeing company was damn near bankrupted by creation of the 747 back somewhere in the 1970's, and that the management style you described would have never taken such a risk, hence we would never have had the cool-looking world's biggest aircraft with the hump-back and the double-decks and the spiral staircase ??? So who's got the better style, the management that plays everything safe and just concentrates on laying everybody off and selling buggy whips, or the management that pursues the new ideas in harmony with engineers, as a quest to get to cool and exciting new things ?

SO is it always about making money on a selfish basis? Or is it also about advancing technology itself, pursuing the new ideas, and providing the customer with what the CUSTOMER WANTS (which is invariably the new and superior innovative technology, not just the same old damn-fool buggy whips at Home Depot).

So! I do NOT think the ultimate goal of a company is to put the maximum amount of money in the bank. Instead, the ULTIMATE goal of a company is to do superior new things. That is to advance knowledge, methods, techniques, and intellectual property, and THAT is what ultimately secures our place in this world, NOT just having the biggest pile of money by doing the most clever job of laying people off and knocking off your competitors, reducing quality and gettting rid of engineers (or their calculators) and discontinuing products and developments that cost the company money.

YOUR viewpoint would be perfect for the Acme Buggy-Whip company in 1895. Then along comes those stinkin' engineers with the horseless carriage ..... SO maybe your viewpoint needs an expansion towards considering the need to create the cool new things.

The engineering department creates those cool new things (IF it is staffed with competent engineers). You said it all goes wrong with short-term vs long-term focus.

I disagree. Know where it really all goes wrong ? It all goes wrong when there are too many phony engineers. They have macaroni and cheese for brains, but the same cut-throat heart that you are admiring in the MBA. They fake and they con, and their ideas and their stuff doesn't work, but they still waltz off with their pay, their contract, or

whatever. I've met more than a few. The miserable new welfare-system "government grants" actually encourages scam engineering and is multiplying it up at a massive rate, like doubling that kind of fake-business (gov grant subsidized) every few years. Management has all the money so they make all the decisions, but they have no idea who are the competent engineers and who are the fake engineeers. THAT is where it all goes wrong. So then management stares blankly amongst different engineers who want to do different things, and lays off all of them.

What MBA's need to do, if they want to avoid the conflict, is learn something about engineering, so if an engineer says "I wish to reduce the weight of this assembly" or "I wish to increase the maximum speed at which this can operate" or "I wish to allow this to work at a higher temperature" that they could have enough engineering knowledge to have some faint glimmer of understanding whether the ideas are valid or not, and then know which engineers to let proceed with the engineering work.

I don't see that happening. I see, presently, MBA types who take immeasurable pride in not being able to change a light bulb, and when you pry for whatever philosophies they seem to be operating under, they just want to create maximum equity for their shareholders. I think life is a little more complicated than just seeing how much money you can hoarde, and as long as the MBA's show pure selfishness about money only, and cannot differentiate between good engineering and bad engineering, then the festering rift between the two camps shall surely continue.

To avoid cluttering the chat board further, you are welcome to simply respond directly to my e-mail (click on blue link at the top). And if you got this far, BTW, I think the "mba nightmares" were very funny upon re-reading, so how could I cut you slack by not posting them. If I didn't post them just to please you, wouldn't that be denying freedom of speech and thought ?? I'm surprised nobody added to them .

:o)

Cheez, the real reason maybe it offends is that MBA's have NO post-college nightmares. I dont think an MBA even begins to understand the amount of study and dedication a REAL engineer has got to do (not a fake engineer). And a real engineer's work is much like trying to be Wolfgang Amadeus Mozart or Beethoven, etc., its a lifetime passion, and it was the same for, say designer of the 41C..... a lifetime passion..... to where the initial

studies can create lifetime bad dreams, etc., and the MBA may have no appreciation of that, because all they have to do is wink and nod and deliver the secret handshake to their buddies (killing a few astronauts also is a plus) and the bank vaults are opened to them, so what's to worry.

Best,

- Norm

Sorry, you're wrong

*Message #59 Posted by **Gene** on 28 July 2003, 9:40 p.m.,*
in response to message #58 by Norm

Companies exist to make money for those who own them. Period. Businesses are either sole proprietorships, partnerships, or corporations. In each case, they are owned by owners who given their money to earn more money. Just as a mom and pop shop wouldn't earn money for long by selling spoiled beef sandwiches, neither would a corporation earn money for its owners for long by selling inferior products. Doesn't mean some mom and pop shops don't do that nor does it mean that corporations don't. They won't stay in BUSINESS for long, however.

I have attempted to be civil in this discourse, yet you persist in being antagonistic.

Sometimes ignorance is apparently bliss.

Gene,

*Message #60 Posted by **Norm** on 29 July 2003, 2:31 a.m.,*
in response to message #59 by Gene

Gene,

I'm doing my best to communicate with you directly, by direct e-mail, but you don't provide any email address to contact you directly.

I dont really want to clutter up the chat board in a debate with you, which is what you are starting to cause.

As for the simplistic comment "sorry you're wrong" well Gene, you aren't exactly dealing with this point by point.

So just how much money did we make by going to the moon and picking up a few rocks ? Did that fail, collectively speaking, to put the nation

into 4000 sq ft houses with hot tubs out back? You bet it did. People lived very humbly in order to allow technical quests.

Your approach is just to make sure that management and the CEO and the shareholders all live in ostentatious houses with Barbeque's out back sized to feed 50 men (even though there's typically just 2 people living in that 4000 sq ft house of yours).

YOu haven't responded to my points, and you contort what I said entirely. You suggest that I promote the sale of inferior products.

For example, you suggest that I promote the sale of spoiled corned-beef sandwiches.

Gene, when you keep that up, you are just demonstrating how hopelessly out of touch you MBA types are. You can't even follow some fairly clear black & white viewpoint that I gave you, and you come up with the total inverse of what I said.

Although I had suggested you contact me directly, when I see the non-response to my careful input to you, then I now suggest we cease this debate, and you go back to counting your millions, discontinuing products, and laying people off, and I will return to the engineering of a technologically superior new item, which I work on privately, which should hopefully result in my 4th patent (after a total of several years of hard and sacrificial work).

Thank you for not keeping this up, it's clearly a total mismatch of thought processes, incompatible as oil and water, is the MBA and the engineer.

- Norm

Norm; 3 short things

*Message #61 Posted by **db(martinez,california)** on 29 July 2003, 11:01 p.m.,*
in response to message #60 by Norm

1) In your posts here, i agree with you about 95% of the time. If you keep ranting, i'll keep reading.

2) I don't think that Gene ever said he prefers the total outcome of the way things are, HP in particular. He just said that that is the way the economic/social system is.

3)Be careful with rush. Have you noticed he does the bait and switch a lot? He will tell the obvious truth 8 or 9 times out of ten and then when your defences are down he slips a big one through.

its the only thing I'm sure of

*Message #62 Posted by **Norm** on 30 July 2003, 1:08 a.m.,*
in response to message #61 by db(martinez,california)

Rush Limbaugh is like a cement foundation.....

when I am listening to Rush, its "dont bug me, this is the only thing I'm sure of".

How could Rush ever say anything incorrect ... hasn't happened yet

U gotta love the music though....they got some really comical musicians who make up songs.

:o)

And just for the record ...

*Message #63 Posted by **Valentin Albillo** on 25 July 2003, 4:45 a.m.,*
in response to message #47 by bill platt

And just for the record,

```
lim[ cos(cos(cos(...(cos(x)...))) ]
```

when the number of 'cos' tends to infinity, is also defined for all real x and converges to this value, which you can compute with your trusty HP-15C, a suitable multiprecision program, and just a little patience:

```
lim =
0.739085133215160641655312087673873404013411758900757464965680635773 2...
```

The convergence here is much quicker than in the case of the sine function. In both cases, if x is complex, neither limit does converge but you get an hiper-exponential explosion(i.e: exp(exp(exp(...)))), with clear signs of fractal behaviour in the slopes of the incredibly step peaks. It's quite a mathematical experience to plot those functions for complex x, as 3D graphs, using colour for the 4th dimension needed in addition to the normal three spatial dimensions. The resulting graphics are amazing indeed.

Best regards from V.

Edited: 25 July 2003, 4:46 a.m.

And just for the record ...VERY COOL! (no text)

*Message #64 Posted by **bill platt** on 25 July 2003, 8:57 a.m.,*
in response to message #63 by Valentin Albillo

!

Re: Limit of Sin(Sin(Sin(...)))

*Message #65 Posted by **David Smith** on 26 July 2003, 2:33 p.m.,*
in response to message #46 by Valentin Albillo

For small values of x, you can assume sin(x) equals x. This is a common appoximation taught in most trig and numerical analysis classes.

Re: 12c Platinum Perpetuity challenge

*Message #66 Posted by **Frank Wales** on 20 July 2003, 1:57 p.m.,*
in response to message #1 by tony

A few other data points: my 1988 14B solves this in about 2.5 seconds; my 2001 10BII solves it in about two seconds; and the 'MathU' RPN calculator for PalmOS solves it instantly.

And, as with everyone else, my 12CPt never returns from its journey through SlowlyThrobbingRunningLand.

(For the benefit of anyone who's tracking this, my 12CPt's serial number is: CN31600185.)

Re: 12c Platinum Perpetuity challenge

*Message #67 Posted by **tony** on 21 July 2003, 5:30 a.m.,*
in response to message #66 by Frank Wales

Thanks for the serial number Frank. I was beginning to think maybe I had the only 12CP that did this. It is hard to imagine how the 12CP fails to converge. In fact there are 6 values if i that make the 12CP give the same PV=100, namely: 10, 9.999999999, 9.999999998,..,& 9.999999995 This means the 12CP has plenty of options to stop on.

More amazing is to put FV=-100 (as well as n=360,PV=100,PMT=-10, PMTs@ END) Then the 12CP solves for i=10 in 4 seconds flat!! However even for this case the sensitvity of the PV is the same - there are still the same 6 possible answers for i, as above.

So, why it does one case and not the other is quite a mystery.

-Tony

Re: 12c Platinum Perpetuity challenge

*Message #68 Posted by **bill platt** on 21 July 2003, 11:50 a.m.,*
in response to message #1 by tony

My 32sii:

with the following in the equation editor:

P*100*(1-(1+I/100^-N)/I+F*(1+I/100)^-N+B

solve I: input : P = -10 N = 360 F = 0 B = 100

Solving for I takes place in 10 seconds, and produces I = 10 (which is of course 120% interest per annum).

However, the starting conditions make a huge difference. Let's say the last time I ran a TVM computation, I had solved for the payment on a 67000 mortgage at 5% for 30 years, with monthly payments, I= 5% per annum, then, without starting the first guess for I = 1, then the run will take about 20 seconds, and produce I = -199.1958970637

So the moral of the story----boundaries and initial guesses are important, too------and I do not know how the 12C or 12cp is set up, but could not some of this be going on?

I am gerally very distrtustful of the idea of using a calculator to "solve" an equation when the solution really counts. I like to see it "on paper" as it were, and let the machine do the arithmetic, but let me do the algebra thank-you-very-

much. But then again I am distrustful because I am not well versed nor highly experienced in either computer science or mathematics--I use mathematics to solve problems, but 12 years out of college you have to work hard to stay fresh with topics that are not used every year!

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Meeting III

*Message #1 Posted by **Matthias** on 17 July 2003, 8:08 p.m.*

So, Now I'm back home.. So, lot of you have made a propositions for our meeting.. Let us fix two dates and see, on which date we would be more:

august 30 (for long distance riders.. you can perhaps sleep here in Basel)

september 20 (sleeping possible too)

PLEASE. Give us your prefered date as fast as possible, even if you can on both dates).... Side activities...: Is not organized jet, but I love the idea of Thibaut to visit the Vitra Designer Museum Topics: Everthing you desire (programmers, repairing, trading, discussing, watching items, ... but please inform us. Perhaps some of you want to organize a workshop?) I will organize food and I will keep clean my appartment for you..

Matthias

Re: Meeting III

*Message #2 Posted by **Meindert Kuipers** on 18 July 2003, 2:41 a.m.,*
in response to message #1 by Matthias

Weekend of August 30 is OK for me. September 20 not. A week later (september 27) is OK.

Meindert

Re: Meeting III

*Message #3 Posted by **Thibaut.be** on 18 July 2003, 3:51 a.m.,*
in response to message #1 by Matthias

I would vote for Sept 20 please , I'm on holiday end August.

And yes, some side activities such as software workshops (hints in programming) and hardware (simple problem repair) would be great ! Of course any cultural activities are welcome !

Thibaut

Re: Meeting III

*Message #4 Posted by **Albert** on 18 July 2003, 5:33 p.m.,*
in response to message #1 by Matthias

Hi guys,

How much for a cheap room (double) in Basel or surroundings in September? Thanks.

Re: Meeting III

*Message #5 Posted by **Matthias** on 19 July 2003, 4:47 p.m.,*
in response to message #4 by Albert

I'm not shure what you mean:

a) What will cost a hotel to sleep in Basel? b) Question to the public, if we should reat a room for our meeting.

I think, you mean a) but please tell me...

Matthias

Re: Meeting III

*Message #6 Posted by **Albert** on 20 July 2003, 12:49 p.m.,*
in response to message #5 by Matthias

Hi Matthias,

I would like to know how much for a cheap room for my wife and I near Basel, that's right now? Thanks in advance.

Re: Meeting III

*Message #7 Posted by **Matthias** on 20 July 2003, 3:14 p.m.,*
in response to message #6 by Albert

I would say arround 90€ for a doube room with bath room... perhaps we will also find a cheaper hotel without breakfast , shower, ...

Re: Meeting III

*Message #8 Posted by **Achim** on 18 July 2003, 5:58 p.m.,*
in response to message #1 by Matthias

Hi, I would prefer August, 30. and offer a workshop "How to restore a 98xx".

Achim

98xx repair

*Message #9 Posted by **Thibaut.be** on 19 July 2003, 4:50 a.m.,*
in response to message #8 by Achim

If you want I lend you mine for this lab ;-)

I still have to send you my 9820's PCB's did not have time yet to fly to the post office.

Cheers,

Thibaut

Re: 98xx repair

*Message #10 Posted by **Massimo Gnerucci (Italy)** on 19 July 2003, 6:24 a.m.,*

in response to message #9 by Thibaut.be

Me too! :-)

I've a sick 9815A

Massimo

Re: 98xx repair

*Message #11 Posted by **Matthias** on 19 July 2003, 6:35 a.m.,*
in response to message #10 by Massimo Gnerucci (Italy)

And I have a 9845A that needs your help... :)

Re: 98xx repair

*Message #12 Posted by **Achim** on 20 July 2003, 1:44 p.m.,*
in response to message #11 by Matthias

I think I should open a hospital ;-)

Re: 98xx repair

*Message #13 Posted by **Achim** on 20 July 2003, 1:39 p.m.,*
in response to message #10 by Massimo Gnerucci (Italy)

Hmm, difficult... The 9815A is a hardware class of its own. What exactly do you mean with "sick"?

Re: 98xx repair

*Message #14 Posted by **Massimo Gnerucci (Italy)** on 21 July 2003, 10:16 a.m.,*
in response to message #13 by Achim

The display doesn't turn on anymore; it was working OK until a few hours before shipping it to me (at least the seller was kind enough to sensibly lower the price for it).

Thanks,
Massimo

Re: 98xx repair

*Message #15 Posted by **Achim** on 21 July 2003, 11:27 a.m.,*
in response to message #14 by Massimo Gnerucci (Italy)

Seems as if either the display is broken (very bad, spare parts only from another 9815) or there is a contact problem (very easy, just open the 9815 and check every board). Have you checked the fuse? Can you print the x-register (press PRINT)? If yes: the display is propably broken.

Re: 98xx repair

*Message #16 Posted by **Massimo Gnerucci (Italy)** on 22 July 2003, 2:25 a.m.,*
in response to message #15 by Achim

Thanks for the tips Achim, I'll try them out during next weekend.

Massimo

Re: 98xx repair

*Message #17 Posted by **David Smith** on 21 July 2003, 4:24 p.m.,*
in response to message #14 by Massimo Gnerucci (Italy)

I have a 9815 with a flakey display. Several segments are either blank or very weak with only partial gas discharge along their length that changes as other digits are entered. I think it is the display module but could be the high voltage supply. I think one may be able to use the display from a Compucorp/Monroe/Sumlock machine. I have been meaning to try this for a long time... I have a Compucorp with a corroded keyboard.

Re: 98xx repair

*Message #18 Posted by **Achim** on 20 July 2003, 1:37 p.m.,*
in response to message #9 by Thibaut.be

I just got a working 9820A. So I'm prepared...

Re: Meeting III

*Message #19 Posted by **Emmanuel, France** on 19 July 2003, 6:45 a.m.,*
in response to message #1 by Matthias

```
September 20th or following week-ends should be OK.
I would present my system:
- burning Eproms for HP-41 Eprom Box and HP-71 HHP Eprom module,
- building a 4K Eprom box for HP-41
- transfering data from/to HP-41 to/from PC
- ...
Do you have an oldest 286, 386 or 486 in order to show several ISA cards functionning?
Yours.
Emmanuel
```

Re: Meeting III

*Message #20 Posted by **Christoph Giesselink** on 19 July 2003, 9:12 a.m.,*
in response to message #1 by Matthias

Both dates Aug. 30, Sep. 20 are ok for me.

Christoph

Re: Meeting III

*Message #21 Posted by **Meindert Kuipers** on 19 July 2003, 9:48 a.m.,*
in response to message #1 by Matthias

September 20 is not possible, August 30 is OK. I would gladly show my MLDL2000 proto and development environment.

Meindert

Re: Meeting III

*Message #22 Posted by **Matthias** on 19 July 2003, 4:49 p.m.,*
in response to message #1 by Matthias

I still wait for statements of other users of this forum. Please .... what about our german and italien collectors?

Re: Meeting III

*Message #23 Posted by **Massimo Gnerucci (Italy)** on 21 July 2003, 10:09 a.m.,*
in response to message #22 by Matthias

> Quote:
>
> I still wait for statements of other users of this forum. Please .... what about our german and italien collectors?

Here's an italian one :-) Both dates proposed should be fine.

When I mentioned this to my wife she soon asked to be there with me for tourism and shopping :-(

So I too would be interested to know about the price and availability of rooms in decent hotels.

Thanks,
Massimo

Re: Meeting III

*Message #24 Posted by **Matthias** on 21 July 2003, 11:04 a.m.,*
in response to message #23 by Massimo Gnerucci (Italy)

Cool.. would sept 27 also fit? Hotels are arround 90€ for a double room with bath...

Re: Meeting III

*Message #25 Posted by **Massimo Gnerucci (Italy)** on 21 July 2003, 1:06 p.m.,*
in response to message #24 by Matthias

Sep 27 should be equally fine for us.
Thanks for the info about hotels.

Massimo

Re: Meeting III

*Message #26 Posted by **Raymond Del Tondo** on 19 July 2003, 9:58 p.m.,*
in response to message #1 by Matthias

Hi,

both dates Aug. 30, Sep. 20 are just fine.

Raymond

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MLDL2000 now working as MLDL!

*Message #1 Posted by **Meindert Kuipers** on 17 July 2003, 3:42 p.m.*

Good news today! I just got the MLDL really working with MLDL capabilities. The WROM instruction is now correctly recognized. There was a very nasty little bug outside my state machine, and it turned out that the WROM instruction has been working all the time. Just reading the data back from MLDL SRAM failed.

For those interested: The MLDL I now created has one 4K page of SRAM at $E000. I have used an Eramco ROMBOX with several Eproms to test writing and reading individual words in the SRAM with the DAVID ASSEMBLER. Second test was to copy the ERAMCO ESMLDL-OS Eprom contents into page $E000 with the COPYROM instruction that is in ESMLDL-OS. Unplugging the ROMBOX left my good old HP41C (2* speedup) with only the RAM connected, and CAT 2 showed the copied ESMLDL-OS! My other machine, a non-speeded HP41CX, showed the same behaviour.

I will put some pictures I have just taken of the prototype on my website, but that could take a few days. Will let you all know when they are online.

Next step is to test the prototype with FLASH and multiple RAM pages. This requires to load larger amounts of data into memory, and I need the external I/O interface for that. The hardware is pretty simple but I need to do some software programming on the PC to be able to bit-bang the control signals of the external interface of the MLDL.

Meindert

Re: MLDL2000 now working as MLDL!

*Message #2 Posted by **ted** on 17 July 2003, 3:58 p.m.,*
in response to message #1 by Meindert Kuipers

Feliciteerd Meindert, dat gaat wel heel snel zo! Nederland wordt HP 41 land als je zo blijft doorgaan!

Congratulations Meindert, that's going really fast! Keep it up and you'll make Holland HP 41 country!

Re: MLDL2000 now working as MLDL!

*Message #3 Posted by **Emmanuel, France** on 17 July 2003, 4:56 p.m.,*
in response to message #2 by ted

```
Congratulations, Meindert!
Will be certainly interested in getting one or two of your MLDLs.
Thanks in the name of our community
```

Re: MLDL2000 now working as MLDL!

*Message #4 Posted by **Daniel Diggelmann** on 17 July 2003, 5:06 p.m.,*
in response to message #3 by Emmanuel, France

Meindert, congratulations for your success! I'm highly impressed by your achievement in your spare

time. Many other projects, especially difficult or timeconsuming ones are never finished. I'm very positive to be able to buy an MLDL in the near future. Best Regards Daniel

Re: MLDL2000 now working as MLDL!

*Message #5 Posted by **Werner** on 17 July 2003, 8:52 p.m.,*
in response to message #1 by Meindert Kuipers

Dear Meindert,

also from my part I want to send you my congratulations! It is incredible how your project is proceeding. HP41 seems to experience a sort of Come-Back these days due to great efforts of people who deliver a lot of HP-material, great programmers creating new emulators (e.g. Jean-Francois, Warren, HrastProgrammer, and many other very good emulator programmers), and hardware experts like, e.g., Christoph Klug with his IL interfacing solutions and last not least you with your MLDL ! And of course there are many other good guys I did not mention here (sorry!).

All in all - even without HP - within internet age the great HP41/HPIL system concept is again very much alive, I am happy for that as I grew up with this marvellous machine.

Today it still seems to be easy to get a HP41CX (e.g. at Ebay) but it is NOT easy to get RAM that allows MCODING and loading available ROM-images. And that is one of the main "add-on"s which we 41-enthusiasts all need very urgently!

Meindert, I would be happy if you please could take me onto your list, I would like to get one of your fine MLDL when it is finished! (but please take all the time you need as it is certainly a lot of hard work).

Best regards - and "happy programming",
Werner
(Werner Weiershausen from Darmstadt/Germany)

Re: MLDL2000 now working as MLDL!

*Message #6 Posted by **Pierre Brial** on 17 July 2003, 11:20 p.m.,*
in response to message #1 by Meindert Kuipers

For those humble ignorant like me : What is MLDL ?

All the best

Pierre

Re: MLDL2000 now working as MLDL!

*Message #7 Posted by **Ellis Easley** on 20 July 2003, 3:52 p.m.,*
in response to message #6 by Pierre Brial

Machine Language Development (Laboratory?)

It is a device with RAM where HP41C ROM's are addressed, and with a means to write information into the RAM. With it, you can write your own HP41C machine language programs or load images of existing ROMs.

Re: MLDL2000 now working as MLDL!

*Message #8 Posted by **Massimo Gnerucci (Italy)** on 18 July 2003, 2:37 a.m.,*
in response to message #1 by Meindert Kuipers

That's **great** news Meindert!
Thanks a lot for your efforts and willingness to share them with us.

I wish it's already Xmas... **;-)**

Massimo

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RPN via Visual Basic

*Message #1 Posted by **OJM** on 17 July 2003, 1:48 p.m.*

Stumbled across this while cruising the net. (Much apologies if it's already been highlighted on this board - I haven't always kept up with it lately.) Some interesting info on HP calcs, floating point math, Visual Basic programming, and building a rudimentary RPN calc simulator, plus some praise for this web site.....

http://www.pcplus.co.uk/media/pcplus/pdf/197/197.programmers%20world.vb.pdf

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hp 41 c

*Message #1 Posted by **François Riverin** on 17 July 2003, 10:15 a.m.*

Après 23 ans, ma HP-41c s'est éteinte. Comment fait-on pour trouver si le problème vient du chargeur ou de la batterie. OU peut-on trouver une batterire principale de la HP 41c à Montréal?

Merci.

Re: hp 41 c

*Message #2 Posted by **Randy Sloyer** on 17 July 2003, 11:10 a.m.,*
in response to message #1 by François Riverin

Le rendement de chargeur peut être contrôle avec un voltmètre.

Si la batterie est du même âge, c'est certainement le problème. Examinez les réparations et la section de batteries ici pour assurer les sources pour la reconstruction de batterie.

////////////

Charger output can be checked with a voltmeter.

If the battery is of the same age, this is certainly the problem. Check the repairs and batteries section here for sources for battery rebuilding.

Re: hp 41 c

*Message #3 Posted by **Vieira, Luiz C.** on 17 July 2003, 1:55 p.m.,*
in response to message #1 by François Riverin

Hi;

Did you try to use the calculator with common alkaline batteries? Just to check if the calculator is O.K.

There is a contributor of ours, Michel Beaulieu, that lives in Canada, that owns some HP calculators, too. It´s not going to be hard to contact it, I think.

Success!

////////////////

Avez vous essayé d'utiliser la calculatrice avec les accumulateurs alcalins communs? Vérifier juste si la calculatrice est O.K.

Il y a un contribuant à nous, Michel Beaulieu, qui habite au Canada et possè quelques calculatrices de HP, comme l´HP41. Ces n'est pas difficile pour vous d'entrer en contact avec lui, je pense. (Excusez; je utilisé un traducteur électronique pour corriger mon texte original)

Succès!

Luiz (Brèzil)

Re: hp 41 c

*Message #4 Posted by **Thibaut.be** on 18 July 2003, 4:19 a.m.,*
in response to message #3 by Vieira, Luiz C.

It is most funny to read the automatically translated texts... make my day !

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HP 28S Fast Mode

*Message #1 Posted by **Victor Koechli** on 17 July 2003, 9:37 a.m.*

Hi, I've been trying to speed up my HP 28S (version 2BB) using the fast mode program presented at http://www.rskey.org/gene/hpgene/28sfast.htm However, it doesn't work, but keeps giving me an error message at the first STO operation.

Does anyone know how to put the 28S into fast mode?

Thanks, Vic

Re: HP 28S Fast Mode

*Message #2 Posted by **Christoph Giesselink** on 17 July 2003, 12:53 p.m.,*
in response to message #1 by Victor Koechli

Yes, the program on this site doesn't work. I had a look into my collected solutions and I found three different realisations. I think the following one is the shortest. I have no idea who's the author and if this program really work, just try it:

```
First up, it appears that there was never a posting for the SPEED or
FAST program which does not have to be in the home directory, or that
requires a POKE program to work. Either of which seems ridiculous to
me because the code to poke the speed nibble is so short.


This program will conveniently create FAST which can be stored at any
location in the user memory. FAST works by changing the speed nibble
at #FFF00h from #7h to #Fh.



    CFAST[D000]


<<  #1FFF00F1F0302331h
    #C80846124113l0D5h
    #3B82h  SYSEVAL
    #7195h  SYSEVAL
    #44A4h  SYSEVAL   >>
```

Regards

Christoph

Re: HP 28S Fast Mode

*Message #3 Posted by **Victor Koechli** on 18 July 2003, 7:52 a.m.,*
in response to message #2 by Christoph Giesselink

Thanks, that works perfectly! Cheers, Vic

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Some interesting documents (2)

*Message #1 Posted by **Valentin Albillo** on 17 July 2003, 7:57 a.m.*

Hi all,

Here is a 2nd batch of links to some (hopefully) quite interesting documents (in PDF format, for best reproducibility), most of them related to HP calculators and calculators in general, with one or two math-oriented ones thrown in for good (even humorous !) measure.

The idea is that you get some interesting materials to read and even try on your HP this weekend, if you feel like it. I would suggest printing them on paper instead of reading them off the screen, for maximum visual comfort, graphic quality, and usability. Best regards from V.

A True Calculator

From Henry Brigss to Modern Calculators

A Mathematical Seduction

CORDIC: Elementary Function Computation using Recursive Sequences

Chance and Data: New opportunities provided by the graphics calculator

Finding Optimal Solutions to Rubik's Cube Using Pattern Databases

An Imaginary Tale: The Story of Sqrt(-1)

Modeling and Rendering Escher-like Impossible Scenes

Re: Some interesting documents (2)

*Message #2 Posted by **Alberto** on 17 July 2003, 2:31 p.m.,*
in response to message #1 by Valentin Albillo

Great !

But, Where is the first release? Thanks

First batch

*Message #3 Posted by **Valentin Albillo** on 18 July 2003, 4:39 a.m.,*
in response to message #2 by Alberto

Hi Alberto,

The first release was posted July, 2. Unfortunately, it's too 'old' to still be among the last 500 messages in the Forum, but too 'new' to be available in the Archives, so it's essentially unavailable till it makes it to the

next Archive.

That being so, I re-post here those links, for your convenience. Bear in mind that they were related to topics discussed back then (HP-12C Platinum's CPU, uses (if any) for the hyperbolic functions, financial uses (if any) for trigonometric functions, etc) so that's why they are so heterogeneous. Nevertheless I'm confident you'll find at least some of them interesting. Best regards from V.

All the following are PDF documents, for optimum reproducibility:

HP-12C Platinum's CPU:

Data Sheet

Confirm Sheet

Product family (12C's CPU = SPLB20D)

Hyperbolic Functions Theory and Applications:

Superstructure Engineering (Suspension Bridges)

Curves in Traditional Japanese Architecture and Engineering

Lecture on the exponential function, the trigonometric functions and the hyperbolic functions

Hyperbolic functions in the art of M.C. Escher

Trigonometric Functions Applications in Financial/Business:

The Discrete Wavelet Transform with Financial Time Series Applications

Some HP-related Datafile articles by me [shameless plug]:

Long Live the HP-12C !

HP-12C Tried & Tricky Trigonometrics

HP-12C's Serendipitous Solver

Long Live the HP-11C !

Long Live the HP-15C !

Edited: 18 July 2003, 4:42 a.m.

Re: First batch

*Message #4 Posted by **Wayne Brown** on 18 July 2003, 8:07 a.m.,*
in response to message #3 by Valentin Albillo

Quote:

The first release was posted July, 2. Unfortunately, it's too 'old' to still be among the last 500 messages in the Forum, but too 'new' to be available in the Archives, so it's essentially unavailable till it makes it to the next Archive.

Actually, your first message *is* in the Archives; I found it yesterday. You can find it right here.

Re: First batch

*Message #5 Posted by **Alberto** on 18 July 2003, 5:04 p.m.,*
in response to message #3 by Valentin Albillo

Hi,

Thanks! I find these texts very interesting. Bye.

Re: Some interesting documents (2)

*Message #6 Posted by **Les Bell [Sydney]** on 17 July 2003, 11:19 p.m.,*
in response to message #1 by Valentin Albillo

All outstanding stuff, Valentin. Thank you for posting them.

Harold Thimbleby's comments about the "referential opacity" (I would term it "instruction set non-orthogonality") of a selection of algebraic calculators is spot on. I was pleased to note that my aging 41C passed that test with ease. On the other hand, I found my son's HP-6S a nightmare, and could not raise any protest when his school recommended a Casio for use in maths classes. The Casio is no worse than the HP, as far as I can see.

Best,

--- Les [http://www.lesbell.com.au]

Re: Some interesting documents (2)

*Message #7 Posted by **Andrés C. Rodríguez (Argentina)** on 18 July 2003, 8:53 a.m.,*
in response to message #1 by Valentin Albillo

Valentin:

Would you consider to put the articles in the Articles Forum, avoiding the "short life" condition of messages in the Messages Forum?

PS: I haven't had time to follow the links, but the fact that they come from you is a warranty of quality.

Re: Some interesting documents (2)

*Message #8 Posted by **Valentin Albillo** on 18 July 2003, 9:46 a.m.,*
in response to message #7 by Andrés C. Rodríguez (Argentina)

Hi, Andrés:

Andrés posted: *"Would you consider to put the articles in the Articles Forum, avoiding the "short life" condition of messages in the Messages Forum?"*

If you refer to the 2nd batch of links, all of them point to PDF documents not authored by me, so I am not entitled to submit them for the Articles Forum.

If you refer specifically to the links I posted to some of my Datafile articles (the "Long Live ..." series for instance), I would be willing to submit them to the Articles Forum, but they are in PDF format. Some months ago, I exchanged some e-mails with this Forum's gentle provider and maintainer, David Hicks, re

the possibility of creating a new section in MoHP specifically to upload PDF documents, but he then argued that that would make it quite difficult if not impossible to access them from PDAs, and that was it.

However, I feel that PDF is the right format for the articles, as it allows full reproducibility, including fonts, tables, graphics, everything like it originally appeared in print, the user would in fact get a real facsimile of the original. Much of this would be lost if uploaded as HTML or plain vanilla text, and I'm not for it.

Should David reconsider the possibility of actually creating this new section, I would certainly obligue by submitting a number of my articles, both past and future, in PDF format.

"PS: I haven't had time to follow the links, but the fact that they come from you is a warranty of quality."

Thank you very much, you're far too kind. Matter of fact, both Luiz and you are probably the 'kindest' of all Forum visitors in general (IMHO, of course, not to belittle anyone else). Myself, I'm regrettably much more on the 'rude' side, so noone should expect too 'flowery' a language from me ... :-)

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Today I took the HP41 to class, and...

*Message #1 Posted by **Harry** on 17 July 2003, 6:27 a.m.*

first the teacher took it away from me to play with it, cause his 41 is broken and he hadn't seen one for a while :)

But thats not the reason for this post. We did microcontroller stuff today and I needed to convert from decimal to hexadecimal. Now why does the HP41 not support that? Is there a module that does that?

I don't really need it, as I have a HP16C emulator for the HP48, wich is a lot nicer than using the 48 without the emulator. Also have a 16C, but its too mint to take it to class :)

Regards, Harry

ADVANTAGE ROM

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 17 July 2003, 7:15 a.m.,*
in response to message #1 by Harry

Hi;

As far as I know, ADVANTAGE ROM is the one that has direct binary-related handling functions for the HP41.

I am not sure if there are other HP original ROM that has them. Some not-original HP ROM (thirdy-part manufacturing) offer some sort of internal data handling and will accept and show hex representations.

I wrote some routines at the time I was graduating as an Electrical Engineer that allow 32-bit binary manipulation. They were based in the HP16C repertoire and offer some practical applications. If you wanna try them out, send me an e-mail and I'll send you the listings and how to use them. I'm preparing the definitve document so I can post it at the Museum's library. Another contributor has already tested the programs (I just do not like to mention names before asking if I can) and he found them usefull and added some important remarks, suggestions and even an extra routine. If you are interested, you can also help me enhancing them the necessary way.

Let me know.

Luiz (Brazil)

Edited: 17 July 2003, 7:19 a.m.

Re: Today I took the HP41 to class, and...

*Message #3 Posted by **Valentin Albillo** on 17 July 2003, 7:32 a.m.,*
in response to message #1 by Harry

Hi, Harry:

Harry posted:*" I needed to convert from decimal to hexadecimal. Now why does the HP41 not support that? Is there a module that does that?"*

The Advantage ROM module does that, and much, much more. Matter of fact, it gives the HP-41C nearly all advanced functions present in all Voyager series calculators (HP-12C, HP-15C, and HP-16C) and then a lot more, including full matrix operations, solve, integrate, boolean operations, base conversions, Time Value of Money, complex number operations, vector operations, differential equations and many others. It is a 12K (!!) ROM, and it shows.

Also, most of its advanced functions are implemented in machine code (not user code or synthetic programming), and they run extremely fast and use the least user resources possible (for example, the matrix function MSYS can solve a system of N linear equations in N unknowns in a *single* step (say 37 MSYS), and using NO numbered storage registers (it can work directly with matrices dimensioned and stored in Extended Memory), so it can run at SIZE 000 !!!

In my not-so-humble opinion, it's the best module ever made for the 41C, in terms of practical, all-purpose usability, for both students and technical professionals. There are other very interesting modules, but either they are far too specialized and low-level, or else they are written in user-code/synthetics and so can't really compete in terms of speed or convenience.

I would very heartily advise you to get the Advantage ROM really ASAP. It will solve your present hexadecimal problem, and will enhance your HP-41C power and usability 1000% for any other tasks you may contemplate in the future.

Best regards from Valentin Albillo.

Re: Today I took the HP41 to class, and...

*Message #4 Posted by **Harry** on 17 July 2003, 8:02 a.m.,*
in response to message #3 by Valentin Albillo

Thanks, sounds like i HAVE to have that module. I currently have (thats what my second 41 from ebay came with) a "Financial 1", "X Functions", and "Stat 1" module. Does the Advantage module include all the functions of these modules?

Regards, Harry

Re: Today I took the HP41 to class, and...

*Message #5 Posted by **Valentin Albillo** on 17 July 2003, 8:24 a.m.,*
in response to message #4 by Harry

The Advantage ROM does include basic Time Value of Money functionality. It does use Extended Memory for all matrix capabilities, if available, even defining a special matrix file type in EM. This means you can define very large matrices and work with them without using any of the numbered registers (000 and upwards) in main RAM, so avoiding conflicts with any other programs you might have.

Whatever the case, trust me and get one fast. You'll be delighted with it, I really think that having an HP-41C without the Advantage ROM is actually wasting that wonderful machine's potential, your teacher won't believe his/her eyes when you demonstrate even a small part of its capabilities.

Best regards from V.

One more question about the Advantage module

*Message #6 Posted by **Harry** on 17 July 2003, 8:35 a.m.,*
in response to message #5 by Valentin Albillo

How does it handle complex numbers? Do I get a complex stack, or does it use the x/z register for the real and the y/t register for the imaginary part?

I would rather have a complex stack like the 42s has.

Regards, Harry

Re: One more question about the Advantage module

*Message #7 Posted by **Valentin Albillo** on 17 July 2003, 8:55 a.m.,*
in response to message #6 by Harry

Fifty-fifty. You do get a complex stack, with all typical stack operations available, but it's only 2 levels high. Nevertheless, it's quite useable and you can perform basic arithmetic plus many other functions, trascendentals included. Which is better, they can be used both in an interactive way and as non-interactive calls from your own programs.

By the way, the HP42S doesn't actually have a "complex stack", it's more like it can store a complex number in a single stack register. The only HP calculator featuring a true complex stack is the HP-15C. What's the difference, you say ? Well, in the HP-15C you can enter a complex number in the X stack register without losing your complex number already present in the T stack register. That you can't do in an HP42S, because it does need to use both X & Y stack registers to enter a single complex value. The HP-15C will do that using just the X register, in both its real and complex incarnations.

Best regards from V.

Re: One more question about the Advantage module

*Message #8 Posted by **Harry** on 17 July 2003, 9:29 a.m.,*
in response to message #7 by Valentin Albillo

Yah, I get what you are saying. But I never had a problem with that.

BTW, on the 15C, to change the sign of a complex number you have to press: "f", "Re<>Im", "CHS", "f", "Re<>Im", "CHS". thats 6 (!) keystrokes. Is there an easyer way to do that? Ok, "1", "chs", "*" would do, but that would mean loosing the t register again ;)

I don't really use the 15C for complex operations anyway, as I like to have both parts of the number displayed at the same time. And I had to write a program to be able to store complex numbers.

Regards, Harry

Advantage Pac / general complex-number support

*Message #9 Posted by **Karl Schneider** on 18 July 2003, 12:47 a.m.,*
in response to message #8 by Harry

Harry --

You sound like a knowledgeable collector, too! I also have the 15C, 16C, 41CV, and 42S, as does Valentin and many others here.

I'll echo Valentin's comment about the Advantage Pac being the best one made for the 41 -- certainly the best one made by HP. (I have one, too.) Expect to pay > $40 on eBay for one. There are some details regarding the Advantage module that should be pointed out:

1. The complex-number support is the RPN-code routines originally developed for the Math Pac. It is not nearly as complete and easy-to-use as the complex-number functionality in the 15C and 42S.

2. The binary/octal/hexadecimal conversions, while micro-coded, are somewhat cumbersome and designed for unsigned integers only. Again, no match for the 42S/32S/20S, etc...

3. The curve fitting routines, I believe, are the ones in the Stat module you have.

Regarding complex-number functions, the 42S would be closest to ideal if its "COMPLEX" command brought up the two-level menus of the HP-28C "CMPLX" and 48G "CMPL" functions.

The 28C/S is also quite good, but it doesn't allow computations in polar mode or display polar-mode values. Conversions must be perfomed, 15C-like.

Regarding complex-number support on RPL machines:

1. Does anyone know how to enter a complex-valued number in polar form on a 48G or 49G? I'm stumped! Rectangular-coordinate entry is assumed, even in "POLAR" mode (R < Z annunciator); there seems to be no P->R conversion on RPL machines (28C, 48G, 49G) that works on two real-valued arguments.

2. Try this on a 49G in "FIX 5" display mode :

```
(ALPHA)
CMPLX
(ENTER)
```

I get the following pop-up menu:

```
0. MAIN MENU
1. 00000RE
2. 00000IM
3. 00000CONJ
4. 00000ARG
5. 00000ABS
6. 00000i
```

In addition to the bug, it's not even the same menu as the one provided by option 9 under the "MTH" function. What a POS! I assume that there's a downloadable ROM upgrade, but this product is beyond patches...

How to enter a complex number

*Message #10 Posted by **Harry** on 18 July 2003, 7:55 a.m.,*
in response to message #9 by Karl Schneider

I am not quite sure if I understand your question, but this is what I think you asked: You want to enter a number not by real and imaginary part, but by "Betrag" (don't

know the english word) and Argument. This is done by opening brackets, typing the "Betrag" (still don't know the english word :)), then <right-shift> <SPC> (that angle thing next to pi on the SPC key), then the argument followed by <Enter>.

I hope this is what you asked.

regards, Harry

Re: Advantage Pac / general complex-number support

*Message #11 Posted by **jeff** on 18 July 2003, 8:46 a.m.,*
in response to message #9 by Karl Schneider

If I could design a 42SII+ (entirely mythical of course, it is not going to happen), I would put a key labelled "i" somewhere on it, with a shifted function of the angle symbol. To enter a complex number in rectangular form, key in the real part, press "i" and key in the imaginary. For polar form, key in the magnitude, press shift "i", and enter the angle. The calculator would convert the entered number to the current display format if necessary. The COMPLEX function could then bring up a menu of useful complex operations as CMPL does on the 48.
There are at least a couple of ways to enter a polar coordinate form complex number into a 48. One is as Harry suggests, use the parentheses and the angle key (R-shift SPC). Another is to first convert it to rectangular form, with the real part in stack level 2 and the imaginary in stack level 1 then use the R->C command. You are correct, there is no high-level command on the 48 to convert to rectangular, but you can write a simple program to do it and call it ->REC (like the 42S) or P->R or whatever you like. You could use sines and cosines and such to do the work, of course. There is however, a processor level command (probably not the right term, all you 48 experts please forgive me) that does the job. It kind of annoyed me that the command is in the machine but HP did not make it a high level command with a name, so I access the function using the following routine:
Polar to Rectangular:
Angle in stack level 2, magnitude in level 1

<< SWAP # 2B4BBh SYSEVAL SWAP >>

returns the imaginary in level 2 and real in level 1. I guess you could leave out the second SWAP, and the numbers would be ready to do a R->C on, but I follow the old convention for polar to rectangular (and rectangular to polar) operations on values on stack level 1 and 2 (equivalent to x and y on 4-level stack machines).

Rectangular to Polar:
imaginary in level 2 and real in level 1

<< SWAP # 2B48Eh SYSEVAL SWAP >>

returns the angle in stack level 2, magnitude in level 1

Using the parentheses and the angle key, it takes 5 keystrokes (not counting keying in the numbers) to get a polar form complex number into the 48. If you assign the above functions to a custom menu to which you also assign the built in R->C command, it takes four keystrokes. If you leave the second SWAP out of the programs, it only takes three.
For your info, I have read that using SYSEVAL is somewhat dangerous. Something

about crashing the system if you type in the hex number wrong. The above programs have not caused any problems for me, but use at your own risk.

Entering complex in Polar mode

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 18 July 2003, 9:48 a.m.,*
in response to message #9 by Karl Schneider

Hi, Karl;

the HP49G is actualy a hard-to-deal calculator. I like its resources, but operating it is another story.

You need the angle sign, easily found in the HP48G's keyboard; in the HP49G, it's the right-shifted ALPHA simbol in the [6] key. Let's suppose you wnat to enter 10|_45º, right? Try this:

```
[left-shift] [()] 10
[ALPHA] [right-shift] [6]
45 [ENTER]
```

If everything is right, you'll see:

```
(7.07106781187,7.07>
```

To visualize it in polar mode, you should go to [MODE] menu and change Coor. System set.

Hope this helps.

Best regards.

Luiz (Brazil)

"Thanks" to Harry, Jeff, and Luiz...

*Message #13 Posted by **Karl Schneider** on 18 July 2003, 11:58 p.m.,*
in response to message #9 by Karl Schneider

You all answered my questions.

Looks as though the 48 has everything you might want in complex-number support, except "intuitiveness" of use. The 49G is something else - [ALPHA][Rshift][UNITS] to insert an angle symbol? Good grief!

Re: Today I took the HP41 to class, and...

*Message #14 Posted by **Axel Poqué** on 17 July 2003, 8:14 a.m.,*
in response to message #1 by Harry

...or you could use this little program:

http://www.hpmuseum.org/software/41hexcon.htm

Axel

41C Hex<->Dec Program also in...

*Message #15 Posted by **Karl Schneider** on 18 July 2003, 12:58 a.m.,*
in response to message #14 by Axel Poqué

HP-41C Standard Applications book, which was later sold as a Pac (should be cheap on eBay).

The program is limited and uses 141 instructions, though...

Re: 41C Hex<->Dec Program also in...

*Message #16 Posted by **David Smith** on 19 July 2003, 2:47 p.m.,*
in response to message #15 by Karl Schneider

I don't think the 41C Standard Applications Pac was ever sold as a complete pac with module and manual. For a while the manual was included with the machine. You could send in a coupon to get the module. It arrived in an antistatic zip lock bag mailed in a foam padded bag. The module was also sold in a small box like the 82106A memory module, but it was way too small for the manual.

Standard Apps module

*Message #17 Posted by **Karl Schneider** on 20 July 2003, 2:20 a.m.,*
in response to message #16 by David Smith

David --

Aha -- so *that's* how it was done! I bought a cobbled-together 41CV package with a stapled Standard Apps book from November 1981. I also have on loan a 41C from 1980 that apprently came with a spiral-bound Standard Apps book from August 1980.

I have seen "Standard Apps" packages with modules available on eBay. Since most of the programs are trivial, or were improved and provided with other Pacs (e.g., Time, Stat, Financial, Math, Advantage) later, these "Standard Apps" packages don't command high prices.

Re: Standard Apps module

*Message #18 Posted by **David Smith** on 21 July 2003, 4:20 p.m.,*
in response to message #17 by Karl Schneider

For a long time I thought that all the Standard Pac modules were sent out in the padded envelope. Then a couple of months back I got one in the small box. You obviously had to get the manual separately (if you did not get it with the calculator).

Re: Today I took the HP41 to class, and...

*Message #19 Posted by **Grant Goodes** on 17 July 2003, 10:41 a.m.,*
in response to message #1 by Harry

The HP-IL Development ROM also has very nice radix entry/display routines (in assembler).

grant..

Re: Today I took the HP41 to class, and...

*Message #20 Posted by **Dave Shaffer** on 17 July 2003, 10:52 a.m.,*
in response to message #1 by Harry

Tell your teacher to show up here, and we'll get HIS '41 fixed. (Think of the extra credit that might be worth!)

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Help! Can one store a table of values as a 15c array?

*Message #1 Posted by **glynn** on 17 July 2003, 1:34 a.m.*

A silly question, but instruction books are far away...

I am currently working at a place where we do one thing repetitively all day long: quote prices on an item we manufacture. We have a base price, plus a table of prices based on the quantity and complexity of the items; the consumer pays the base price PLUS the price I find in the table.

We have a billion $1 4-bangers lying around to do the job. I have the laminated table of prices on my desk. I am not supposed to supply my customers with these intermediate values. This means I talk to the customer, show him the options, then run back to my desk, calculate his price, and come back to him. This, quite frankly, embarrasses me.

And it occurs to me that, in this 15c of mine, is the ability to store an arbitrary matrix such as my "table". I've never used matrices, for any reason, since getting the 15c-- but if I could enter the table into it and recall individual values from it, this would be a neat solution and yet another excuse to have my favorite calc in my pocket.

Has anyone used a matrix this way, and how do you do it?

If this is too silly to use the 15c for, I will probably dig out my junky wires-hanging-out '75 and try to write a BASIC program. But the 15c is so nice and unobtrusive...

;-)

Re: Help! Can one store a table of values as a 15c array?

*Message #2 Posted by **Thibaut.be** on 17 July 2003, 3:56 a.m.,*
in response to message #1 by glynn

The answer is yes

BUT

The matrix can't be bigger than 8x8.

In addition recalling the data is not that user-friendly.

But if this is sufficient for you, it's worth trying !

Re: Help! Can one store a table of values as a 15c array?

*Message #3 Posted by **Valentin Albillo** on 17 July 2003, 4:19 a.m.,*
in response to message #1 by glynn

Hi glynn:

It may be feasible (and convenient) depending on the amount of data we're talking about. If the number of table values is 67 or less, you can indeed store them in an HP-15C array and recall them manually at will.

If the number of values is less than 67, there will be some space still left to write a small program that would do the recalling and even perform some calculations using the stored values, automatically.

Please provide specific, exact and comprehensive details on the number of data and what you want to do with them (exact specifications) and it's quite possible that we can offer you some precise help or even write the routine for you.

Best regards from V.

Re: Help! Can one store a table of values as a 15c array?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 17 July 2003, 7:03 a.m.,*
in response to message #1 by glynn

Hi, Glynn;

just to add a few more data.

Based on what both Thibaut and Valentin posted, you can summarize these facts:

- the maximum number of registers in an HP15C is 67;
- only 64 of them can be used in matrices, because RI, R0 and R1 will be always RI, R0 and R1;

As Valentin mentioned, you can store up to 67 numbers, but only if you have less than 64 you'll have space for a program or routine; RI, R0 and R1 cannot be converted into program steps.

You can create matrices with valid dimensions starting with [64 × 1] to [1 ×64] and with any other [*# of rows* × *# of columns*], provided that *# of rows* × *# of columns* <= 64.

If you find a suitable arrangement, defined by an specific # of "products" and related # of items/product, you define the matrix DIMension directly like this:

of "products" [ENTER] # of items/product [f][DIM] { [A] to [E] }

The { [A] to [E] } means you can choose which one is better for you. Maybe [f][DIM] [C] suggests Costs, who knows?

You can fill the matrix as a sequence of linear data, starting with C (1,1) to C (r,c), being (r,c) the indexes for the last element in the matrix. Considering *r* as # of rows, *c* as # of columns and [C] as the matrix you are going to use to store your data, follow these steps to create the matrix and store data on it:

```
(1) [f][MATRIX] 0 (or [ON]/[-] to clear all memory)
(2) r [ENTER] c  [f][DIM] [C]
(3) [f][MATRIX] 1
(4) [f][USER] (to activate USER mode)
(5) enter first data
(6) [STO] [C] (shows element indexes while [C] key is held down)
(7) enter next data
(8) back to step (6) till last data
```

Obs: [f][MATRIX] 0 clears all existing matrices, if any, and frees their space to new data; [f][MATRIX] 1 stores 1 in R0 and R1, "initializing" matrix index, as explained right below; USER mode is activated to allow automatic "index update" (increasingly) each time [STO] {[A] to [E]} (or [RCL] {[A] to [E]}) is pressed.

Alternatively, you can use a non-sequential way to enter data that is almost the same one used to recall them

non-sequentially. This method uses two stack registers contents - Y and X - as indexes for (r,c). When using sequential access, R0 and R1 are used as indexes, i.e., element C (r,c) is, in fact, C (R0, R1). If you want, you can access C (r,c) using stack registers and the element would be C (Y,X). This is accomplished with the sequences [RCL] [g]{ [A] to [E] } and [STO] [g] { [A] to [E] }. Assume you are still working with matrix C and it was defined with ten products and 5 items for each product. To create this matrix you should use:

```
10 [ENTER] 5 [f][DIM] [C]
```

After you fill it with all data, let's suppose you want to add the first and the fourth elements in the third row. To recall each of them and add their values, you should do this:

```
(1) 3 [ENTER] 1
(2) [RCL][g] [C] ([C 3,1    ] is briefly shown)
(3) 3 [ENTER] 4
(4) [RCL][g] [C] ([C 3,4    ] is briefly shown)
(5) [+]
```

Step (1) defines row # 3 and column # 1 as indexes;
step (2) recalls C (3,1) (or C (Y,X)) to the stack;
step (3) defines row # 3 and column # 4 as indexes; note that previously recalled value is now in Z-register;
step (4) recalls C (3,4) to the stack; now you have C (3,1) and C (3,4) in Y and X registers, respectively;
step (5) adds them both.

I hope this helps you a bit. If I forgot anything and you cannot do it, please, let us know. I wrote this all by heart, maybe there are errors.

Success.

Luiz (Brazil)

Edited: 17 July 2003, 7:22 a.m.

You guys are awesome!

*Message #5 Posted by **glynn** on 17 July 2003, 9:10 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Though the H15c description here at the museum explained the modes of entry-- and I wouldn't change that description at all-- I was missing a couple of steps (or more likely, misperceiving them), resulting in "error 4"s and such when trying it solo. But I have printed out your explanation, Luiz, and just toying with it here before I go to work, I see I *can* put values into the matrix AND see them later. That is of tremendous value!! Thank you so much, Luiz!

While 8x8 won't hold *ALL* permutations I have in my table, it will certainly get the lower half in, the one my mind refuses to commit to memory. This ability to put things in an array would probably be more used by business people if they knew... so many times I've seen "cheat sheets" of data in co-worker's pockets, usually "encoded", like writing the number backwards with decimal removed.

All you guys-- Dave (what a great site), Thibaut, Valentin A. and Luiz V.-- thanks for being here and being helpful and willing. I'm always amazed at the cool ideas and precise information stored in YOU.

You´re welcome! And one missing fact

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 17 July 2003, 1:24 p.m.,*
in response to message #5 by glynn

Hello, Glynn;

thank you for your kind words.

One fact I did not mention is related to "randomly" store data in an existing matrix using

```
 [STO][g] {[A] to[E]}.
```

You simply enter the value you want to store, row # and column # and press:

[STO][g] {[A] to [E]}.

For example, if you take the previous marix C [10,5] and want to store 12 in C (4,2) using only the stack registers, you may use the sequence:

```
12 [ENTER]
4  [ENTER]
2  [STO][g] [C] ( [C 4,2      ] shown briefly)
```

Just to complement previous data.

Best regards.

Luiz (Brazil)

Edited: 17 July 2003, 1:26 p.m.

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To Kill the Flying Goose

*Message #1 Posted by **Pierre Brial** on 17 July 2003, 12:41 a.m.*

Good morning the List

I've made a tide prediction program for my HP41CX. With heavy use of cosinus, the program is rather slow : 4 minutes to compute the low and high tides of a given day. During the process, one can see the famous goose flying slowly across the display. Is there a way to replace it with an alpha message which remain displayed without stopping the program ? something like "please wait", or "computing..."

All the best

Pierre

Re: To Kill the Flying Goose

*Message #2 Posted by **Ernie Malaga** on 17 July 2003, 2:15 a.m.,*
in response to message #1 by Pierre Brial

Pierre:

The "goose" flies across the display automatically and, to the best of my knowledge, there's no way to remove it. The "goose" advances one position to the right each time the program finds a LBL instruction, but even if you were to (somehow) remove all LBLs, all you'd get is a stationary goose.

It took the genius of Bill Wickes to make the goose fly backwards!

-Ernie

Re: To Kill the Flying Goose

*Message #3 Posted by **Mike (Stgt)** on 17 July 2003, 3:53 a.m.,*
in response to message #1 by Pierre Brial

Yep, that's a simple one: in your program just put a MSG in Alpha and do an AVIEW. W/o printer make sure flag 21 is clear otherwise AVIEW halts execution. For heavy itterating routines it's a good idea to put something in the display as the program runs some fraction of miliseconds faster. Reason: at any label there is no need to update the display.

Ciao.....Mike

Re: To Kill the Flying Goose

*Message #4 Posted by **Werner Huysegoms** on 17 July 2003, 4:10 a.m.,*
in response to message #3 by Mike (Stgt)

You can even make the message scroll the way the goose does. Do SF 25 "MESSAGE" AVIEW SF 99 and

from there on, every LBL will scroll the message one place to the right in the display.

Re: To Kill the Flying Goose

*Message #5 Posted by **Pierre Brial** on 17 July 2003, 5:58 a.m.,*
in response to message #3 by Mike (Stgt)

Great tricks ! Thank you very much, Mike and Werner, for these informations. I used the time function to see if there is any speed differences. They are under 2 seconds :

- with flying goose : 4' 29.18"

- with a still message : 4' 29.36"

- with a moving message : 4' 27.86" Thank you again.

Pierre

Re: To Kill the Flying Goose

*Message #6 Posted by **Ernie Malaga** on 18 July 2003, 1:58 a.m.,*
in response to message #5 by Pierre Brial

Incredible! I don't remember reading about this, ever. Was it ever published in the PPC Journal?

-Ernie

Re: To Kill the Flying Goose

*Message #7 Posted by **Valentin Albillo** on 18 July 2003, 4:06 a.m.,*
in response to message #6 by Ernie Malaga

Yes, it was. Just in case you don't have them yet, I would heartily recommend getting Jake Schwartz's CDs containing **all** (!!) issues of PPC Calculator Journal, PPC Computer Journal, HP Keynotes, HPX, whole PPC ROM manual, etc, etc, etc.

Except for the fact that it's completely missing all PPC Technical Notes issues (and those are, IMHO, even higher quality stuff than PPC proper), this is the most comprehensive, amazing stuff any HP calc lover can ever be blessed with. An absolute **must**, if ever was one.

Best regards from V.

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Great photos of the Xpander

*Message #1 Posted by **jose goncalves** on 16 July 2003, 10:22 p.m.*

This offer displays great photos of the Xpander. It may be worth watching:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3035922485&category=20335

Jose

Re: Great photos of the Xpander

*Message #2 Posted by **Mark Hardman (LED)** on 16 July 2003, 10:29 p.m.,*
in response to message #1 by jose goncalves

The seller has already posted about this terrific find.

Bought HP Xpander at sale today.

I would love to know how much they paid for this at the original garage sale.

Mark Hardman

Re: Great photos of the Xpander

*Message #3 Posted by **jennifer seelye** on 17 July 2003, 5:47 p.m.,*
in response to message #2 by Mark Hardman (LED)

I am glad you two like my photos. I did have one person that wanted more photos, a front view, back view & 3/4 view. Silly me, I thought I already did a front & back shot.

I will tell you my cost after the auction is over. All I can say is that I paid less than the price right now.

I do have one question that people here may know here. What kind of batteries should be used with this calculator & where can I get them? When I tested this xpander it was plugged in to recharge, I didn't realize that the batteries are dead and do not work. I posted that info on the auction & emailed the high bidder (no reply yet). I don't think that will change the auction much but I'm glad I noticed this before the auction ended & the calculator shipped.

Thanks in advance! Jennifer

Re: Great photos of the Xpander

*Message #4 Posted by **Y K Wong** on 17 July 2003, 9:25 p.m.,*
in response to message #3 by jennifer seelye

Hi Jennifer,

This is the common problem with all the prototype Xpander, once the battery is totally drained for sometime, despite that you charge it with the original charger for 8 - 10 hours, the batteries will not hold any charge.

All you need to do is open up the battery door (note, HP has clip off the two clips, therefore, you would need to use two small screw drivers to insert into the cut-off clips concurrently to open it) and remove the two "AA" NiMH batteries and put them in any standard NiMH external charger for a couple of hours. After that, reload the batteries into the Xpander to complete the eight hours charging with the original charger. Once this is done, the Xpander can be charge normally with the original charger. However, if you would leave the battery "flat" in the Xpander for a another short period of time, you would need to go thru the same process again. On the other note, please take care while removing the batteries since there are spring on both positive and negative end of the battery terminals, you would need to use two small screw drivers to depress the springs in order to remove and reload the batteries.

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What is an HP 82972A for the HP-85?

*Message #1 Posted by **John** on 16 July 2003, 6:46 p.m.*

Hi,

eBay has a listing for an HP-85 with an 82972A upgrade - Google has no hits for this, anyone know what this means please?

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2545475283

Thanks, John

Re: What is an HP 82972A for the HP-85?

*Message #2 Posted by **Vassilis Prevelakis** on 17 July 2003, 4:25 a.m.,*
in response to message #1 by John

It is probably the A to B upgrade. This is why you get the 64K memory module which does not work with the 85A.

**vp

Re: What is an HP 82972A for the HP-85?

*Message #3 Posted by **John** on 19 July 2003, 5:00 a.m.,*
in response to message #2 by Vassilis Prevelakis

Thanks vp, sensible suggestion (as always!)

Regards, John

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MLDL2000 Specification Update

*Message #1 Posted by **Meindert Kuipers** on 16 July 2003, 3:31 p.m.*

I have just uploaded the official version 1.0 of the MLDL2000 Specification. Those who are interested are free to download the PDF file from www.kuipers.to/hp41. In the past I have had questions for other formats, but I am trying to keep the spec under revision control, so PDF is what you get.

Progress: The new state machine works, I seem to have just a tiny little bug in the address decoder, which I hope to fix tonight. If this works the next steps are:

- Make USB I/O work, this is actually more software work than hardware, but not extremely complicated. - Get the PCB routed and make real proto's!

Overall expectations: put the MLDL2000 on your Xmas shopping list ;)

To avoid flames: this is NOT a commercial project, I will sell units at cost. Unless of course HP has the common sense to start producing the HP41 again (or anything else that has I/O ports. I will be first in line to hook up something to it).

Meindert

Re: MLDL2000 Specification Update

*Message #2 Posted by **Massimo Gnerucci (Italy)** on 16 July 2003, 4:07 p.m.,*
in response to message #1 by Meindert Kuipers

> Quote:
>
> Overall expectations: put the MLDL2000 on your Xmas shopping list ;)

Well done Meindert!!!

Sign me in for a couple of them, thanks **:-)**

Massimo

Re: MLDL2000 Specification Update

*Message #3 Posted by **Trent Moseley** on 16 July 2003, 10:47 p.m.,*
in response to message #1 by Meindert Kuipers

I know sometimes I'm dense but what in the world is a "MLDL2000"?

tm

Re: MLDL2000 Specification Update

*Message #4 Posted by **Meindert** on 17 July 2003, 2:49 a.m.,*
in response to message #3 by Trent Moseley

From the MLDL2000 Specifications:

What is an HP41 MLDL? MLDL stand for Machine Language Development Lab. Sounds cool and high-tech, doesn't it? But what does it? The HP41 architecture understands two programming languages: User Code and Machine Code (or M-Code). The latter is normally not available to end-users. Expansion of the HP41 system is usually done with plug-in modules, or ROM (for Read Only Memory). These contain either User Code or M-code (or a mix thereof). These ROMs could be produced by HP only, although larger groups (like the PPC who made the famous PPC ROM) could develop code and have it produced by HP. When details of the HP41 interface became known it was apparent that the ROM could actually be emulated by (battery backed) RAM. An unused HP41 instruction was defined by the user community to enable writing into the RAM and the Machine Language Development Lab was born. It was now possible for end-users to write and test their own M-Code and later burn it into an EPROM.

Re: MLDL2000 Specification Update

*Message #5 Posted by **Mark Hardman (LED)** on 16 July 2003, 10:42 p.m.,*
in response to message #1 by Meindert Kuipers

I think I might wet myself.

Do I understand correctly that this will give me a way to protect the precious investment I have in rare HP-41 modules by copying their ROM images to the MLDL2000? An giving me access to them all (well some) of them at the same time?

Put me on the list for one.

Oh, the dream of learning m-code is within my grasp.

Mark Hardman

Re: MLDL2000 Specification Update

*Message #6 Posted by **Sean McNamee** on 17 July 2003, 1:01 a.m.,*
in response to message #5 by Mark Hardman (LED)

At cost?? Wow - you are a generous person, Meindert! All the time and effort put into this, and all you ask is your own out-of-pocket... Please put me down for one as well. I am VERY much looking forward to 41 ML!!

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12c: How do you change from "," to "."?

*Message #1 Posted by **bruce** on 16 July 2003, 10:40 a.m.*

Somehow, I changed from the normal US setting of the thousands separator being a "," to a "." Also, decimal points are now ",".

Does anyone know how to change it back?

Thanks

Re: 12c: How do you change from "," to "."?

*Message #2 Posted by **Harry** on 16 July 2003, 10:43 a.m.,*
in response to message #1 by bruce

Press the dot and hold it. Then press on and realease it. Then release the dot.

Regards, Harry

Thanks!

*Message #3 Posted by **bruce** on 16 July 2003, 10:57 a.m.,*
in response to message #2 by Harry

Thanks!

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HP 17bii+ picture!
*Message #1 Posted by **Jonas Lööf** on 16 July 2003, 9:57 a.m.*

Look at this (rusian) site... It appears to be a picture of the uppcoming hp 17bii+. I rather like the look!

http://www.officemart.ru/news_detail_8163.htm

/Jonas

Re: HP 17bii+ picture!
*Message #2 Posted by **Harry** on 16 July 2003, 10:17 a.m.,*
in response to message #1 by Jonas Lööf

Looks a bit liek the 10bII

10bII

regards, Harry

Re: HP 17bii+ picture!
*Message #3 Posted by **Scuba Diver** on 16 July 2003, 10:20 a.m.,*
in response to message #2 by Harry

It looks a LOT like the 10BII! Hopefully ir doesn't suffer from the same quality control issues as the 10BII!

The interesting thing is the reference to CITIZEN...any ideas???

B.

Quality?
*Message #4 Posted by **Patrick** on 16 July 2003, 12:52 p.m.,*
in response to message #2 by Harry

So, it appears likely that the technology of the new 17BII+ will be on about par with the 10BII. As Ron says, the 33S will likely be the same.

So the question is, are there quality issues with the 10BII? I've never touched one, but they sure look cheaply made. Do they feel solid? How do the keys feel? Do they register reliably? Do they bounce? Is the display easily readable? Tell us more!!!

Re: Quality?
*Message #5 Posted by **Scuba Diver** on 16 July 2003, 1:16 p.m.,*
in response to message #4 by Patrick

Well, I've played with a 10BII at the store, and it definately is of lower quality than the 10B. The keys don't have the same feel; in short, you can tell the difference, and it's not a good difference!

I read a thread on here a few months ago that talked about the "N" key sticking on many 10BIIs because the key is too close to one of the plastic stakes...not a sign of good planning and design!

One thing to keep in mind is that the 17BII+ will retail for about $120 US and the 10BII is nowhere near that price point. Although the design is the same, it's possible that the internals are more robust...who knows, we may be pleasantly surprised...emphasizing the word MIGHT! :)

B.

Re: Quality?
*Message #6 Posted by **Gene** on 16 July 2003, 5:57 p.m.,*
in response to message #4 by Patrick

I quit using my 10BII after about a month because the FV key in the top right corner turned mushy and quit responding reliably to key pushes.

This was a contributing factor to the university where I teach the business math course deciding to change their recommended calculator from the HP-10B to the TI BAII Plus.

Oh well.

We'll see what this new puppy is really like soon, I suppose.

Re: HP 33s soon to follow
*Message #7 Posted by **Ron Ross** on 16 July 2003, 11:01 a.m.,*
in response to message #1 by Jonas Lööf

I suspect the new Hp33s will be along similiar lines also. Just imagine an Hp10bii keyboard on an Hp32s and Voila!!! Hp33s! Well double or triple the Ram on a 32s also, to maybe 1000 steps so as to justify a small number increment.

Re: HP 33s soon to follow
*Message #8 Posted by **jeff** on 16 July 2003, 1:03 p.m.,*
in response to message #7 by Ron Ross

I'd like more than just a few more program steps to justify that number increase. How about:
1. a two line display with softkeys like the 17Bii+.
2. 32k ram for programs
3. ability to enter, manipulate and display complex numbers as r + jx or magnitude and angle
4. shifted functions above the keys, alpha characters on that slanted key face
5. infra-red and/or serial cable input and output
6. clock and appointment functions
OK, I guess I am really hoping for a 42Sii+!

I order one of those too :)
*Message #9 Posted by **Harry** on 16 July 2003, 1:27 p.m.,*
in response to message #8 by jeff

I have little to no hope it will be like that though.

Regards, Harry

Re: HP 17bii+ picture!
*Message #10 Posted by **Jonas Lööf** on 16 July 2003, 11:33 a.m.,*
in response to message #1 by Jonas Lööf

A larger picture:

http://www.seodots.co.kr/hp17bii.html

Re: HP 17bii+ picture!
*Message #11 Posted by **Scuba Diver** on 16 July 2003, 12:25 p.m.,*
in response to message #10 by Jonas Lööf

I wonder if the 17BII+ has any sort of I/O capability; IR port?

I don't think that many 17BII users took advantage of the IR port, so perhaps they've taken this opportunity to keep the price point low and removed it...

Now I'm interested to see what the 19BII+ looks like!!

B.

NEW: HP 19bii+ picture!
*Message #12 Posted by **Mark Hardman (LED)** on 16 July 2003, 10:00 p.m.,*
in response to message #11 by Scuba Diver

Ask and ye shall receive!!!

HP-19ii+ is located at:

http://www.seodots.co.kr/AsaBoard/asaboard_show.php?bn=hp-calculators&fmlid=14&pkid=15&startTextId=0&buffer=14&thisPage=1&jk=1&mode=search&srchValue=&searchTemp=&term=

OK, it looks more like a concept drawing. But it does look nice IMO.

Mark Hardman

Edited: 16 July 2003, 10:02 p.m.

Mark, you're a miracle worker!
*Message #13 Posted by **Scuba Diver** on 16 July 2003, 11:33 p.m.,*
in response to message #12 by Mark Hardman (LED)

It does appear to be a concept drawing, but it looks sweet! It has the fullsize enter key, which is missing on the 17BII+

I'll be lining up for that one when it goes on sale, let me tell ya!

B. P.S. Any idea how we can become beta testers? I'd give my right arm to be ambidextrous and my left to be a beta tester...

Re: Mark, you're a miracle worker!
*Message #14 Posted by **Mark Hardman (LED)** on 16 July 2003, 11:47 p.m.,*
in response to message #13 by Scuba Diver

What we need is a nice Korean speaking member of the forum to kindly translate this page for us.

A returned LDS Korean Missionary would do in a pinch.

Mark Hardman

Re: Mark, you're a miracle worker!
*Message #15 Posted by **Scuba Diver** on 17 July 2003, 12:03 a.m.,*
in response to message #14 by Mark Hardman (LED)

Unfortunately, most of the Koreans I know are mad because South Korea lost to Vancouver for the 2010 Winter games...they're not too keen on helping us gwai los out :) (I know, that's Cantonese, but I don't know any Korean!)

B.

Re: Mark, you're a miracle worker!
*Message #16 Posted by **Frank Wales** on 17 July 2003, 11:58 a.m.,*
in response to message #14 by Mark Hardman (LED)

> Quote:
>
> What we need is a nice Korean speaking member of the forum to kindly translate this page for us.

That's what the Fish is for:

http://babelfish.altavista.com/babelfish/urltrurl?url=http%3A%2F%2Fwww.seodots.co.kr%2FAsaBoard%2Fasaboard_show.php%3Fbn%3Dhp-calculators%26fmlid%3D14%26pkid%3D15%26startTextId%3D0%26buffer%3D14%26thisPage%3D1%26jk%3D1%26mode%3Dsearch%26srchValue%3D%26searchTemp%3D%26term%3D&lp=ko_en&tt=url

I love babelfish
*Message #17 Posted by **Scuba Diver** on 17 July 2003, 1:34 p.m.,*
in response to message #16 by Frank Wales

According to the translated site, "The HP-19BII the financial calculator was sterilized."

Ouch...that explains why we haven't seen any 19BIIs around...they're waiting for the swelling to go down! :)

B.

Re: NEW: HP 19bii+ picture!
*Message #18 Posted by **Raymond Del Tondo** on 17 July 2003, 12:31 p.m.,*
in response to message #12 by Mark Hardman (LED)

Yes, this one looks very stylish. As Scube Diver noted, it has the ENTER/INPUT key :-)

And it has the 'Printer' key.

Let's see it in real, please.

Raymond

Re: HP 17bii+ picture!
*Message #19 Posted by **Raymond Del Tondo** on 16 July 2003, 2:12 p.m.,*
in response to message #10 by Jonas Lööf

It's nice to see the original HP-17BII just right to the '17BII' :-) Just below the beamers, and above the cashier's machine.

However, I have a 10BII, and I must say, the keyboard is *not* reliable.

Maybe they solved the other problems, like the rubber feet, which were too small in the 10BII. Lets hope they improved the keyboard, else the machine is just trash.

BTW: I could imagine a 19BII+ to have an alpha keyboard like some of the older Casios, only some contact sheets behind a flexible plastic 'curtain' , at least after seeing the new 17BII;-)))

Raymond

Re: HP 17bii+ picture!
*Message #20 Posted by **Justin** on 17 July 2003, 8:24 a.m.,*
in response to message #1 by Jonas Lööf

It seems to have a Print key...does anyone know if the IR printer is still made?

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Whatever happened ... ?

*Message #1 Posted by **unspellable** on 16 July 2003, 9:44 a.m.*

Whatever happened to Sparcom and da Vinci?

Re: Sparcom and DaVinci

*Message #2 Posted by **Frank Travis** on 18 July 2003, 1:11 p.m.,*
in response to message #1 by unspellable

I had purchased Sparcom and DaVinci plug-in application cards (and their accompanying manuals) for HP 48SX/GX in years past from the now defunct EduCalc. Sparcom later became DaVinci and had the website www.dvtg.com. They apparently went out of business and sold their products to resellers. Now the only place I know of that still sells these products is Calcpro website www.calcpro.com. Its manager is Paul Nelson. I have bought HP 48GX calculators and accessories from them. Occasionaly Ebay website www.ebay.com has some of the plug-in cards and manuals.

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HP-41CX lock-ups

*Message #1 Posted by **Axel Poqué** on 16 July 2003, 8:36 a.m.*

I have recently acquired a HP-41CX in mint condition. It was produced in 1988 and it really appears to never have been used before (it was sold as Mint in Box).

I have been experiencing several (about 5 times) lock-ups during the short time (4 days) I've used it. The calculator cannot be turned off anymore, or it shows strange characters on the display, or it just displays "MEMORY LOST" when turned on.

Is this normal for a HP-41? Could this be related to just pressing a few keys to fast in succession? At least on one occasion it happened right after pressing 2 keys very rapidly when entering a program.

Axel Poqué

Re: HP-41CX lock-ups

*Message #2 Posted by **Thibaut.be** on 16 July 2003, 8:51 a.m.,*
in response to message #1 by Axel Poqué

Have you already tried fresh batteries ?

HP-41CX lock-ups

*Message #3 Posted by **Axel Poqué** on 16 July 2003, 9:00 a.m.,*
in response to message #2 by Thibaut.be

Yes, I had to, since they were the only thing not included.

I would have opened the calc already, to see if maybe the srew posts were damaged, but I do not want to risk damaging it, given its good condition. There are no loose parts inside, and it feels stable in my opinion.

Re: HP-41CX lock-ups

*Message #4 Posted by **bill platt** on 16 July 2003, 9:06 a.m.,*
in response to message #1 by Axel Poqué

Axel,

Is it half-nut or full-nut? Half-nuts have a rounded border in the display. My full-nut CV did that, abd it turned out to have cracked lower screw posts--which makes the compression contact between the brains and everything else.

I hope someone else with more experience has better news. But even with cracked posts, you can fix it.

Regards,

Bill

HP-41CX lock-ups

*Message #5 Posted by **Axel Poqué** on 16 July 2003, 9:14 a.m.,*
in response to message #4 by bill platt

It's a half-nut, produced 1988.

Is there a possibility to find out IF the screw posts are cracked (maybe transportation damage?) WITHOUT opening it? (I really don't want to damage it, since it is really mint!) How stable is the case if the calc is still ok - is it possible to bend it slightly, or does it creak when you try it? (I can't try at the moment since I'm at work and the calc is at home)

Re: HP-41CX lock-ups

*Message #6 Posted by **Harry** on 16 July 2003, 9:22 a.m.,*
in response to message #1 by Axel Poqué

Both my HP 41CVs behave strange when I haven't had batteries in them for a long time (more than 2 month).

One of them has a dimed display and shuts down after turning it on and off again a few times. It takes a week or so with batteries in it untill it operates propperly.

The otherone sometimes does not operate at all after puting batteries in. I then have to take them out again and give it another try after a week .

I got now idea what causes these strange behaviors.

Regards, Harry

HP-41CX lock-ups

*Message #7 Posted by **Axel Poqué** on 16 July 2003, 9:30 a.m.,*
in response to message #6 by Harry

Since the calc probably hasn't seen a battery for about 15 years, this could be the reason (although I guess that it has been tested by the seller). So you think the problem should go away over time?

Many thanks, Axel

Re: HP-41CX lock-ups

*Message #8 Posted by **Harry** on 16 July 2003, 9:45 a.m.,*
in response to message #7 by Axel Poqué

Well, I am not sure it will go away, as it sounds a bit more serious than the problems I have. But I would wait a while before opening it, especially when you are worried about damaging something. Just leave the batteries in it for a week. It's worth a try in my opinion. In case it locks up, you could also discharge the internal backup capacitor by connecting the batterie-contacts with alumin(i)umfoil for a day or so.

Regards, Harry

and good luck!

HP-41CX lock-ups

*Message #9 Posted by **Axel Poqué** on 16 July 2003, 10:23 a.m.,*
in response to message #8 by Harry

Ok, I will do so. Thanks a lot!

Axel

Re: HP-41CX lock-ups

*Message #10 Posted by **Thibaut.be** on 16 July 2003, 9:38 a.m.,*
in response to message #6 by Harry

Yes, next step after fresh batteries is bad contact. You can easily check this out in trying to turn it on while pushing with one hand the edges of the calculator close to the 1st row keys (LN, LOG, ...). If behaviour changes and improves while your're pressing then basd contact has been recognised.

If you hear something inside, it might be the fixing posts that are broken.

You will have to open it, but don't worry it's very easy. 1) take off the 4 rubber feet. Put them in a smaal plastic box so that no dust come on the glue. 2) unscrew the 4 screws. Make sure you recognize the short and long screws. 3) check if the posts are cracked. If yes try to recover all plastics parts 4) the calc should split into 2 parts with a center plastic part. The battery contacts and port contacts shold easily come out. 5) with a rubber, clean all contacts. 6) take a pin and put it under the flexible contacts. There is a kind of white foam that you could strecth by 1/2 - 1 mm. Make sure you dont scratch the flexible contacts. 7) glue up all the fixing posts with dedicated plastic glue (some people in the articles of this site gave exact name of components and brand). I use 2 component plastic glue that can be found il any DIY shop. Let it take the time to solodify correctly. 8) blow up all dust/dirtiness but make sure not to scratch anything. 9) mount your flexible back, make sure they are in good contact evrywhere with the PCB and the battery contacts 10) screw your calc, using the correct screws. you could put some very light grease on the screws as you will have to "dril" your fixing posts. PLEASE DO THIS GENTLY, AS CRACKING THE FIXING POSTS IS THE MAST THING YOU WANT : at the end, each 1/4 turn put the batteries on and turn your calc on : stop screwing when it turns on correctly

HP-41CX lock-ups

*Message #11 Posted by **Axel Poqué** on 16 July 2003, 9:46 a.m.,*
in response to message #10 by Thibaut.be

I think I will do this as a last resort, if the problem doesn't fix itself in time, as Harry suggested. I'll check for contact problems when I get home today.

Axel

Re: HP-41CX lock-ups

*Message #12 Posted by **David Smith** on 16 July 2003, 11:00 a.m.,*
in response to message #1 by Axel Poqué

My guess is the internal contacts need to be cleaned with 91% or stronger isopropyl alcohol. Halfnut machines only have the battery contact assembly. Fullnuts have a zebra strip connector under the CPU board. Both can get oxidized after a few years.

One way to check for cracked case problems is to look very carefully at the side seams of the case. Gently

squeeze the case halves together near the rubber feet. There should not be any movement (or mayby a few 1/1000 of an inch).

Also remove the port covers from the top of the machine and GENTLY pull on the case halves. Again there should be no movement. Dont pull too hard or you may cause the problem you are attempting to find. If the case halves come apart any then one or both of the top screw bosses has broken.

Re: HP-41CX lock-ups

*Message #13 Posted by **Pierre Brial** on 16 July 2003, 11:08 a.m.,*
in response to message #1 by Axel Poqué

Hello Axel Incorrect voltage supply sometime bring this behavior. What kind of battery do you use ? One day, by mistake, I supplied my HP41cx with 9 volts. The display began to show strange characters. I disconected the supply immediately, but after to have put correct voltage, the calculator didn't want to switch on again. I was very angry again myself and believed to have killed it. One month later, I try again without much hope with a soft 4.8 V. Miracle, the calculator work again ! So good luck with yours, and please tell to the forum if you succeed to fix the problem. All the best Pierre

Re: HP-41CX lock-ups

*Message #14 Posted by **Axel Poqué** on 16 July 2003, 12:40 p.m.,*
in response to message #13 by Pierre Brial

Just standard 1.5 V type N/LR-1 alkaline cells, so that should be not the problem.

I just discovered that I can provoke the behaviour by pressing the case near the top row, so it seems an internal contact problem (as suggested by Thibaut.be and Dave Smith). Now I only have to convinve myself to open the calculator...

Re: HP-41CX lock-ups

*Message #15 Posted by **Thibaut.be** on 17 July 2003, 4:47 a.m.,*
in response to message #14 by Axel Poqué

Gop ahead, open it. It's very easy, if you're a little careful you won't do any harm.

Re: HP-41CX lock-ups

*Message #16 Posted by **Thibaut.be** on 17 July 2003, 4:50 a.m.,*
in response to message #14 by Axel Poqué

BTW one can't sell a 41CX in mint condition with lose screw posts inside... You might want to try a replacement...

On the other hand once you've repaired it it will be quite invisible.

Re: HP-41CX lock-ups

*Message #17 Posted by **Raymond Del Tondo** on 16 July 2003, 2:18 p.m.,*
in response to message #1 by Axel Poqué

Hello,

did you buy one of these NIB CX's either at ClassicCalculators.com , or alternatively, from december64 off

eBay?

If yes, you could try to get a replacement from the seller.

Regards,

Raymond

HP-41CX lock-ups

*Message #18 Posted by **Axel Poqué** on 17 July 2003, 6:58 a.m.,*
in response to message #17 by Raymond Del Tondo

Yep, bought it NIB from december64 on eBay.

It is not that there is any visible or otherwise noticable damage to the calculator, nothing loose inside, etc - it just exhibits random lockups a bit to often. If you think I could get a replacement for this...

Axel

Re: HP-41CX lock-ups

*Message #19 Posted by **Thibaut.be** on 17 July 2003, 7:09 a.m.,*
in response to message #18 by Axel Poqué

Well, try it... they still have some as far as I know, and cracked screw posts is quite strange for a new calculator.

Re: HP-41CX lock-ups

*Message #20 Posted by **Axel Poqué** on 21 July 2003, 11:06 a.m.,*
in response to message #19 by Thibaut.be

Well, John Innes (december64) has kindly agreed to send a replacement. He even offered to send me a replacement if I tried repairing it first and couldn't get it working. I declined since I didn't want to (possibly) ruin an otherwise excellent calculator. (Thanks a lot, John, I hope you don't mind me posting this here, I just wanted to give an update and praise the way you do your business.)

Axel Poqué

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Blank-Nut On eBay?

*Message #1 Posted by **Mark Hardman (LED)** on 15 July 2003, 9:52 p.m.*

At the risk of pulling a "Gene" here, I'm curious why the following auction for an HP-41C OPT-001 has not been bid through the roof over its initial six days.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3034801541&category=11713&rd=1

Am I missing something here? The seller obviously does not know what he has on his hands. Or is the auction for a clever counterfit? The seller insists that his description of the item is correct, "No overlay or letters on the keys."

Mark Hardman (LED)

Re: Blank-Nut On eBay?

*Message #2 Posted by **Randy Sloyer** on 15 July 2003, 10:47 p.m.,*
in response to message #1 by Mark Hardman (LED)

For my 2¢ worth, the "clear tape on the bottom and sides" is probably holding the unit together. Once the top posts crack off, it's the standard user method to keep the battery/port connector in contact with the logic board.

In short, unless you are willing to solvent weld it back together, caveat emptor. That is of course if you are fortunate enough to get all the pieces. I doubt it though, as it missing a rear cover, so the broken bits had an escape port :^)

Or, being positive, it could just be holding the battery charger port cover on...

Edited: 15 July 2003, 11:06 p.m.

Re: Blank-Nut On eBay?

*Message #3 Posted by **Mark Hardman (LED)** on 15 July 2003, 11:39 p.m.,*
in response to message #2 by Randy Sloyer

The tape is too low to be holding the battery port in place. I'll go with your pessimistic view and count myself lucky that I pulled up short on the bidding.

Even a highly collectible piece of crap is still a piece of crap.

Mark Hardman

Re: Blank-Nut On eBay?

*Message #4 Posted by **Chan Tran** on 16 July 2003, 10:16 a.m.,*
in response to message #3 by Mark Hardman (LED)

Looks like it is a legit blank nut. However, I think it's in pretty bad condition.

Re: Blank-Nut On eBay?

*Message #5 Posted by **ted** on 16 July 2003, 1:24 p.m.,*
in response to message #4 by Chan Tran

Well, it is even more weird than that:

He talks about it being a CX, but there's no label on the front it as it's a blanknut; He talks about 'not having an adapter', but anyone knows how to put batteries in a holder; I suspect he knows it doesn't work, and is just talking about adapters to make it sound hopeful. In any case he knows more than he's disclosing.

Sorry to sound so distrustful and disillusioned; I've learned my lessons the hard way.

Re: Blank-Nut On eBay?

*Message #6 Posted by **Raymond Del Tondo** on 16 July 2003, 2:28 p.m.,*
in response to message #5 by ted

Hi,

I don't think that the calc is a CX. Look at the bottom label. Every CX I saw so far has the silver CX label with the CX 'ED' short key description.

There's a chance that a blanknut doesn't even have this by default, but there's also a chance that the top and bottom halves of the machine just don't belonged to each other originally. Or the tape strip is used to hold the label down, because it may not glue perfectly...

However, the missing front label isn't a sign against a blanknut. AFAIR the ones I saw so far didn't have that label, too.

Raymond

Re: Past Auctions

*Message #7 Posted by **gifron** on 16 July 2003, 2:36 p.m.,*
in response to message #5 by ted

This seller has sold electronics in the past that he could test, even though he was selling the unit only. See http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=38331&item=3032060039

Of course N cells are not something everyone has lying around the house.

Re: Past Auctions

*Message #8 Posted by **Chan Tran** on 16 July 2003, 2:39 p.m.,*
in response to message #7 by gifron

I had several CX blanknuts. I have only one now. When I got them they don't have the label affixed to the calculator but one came with the calculator so you could put it on.

Re: Blank-Nut On eBay?

*Message #9 Posted by **Fréderic** on 16 July 2003, 6:24 p.m.,*
in response to message #1 by Mark Hardman (LED)

I think some read the address here, look at the final price... ;-)

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Calculator Logic Systems (long)

*Message #1 Posted by **bill platt** on 15 July 2003, 6:05 p.m.*

Until I discovered this forum, I really was not a calculator Geek. Sure, I used one frequently, but I did not think about them constantly.

Now however, I am a total calculator Geek. I think about them all the time. When asked when this will all blow over, I usually say, "we'll see"!

The point of all this prelude: In my previous life, I was only proficient in RPN--meaning that I have always had an intuitive feel for its use (from frequent use) and when tackling complex manual calcs, I have always been able to use all of the stack, and avoid losing data off the back of the t register etc.

For any non RPN machine, I would work with it in a "crippled" mode--using pencil and paper, or the (usualy solitary) memory register even when not needed--always careful.

But now, whenever I see a machine, I have to see how it works--so I have made some interesting discoveries! I am sure many or most of the present audience has already made them, so please forgive my recent enthusiasm.

So far, I have found at least 5 major different logic systems: (and many sub-sets!)

RPN/RPL

Adding Machine Logic

"Regular Calculator" Logic

"Algebraic" Logic

"Formula entry"

So, for instance, most of the cheap regular 4 or 6 function machines have a curious stack system: Note that I am indicating chain calculations following on from the original:

1+2=3 4=5 6=7; or also 5/2=2.5 5=1 10=0.5

PLEASE SEE THE FOLLOW ON POST WHICH CORRECTS AND AMENDS THIS PART.

In other words, it is sort of a perfect infix: it remembers the first number and the operator, and if you type anoither number right after, followed by equals, you will get an answer. And therefore if you type equals twice, you will carry on with the answer and the first number. This is actually as good or better than RPN for doing certain chain sums. Of course there is also no precedence--but with a memory register, you can get around this, and in fact I did some big computations and compared them to an HP 20s and they had the same number of keystrokes.

The more curious part is this:

8/=0.125 =0.015625 etc for each equals. In other words, there is an implied leading "1" for some reason. This is sort

of a mirror of the other fact: 8x=64 =512 etc.

Interstingly, the built-in Windows calculator does the same thing except that you get the more expected series of:

8/=1 =0.125 =0.015625 etc.

Now, the "algebraics" generally do not seem to have this handy chain behavior, but I am sure some of them do (for instance, the Windows built-in one does). The 20s has no good chain system, other than writing a progam to add or mult a constant, so two keystrokes is still possible.

An interesting thing about the algebraics with precedence, like the 20s, is that you actually do not need to use all the parentheses--and in fact if you use one in every place you see on paper, you will use way more keystrokes. For an RPN guy, this business of whether and when to hit close parentheses, versus =, is quite confusing and a source of error.

Then of course there are the 27s with the stack, and most HP pioneers, with the "input" swap and also last x.....

Finally, a co-worker has a casio with "true" algebraic--so even sqrt, cos, sin etc are infix rather than postfix. I have not explored it in depth yet, but I am sure there are some interesting nuances.

I must say, I was surprised at the utility of the cheapo regular calculator logic, once I got to trying it out!

Regards to all.

Bill

Edited: 15 July 2003, 11:15 p.m. after one or more responses were posted

Re: Calculator Logic Systems (long)

*Message #2 Posted by **harry** on 15 July 2003, 7:39 p.m.,*
in response to message #1 by bill platt

Theres just one problem: Nothing of this is documented. So you have to do a lot of try and error testing before you know whats going on. And then when you use another of those casio or texas calculators that seams to be exactly the same, you find out it behaves diffrent.

Maybe I am just lazy, but when I calculate something I wanna think about the problem I am solving, not about what the right keystrokes are to avoid loosing data.

Regards, the RPN guy Harry

Re: Calculator Logic Systems (long)

*Message #3 Posted by **hugh** on 15 July 2003, 9:20 p.m.,*
in response to message #1 by bill platt

none of mine i can find do the first logic example. what makers work with a prefix constant like that, eg 1+2=3, 4=5? i have found that different manufactures always did have slight differences in operation. today a lot has been standardised.

all the casio i can find, for example, will either auto constant on the second term (eg 1+2=3,3=5) or require you press the operator twice (eg 1++2=3, 3=5). canon, models tend to auto constant this way too.

there is also desk calculator logic. 1+2=[2] (im using [] to indicate the display). this is not right, instead you do; 1+2+[3] or 2*3=[6], but 1+2+[3]2*3=[6]+[6] or on some models, more usefully, 1+2+[3]2*3=[6]+[9]. you

also always get an auto accumulator (that works differently) and a memory that works as normal (or two memories).

Re: Calculator Logic Systems (long)

*Message #4 Posted by **Trent Moseley** on 15 July 2003, 10:39 p.m.,*
in response to message #1 by bill platt

Bill,

A very interesting report. The only non HP calc that I have to ckeck all this out is my teeny weeny Sharp ELSI MATE. And I can't find a battery for it. I will get one and report back.

tm

Correction: Calc Logic

*Message #5 Posted by **bill platt** on 15 July 2003, 11:12 p.m.,*
in response to message #1 by bill platt

Hugh's observation regarding infix type loading of a constant is correct: I goofed in writing the logic system of "regular" calculators, and Hugh's post is correct, viz:

1+2=3; 2=4; 3=5. However, on my 6yr old's $1 "LeWorld" and on my wife's trusty Sharp ElsiMate EL 230, the multiplication seems to be as my original post, viz:

1x2=2; 3=3; 5=5, and 2x3=6; 5=10 etc. And the Division is different yet again:

20/4=5; 5=1.25; 4=1; 4=1; 4=1 etc! And for Subtraction:

50-5=45; 3=-2; 2=-3; 5=0! Don't ask me to explain this--I have no Idea!

So maybe I should go back to being conservative when using non RPN. Harry s right--the calculations should be reliable!

But I think this behavior of these calculators probably points to the underlying architecture---so I am going to pretend to be an archeologist, and work backwards to deduce the system.....

Regards,

Bill Platt

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News from Mr Packard

*Message #1 Posted by **jose goncalves (brasil)** on 15 July 2003, 5:30 p.m.*

I was reading a Business Week feature called "Hewlett-Packard: where slower growth is smarter management" (BW June 9, 1975), something that should be read by people interested in the future of that company. I quote the first part of it:

"David Packard ... then proceeded to set the ... company's strategy for survival in the fast-changing world of high-technology electronics. The leading producer of electronic instruments and a major force in minicomputers and calculators had grown too fast in the boom years of 1972-73, Packard declared.

He ticked off the disturbing results. Inventories and accounts receivable got out of hand, products went into production before they were fully developed, and prices were set too low. The problems were well in hand now, but Packard wanted to be sure that the lesson was understood.

"Somewhere we got into the idea that market share was an objective," Packard told his attentive audience, jingling a pocketful of coins for emphasis. "I hope that's straightened out. Anyone can build market share, and if you set your prices low enough, you can get the whole damn market. But I'll tell you it won't get you anywhere around here."

Packard's feisty speech was part of a year-long campaign he and President William R. Hewlett have been waging to reemphasize the principles they laid down when they launched their unique partnership 36 years ago. The fact that Hewlett and Packard had to initiate and lead the drive personally shows clearly why some company watchers are beginning to worry about what will happen to the high-flyer once its two founders depart."

How things have changed since ! Right now market share is everything, even if you have to resort to low end products ! Strange times !

Jose

Jose Amen!

*Message #2 Posted by **Trent Moseley** on 15 July 2003, 10:45 p.m.,*
in response to message #1 by jose goncalves (brasil)

tm

Excellent! (no text)

*Message #3 Posted by **bill platt** on 15 July 2003, 11:17 p.m.,*
in response to message #1 by jose goncalves (brasil)

-Bill

Congrats, José; very good post!

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 15 July 2003, 11:25 p.m.,*
in response to message #1 by jose goncalves (brasil)

Muito bom mesmo! (Very good, indeed!)

Luiz (Brazil)

Re: News from Mr Packard - Take Note!

*Message #5 Posted by **Tom(UK)** on 16 July 2003, 3:38 a.m.,*
in response to message #1 by jose goncalves (brasil)

Very good, have you forwarded your post to Carly and the rest of the HP board?

"Those who do not study history are condemned to repeat it's mistakes"

Can't remember who said that (or if it's accurate) but I hope you get the idea.

Re: News from Mr Packard - Take Note!

*Message #6 Posted by **Massimo Gnerucci (Italy)** on 16 July 2003, 4:16 a.m.,*
in response to message #5 by Tom(UK)

"...those who cannot remember the past are condemned to repeat it".
The Life of Reason, 1905-1906.
by **George Santayana**. (1863-1952)

Re: To Recent to be studied by Carly

*Message #7 Posted by **Ron Ross** on 16 July 2003, 7:30 a.m.,*
in response to message #6 by Massimo Gnerucci (Italy)

While Carly is a History Major, your quotes are merely old news, but not quite historical for her to have studied. Her area of knowledge is between 400-1600 A.D. I believe.

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hp 45

*Message #1 Posted by **bill platt** on 15 July 2003, 5:18 p.m.*

Hello all classic enthusiasts,

I just got lucky yesterday and inherited an hp 45 from a co-worker. It was her father's, and she just found it in her desk drawer. Of course, it has a corroded rechargable battery pack, and some corrosion salts inside the compartment.

I read the writeups on batteries and on classics disassembly here in the MoHPC--and what I am wondering is two things:

Has anyone found a non-rechargeble battery that can be used instead?

After getting a new battery (either rebuilding the battery pack, or getting a new battery), is it safe to merely clean the battery compartment, and give it a try? I guess I am concerned about opening up the case uneccessarily. I know from my experience with my first and only 41cv, that the screw posts can be quite fragile and damage to them can be terminal (I still have not gotten that machine back to life).

In the case of my 41, I found some small corrosion deposits inside---but that machine had worse battery corrosion than this 45.

Any thoughts?

Regards,

Bill

Re: hp 45

*Message #2 Posted by **David Smith** on 15 July 2003, 5:58 p.m.,*
in response to message #1 by bill platt

Yes, you can just clean up the battery compartment and give it a try. Howecer, there might be some corrosion growing inside the machine. Leaving it there could be bad news in the long run.

The classic machines do not have screw post problems like the HP41. Occasionally their screw "posts" will split, but it does not affect the workings of the machine.

Re: hp 45

*Message #3 Posted by **bill platt** on 15 July 2003, 6:06 p.m.,*
in response to message #2 by David Smith

Thanks, David!

So then, I guess your suggestion is to go ahead and carefully open her up!?

regards,

Bill

Re: hp 45

*Message #4 Posted by **David Smith** on 16 July 2003, 11:06 a.m.,*
in response to message #3 by bill platt

I'm sort of 50/50 on opening it up. If you can clean the battery area up well and the machine operates properly (all keys work well, switches are OK, etc) then you might not want to open it. If the machine has significant signs of use, I would probably open it. Usually battery corrosion gasses like to affect the top row of keys and the row with ENTER first.

Re: hp 45

*Message #5 Posted by **Harry** on 15 July 2003, 7:24 p.m.,*
in response to message #1 by bill platt

Bill,

you can use alkaline batteries in the HP45. The problem with opening the calculator is, that two of the screws are under the back lable. I did not find a way to peal it off without damaging it.

Regards, Harry

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HP-41 fullnut keyboards

*Message #1 Posted by **Jon** on 15 July 2003, 1:02 p.m.*

Can I use the HP-41C keyboard for the HP-41CX? Both are fullnut calculators.

Re: HP-41 fullnut keyboards

*Message #2 Posted by **Randy Sloyer** on 15 July 2003, 1:26 p.m.,*
in response to message #1 by Jon

They are the same except for the silver trim label on C and gold on the CX.

Get some UN-DO to remove and swap them if it bothers you.

Edited: 15 July 2003, 1:30 p.m.

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HP Keyboards

*Message #1 Posted by **Thomas Cox** on 15 July 2003, 12:29 p.m.*

Although it is hard believe that there could be a keyboard on an HP calculator that is more unreadable than HP 12CP, I nominate the HP-6S. This is the one with the Blue Case, not the HP-6S Solar which has a Silver Case. The key top is perfectly legible, but anything above the keys is almost completely unreadable in any light. I can see why the 6S is now discontinued. The main thing 6S Solar has going for it is the small size. Fits very nicely in a shirt pocket.

One other comment comparing the 6S and 6S Solar is that I would have thought they would use the same display -- but they don't, the display on 6S solar is bolder and more legible and the width of the zero character is significantly wider on 6S solar.

I know that these are the lowest of the low-end for HP, but I fear their construction gives me some idea of what to expect from the new and improved calculator line to be introduced this fall. I am hoping that the 33S will be a worthy successor to the 32Sii -- but I expect to be disappointed.

Re: HP Keyboards

*Message #2 Posted by **Raymond Del Tondo** on 15 July 2003, 1:35 p.m.,*
in response to message #1 by Thomas Cox

You forgot to nominate the 'high-end' 49G and its sisters. The 49G has a metallic-blue case with blue (!) and red (!) key legends, best viewed with light shining onto the case from one side:-)))

Raymond

Re: HP Keyboards

*Message #3 Posted by **Ernie Malaga** on 15 July 2003, 1:46 p.m.,*
in response to message #2 by Raymond Del Tondo

> Quote:
>
> The 49G has a metallic-blue case with blue (!) and red (!) key legends, best viewed with light shining onto the case from one side

...provided you're wearing polarized sunglasses.

-Ernie

Re: HP Keyboards

*Message #4 Posted by **Thomas Cox** on 15 July 2003, 7:49 p.m.,*
in response to message #3 by Ernie Malaga

Amazing! The one thing that the high end and low end HP calculators have in common is their unreadable keyboards. Sometimes "bright and flashy" turns out to be "dumb and trashy." Although the individual colors are bright enough, the chosen combinations cancel. Perhaps the Marketing Department needs to take some courses in basic "Color Science."

For most people the color schemes used on such calculators as the HP-41 and HP-48SX are very legible. For some color-blind persons, the colors used on 48G are supposed to be more distinguishable. For normal color vision, white against a dark background is quite legible.

If HP had used the keyboard colors of the HP-6S solar on the HP-49 I think it would have been more successful.

Does HP listen to users about such seemingly mundane matters? If so, how do we get their attention -- other than not buying calculators which are so user unfriendly?

Re: HP Keyboards

*Message #5 Posted by **Ernie Malaga** on 15 July 2003, 10:05 p.m.,*
in response to message #4 by Thomas Cox

Thomas:

I don't think it takes a rocket scientist to figure out that high contrast is better than low contrast. And the designers (people who ought to know these things), should also know that the most common form of color blindness (about 10% of males) is that which prevents the sufferer from distinguishing red and green. I suspect this is the reason the early calculators used gold and blue for the shift keys. Too bad the new crop of designers missed the class in which they explained this item.

-Ernie

Re: HP Keyboards

*Message #6 Posted by **Trent Moseley** on 15 July 2003, 11:10 p.m.,*
in response to message #5 by Ernie Malaga

I think Ernie has it right. I have or have had four Voyagers, a 1981 11C; a 1982 15C; a 1988 16C; and a 1997 12C. On the 12C (made in MY) it takes a flashlight to see the blue notations on the lower side of the keys.

tm

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Best thing about the HP12cp

*Message #1 Posted by **Michael Barry** on 15 July 2003, 12:02 p.m.*

Do you know what the best thing about the 12CP is? It gives you a pocket case worthy of the original 12C. I have a 12CP, which I purchased before reading this forum. I have one with the incorrect dates on the back. I am really dissapointed in the calculator. The keys are flimsy, especially the "Enter" key, which bounces and gives me a double click every time I use it - incredibly irritating. As was mentioned before the look is awful and the speed is terrible considerign this is an upgrade with almost 20 years of new technology to draw from. Also, to add insult to injury, I accidentally dropped the 12CP and dented the metal right above the LCD panel and, since the numbers and functions are painted on, scratched the down arrow on the roll down key. I wonder if after 20 years of use the 12CP will have blank areas where the primary functions of the keys were due to wearing the paint away. I'm also dissapointed that HP couldn't come up with a way to incorporate a back arrow key on the new 12CP. I briefly used a 10B in college before switching to the 12C and found that I really missed the back arrow key that the 10B has.

I probably won't be a regular contributor to this forum, but I wanted to post a message from an average user who doesn't have quite the amazing background that the regular contributors to this forum seem to have. Anyways, the insight you provide here is invaluable and I will be reading this forum regularly, especially if I have any calculator questions. Thanks so much!

Sincerely, Michael Barry

Re: Best thing about the HP12cp

*Message #2 Posted by **hugh** on 15 July 2003, 12:29 p.m.,*
in response to message #1 by Michael Barry

i agree with you totally on the delete key issue. im assuming they wanted a close approximation to the original 12c which also has no delete.

recently ive been using a 12c instead of my trusty 15c for arms reach calculations and, although i really like the 12c, i miss the delete key, and also i keep pressing G CLX which is my fault :-)

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User RPL IDE

*Message #1 Posted by **Randy Sloyer** on 15 July 2003, 8:26 a.m.*

After much delay, I've decided it's time to learn RPL in a serious way. I've poked around and downloaded a few utilities that are mostly sysRPL and are too advanced at the moment.

Since I do not want to edit programs directly on the 48, can anyone recommend a usable Windows based USER RPL programming environment?

Re: User RPL IDE

*Message #2 Posted by **Mark Hardman** on 15 July 2003, 8:56 a.m.,*
in response to message #1 by Randy Sloyer

How about the HP4X User-RPL Program Development System? From the description, it looks like it might be what you are looking for.

Mark Hardman

Re: User RPL IDE

*Message #3 Posted by **Smartin** on 15 July 2003, 12:53 p.m.,*
in response to message #1 by Randy Sloyer

Hi Randy,

Most powerusers do not use a 'programming environment' for code development on the 48/49. Instead, most write programs using a text editor and then cut and paste into emu48 (a 48/49 emulator that runs under Windows, available at: http://www.hpcalc.org/hp49/pc/emulators).

Steve

Re: User RPL IDE

*Message #4 Posted by **Randy Sloyer** on 15 July 2003, 1:24 p.m.,*
in response to message #3 by Smartin

Even better. I like my programming editor that does block indenting and brace balancing, etc, etc.

Now I can learn RPL syntax by writing the tokenizer for the editor highlighting. Two birds, one stone. Good stuff, Thank you!

Re: User RPL IDE

*Message #5 Posted by **Chan Tran** on 16 July 2003, 2:51 p.m.,*
in response to message #4 by Randy Sloyer

I use HP Program Development Link (PDL) a DOS based software. It is quite good and run fine under Windows. It allowed me to enter spcial 48 characters which is difficult to do on a standard text editor.

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Re: Emulators

*Message #1 Posted by **Raymond Del Tondo** on 14 July 2003, 5:51 p.m.*

>Why am I not supposed to post a link to that here?

I think Dave has reasons for that.

Keep in mind that some things have been tolerated by hp in the past, which may not be sure in the future, and you'll get an idea why Dave acts this way.

Raymond

Thanks, now I get where the problem is.

*Message #2 Posted by **Harry** on 15 July 2003, 10:39 a.m.,*
in response to message #1 by Raymond Del Tondo

Regards, Harry

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Emulators

*Message #1 Posted by **V** on 14 July 2003, 1:03 p.m.*

What HP calc emulators are available for the PC?? Which ROM images can be downloaded??

TY

"\V/"

Re: Emulators

*Message #2 Posted by **Dave Hicks** on 14 July 2003, 5:58 p.m.,*
in response to message #1 by V

The message is a place holder for a question from Harry:

> Quote:
>
> Why am I not supposed to post a link to that here?

Unfortunately I don't seem to be able to explain it in a way that doesn't annoy either party so I'm just staying completely away from this.

Re: Emulators

*Message #3 Posted by **Harry** on 15 July 2003, 10:37 a.m.,*
in response to message #2 by Dave Hicks

Ok Dave,

I use that emulator and have not had any problems with it. Don't know anything about the owner of that site though. All I wanted to do was find an emulator for V (I wonder why he didn't post his name) he could use.

I did not fully read the message I got. And posted that link anyway. I am sorry for that.

Regards, Harry

Re: Emulators

*Message #4 Posted by **V** on 15 July 2003, 12:15 p.m.,*
in response to message #3 by Harry

Hi! What link, i didnt get to see it :(I wonder why such a big deal, an emulator is like a tryout.

I dont post my name cuz.. well, its no big deal

reagards

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Re: HP-38G

*Message #1 Posted by **Ron Ross** on 14 July 2003, 12:55 p.m.*

Actually you should be able to use an Hp39G manual verbatim. You will not have the memory or some of the functions of the 39G, but from a user perspective, they look very similiar (underneath the looks is a major revision according to the author of the 39/40G, and if you were to play with a 39/40 you would have to agree). But the manual is in PDF format from Hpcalc.org and will give you a great start and over 90% similiar.

Re: HP-39G Manual

*Message #2 Posted by **Ron Ross** on 14 July 2003, 1:07 p.m.,*
in response to message #1 by Ron Ross

http://www.hpcc.org/

where you can get a download of the Hp39/40G manual.

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Re: HP-38G

*Message #1 Posted by **Raymond Del Tondo** on 14 July 2003, 12:48 p.m.*

Hi,

this is not the HP-38G user manual. Instead, it's the manual for the DataLab companion by Firmware Systems...

Regards,

Raymond

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HP-38G

*Message #1 Posted by **Fréderic** on 14 July 2003, 10:26 a.m.*

Hi. I received my first HP graphing calculator as a "used gift". I'm already familiar with the 25C i use every day and with the 41C. I'm sure the calculator is not keystroke programmable; i read on the net about "applet programming" and RPL?

What is these new languages? A kind of basic? I read an "applet" program i can find on the net and it looks like some kind of basic (BEEP (200,168,15)) i long know from my VIC-20!!!

Any modern calculator with keystroke programming derivation?

Anyway, where can i find a manual for my HP-38G so i can see all the enhencements over my 41C. I already bought the set of CD from the museum for my 41 and 25C but no manual for the 38G; is there an "upgrade" containing this manual?

If i'm happy with my 38G, perhaps i'll try the newer one 49G; where to buy one, i'm not able to find it on HP site. I read here and there it have a bad keyboard compare with the 38g or my 25C... What aboutthe rest?

Thanks

Fred

Re: HP-38G

*Message #2 Posted by **Manfred, Stuttgart - Germany** on 14 July 2003, 11:07 a.m.,*
in response to message #1 by Fréderic

Dear Fred, Someone is selling a new 49g. Got to the following URL. http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/adforum.cgi?read=10380 Sincerely. Manfred

Re: HP-38G

*Message #3 Posted by **bill platt** on 14 July 2003, 11:17 a.m.,*
in response to message #1 by Fréderic

I feel that you should not think of the 38G as an enhancement over the 41. The 38G is really a schoolboy's crutch, not an engineering programmable. That is not to say that one could not figure out a way to program it--it is just that it really is not worth the trouble! The 41 is the last large-memory I-O capable RPN Keystroke Programmable(to like a compter or card reader etc).

The 48G, 49G+ and 48GX are RPL, not RPN, as is the 49G. This is an "enhanced" high level language, and is reverse polish with a stack, but a whole new ball game really. You can also get HP41 emulators that run on the 48G series (generally 48gX) and even an HP-produced 41 emulator, with keyboard overlays, which runs on the 48SX (a discuntinued model easily obtained in good condition). Expanded memory for the 48 series can be obtained at reasonable cost from some german makers--HP no longer makes memory expansion. I do not know the technical details of the 41 emulators or the memory required--but I know there are a number of different

choices--in fact I have been contemplating that route myself.....but it is too much for me to figure out just now...

If you want to see just how enthusiastic some people are about the 48 and 49 series, just go to comp.sys.hp48 and to hpcalc.org. But if you are an engineer, not a computer geek, you will probably be overwhelmed....:-) Ther eis also 38G stuff at www.hpcalc.org.

regards,

Bill

Edited: 14 July 2003, 11:23 a.m.

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Buggy 11C

*Message #1 Posted by **Mitch** on 13 July 2003, 8:13 p.m.*

I have an 11C with a bug. When you enter 0.0xxx then backspace over all the digits & press enter, 1.00 was entered rather than 0.00. Does this hamper the functionality of the calculator? Thanks in advance for any help.

Re: Buggy 11C

*Message #2 Posted by **Vieira, Luiz C.** on 13 July 2003, 11:28 p.m.,*
in response to message #1 by Mitch

Hi, Mitch;

I remember I saw something about it at Craig Finset's database sometime ago. I searched there and I found this:

Quote:

```
Bugs/ROM-Versions::

From Stephen J Thomas <sjthomas@bcfreenet.seflin.lib.fl.us>
     ...
HP did acknowlege a bug in the 11C, but never released a ROM version
which corrected this (I don't know why this popped into my brain last
nite after lying dormant for several years).

If you are entering a number with a decimal point, and then use the
back-arrow key to erase any (and all) digits to the right of the
decimal point AND erase the decimal point, the magnitude of the
integer portion of the number will be incremented by 1 when the ENTER
key is pressed.

For example,

        1  1  .  <-  ENTER

should put 11 in the X-register, but 12 is entered instead.

Another example,

        2  .  3  4  CHS  <-  <-  <-  ENTER

will put -3 in the X-register instead of -2.

I'm not sure if this also occurs when a function key -- such as [+] --
is pressed rather than [ENTER], or if this occurs on any other
Voyager-series models.

Later:
```

```
The mentioned bugs arent present by S/N 2750A15169.
```

Hope this helps.

Luiz (Brazil)

Edited: 13 July 2003, 11:32 p.m.

Re: Buggy 11C

*Message #3 Posted by **Mitch** on 14 July 2003, 12:23 a.m.,*
in response to message #2 by Vieira, Luiz C.

Thank you Luiz

Re: Buggy 11C

*Message #4 Posted by **Thibaut.be** on 14 July 2003, 5:42 a.m.,*
in response to message #3 by Mitch

My 11C, USA made, but unfortunately the S/N has been erased, does not have this bug...

Re: Buggy 11C

*Message #5 Posted by **Julián Miranda (Spain)** on 14 July 2003, 12:26 p.m.,*
in response to message #3 by Mitch

My 11c (2323B13010) doesn't have the bug.

Re: Buggy 11C

*Message #6 Posted by **Mark Hardman (LED)** on 14 July 2003, 7:49 p.m.,*
in response to message #2 by Vieira, Luiz C.

Neither of my HP-11C's exibit this bug--drat!

```
S/N's:
----------
2741A00528
2501A15320
```

Mark Hardman

Re: Buggy 11C

*Message #7 Posted by **Gordon Dyer** on 14 July 2003, 7:07 p.m.,*
in response to message #1 by Mitch

My 11C is 2206A00034 and it has this bug.
I have also tried this in the 15C emulator for PocketPC and it does not have this bug, but it behaves differently to my 11C when deleting the decimal point.
The 11C deletes the decimal point as if it was a seperate character (as expected), but the 15C emulator deletes bothe the decimal point and the zero before it together.
Does a real 15C do this?
Try it by typing 2 or 3 zeroes before the decimal point 000.123 then delete backwards and see if the decimal

point takes the preceding zero with it.

Re: Buggy 11C

*Message #8 Posted by **Mark Hardman (LED)** on 14 July 2003, 7:57 p.m.,*
in response to message #7 by Gordon Dyer

A real HP-15C deletes the decimal point independent of the number that precedes it. Same behavior as the HP-11C. I'd expect that the program you are using on your Palm is an HP-15C simulator and not an emulator.

Mark Hardman

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41 & 71 file suffixes for the site I'm building

*Message #1 Posted by **Emmanuel, France** on 13 July 2003, 11:04 a.m.*

```
I will use the following file suffixes for my site. Any idea?


Files only for PC:


*.BIN   Binary file for Jean-François Garnier Emu-41 (5120 bytes)
*.LST   Dissassembled listing of ROM with mnemonics
*.PGM   Program file for ELI-41 and Transfer-41
*.41R   SDS-II ROM file (8192 bytes)
*.41L   Motorolla S Hex file for 2732 Eprom (11276 bytes)
*.41R   Motorolla S Hex file for 2716 Eprom (2828 bytes)
*.U2    Binary file for 2716 Eprom (1024 bytes)
*.L8    Binary file for 2732 Eprom (4096 bytes)


HPILDISC.n      Virtual Disc Drive for Linkplus
HPSIDEn.PAK     Virtual Disc Drive for Transfer-41


Files only for HPILLINK:


*.P71   Basic HP-71B
*.B71   Binary HP-71B
*.D71   Data HP-71B


Files only for LIFUTIL:


*.PRG   HP-41 program
*.DTA   HP-41 data
*.REG   HP-41 registers
*.ALL   HP-41 all memory
*.XMS   HP-41 X-Memory with Paname
*.ERA   640 register Eramco or Zeprom Programmer or Rambox Rom copy format
*.HPX   640 register Hepax Rom copy format
*.MM    824 register Mountain Computer Rom format
*.MLE   825 register Mleprom Rom format


To be continued ...
```

Re: 41 & 71 file suffixes for the site I'm building

*Message #2 Posted by **Meindert Kuipers** on 13 July 2003, 11:24 a.m.,*
in response to message #1 by Emmanuel, France

Emmanuel,

I use:

*.DIS for HP41 disassembled listings *.ROM for HP41 rom image files (8192 bytes)

Meindert

Re: 41 & 71 file suffixes for the site I'm building

*Message #3 Posted by **Gordon Dyer** on 13 July 2003, 1:05 p.m.,*
in response to message #1 by Emmanuel, France

Just a couple of minor points.
I would prefer the HP-71 file extensions to have the number before the character for easier sorting on filename, as follows:
*.71P Basic HP-71B
*.71B Binary HP-71B
*.71D Data HP-71B
this will be consistent with your HP-41 file extensions.
Note that Motorola has only 1 letter l !!

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Cringely Comment on HP

*Message #1 Posted by **Les Bell [Sydney]** on 13 July 2003, 1:19 a.m.*

This from Infoworld's weekly "Cringely" column (yeah, it's not really Cringely, but what the heck, Norm is going to love this one anyway):

"Hewlett-Packard is giving a leave of absence -- so to speak -- to storage, despite higher hopes it may have once held. HP called a mole at 8 o'clock one evening last week and fired him on the phone. Pretty nice, eh? My good man was a storage specialist, and his Midwest regional manager told him that HP wasn't going to spend any more money trying to sell storage. "If customers want to buy it, they can have it," the manager commented. In character, HP's financial folks did some fancy math to calculate that two weeks of severance pay per year for six years of service amounted to nine weeks for the forlorn and forgotten. And I thought the HP Way meant treating people with dignity?"

Looks like the New HP calculates severance pay on a 12C Platinum. . . .

Best,

--- Les [http://www.lesbell.com.au]

what is HP storage?

*Message #2 Posted by **Norm** on 13 July 2003, 2:11 a.m.,*
in response to message #1 by Les Bell [Sydney]

I did not know HP was into the storage business.

I can rent an 8 x 8 for $75 a month out here, put old motorcycle parts and paint cans and stuff into it so I have more room in my garage.

Re: what is HP storage?

*Message #3 Posted by **Les Bell [Sydney]** on 13 July 2003, 3:49 a.m.,*
in response to message #2 by Norm

Norm, I swear you are proof positive that the new HP was right to get out of the storage business.

At any rate, *storage* means big disk drives on network servers where MBA's store their massive, undocumented, untested and undebugged Excel spreadsheets - the ones on which those multi-million dollar decisions depend.

I guess the reason they don't need to sell storage outside the company is that they are now their own best customer. . .

Best,

--- Les [http://www.lesbell.com.au]

Re: what is HP storage?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 13 July 2003, 9:09 a.m.,*
in response to message #3 by Les Bell [Sydney]

This is pure gold!

> Quote:
>
> *(...)the reason they don't need to sell storage outside the company is that they are now their own best customer. . .*

I haven't read better in the past weeks. It would be hilarious if not so damn serious... and sad.

Best regards.

Luiz (Brazil)

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Where to Find Trans41

*Message #1 Posted by **Mark Hardman (LED)** on 12 July 2003, 11:18 p.m.*

I recently had the good fortune of buying a HP-82973 HP-IL ISA card for $20 from a used PC equipment dealer. He had this in a stack of sound blaster audio cards in a corner of his shop.

After a quick look at the MoHPC's articles and forums, I can see that I'll get the most out of this treasure by using the latest version of EMU41. However, it looks like getting EMU41 up and running will be a fair sized project in itself.

I'd like to perform some minimal testing on this card before making a large investment of my time setting up EMU41. I've tried testing the card with a copy of HPLINK from the Museum's FTP site--with no success. Other articles suggest that the HP-82973 can be made to work on faster PC's by using the TRANS41 utility.

I've searched high and low and cannot seem to locate a copy of TRANS41. Is it still available? If so, where?

Mark Hardman (LED)

BTW: I've already turned this fellow's shop upside down looking for other HP-82973's. Sorry, this was a one of a kind find.

Edited: 12 July 2003, 11:25 p.m.

Re: Where to Find Trans41

*Message #2 Posted by **Emmanuel, France** on 13 July 2003, 4:25 a.m.,*
in response to message #1 by Mark Hardman (LED)

```
Dear Mark,
Transfer/41 has been made by:


Tacit Logic Systems Inc.
P.O. BOX 231178
TIGARD, OREGON 97223
(503) 684-6088


I don't if this firm still exists...
However you can use:
With HP-71B, Cross71 (Barizien) and Hpillink (HP)
With HP-41C/CV/CX, Linkplus (Southern Software)
Good luck!
```

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Bought HP Xpander at sale today

*Message #1 Posted by **Scott Seelye** on 12 July 2003, 9:44 p.m.*

I just purchased an Hp Xpander at a garage sale here in Corvallis today. It is one of the prototypes that an engineer on the project had left over. I am trying to determine if I should put it up for auction since it may be of value to a collector, or if I should power it up and see what it can do.

Re: Bought HP Xpander at sale today

*Message #2 Posted by **V** on 13 July 2003, 10:12 a.m.,*
in response to message #1 by Scott Seelye

hi> Sell it to me! Can we see pictures?

TY

"\V/"

Xpander Photos

*Message #3 Posted by **Scott Seelye** on 13 July 2003, 1:03 p.m.,*
in response to message #2 by V

http://www.designbysumo.com/xpander01.jpg

http://www.designbysumo.com/xpander02.jpg

http://www.designbysumo.com/xpander03.jpg

The first picture also shows the "Pilot Program" manual.

HP Xpander looking for a new home, here is the link

*Message #4 Posted by **Jennifer Seelye** on 15 July 2003, 9:08 p.m.,*
in response to message #1 by Scott Seelye

There has been a great deal of interest in this calculator. We do not collect calculators so we are not really looking to trade it. In order to be fair to everyone we decided to put it up for auction on ebay. Here is the link

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3035922485&category=20335&rd=1

Please email with any questions.

Thanks, Jennifer

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LIF disks: volume label changing and related stuff

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 12 July 2003, 8:32 p.m.*

Hi HPIL users;

after building one thread with considerable "golden" information, I took both programs (HP41 and HP71) and tried them out so I could add/change "volume name" using them.

To those who did not understand the reason for such "maneuver", that's because I use LIFUTIL running under DOS environment so I can write to and read from LIF disks. The problem is that LIFUTIL somehow uses "volume label" field to identify and handle disk data, and seems to be able to only handle disks with "volume label" field filled with "valid data".

If the disks are initialized by LIFUTIL, "volume label" is requested and there is a suggested default name. I never tried to initialize a disk with LIFUTIL without specifying a name, so I do not know what happens.

There is a program listed in the HP9114B Owner's Manual for the HP71 that allows it to easily initialize disks in the HP9114B. This program asks for a volume label and its input is optional.

The HP41 system offers NEWM, a standard HPIL function that initializes any medium available in its controlled loop. I also found that the HP41 standard HPIL functions using the HP9114B would allow initializing and writing into disks with up to 130KBytes. But the same HP9114B User's Manual had a program listed for the HP41 that would allow it to go further: 630KBytes. This "high-capacity" formatting program uses functions available in the Extended I/O ROM (HP82183A).

The fact is that neither the above mentioned program nor NEWM ask for "volume label" as an input data, so any disks initialized with the HP41 in this case will have other data than an identifier in "volume label" field. When I first got an HP9114B, I initialized three disks with the HP41 and filled them with some programs, mostly ones I typed in the calculator for this particular purpose: storing in disks. Later I installed LIFUTIL in my computer and have other disks initialized with it, because the HP41 "high-capacity" formatter is too long and occupies a lot of memory. The original version uses so much memory that it needs more than the 124 registers available in the standard X-Functions module (or the HP41CX), and I mentioned this fact in another post.

Well, what to do? To "rename" them. After asking for help I tried both programs and I found some interesting facts related to the HP41 program.

First one: the HP71 program allows disks to be fast and safely renamed; thanks, Rodger.

Second one: the HP41 rename program actually changes "volume label" contents for sure, because I used the HP71 "renaming" program and it shows the new name given through the HP41; thanks, Dan McDonald. But if I initialize a disk with the HP41, 130K or 630K, renaming it with the HP41 will not allow LIFUTIL to read/write on it. If I format the disk with LIFUTIL and rename it with the HP41, all's fine. If I format the disk with the HP41 and rename with the HP71, it's either fine! The combination "initialize with the HP41" (NEWM or the "high-capacity program) and "rename with the HP41" will not allow LIFUTIL to read the disk. The HP41 AND the HP71 will, in any case, read disks contents because both can read LIF disks without a specified "volume label".

I'm not sure about what's going on. Renaming programs ("volume label") are fine because both change the disk

name or add it, as confirmed by the HP71.

This is a report only. I'm just posting this information so others can avoid these problems or simply be aware of them. Also, maybe I'm doing something wrong and someone will point this out.

In any case, thank you all who followed and contributed to the original thread about LIF disks. I hope we have that sort of "brainstorm" more frequently here at the MoHPC.

Best regards.

Luiz (Brazil)

Edited: 13 July 2003, 12:18 a.m.

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3468B DVM

*Message #1 Posted by **41Jeff** on 12 July 2003, 4:59 p.m.*

I have an HP 3468B digital voltmeter and am trying to do some remote measurement logging with it using my HP 41. The problem is that when I do an IND to get the meter data I get a Transmit Error. However, other Meter command functions work fine, includng the INSTAT command during which the 3468B transmits a data byte back to the 41. So I think the IL loop is OK? But, because the only manual I have is a partial one for a 3468A, I'm thinking I might not have a setting just right. Maybe the DVM is sending back some other form of data? Also, what is the difference between the A and B models?

Thanks

Re: 3468B DVM

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 12 July 2003, 5:55 p.m.,*
in response to message #1 by 41Jeff

Hi;

I do not have the 3468D, but I was wondering about one thing: IND is Input Data, right? Shouldn't you command TRIGGER before read data?

Just a guess.

Luiz (Brazil)

Re: 3468B DVM

*Message #3 Posted by **41Jeff** on 12 July 2003, 6:05 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz, I tried that also but no luck. I also tried it with the single trigger function but still get Transmit Error. When I power the meter up the self test is Ok also, but I'm wondering if it tests the IL interface?

Thanks for the help. I enjoy your posts on the 41 system very much. I've owned one of several 41c.cv.cx since High School.

Jeff

Re: 3468B DVM - A and B models

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 12 July 2003, 6:34 p.m.,*
in response to message #1 by 41Jeff

Hi, V;

I wish I could help more, but I have no other source of information except an HP Test and Measurement

Catalog taht simply describes units resources. A and B reffer to workbench and field models. You'll conclude which is which based on yours: if it is a field-like, the A-unit is a workbench designed. As far as I know, both have identical hardware and firmware, but I do not know if their ID is the same, say, if they identify themselves for 3468 only or if they add A or B at the end of the ID string.

Sorry I could not help further more. And thanks for your kind and supporting words :)

Luiz (Brazil)

3468 A/B and manual

*Message #5 Posted by **Renato** on 12 July 2003, 9:03 p.m.,*
in response to message #1 by 41Jeff

HP Journal of Feb 1983 describes 3468A and states that B version is rack mount with identical features.

I know where you can get a manual for 3468 - email me at r_toi at yahoo dot com.

Re: 3468B DVM

*Message #6 Posted by **Vassilis Prevelakis** on 13 July 2003, 4:39 a.m.,*
in response to message #1 by 41Jeff

Maybe this will help (p. 47 of the manual)

```
01*LBL "BLOCKS"
02*LBL "MVDC"     \
03 "F1"            > Meassure Volts DC
04 GTO 00         /
05*LBL "MVAC"     \
06 "F2"            > Meassure Volts AC
07 GTO 00         /
08*LBL "M2OHM"    \
09 "F3"            > Meassure 2-Wire Ohms
10 GTO 00         /
11*LBL "M4OHM"    \
12 "F4"            > Meassure 4-Wire Ohms
13 GTO 00         /
14*LBL "MADC"     \
15 "F5"            > Meassure Amps DC
16 GTO 00         /
17*LBL "MAAC"     \
18 "F6"            > Meassure Amps AC
19 GTO 00         /
20*LBL "MXOHM"    \
21 "F7"            > Meassure Extended Ohms
22*LBL 00         /
23 ">RAZ1N4T2"    \  the > character in the string is APPEND
24 OUTA           |
25 IND             > Autorange, Autozero on, 4.5 digit display
26 RTN            |  Single Trigger, Inputs one reading.
27 .END.          /
```

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MLDL unit for 41 ??

*Message #1 Posted by **Sean McNamee** on 12 July 2003, 4:34 p.m.*

I just read a post (http://www.classiccmp.org/pipermail/cctech/2002-August/001280.html) describing a machine-language development module for the 41 ... Anybody seen this or heard of it?

Meindert is the name of the man!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 12 July 2003, 5:39 p.m.,*
in response to message #1 by Sean McNamee

Hi;

Meindert Kuipers is the name of the man who developed a custom MLDL for the HP41.

This is one of his posts. I'm almost sure he will not feel bothered reading an e-mail from you. And he is a regular contributor, soon you'll be answered by him, too.

Best regards.

Luiz (Brazil)

Re: Meindert is the name of the man!

*Message #3 Posted by **Sean McNamee** on 12 July 2003, 6:11 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

So, is this MLDL2000 the same unit? It looks like he is making a new version - I mean, other than the bug fix he refers to in the post. Or was there an original MLDL that is in production?

Thanks for your response, Sean

Re: Meindert is the name of the man!

*Message #4 Posted by **Sean McNamee** on 12 July 2003, 6:18 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Come to think of it, the 41 m-code book I'm looking at which mentions this is copyright 1985 - so there is definitely an older version of this module. I wonder if anyone has used this version?

Re: Meindert is the name of the man!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 12 July 2003, 6:28 p.m.,*
in response to message #4 by Sean McNamee

Hi;

As far as I know, Meindert is developing his custom version "from scratch". I've been following his posts, but I'd like being closer to his project. It is a teasing, amazing activity.

Sorry, I have no further information. Meidert maintains a page where all of the developmetn is kept as doc files. I do not have the e-address right now...

Best regards.

Luiz (Brazil)

Re: Meindert is the name of the man!

*Message #6 Posted by **Raymond Del Tondo** on 12 July 2003, 8:32 p.m.,*
in response to message #4 by Sean McNamee

Hi,

of course there are various other MLDL-type hardware extensions for the HP-41. Unfortunately, most of them had been designed and been on the market from 1980/81 to 1989 .

Names which come to mind are: ProtoCoder, ERAMCO-MLDL, MBK ProfiSet, W&W RAMBox, VM HEPAX module, HP-41CY, and maybe more which I don't recall at the moment...

Some only had EPROM sockets, other have RAM, and some have both, like the ProfiSet.

As Luiz wrote, Meindert is building a new MLDL-type ROM simulator or RAMBox from scratch. This is a very cool thing, and I hope to be able to get a unit when he publishes the box:-)

Regards,

Raymond

Re: MLDL unit for 41 ??

*Message #7 Posted by **Meindert Kuipers** on 13 July 2003, 3:45 a.m.,*
in response to message #1 by Sean McNamee

I heard my name mention a few times, it almost makes me blush ...

I have a preliminary spec at www.kuipers.to/hp41. I have alomst finished an updated spec which I hope to upload somewhere during next week.

My MLDL is a completely new design. I have learned from other designs, but mine has a different approach. There is now progress (had to fix a serious bug and do redesign) and I am busy simulating the thing. I hope to be able to build a new prototype before I leave for my summer vacation in sunny France (do not despair if you do not see any posts for a few weeks from me) but I will take my notebook and will be able to do some software development.

Please email me for any questions you might have ...

Meindert

Re: MLDL unit for 41 ??

*Message #8 Posted by **Dave Shaffer** on 13 July 2003, 6:08 p.m.,*
in response to message #7 by Meindert Kuipers

re: "... my summer vacation in sunny France (do not despair if you do not see any posts for a few weeks from me) but I will take my notebook and will be able to do some software development."

Now there's the OPERATIONAL definition of geek/nerd!

(And, I bet we all do it! I'm currently debating whether to take a laptop when I go visiting parents and in-laws in a few weeks. I will, at least, take my bookmarks and history files on a floppy so I don't lose my place in this forum.)

Re: MLDL unit for 41 ??

*Message #9 Posted by **Emmanuel , France** on 13 July 2003, 7:02 p.m.,*
in response to message #7 by Meindert Kuipers

```
Dear Meindert,
Good enjoy then! ;o)
Taste french wines, cheeses,...
There's sometimes something more important than calcs.
Kind regards from Normandy. Sincerely.
Emmanuel
```

Re: MLDL unit for 41 ??

*Message #10 Posted by **Meindert Kuipers** on 14 July 2003, 2:43 a.m.,*
in response to message #9 by Emmanuel , France

I am NOT a nerd. The main reason I take my notebook is that my kids can watch a DVD in the back of my car ;) Nerds do not have families (or do they ...). And I will not be able to go online anyway.

And Emmanuel is totally right: I will enjoy the French Atlantic coast (though much further south than Emmanuel is) with its wines, cheeses, fish and all the other good things in life.

Meindert

Re: MLDL unit for 41 ??

*Message #11 Posted by **Emmanuel, France** on 14 July 2003, 5:28 a.m.,*
in response to message #10 by Meindert Kuipers

```
Dear Meindert,
First, thanks.
I'm really from Pont-L'Abbé near Quimper.
The best part of Atlantic cost (Bénodet, Loctudy,...)
with Portugal.
;o)
However have a nice trip!
Yours.
Emmanuel
```

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SPICES keyboard label

*Message #1 Posted by **Jon** on 12 July 2003, 2:02 p.m.*

I want to inter-change The keyboard labels of some spices. Has anybody experience doing it?. Is heat coming from hair dryer enough to remove it?. Which glue can I use to place it again in other calculator?

Thanks in advance

Jon

Re: SPICES keyboard label

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 12 July 2003, 2:16 p.m.,*
in response to message #1 by Jon

Hi, Jon;

I observerd that there are two basic raw material used in Soices' kbd labels: plastic and metal (aluminum?)

I succedd removing plastic labels in two Spices' cases easily: simply pulled them out and they almost "popped off". I'm not sure it's gonna happen with others. Also, I never removed metal labels.

You may see the difference when comparing both models: plastic labels have semi-gloss reflective surface, while metal labels have glossy frames. I have an HP38C with glossy frames and an HP31E with semy-gloss surface (plastic).

I am not sure if all plastic labels will be easily removed as well, I am not sure if climatic conditions would weaken the glue, but if you believe you can give them a try... It's a lot more easy to remove them when the crystal-red LED cover is removed. You will see the label border is easily sensed with the use of your own fingernails. And remember: if you decidee to pull the label, be shure it is a plastic one or you will bent it, if it is a metal label.

Success! And please, let us know what happened.

Luiz (Brazil)

Re: SPICES keyboard label

*Message #3 Posted by **David Smith** on 12 July 2003, 4:40 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Some machines have the keyboard silkscreened directly on the plastic case... have fun removing it...

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HP 17Bii

*Message #1 Posted by **V** on 12 July 2003, 11:13 a.m.*

What specs and characteristics does this calculator have?

ty

"\V/"

Re: HP 17Bii

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 12 July 2003, 11:51 a.m.,*
in response to message #1 by V

Hi;

It's a second-from-top financial calculator (right below the HP19BII) and has the following characteristics beyond HP12C's related TVM most common resources (Bonds, Depreciation, IRR, NPV, Cash flow, etc):

real-time clock and calendar
Scheduler with up to ten custom-defined appointments
ALPHA messages (same HP42S ALPHA entry style)
Statistics based on lists instead of summations (good to edit)
user-selectable Algebraic / RPN mode
6.5K RAM for the user

and a few more "stuff".

I have the three of them: HP17BII, HP19BII and the HP12C. I like the HP17BII very much, but I preffer the HP19BII because of it's extended math resources (TRIGS, Hyperbolics), currency convertions and graphics.

Hope this clarifies a bit.

Luzi (Brazil)

Edited: 12 July 2003, 11:52 a.m.

Re: HP 17Bii

*Message #3 Posted by **V** on 12 July 2003, 5:21 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi, Thanks for the details. What about programability? And the equation solver, how powerful is it? what type of equations can it solve?

Thanks again

"\V/"

Re: HP 17Bii

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 12 July 2003, 5:47 p.m.,*
in response to message #3 by V

Hi, V;

The HP17BII is not exactly programmable; at least I do not see this way because its "custom" expressions do not mean "language" wiht a "sintax". It accepts algebraic expressions and has many resources that allow some "data managment". W. Bruce Maguire II wrote some very usefull expressions that allow trigonometrics and inverses to be computed. Look here and you'll have your own feelings about its "pogramming" style.

Best regards.

Luiz (Brazil)

Re: HP 17Bii

*Message #5 Posted by **jose goncalves (brasil)** on 12 July 2003, 6:38 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I'd like to add that both the 17BII and the 19BII have 2 functions that area used with the solver that can turn them into something we could call semi-programable calculators. They have the IF and the (sigma) functions. Very few persons refer to these functions and it's not easy to find reference to them. You can find them in the pages of the manual that describe the functions of the solver.

Jose

Re: HP 17Bii

*Message #6 Posted by **Eric** on 13 July 2003, 10:13 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz:

Do you know if the 17bii has the functions LET ang GET as the HP27S?

Thanks in advance

Eric

Re: HP 17Bii

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 13 July 2003, 10:53 p.m.,*
in response to message #6 by Eric

Hi, Eric;

I have the HP17BII in my very hands right now and I do not see any reference in INDEX to them. Now I'm curious: what do they do in the HP27S? Are they related to variables?

I had a look at the SOLVER and I saw nothing about them. Anyway, if they are related to other subject, let me know and I'll search them again.

BTW, does the HP27S have a "programming language"? The HP17BII allows expressions and equations to be written, with a reasonable control level. As mentioned by José Ernesto, it allows IF structures and Sigma functions in expressions, and I agree with him that a "pseudo-programming" capability exists, but I do not see this resource as a "programming language", as I mentioned previously. I'm asking about this because LET and GET make sense in a programming environment; am I wrong?

Sorry not helpping further. Best reagards.

Luiz (Brazil)

Edited: 13 July 2003, 10:57 p.m.

Re: Yes

*Message #8 Posted by **Ron Ross** on 14 July 2003, 7:59 a.m.,*
in response to message #6 by Eric

Yes the Let and Get functions are there for all three calculators, Hp17B, Hp19b, and Hp27s. Not documented in any of the owners manuals but stated in an advanced users manual (for the 19 and 27, but the 17 does have the same solver sans trig). These functions do add rudimentary programming to these models (though the solvers are really outstanding all by themselves).

Re: Yes

*Message #9 Posted by **tony** on 16 July 2003, 4:33 a.m.,*
in response to message #8 by Ron Ross

minor point. the 17b is an exception. it has no let/get. the 17bii does though.

Re: Thanks for the info.

*Message #10 Posted by **Ron Ross** on 16 July 2003, 7:26 a.m.,*
in response to message #9 by tony

I did not know that. My 17Bii had and I mistakenly assumed the only change with the plain 17B was the addition of RPN selection.

Re: HP 17Bii

*Message #11 Posted by **Valentin Albillo** on 14 July 2003, 8:00 a.m.,*
in response to message #6 by Eric

Eric posted:*"Luiz, Do you know if the 17bii has the functions LET ang GET as the HP27S?"*

I'm not Luiz, so excuse me for not minding my own business, but I think this answers your question:

"The solver in this machine is exactly the same as that of the 19bii and includes all 19bii functions even if not documented, including Let and Get."

```
Solver Functions:


G(a)            get value of a
L(a:v)          assign value v to a
```

Source: http://www.finseth.com/~fin/hpdata/hp17bii.html

'I also did not know about the undocumented "L()" and "G()" (Let and Get) functions. I strongly encourage anyone who would like to program the 17BII to buy the CD-ROMs from the HP Museum in order to obtain the "Technical Applications" book for the 27S and 19B. The undocumented "Let" and "Get" functions are described, as well as methods of executing looping---these functions open-up programming options that were not conceivable before! For instance: definite loops and invisible, temporary variable assignments. Definitely a MUST READ!

Source: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=222

Best regards from V.

Re: HP 17Bii LET and GET

*Message #12 Posted by **Eric** on 14 July 2003, 10:16 a.m.,*
in response to message #11 by Valentin Albillo

Thank you all for your answers:

And yes the let and get functions allow to manage assigning values or expressions to variable names and reuse them. Togheter with sigma, solve for, and IF functions they allow pretty good capabilities of seudo-programing within the HP-27s.

What I am wondering also is if the new coming hp17bii plus is going to offer the same, if so added trigs will almost offer an hp27s replacement.

Thanks again Eric

Re: No, the Hp17Bii or + won't replace a 27s

*Message #13 Posted by **RR** on 14 July 2003, 11:13 a.m.,*
in response to message #12 by Eric

And heres why. Hp will keep their business line Algebraic WITHOUT precidence. And that Sucks! And because of this, even if you were to write trig routines, the calculator's algebraic enrtry system is poor. Of course the newer Bii's offer RPN selection which is the only way to go. If the 27s had been RPN selectable, it would have trounced the 32s in sales (at about the same price it should have, since it came with 7 K RAM).

Thanks Valentin, guys!

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 14 July 2003, 4:17 p.m.,*
in response to message #11 by Valentin Albillo

Hi all;

as I mentioned, I had not seen any reference about GET and LET in the original, standard HP17BII manual. But now I know where to find them; thanks.

Valentin and other brainy guys (everyone in here?): please, if any of you have to chance to answer to any question primarily addressed to me, I'd be flattered and honored. Mostly if it is to complete some unfinished answers of mine.

Thank you all.

Luiz (Brazil)

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wow. HP-11c @ $285 what's the highest?

*Message #1 Posted by **gene** on 12 July 2003, 9:53 a.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3034497978&category=11713

12 hours to go.

I'd say near mint, not mint

*Message #2 Posted by **Raymond Del Tondo** on 12 July 2003, 1:34 p.m.,*
in response to message #1 by gene

Hi,

on the photo of the back side, there seems to be at least one scratch near the top right rubber foot. So this isn't what I'd call mint. From the other photos, the machine looks very good, therefore near mint...

There were (at least) two auctions for HP-11C's in Germany which both ended around 250 *Euro*, which currently is more than 250 USD. Here are the links:

First one

and

Second one

Interesting side note: Both auctions were won by the same bidder, and both auctions had very similar bidders.

However, IMHO the final prices are too high. 11C's are relatively wide-spread, compared to 16C's and 10C's, and even 15C's...

Raymond

For some reason the 11Cs sell for more money

*Message #3 Posted by **Harry** on 12 July 2003, 3:41 p.m.,*
in response to message #2 by Raymond Del Tondo

than the 15Cs in Germany.

Harry

Re: For some reason the 11Cs sell for more money

*Message #4 Posted by **Karl Schneider** on 12 July 2003, 4:06 p.m.,*
in response to message #3 by Harry

Quote:

> For some reason the 11Cs sell for more money than the 15Cs in Germany.

Ach! Gott in Himmel! Was ist?? -- "MATRIX"? "DIM"? "RESULT"? "SOLVE"? "TEST"?

So viele englische Woerter zu lernen! "x>y" und so weiter ist viel leichter zu verstehen!

Re: For some reason the 11Cs sell for more money

*Message #5 Posted by **Trent Moseley** on 12 July 2003, 5:40 p.m.,*
in response to message #4 by Karl Schneider

No sprechen der Deutsch.

tm+

Re: For some reason the 11Cs sell for more money

*Message #6 Posted by **bill platt** on 12 July 2003, 10:37 p.m.,*
in response to message #5 by Trent Moseley

Trent,

I think he says,

"oh, my god {in heaven}! what's this??--"matrix" "dim" "result" "solve.... Too many englishwords to learn! "x>y" and so further {I?} am too weak to understand!

(I am too weak in my deutsch to make sense of the second sentence entirely....) By the way, this is fun, trying to figure out! In my mind I see a comical rotund older man with a beard and a gruff voice, saying, "ach! Was ist das!?"

Re: For some reason the 11Cs sell for more money

*Message #7 Posted by **Trent Moseley** on 12 July 2003, 11:01 p.m.,*
in response to message #6 by bill platt

Bill,

This is why I love this Forum so much.

tm

Translation: Why the 11C is costlier than the 15C in Germany

*Message #8 Posted by **Karl Schneider** on 13 July 2003, 3:24 a.m.,*
in response to message #6 by bill platt

Bill:

Pretty close --

"God in heaven! what's this?? --"matrix" "dim" "result" "solve", "test"

So many English words to learn! "x>y", et cetera, are much easier to understand!

Of course, the above was strictly a joke...

Six of the eight locations on the keyboard of the 11C, allocated for conditional tests, were displaced on the 15C. For all the extra capabilities of the 15C (see recent posts by Luiz and Valentin), these are the only differences in the functions on the keyboards of the two models. Impressive, huh?

```
11C       15C
======    ======
x<>(i)    x<>
x<>I      Re<>Im
x<0       TEST
x>0       SOLVE
x<y       S_xy
x/=y      MATRIX
x/=0      RESULT
x=y       DIM
```

Re: Translation: Why the 11C is costlier than the 15C in Germany

*Message #9 Posted by **bill platt** on 22 July 2003, 6:09 p.m.,*
in response to message #8 by Karl Schneider

hi Karl,

(on trying to translate) so close! (I should have understood it------;-))

Both the 15c and 11c are amazing. I just bought a 15c recently, finally, after many years of wanting one, and I noticed just that same thing you point out--that by moving the conditionals to the "bakc label" as it were, it is possible to put all those other features on the machine! And as Valentin points out, the multiple uses of the various function names really is cleaver and quite intuitive. and, having been an expert user of the 11c (14 years of continuous use) I find the 15c quite natural to use, as almost all the functions are in the same place, and what has been moved is not to difficlt to find.

Now, if only I had more time, I would try harder to post resonsed to valentin's quizzes---but some of them are pretty difficult, for a rusty tool like myself!

regards,

Bill Platt

Go here to translate

*Message #10 Posted by **Mike** on 12 July 2003, 11:13 p.m.,*
in response to message #4 by Karl Schneider

Free online translation

Edited: 12 July 2003, 11:14 p.m.

Re: Go here to translate

*Message #11 Posted by **Trent Moseley** on 12 July 2003, 11:20 p.m.,*
in response to message #10 by Mike

Mike,

You be bad!

tm

Possible scratches?

*Message #12 Posted by **Mike** on 12 July 2003, 5:38 p.m.,*
in response to message #2 by Raymond Del Tondo

I see two spots between the 3rd and 4th 8 and above the 7th 8.

Too many use MINT. Notice when they say MINT in all uppercase or bold, they are emphasizing that it is truely MINT.

It would be nice to hear from the winner on the condition.

MINT should mean absolutely no scratches, in my opinion. The metal bezel should be just like from the factory.

Edited: 12 July 2003, 9:59 p.m.

What is MINT and what is not.

*Message #13 Posted by **Mike** on 12 July 2003, 5:49 p.m.,*
in response to message #2 by Raymond Del Tondo

I hate to put my auction here but here is a 16C that I'm selling. I don't want to pick at another's auction so I'll pick on mine. It's a damn nice 16C. I bet most would call it MINT. But, in my opinion, it's just not MINT.

If you look closely above the right edge of the 4th 8, you will see a tiny spec. That makes it not Mint, in my opinion. You might see some other photos (1st photo, 2nd row) that show very tiny marks that are almost impossible to see in a single photo. Even with photos from various angles, it's still hard to see any flaws. But it's not mint.

Example of one that is not Mint

MINT should not mean really nice. It should mean, no different that if plucked from the assembly line.

Agreed, but...

*Message #14 Posted by **Raymond Del Tondo** on 12 July 2003, 9:03 p.m.,*
in response to message #13 by Mike

...what is 'pristine' related to 'mint' ?

Raymond

It is a fancy word... FLAGS should raise if..

*Message #15 Posted by **Mike** on 12 July 2003, 9:56 p.m.,*
in response to message #14 by Raymond Del Tondo

that doesn't mean much. I use it occasionally but always in conjunction with Excellent or Mint in describing something like contacts and such.

I don't think pristine is a level of overall quality. Just my opinion.

"Really super-dooper" isn't a level of overall quality either.
http://www.msdsite.com/images/smile.gif

It is interesting that people use "Near Mint" which really means "Not Mint." Why not just say "Excellent" rather than "Not Mint?" It is to give the impression that it is Mint, when it really is Not.

But the really odd one is when people do things like:

"This would be Mint, if it were not for the 2 dents and the name scratched on the back." Now this kind of use of Mint is ridiculous. But it happens all the time.

A Flag should go off when people use Mint. If someone says Mint and then doesn't say why it's, you better count on it NOT being Mint. This is especially true of people that don't sell many HPs.

I have bought "Mint" and "Like New" from people that just don't have a clue.

Calculator Buying Tips

Edited: 12 July 2003, 10:08 p.m.

Re: I'd say near mint, not mint

*Message #16 Posted by **bill platt** on 12 July 2003, 9:56 p.m.,*
in response to message #2 by Raymond Del Tondo

And the final bidder, algichar, is inexperienced, and the 2nd place has a new ID.

Interesting to note how andromeda20 and the other near high bidders "tested the waters" incrementally but backed out in the high 100's--which is the price we would anticipate.

The distribution of buyers is definitely gaussian--and these two bidders are out in the wings of the bell curve.

Re: wow. HP-11c @ $285 what's the highest?

*Message #17 Posted by **Dean** on 12 July 2003, 11:46 p.m.,*
in response to message #1 by gene

I bought an 11C at a local resale store just before last Christmas. It had the original box, manual, and registration card. Tested OK. Even had batteries that worked!

All for the fabulous price of $2.00!

(I almost peed down my leg.)

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probably HP-41c Halfnut on ebay

*Message #1 Posted by **gene** on 12 July 2003, 9:48 a.m.*

I know several folks have been looking for one of these. check this link: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3034727449&category=11713 Has a quad memory module, says it's a 41c. Does have the 41cv operation in detail manual. Just an FYI. I have no association with this seller or auction. :-)

Re: probably HP-41c Halfnut on ebay

*Message #2 Posted by **eBay buyer** on 12 July 2003, 11:03 a.m.,*
in response to message #1 by gene

Thanks Gene, as usual... :-(

Re: probably HP-41c Halfnut on ebay

*Message #3 Posted by **Raymond Del Tondo** on 12 July 2003, 1:37 p.m.,*
in response to message #2 by eBay buyer

Hi,

the unit looks very good, and has a very good application pacs installed: The Advantage Pac.

Raymond

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Are HP 32Es cheaper than other spices?

*Message #1 Posted by **Harry (Germany)** on 11 July 2003, 6:44 p.m.*

I didn't really notice the spices until I got that 37E that i am trying to fix now. As i still don't understand the operation of the powersupply and therefor didn't get it working yet, i decided to buy another one to find out how it should work. And i found this:

<A HREF="http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2543341570">HP32E</A>

(btw, why isn't this link working? Is there something wrong with that HTML code I used? I thought it was done like that, but obviously it is not.)

I was surprised i got it that cheap?! Was I just lucky or are they that cheap?

Regards, Harry

Re: Are HP 32Es cheaper than other spices?

*Message #2 Posted by **Raymond Del Tondo** on 11 July 2003, 9:07 p.m.,*
in response to message #1 by Harry (Germany)

Hi,

I think you have been lucky.

According to http://www.hpmuseum.org/collect.htm#diff

from the Spice series, only 31E's are somewhat rare, since they tended to get thrown away...

Regards,

Raymond

Re: Are HP 32Es cheaper than other spices?

*Message #3 Posted by **Ellis Easley** on 11 July 2003, 9:11 p.m.,*
in response to message #1 by Harry (Germany)

Follow the link for "advanced formatting techniques" at the top of the Forum index page. The "url" or "link" are probably what you want.

Oh, so its not HTML what is used for formating. Thanks! nt

*Message #4 Posted by **Harry** on 12 July 2003, 5:35 a.m.,*
in response to message #3 by Ellis Easley

nt

Re: Are HP 32Es cheaper than other spices?

*Message #5 Posted by **David Smith** on 12 July 2003, 4:46 p.m.,*
in response to message #1 by Harry (Germany)

Yes, 32E's tend to be the cheapest Spice machine, also the least expensive.

Auctions listed on non-US Ebay sites can easily bring less than 1/3 what the same item listed on Ebay US will bring becuase of their much smaller audience.

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OM-D30V: Anyone remember these disks?

*Message #1 Posted by **Mike** on 11 July 2003, 2:02 p.m.*

I have a 9121 that uses the older vintage Sony Disks (OM-D30V) that had the manual shutter. Anyone remember those? The ones shown are marked HP. I'm not sure if these were actually made by Sony or not but I believe Sony was first and they do say "Made in Japan" on the back.

You had to slide the shutter to the open position, where it would be latched (see latch in photo), then afer you removed the disk, you had to pinch the corner to cause the shutter to spring back to the closed position. The center photo shows the latching mechanism. You pinch the corner and the latch releases the shutter.

http://www.msdsite.com/hpcalcs/SonyDisks/openx.jpg http://www.msdsite.com/hpcalcs/SonyDisks/latchx.jpg
http://www.msdsite.com/hpcalcs/SonyDisks/closingx.jpg

When I first obtained this drive, I thought it was broken, since I couldn't insert a floppy. Thought it was jammed http://www.msdsite.com/images/smile.gif . After a little investigation, I found that it used the old Sony drives.

Vintage Computer Fourm

Edited: 11 July 2003, 3:14 p.m.

Re: OM-D30V: Anyone remember these disks?

*Message #2 Posted by **David Ramsey** on 11 July 2003, 6:45 p.m.,*
in response to message #1 by Mike

When I moved out to California in 1983, I had a friend working at "Muppet Labs" inside HP. He showed me some of their new DOS touch screen computers, which used these disks. This was before the Mac and there were at least three different types of 3.5" disks at the time, including one that was just like a miniature 5.25" floppy.

The touch screens used a grid of infrared beams to determine where your finger was. The resolution for the entire screen was, I think, 32 x 32.

Re: OM-D30V: Anyone remember these disks?

*Message #3 Posted by **Raymond Del Tondo** on 11 July 2003, 9:15 p.m.,*
in response to message #2 by David Ramsey

Hi,

it was the HP-150 resp. the HP-150II TouchScreen PC

The resolution of the screen was something about Hercules-like, only the touch screen resolution was much lower, but sufficient for finger usage. There were at least two variations of that TouchScreen. One with the grid frame only, where you tapped on the screen glass directly, and another with kinda transparent elastic membrane, so to hide the screen glass from finger prints;-) My HP-150II TouchScreen PC the 'grid frame

only' display frame.

BTW: You could order the grid frame separately. On the motherboard of the HP-150II is a connector for the frame.

Regards,

Raymond

HP 150 -- diskettes and stuff

*Message #4 Posted by **Katie** on 11 July 2003, 10:48 p.m.,*
in response to message #3 by Raymond Del Tondo

I had several of both the HP150's and the HP150II's at my client's offices. They used lower density 3.5" diskettes (around 700KB) but the shutters worked automatically. There was also a program that allowed you to read these on a regular PC and vice versa even thought the formatting was different.

The resolution of the touch screen was pretty horrible. However, the 150's (at least the early ones) were supplied with a demo diskette that had several touch screen games on it. I thought that HP's touch screen was a perfect match for their solitaire game, and was pretty convinced that that was the reason why they invested it! :)

Edited: 11 July 2003, 10:48 p.m.

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What battery for 11 C?

*Message #1 Posted by **Dave Beverstock** on 11 July 2003, 11:20 a.m.*

I'm remembering 675, but the batteries that came out are energizer EPX76. I can't find my manual. I love this calculator and can't live without it. Worried about causing it harm with wrong battery. Any help is appreciated!

Thanks,

Dave

Re: What battery for 11 C?

*Message #2 Posted by **bill platt** on 11 July 2003, 11:24 a.m.,*
in response to message #1 by Dave Beverstock

1.5 volt button cells:

Silver Oxide, type 357

or

Alkaline, Type LR44

You may also find type SR44---they should work, too.

Re: What battery for 11 C?

*Message #3 Posted by **Dave Beverstock** on 11 July 2003, 12:04 p.m.,*
in response to message #2 by bill platt

Thanks Bill!

Dave

Re: What battery for 11 C?

*Message #4 Posted by **Thomas Cox** on 11 July 2003, 12:29 p.m.,*
in response to message #2 by bill platt

There is a site on Internet that specializes in the SR44. As I remember it is www.SR44.com Bulk packed, but prices and service are good.

Excellent Site!

*Message #5 Posted by **bill platt** on 11 July 2003, 12:43 p.m.,*
in response to message #4 by Thomas Cox

Thanks!

Also, another note:

I do not have my 11-C manual in front of me, but I remember that in it, HP actually showed that the operating length of time after the battery annunciator comes on, is different for the Siver Oxide (SR44, 357) than it is for the Alkaline (LR44) batteries. (I remember this only because I read it first when I was 14 years old and so it stuch with me all these years. Ah, the young brain.....)

If I remember correctly, the Silver Oxide batteries have longer life, but die in only 30 minutes or so after the battery annunciator comes on, whereas the alkalines have a shorter life, but die more gradually.

Can anyone confirm? (I will re-post this evening from home if my statements are incorrect).

Regards,

Bill

Life after asterisk

*Message #6 Posted by **Valentin Albillo** on 11 July 2003, 1:55 p.m.,*
in response to message #5 by bill platt

Hi Bill,

The manual says, that after the asterisk first appears:

```
              Calc ON      Calc OFF
-----------------------------------
Alkaline    > 2 hours     > 1 month
Silver ox   > 15 min      > 1 week
```

Best regards from V.

Re: Excellent Site!

*Message #7 Posted by **Thomas Cox** on 11 July 2003, 3:03 p.m.,*
in response to message #5 by bill platt

If I remember correctly the SR-44 has an anticipated life of about 2 to 2.5 times that of the Alkaline equivalent. I have used SR-44 in HP-42S and HP-32SII and not noticed that behavior -- however, that does not mean it does not happen. I think the SR-44 is probably more cost effective.

As with anything there are trade-offs.

Re: What battery for 11 C?

*Message #8 Posted by **David Smith** on 11 July 2003, 3:52 p.m.,*
in response to message #1 by Dave Beverstock

If you can find them, Vinnic (a Chinese company) makes very inexpensive LR44 batteries. I have seen cards of 10 for between $2 and $3... what a lot of places sell a single cell for. A guy on Ebay seems to always have them at that price. Also Tanner Electronics in Carrolton TX (but he does not do mail order).

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are Algebraics more Valuable?

*Message #1 Posted by **bill platt** on 11 July 2003, 10:25 a.m.*

See the following lik:

ebay auction 22s

A 22s for 165 USD. I have also seen 21S and 27S go for high hundreds--and the latter into the 200's. Are these machines rare? Did HP actually sell fewer Algebraics than RPN?

Seems interesting.

-Bill Platt

Re: are Algebraics more Valuable?

*Message #2 Posted by **Gene** on 11 July 2003, 10:34 a.m.,*
in response to message #1 by bill platt

Can't explain the 22S.

The 27S is a great calculator, even if it IS algebraic only. The algebraic mode on the 27S is much more like the old "CALC" mode on the HP-71B than a normal calculator's "algebraic" mode, because you can see intermediate answers as you type formulas in. It was one of HP's efforts at a "do everything" calculator - scientific with built-in TVM.

Personally, there is no excuse for a calculator not to have the 17B/19B TVM code thown in there these days. Engineers DO have to solve $$ problems at times, even if it's for their own personal finances. :-)

The 21S was a specialized statistics calculator that didn't sell all that well at the time, but for which there isn't a great replacement out there right now. Not exactly the same level of uniqueness as the 16C programmer's calculator, but similar idea.

That said, I have a working HP-22S if someone wants it for a discounted $150. ;-)

Gene

Re: No, but these are exceptions

*Message #3 Posted by **Ron Ross** on 11 July 2003, 10:50 a.m.,*
in response to message #1 by bill platt

No, as a general rule. Examples where the algebraics have little value

Hp6s trash (and I am being kind) Hp30s so-so Hp20s great low end calc, directly compariable to an Hp21s Hp10b financial Hp14b financial Hp17b Financial Hp18c Financial Hp19b financial with trig (makes this desirable) Hp38G Graphics Hp39G Graphics

All of the above are usually sold below retail, either past or present. Some are really discounted, ie 38G and 39G are 30 cents on the dollar. I did not bother to list Hp's dual mode calculators, since they are sought after as RPN models.

Now for the exceptions and reasons why.

Hp21s Statistics calculator higher retail therefore less sold than an Hp20s but nearly identical to 20s aside from stats features. Any statician who had one and loses will be desperate to find, no real substitute short of a graphics. Hp22s comparable in functions and cababilities to an Hp32s, Hp quality in an algebraic package. Hp27s comparable to an Hp42s, need I say more (no, however, it is not an Hp42s but best algebraic pocket calculator ever made).

None of the three above have anything compariable available to replace them (very similiar to the Hp32/42 delimma). That is why they command high prices.

Re: No, but these are exceptions

*Message #4 Posted by **Raymond Del Tondo** on 12 July 2003, 6:08 a.m.,*
in response to message #3 by Ron Ross

Hi,

I'd like to say the 27S is a combination of the 17BII and the 32S, more than the 42S.

From the programming part, the 27S uses the same mechanics (lists of expressions) as the 17B(II) .

Regards,

Raymond

BTW: A 22S in this conddition (like new) IS rare, so the price isn't too suprising. I paid 100 Euro for my NewInBox 22S a while ago...

Re: are Algebraics more Valuable?

*Message #5 Posted by **Thibaut.be** on 11 July 2003, 11:06 a.m.,*
in response to message #1 by bill platt

Bill said

> Quote:
>
> A 22s for 165 USD. I have also seen 21S and 27S go for high hundreds--and the latter into the 200's. Are these machines rare? Did HP actually sell fewer Algebraics than RPN?

Well, of course even if the 2XS series were quite nice algebraic calcs, especially the 27S that reaches nowadays prices similar to those of the 42S, $165 for & 22S is a lot of money.

Nevertheless this one is considered as (mint) as it is complete in its box with virtualy no usage. I guess a collector would appreciate to have such a sound machine on his shelf.

Now these calcs that used to sell for $10 3 years ago - like the 32SII incidentelly, that was just ignored on ebay when they were still for sale - are not in production anymore prices go crazy... I haven't seen any investment that would levy so much than an HP calc purchased a few years ago...

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HP48GX screen replacement

*Message #1 Posted by **Ohneil** on 11 July 2003, 5:08 a.m.*

I have had this precious calculator of mine since it first came out and had the screen crack on me today. I'm wondering if there's anyway to replace this. Would it be cheaper than buying anew 48GX?....

Please help! Ohneil

Re: HP48GX screen replacement

*Message #2 Posted by **unspellable** on 11 July 2003, 12:18 p.m.,*
in response to message #1 by Ohneil

Try http://www.fixthatcalc.com/

This guy just put a screen in my 48SX. Fairly quick turn around. So far looks good.

Re: HP48GX screen replacement

*Message #3 Posted by **Ohneil** on 14 July 2003, 8:45 a.m.,*
in response to message #2 by unspellable

I have checked that www.fixthatcalc.com but the price was kinda unreasonable. I was quoted around $70-$75 which was half of the current price for a new HP 48GX calculator. Is there any other site that is MORE reasonable!?

Thanks

Re: HP48GX screen replacement

*Message #4 Posted by **Ron Ross** on 14 July 2003, 10:12 a.m.,*
in response to message #3 by Ohneil

You could try to fix by yourself, if you are skilled with repairs. You only need the LCD screen from an Hp38G or another 48G (you can buy for about $25-40 for either, the 38G can be purchased new for that). However, you will probalby destroy the first calculator you open, so you should wait until you recieve your replacement calc before you operate.

There is no guarantee of your success either. However, Hp themselves used to offer a replacement policy for out of warrenty calculators of around that cost also. Then you would get a new unit (or just like new as it may be a refurb ie returned for some reason or another).

Ph # 970-392-1001 ext. 0

I haven't dealt with for a couple of years (I had a bad 49G, first issue).

Re: HP48GX screen replacement

*Message #5 Posted by **ohneil** on 14 July 2003, 10:40 a.m.,*
in response to message #4 by Ron Ross

Ron,

What is that number(Ph # 970-392-1001 ext. 0) for? Do you know where to get this LCD replacement for that price?

Neil

Re: HP48GX screen replacement

*Message #6 Posted by **Ron Ross** on 14 July 2003, 11:45 a.m.,*
in response to message #5 by ohneil

Finding a bare LCD is difficult. I am suggesting you purchase another less desirable calculator and robbing from it.

The Phone # is Hp's calculator warrenty and repair number. Hp does not make this number very well known, but I believe they still use it. Hp will want you to send in your calculator and $$$ to replace your calculator. The $$$ part changes from month to month, hence you will have to call and find out what Hp charges to repair (actually replace with new) your calculator.

Re: HP48GX screen replacement

*Message #7 Posted by **Ohneil** on 15 July 2003, 10:33 a.m.,*
in response to message #4 by Ron Ross

Ron,

You seem to know a lot about this sort of repair for the HP. What advice could you give me to help me be successful with the LCD transplant?.... I have all the smaller size screwdrivers and soldering gun. Is there anything else? Do you know any website to help me do this?.... I'm buying a used HP 38G calculator as the donor. I really hate wasting a decent calculator but I really miss that HP 48GX very much!

Ohneil

Re: HP48GX screen replacement

*Message #8 Posted by **Ron Ross** on 15 July 2003, 11:05 a.m.,*
in response to message #7 by Ohneil

There are two ways to get at your screen. I read up on memory upgrades and took a plain old 48G to 128K and found a couple of ways to dissassmble. I drilled out the heat stakes from the back battery compartment and removed my IR lense and cut posts (You have a different IR lens). Then I pried apart. Once apart you will see small twist knobs (I did not go further as I only needed to pull 32K chip and solder a larger 128K chip (a whole other story). These little twist knobs allow you to pull off the main guts and get to the front. You LCD will then be an alignment issue to place back on. Also you will need to be sure your compression pad on the LCD is good as that is a major failure that affects keyboard operation. The great thing about this approach is that IT LOOKS CLEAN WHEN YOU ARE DONE. The downside is my case is not as solid as it used to be (creaks like an old TI). I have other calculators and do not use this one much so I cannot say whether it would hold up to day to day use (seemed okay when I put it

away).

Another more direct way is to peel up the front of the calculator to get directly to the LCD. I believe this is also possible and would be much quicker. However, your faceplate will show this attack and look rather shabbly after this operation. Again, you will have alignment issues and lack of proper pressure on the LCD and keyboard traces could haunt you.

There are a few people here who have repaired broken LCD's but I suspect it can be a cumbersome trial and effort experience.

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17b emulator

*Message #1 Posted by **Brendo** on 11 July 2003, 1:56 a.m.*

Hi Folks

Has anyone heard of an emulator for a HP 17b that will work on Windows XP and/or Pocket PC formats?

Thanks

Brendan

Re: 17b emulator

*Message #2 Posted by **Christoph Giesselink** on 11 July 2003, 2:54 a.m.,*
in response to message #1 by Brendo

Read this article please http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv011.cgi?read=28978.

Regards

Christoph

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Ebay purchase - good deal?

*Message #1 Posted by **Sean McNamee** on 11 July 2003, 12:01 a.m.*

I just did a "Buy it now" for a 41cx in excellent condition - $199.95. Good deal? It's coming with case only. Since I have the CD collection of manuals from this website, I didn't care so much about manuals...

Re: Ebay purchase - good deal?

*Message #2 Posted by **Ernie Malaga** on 11 July 2003, 1:16 a.m.,*
in response to message #1 by Sean McNamee

Sean:

It's a good deal if the 41CX is indeed in excellent condition. You'll find out when you receive it.

-Ernie (always suspicious of eBay)

Depends on condition

*Message #3 Posted by **Mike** on 11 July 2003, 1:24 a.m.,*
in response to message #1 by Sean McNamee

The two monst common problems:

1) Battery contacts corroded. 2) Case mounting posts broken

If you don't have either of these, you probably did ok. It wasn't a steal but it's not bad.

Re: Depends on condition

*Message #4 Posted by **Sean McNamee** on 11 July 2003, 3:11 a.m.,*
in response to message #3 by Mike

Check it out: the e-bay item # is 3034113252.

Re: Depends on condition

*Message #5 Posted by **David Smith** on 11 July 2003, 3:53 p.m.,*
in response to message #4 by Sean McNamee

The proof of the calcing is in the clicking...

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Which H-P Do I Take Camping?

*Message #1 Posted by **Paul Brogger** on 10 July 2003, 7:15 p.m.*

Situation: You're leaving Saturday to meet your liberal artsy ex-schoolmate on a camping/day-hiking/trout-fishing trip in the high, dry, eastern Sierra. You've mentioned your interest in HP calculators, and want to graphically (no pun) demonstrate the difference between where we are and where we once were.

What do you take along?

This isn't a true back-packing trip, and I don't expect to be carrying a calculator on my hikes, so size isn't necessarily an issue. (That might be a worthy sub-topic, however . . .)

I will be unable to use my charger, but I expect I won't be using it all that much. I'm thinking (and Norm's thinking) a fully-charged HP-34C. If I had a nice 42s, I suppose I'd bring that along too.

Do you take along a TI-30 as well? Is that a "fair" comparison? (That is, to the extent that *any* comparison between classic HP and TI can be called "fair" . . .) I suppose a 6s would do a bang-up job of showing the current state of affairs . . .

Re: Which H-P Do I Take Camping?

*Message #2 Posted by **Randy Sloyer** on 10 July 2003, 8:58 p.m.,*
in response to message #1 by Paul Brogger

If you really want to push the envelope, U could take along all of the above in opened form. Forget the performance numbers, that takes batteries. Who cares, we all know they work, unless it is a 12SP. Just look at the hardware. No chemical reactors needed. Just marvel at the changes and advancements. Just for fun, buy a 10Bii and drill out the four heat stakes, rip it open and take it along as well. You'll be amazed at the last true HP designed machine, a Pioneer on steroids. Gold plated keyboard contacts, wow! And an LCD that is shock mounted, true genius.

And don't forget the 4 weight rod and a few dry flies for the still water pools. The calculators get boring after a a few minutes. Besides, the trout could care less. Yuumm, shore lunches on non-calculating trout...Now where's the beer...

Edited: 10 July 2003, 9:03 p.m.

Easy answer -- take along an HP 49G+

*Message #3 Posted by **NH** on 10 July 2003, 9:30 p.m.,*
in response to message #2 by Randy Sloyer

That's an easy answer -- when camping you take along an HP 49G+ .....

it's too complicated and confusing to do any number work.
But if you break it in half the jagged edges are pretty good for defending yourself against an attacking mountain lion.

Re: Easy answer -- take along an HP 49G+

*Message #4 Posted by **Randy Sloyer** on 10 July 2003, 10:35 p.m.,*
in response to message #3 by NH

Now THAT'S an original answer!! Why didn't I think of that one? I never thought of them as weapons, but, then again, I never did think of any useful purpose for a 49G other than a paperweight. My thirteen year old likes the color scheme. In algebraic mode, at least its useful to someone, but not me.

Paul, I don't really think you where looking for a serious answer, where you?

Norm, thanks for the good laugh :^)

Re: Which H-P Do I Take Camping?

*Message #5 Posted by **Trent Moseley** on 10 July 2003, 11:22 p.m.,*
in response to message #1 by Paul Brogger

What you take along with your "liberal artsy ex-schoolmate" is an HP-67 with a bad gummy wheel so you don't need to fool around with calculators and then have some real fun.

tm

Re: Which H-P Do I Take Camping?

*Message #6 Posted by **ted** on 11 July 2003, 1:44 a.m.,*
in response to message #5 by Trent Moseley

The trick is to make her feel important, and get her involved. Bring along a blanknut, and ask her to help decide where the functions could best be placed. Bring an overlay or two and stickers. I suspect she will remember it as a very memorable day in the mountains! She could even keep the overlay as a souvenir.....

oh, okay... NOW I get it

*Message #7 Posted by **glynn** on 13 July 2003, 1:11 p.m.,*
in response to message #6 by ted

The overlay is for the CALCULATOR. Gosh, that sure clears things up.

;-)

If I were in your shoes ...

*Message #8 Posted by **Valentin Albillo** on 11 July 2003, 4:24 a.m.,*
in response to message #1 by Paul Brogger

Hi, Paul:

Assuming you're serious, here's a serious answer. You must take either an HP-15C or an HP-11C, period. Why ?

- they are extremely small and thin and lightweight, so they won't be a burden to carry
- their batteries last so long you could go round the world and back on foot, several times, and they would still work fine, so no need for a charger or even backup batteries

- they are the finest pure calculators HP ever made (or anyone for that matter), you won't find anything approaching their quality or performance anytime, anywhere (hi, Sarah Brightman!)
- they have the most contrasty, solid-black, best LCD displays HP ever made. All segments are thick and black, and easily read even in very poor light conditions. No straining your eyes to try and see what's on the display.
- they're also beautiful and look incredibly solid and classy. I've yet to find any intelligent woman or man who doesn't feel attracted to them on first sight.
- you can write no-nonsense programs for them that might appeal to your intended companion. For instance, you might easily program a random dice generator, to play some game requiring dice without the risk of losing them out in the wilderness. Or a lotto number generator. Or a calories calculator. Or a biorythm calculator that will provide for much interesting conversation on the subject, etc.
- and last but not least, they're guaranteed to stand to any adverse climatic conditions, no matter how adverse. In my own experience, I had an HP-11C with me at all times for one year in the Sahara desert (extreme hot and cold, sand, dust, etc) while in the military and not only did it survive, but it's the mintest HP-11C in my collection. Matter of fact, you're far more likely to fail yourself than your HP-11C/15C are.

There you are. Best regards from V.

Re: If I were in your shoes ...

*Message #9 Posted by **bill platt** on 11 July 2003, 10:57 a.m.,*
in response to message #8 by Valentin Albillo

I agree with Valentin.

-Bill

Re: Which H-P Do I Take Camping?

*Message #10 Posted by **Thibaut.be** on 11 July 2003, 9:30 a.m.,*
in response to message #1 by Paul Brogger

If your schoolmate is a she, don't take any HP calc. It's like drinking beer : do that AFTER you get married.

Re: Which H-P Do I Take Camping?

*Message #11 Posted by **/V\asta** on 11 July 2003, 6:21 p.m.,*
in response to message #1 by Paul Brogger

Well, this is quite nerdy (or geeky, which is correct?) more than this forum normally is. My nerdo-meter has never gone this far, detecting serious nerd activities, Oh no, it wasnt meant to go this high. Shes gonna blow!

BBOOOOOMMMMMMM!!!

PS: I recall on a previous post: Did you really expect to get a serious answer?

Re: Which H-P Do I Take Camping?

*Message #12 Posted by **/\/\asta** on 12 July 2003, 7:36 p.m.,*
in response to message #11 by /V\asta

Wait a minute, she???? your showing an HP calculator to a girl?? I know that some (either interested in technology or smart-wannabe's)girls are or act interested, but most just arent, why? cuz its nerdy.

/V\asta Read My Post

*Message #13 Posted by **Trent Moseley** on 12 July 2003, 11:17 p.m.,*
in response to message #12 by /V\asta

tm

the word "nerd"

*Message #14 Posted by **Norm** on 13 July 2003, 5:22 a.m.,*
in response to message #12 by /V\asta

the word "nerd" is a rather obsolete and derogatory phrase that ought to become outmoded.

Re: the word "nerd"

*Message #15 Posted by **/V\asta** on 13 July 2003, 2:38 p.m.,*
in response to message #14 by Norm

So your saying that Geek should be used?

Re: Which H-P Do I Take Camping?

*Message #16 Posted by **Thibaut.be** on 13 July 2003, 2:27 p.m.,*
in response to message #12 by /V\asta

Isn't there a "Katie W" in our community ?

Re: Which H-P Do I Take Camping?

*Message #17 Posted by **David Smith** on 12 July 2003, 4:48 p.m.,*
in response to message #1 by Paul Brogger

Take an HP65 or HP67... nothing like a card reader to impress the natives.

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HP41 emulators

*Message #1 Posted by **David Smith** on 10 July 2003, 4:43 p.m.*

Do any of the HP41 emulators out there allow one to load programs from an external ASCII text file? The emulator would need to be either CX or CV+XFUNCTION compatible.

Re: HP41 emulators

*Message #2 Posted by **Emmanuel, France** on 10 July 2003, 4:48 p.m.,*
in response to message #1 by David Smith

```
ELI-41 does...
Don't know if the following firm still exists


Eclipse Logic Inc.
P.O. BOX 2003
HUNTINGTON PARK, CA 90255
(213) 569-6020


Yours.
Emmanuel
```

Re: HP41 emulators

*Message #3 Posted by **Christoph Giesselink** on 10 July 2003, 5:00 p.m.,*
in response to message #1 by David Smith

> Do any of the HP41 emulators out there allow one to load programs from an external ASCII text file? The emulator would need to be either CX or CV+XFUNCTION compatible.

Warren Furlow's V41 for Windows PC allows loading/writing of FOCAL programs in RAW mode. With the User Code Utility from Leo Duran you can handle ASCII text files.

Regards

Christoph

Re: HP41 emulators for palm

*Message #4 Posted by **Renato** on 10 July 2003, 9:46 p.m.,*
in response to message #3 by Christoph Giesselink

There is a HP-41CX emulator for palm that supports all that.

Take a look at:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=34641

I guess you can get V41 to do all that, but you´ll need to find some other support programs.

Re: HP41 emulators for palm

*Message #5 Posted by **David Smith** on 11 July 2003, 3:57 p.m.,*
in response to message #4 by Renato

I was needing it to run on a PC (DOS or Windows). Basically I have a compiler type program that would generate a HP41 listing that could be loaded into the emulator for further modification and debugging before it would be transfered to the real machine.

Re: HP41 emulators for palm

*Message #6 Posted by **Renato** on 11 July 2003, 4:40 p.m.,*
in response to message #5 by David Smith

Two options:

1. V41, at a site that can´t be listed here. contact me at r_toi at yahoo dot com.

2. You can run p41cv under windows, using a palm emulator.

Renato

Re: HP41 emulators for palm and inquiring minds

*Message #7 Posted by **Gene** on 11 July 2003, 4:53 p.m.,*
in response to message #6 by Renato

And I wondered about that "can't be listed here" thing too. Inquiring minds want to know, so drop me a note at the email address above and help out my ignorance.

Re: HP41 emulators for palm

*Message #8 Posted by **tony** on 12 July 2003, 7:47 a.m.,*
in response to message #5 by David Smith

Have a look at J-F Garnier's EMU41. You can OUTP a 41 prog to a dos file called emu41out.dat and INP one from emu41in.dat. These .dat files are ascii but not really human readable - they are ascii hex codes. You need to select the DOSLINK device, and need the EXTIO ROM image, for this.

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May be a stupid question...

*Message #1 Posted by **Pierre Brial** on 10 July 2003, 9:15 a.m.*

I like to browse the websites about old calculator and computer, particulary about hp, as I have myself a small collection. In some articles, I have often noticed that calculator fanatics are called "geek" or "nerd". As I am french, I am not able to translate exactly these words and they are not in my dictionary. I suppose it is something humoristic. Could you tell me what they mean exactly ? All the best Pierre

Re: May be a stupid question...

*Message #2 Posted by **Thibaut** on 10 July 2003, 9:32 a.m.,*
in response to message #1 by Pierre Brial

Hi Pierre,

A nerd has no translation in French. C'est en fait un "premier de classe", le type plutôt associal, avec des lunettes, plus malin que tout le monde et qui énerve son entourage. Agan, dans les oeuvres de Goscinny et Sempé se rapproche bien de cette définition.

Thibaut.be

Re: May be a stupid question...

*Message #3 Posted by **bill platt** on 10 July 2003, 10:21 a.m.,*
in response to message #1 by Pierre Brial

Hello Pierre

Geek, and Nerds, which may or may not be the same thing depending on when and where you are (like, 1977 at Cal Tech vs 1998 at MIT etc) have the following general characteristics:

Do not care that they either dress different, act different, or think differently from the majority of persons in the school,

Do not participate in parties, drinking, etc

Not athletic

Academically or intellectually superior (or just perceived to be)

Now, it gets complicated, because the athletic part, or any other part of the definition is really not universal---in other words the California Nerd is defined more by his lack of beach savvy than the MIT Eastern nerd...

The one true over-riding "Nerdyness" or "Geekyness" is an extreme interest in something, especially if it is not a mainstream popular culture interest--and especially if you "know too much" about it. So by this definition, people who would seem "tough" or "cool" are in fact truly nerds: for example, motorcycle gang types, or "chopper bike" enthusiasts generally, are in fact very nerdy: they know a whole lot about something that is not

mainstream: motorcycles; they are fanatical about it, and they don't care that they look different. So, take heart all you nerds: You have a lot in common with some of the "toughest" out there!

In american teenage popular culture (which is of course where all of this sort of self-conscious blather starts) it is not cool to know anything in depth. The less you know, the better--except what the latest eminem or brittany (sp?) spears song is---but only in a superficial way. Teenage girls are especially affected--they start to worry more about how they look, and the idea of studying or learning anything useful is considered way uncool. The boys have similar pressure, but really not as much--they don't worry about makeup, and teenage boys are so goofey anyway that it really does not matter how hard they try to be cool, they still look and act goofy.

Now in France, everyone is so worried about passing their Bach and getting into "universite" that it is I imagine more acceptable to be earnest in one's studies.....

Regards,

Bill

Re: May be a stupid question...

*Message #4 Posted by **Dan** on 10 July 2003, 11:22 a.m.,*
in response to message #3 by bill platt

I would tend to disagree with the previous, overly broad definition of geek or nerd. These words can be simply stated as the combination of (1) social awkwardness, and (2) obsession with academics. Other types may be fanatical or obsessive about something else, but I don't think that fits the definition of geek or nerd. Interest in alculators, being linked to academics, might fit one part of the definition but not both. However, if you spend so much time thinking about them that you don't know how to participate in any other topics of conversation, then you are probably a nerd. However, if you have a similar problem with sports or motorcycles, that just makes you a jock or a gearhead, which is just as bad, but still different. Perhaps we should put together some common-sense guidelines, like "You might be a nerd if..."

Re: May be a stupid question...

*Message #5 Posted by **Emmanuel, France** on 10 July 2003, 12:58 p.m.,*
in response to message #1 by Pierre Brial

```
Dear Pierre,
There's no stupid question.
"geek" means "débile, crétin"
and
"nerd" means "nullard"
Yours. Regards from Normandy.
Emmanuel


Cher Pierre,
Il n'y a pas de question stupide.
"geek" signifie "débile, crétin"
and
"nerd" veut dire "nullard"
Cordialement. Salutations de Normandie.
Emmanuel
```

Re: May be a stupid question...

*Message #6 Posted by **Pierre Brial** on 10 July 2003, 11:09 p.m.,*
in response to message #1 by Pierre Brial

Thank you all for the responses. So "nerd" and "geek" are quite the same ? I read for the first time the word "nerd" in this very good Bob Noble's article about restoring calculators :

http://www.vintagecalculators.com/html/restoration_of_calculators.html All the best Pierre

Re: May be a stupid question...

*Message #7 Posted by **John Cadick** on 10 July 2003, 11:35 p.m.,*
in response to message #1 by Pierre Brial

Both words have made it into modern American slang and are in the dictionary. Here from the American Heritage Talking Dictionary:

Nerd:

n. Slang. 1. A person regarded as stupid, inept, or unattractive. 2. A person who is single-minded or accomplished in scientific pursuits but is felt to be socially inept.

---------- Excerptedfrom AmericanHeritageTalkingDictionary
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Geek:

n. Slang. 1. A person regarded as stupid, inept, or unattractive. 2. A person who is single-minded or accomplished in scientific pursuits but is felt to be socially inept.

---------- Excerptedfrom AmericanHeritageTalkingDictionary
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I confess that I have always thought of a geek as more intelectually inclined than a nerd. <An enormous grin>

John

Re: May be a stupid question...

*Message #8 Posted by **David Smith** on 11 July 2003, 4:00 p.m.,*
in response to message #1 by Pierre Brial

Actually the first geeks were those circus performers who went around biting the heads off of live chickens, etc...

Re: May be a stupid question...

*Message #9 Posted by **unspellable** on 11 July 2003, 4:12 p.m.,*
in response to message #8 by David Smith

It's simple. If you carry your HP in a case with a belt loop attached to your belt you're a nerd.

Same rule as in slide rule days. If you carried your slide rule in a case on your belt you were a nerd.

I think geek started out with biting chicken heads and then gradually became more or less the same as nerd.

never a stupid question...

*Message #10 Posted by **Adem Ordna** on 11 July 2003, 4:29 p.m.,*
in response to message #9 by unspellable

I feel that it is a VERY regional thing. In the Pacific Northwest: Geeks get dates. In may cases the term Geek is place as a badge or grand title like but below Master or Guru. I have talked to some from the

Mid West that felt that Geek was a class below Nerd.

Re: never a stupid question...

*Message #11 Posted by **unspellable** on 11 July 2003, 5:02 p.m.,*
in response to message #10 by Adem Ordna

Geeks and Nerds used to rank low on the social scale. Now days they rank much higher, it's a case of the geeks and nerds shall inherit the Earth. What does a jock do after school? Is there even life after school? Gearheads don't make big bucks after school. This fact has penetrated the minds of even the dense since Bill Gates.

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HP 41C - Bombers Edition

*Message #1 Posted by **Tracy Vermeyen** on 10 July 2003, 1:03 a.m.*

I saw this interesting EBAY item that may be of interest to the die hard collectors. Bombs away, now all you'll need is to find a B-52 to try it out!

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3034338412&category=11713&rd=1

Re: HP 41C - Bombers Edition

*Message #2 Posted by **Emmanuel, France** on 10 July 2003, 1:04 p.m.,*
in response to message #1 by Tracy Vermeyen

```
I have a P-3B/C ATAC 82 module for HP-41,
certainly made for Orion.
If someone have a spare P-3, ...
Yours.
Emmanuel
```

Re: HP 41C - Bombers Edition

*Message #3 Posted by **Paul Brogger** on 10 July 2003, 7:27 p.m.,*
in response to message #2 by Emmanuel, France

The Chinese had one a while ago, but they gave it back.

Re: HP 41C - Bombers Edition

*Message #4 Posted by **Emmanuel, France** on 11 July 2003, 4:12 p.m.,*
in response to message #3 by Paul Brogger

```
Right!
;o)
```

Re: HP 41C - Bombers Edition - MINT???!!!

*Message #5 Posted by **Tom (UK)** on 10 July 2003, 1:49 p.m.,*
in response to message #1 by Tracy Vermeyen

Well at least we can see what this guy thinks is 'mint'.

To quote:

"The calculator is in mint condition, with only a few superficial scratches to the case, but no "wear and tear" that you might expect from steady use. There is a supply label stuck to the back, and another spot on the back with some sticker gum residue, but this will not affect function, and can be removed easily, if desired (or left on to add character.) The battery compartment is immaculate, the calculator having never been stored with batteries installed. The books are in excellent shape, save for signs of being 20 years old. Covers and pages may be slightly yellowed, and some page edges on the Owner's Handbook, as well as the back cover, show

normal wear. I cannot guarantee that this calculator works, since I have never put batteries in it, but it has been treated well and stored carefully, so I don't see why it wouldn't."

Re: HP 41C - Bombers Edition - MINT???!!!

*Message #6 Posted by **Emmanuel, France** on 10 July 2003, 2:40 p.m.,*
in response to message #5 by Tom (UK)

```
Right Tom.
However this rare module could be interested.
I bidded but not enough. Wait and see...
Yours.
Emmanuel
```

Re: HP 41C - Bombers Edition - MINT???!!!

*Message #7 Posted by **Dave Shaffer** on 10 July 2003, 4:56 p.m.,*
in response to message #5 by Tom (UK)

Perhaps it is hard to remain in "mint" condition while you are dropping bombs! In this case, the opposite of mint is "it has holes in it!"

Re: HP 41C - Bombers Edition - MINT???!!!

*Message #8 Posted by **Randy Smith** on 10 July 2003, 8:22 p.m.,*
in response to message #5 by Tom (UK)

"Mint" but doesn't know if it works! That's a winner if I ever heard one! My car is in mint condition...but the engine is siezed up!

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New HP Calculators

*Message #1 Posted by **Richard Garner** on 9 July 2003, 7:42 p.m.*

This was posted on com.sys.hp48 today. It is an excel file with new calulators for 2003 for several producers including HP.

http://www.dstewart.com/newdsc/c2es_03_orderbook/excel/Calculators_2003.XLS

Any comments?

HP33S, HP39G+, HP48GII and HP49G+ ...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 11:41 p.m.,*
in response to message #1 by Richard Garner

Hi, Richard;

thank you for sharing the information.

I saw these two references that called my attetnion: the HP33S, as a new release, and the three vage references: HP39G+, HP49G+ (more memory?) and what actualy called my attention: the HP48GII.

What would these be?

Weird...

Luiz (Brazil)

Re: New HP Calculators

*Message #3 Posted by **Patrick** on 10 July 2003, 12:10 a.m.,*
in response to message #1 by Richard Garner

You try to stay firm, you try not to hope too much, and then you see *this*! How are we good folk supposed to maintain our skepticism when such a credible looking document is presented??

The supposed MSRP of the 33S suggests that this is no Kinpo special.

See? I'm doing it again... you can see real *hope* in that last sentence. Darn, darn, darn.

What does MSRP stand for?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 10 July 2003, 1:19 a.m.,*
in response to message #3 by Patrick

Hi, Patrick;

actualy, I do not know. Brand reference?

Cheers.

Luiz (Brazil)

Manufacturer's Suggested Retail Price <nt>

*Message #5 Posted by **Patrick** on 10 July 2003, 3:01 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Re: New HP Calculators

*Message #6 Posted by **Scuba Diver** on 10 July 2003, 8:46 a.m.,*
in response to message #3 by Patrick

Well, the 17BII + and 19BII + caught my eye.

I wonder what features they will posess? I find it hard to believe that they could improve on either of those calcs, save adding trig to the 17...

Maybe they added some newer bond calculations or something...more memory (not that they needed it...most 19BII users never even use the memory outside of the registers!)

B.

HP 19BII Memory

*Message #7 Posted by **Thibaut.be** on 10 July 2003, 8:54 a.m.,*
in response to message #6 by Scuba Diver

Well, key in your contact list and your RAM will not support it...

A 128K RAM would be more convenient UMHO

Re: HP 19BII Memory

*Message #8 Posted by **Scuba Diver** on 10 July 2003, 12:04 p.m.,*
in response to message #7 by Thibaut.be

True, although with Palms and Blackberries that sync up to your Outlook/Lotus Notes calendar, very few people use it for appointments anymore.

The fact that this calculator was a PDA yeaars before Palm shows just how visionary HP was!!!

B.

Re: New HP Calculators

*Message #9 Posted by **Justin** on 11 July 2003, 6:25 a.m.,*
in response to message #6 by Scuba Diver

I wonder what features they will posess? I find it hard to believe that they could improve on either of those calcs, save adding trig to the 17...

Not that I think they'll do it, but my dream would be PC connectivity so Solver equations could be

typed in/proofed on a computer and then d/l'd to the calc.

To 33S beta testers

*Message #10 Posted by **Patrick** on 10 July 2003, 4:23 p.m.,*
in response to message #1 by Richard Garner

No, I don't expect you to identify yourselves (if you're even out there) nor break your confidentiality agreement. I just would like you to check something for me...

What is the calculator's answer to 0^0?

It would be great if the answer was 1 and not "Error", like it is on the 11C. I mean, 0! is calculated correctly as 1, why not 0^0?

Re: 0! vs. 0^0

*Message #11 Posted by **Paul Brogger** on 10 July 2003, 7:25 p.m.,*
in response to message #10 by Patrick

If I remember right, 0! is not *calculated as* 1, but is *agreed to be* 1. Didn't our mathematical forefathers decide it should evaluate to 1 just to keep the curve smooth?

However, 1^0=1.00, -1^0=1.00, but yes, also on my 34c, 0^0 = "Error 0".

And, 0^1=**0.00**?!?!? In a politician, such inconsistency would provoke outrage!

Calculated vs Agreed

*Message #12 Posted by **Patrick** on 10 July 2003, 7:58 p.m.,*
in response to message #11 by Paul Brogger

In my professional opinion, I would have to challenge you on your distinction of *calculated* vs *agreed*. The definition of any function at any point is something that is *agreed* upon by the scientific community. Whether or not there is an arithmetic or other *calculation* involved is just a particular kind of evaluation algorithm.

So, one *definition* of the factorial function consistent with the scientific literature is:

```
0! = 1
n! = n * (n-1)! for n an integer >= 1.
```

Likewise, the definition of y^x includes certain special cases:

```
0^x = 0 for any x != 0
x^0 = 1 for all x (including zero)
```

There are good reasons for defining 0^0 to be 1 which I believe have to do with the continuity of the exponental function on the complex plane.

I'm surprised Mr. Kahan, with his careful attention to detail in the complexities of the SOLVE and INTEGRATE functions of the 34C, and in all of its algorithms in general, let this one sneak by.

Re: 0! vs. 0^0

*Message #13 Posted by **Definition of n! for 0! = 1** on 11 July 2003, 4:05 p.m.,*
in response to message #11 by Paul Brogger

A definition of the factorial function

n! = product(k) for k =1 to k greater than or equal to n

(My symbols did not survive the posting process.)

Note that if n = 3, we start the product with k = 1 and go up to k =3. n! = 6

If n = 0, we start the product with k = 1. At this point k is greater than n so we stop with the product equal to one. Thus 0! = 1 without treating 0 as a special case.

It is a natural definition of the function as it is usually used to determine the number of possible ways to order a set of n objects. If n = 0 there is one way to order the set. This assumes that whether 0 is considered to be a number or not, it is an object in that it represents the empty set or at least a place holder.

Re: To 33S beta testers

*Message #14 Posted by **Ernie Malaga** on 10 July 2003, 9:36 p.m.,*
in response to message #10 by Patrick

Patrick:

0^0 is undefined by definition -- like 0/0 and 1 raised to infinity. In general, x^0 is 1 because 0 = n - n, so x^(n - n) = x^n/x^n = 1. But if x is 0, the denominator would be 0^n, which is 0, and you cannot divide by zero.

I am not certain if this is the correct explanation for the undefinability of 0^0, but it's a good one anyway. If your calculator reports "Error" when you attempt 0 [ENTER] 0 [y^x], the calculator is only giving you the mathematically correct answer.

Other undefined expressions are ln(x) for x <= 0, tan(90), etc.

-Ernie

0^0

*Message #15 Posted by **Patrick** on 10 July 2003, 11:26 p.m.,*
in response to message #14 by Ernie Malaga

I have to disagree with you, Ernie. The mathematical definition of y^x for y>0 is exp(x ln(y)). The ln(x) function is defined as the integral from 1 to x of 1/t dt and the exp(x) function is defined as the inverse of ln(x).

Since the definition does not provide a value when y is zero, we are free to define it as we like. The natural definition of 0^x for x non-zero is zero. This leaves the hole at x=0, y=0. To fill that hole, one might try to take the limit as either x or y approaches zero with the other one equal to zero. The result is that there is no unique limit, meaning there is no definition of y^x which makes the function continuous. However, there are good reasons to *define* 0^0 as equal to 1, as it makes a number of other theorems easy to state without having to have an exception at that point. This is what actually has been done. In higher mathematics, we define the value of 0^0 to be equal to 1. The function does not end up to be continuous, of course, it cannot be, but it is the *best* value we can choose for a host of other reasons.

As a reference, I direct you to this article written by the mathematician William H. Kahan, the

numerical analyst who consulted with HP on many of their algorithms, including SOLVE and INTEGRATE. You can see on page 10 of that document a definition for the complex power function z^w, which is defined to be equal to 1 whenever w = 0, for all complex z.

Re: 0^0

*Message #16 Posted by **Ernie Malaga** on 11 July 2003, 1:22 a.m.,*
in response to message #15 by Patrick

Patrick:

I'll defer to your obviously greater expertise on the matter. From my long-ago college days, however, I vividly remember that my textbooks specified 0^0 as undefined -- every bit as much as 0/0.

I'll try to read the article you mentioned, but I doubt that I'll understand much of it. I flunked integral calculus, barely learning to integrate e^x. 8^)

-Ernie

Re: 0^0

*Message #17 Posted by **Ernie Malaga** on 11 July 2003, 1:36 a.m.,*
in response to message #15 by Patrick

Patrick:

I checked page 10 of the document. Unless I'm missing something, it seems to confirm what I said:

> Quote:
>
> z^w = exp(w*ln(z)) except z^0 := 1 for all z, and 0^w := 0 if Re(w)>0

Observation 1: There is really no need to state as an exception the case when w=0, since w*ln(z) will be 0 whenever w=0 (no matter what value z may have), and exp(0) = 1 anyway.

Observation 2: "and 0^w :=0 if Re(w)>0" Notice that w is non-zero (otherwise it couldn't have a real portion greater than 0), so the definition given for z^w does _not_ cover the case when both z and w are 0.

If you still disagree with me I'll take your word for it, but that's what I'm reading here.

-Ernie

Re: 0^0

*Message #18 Posted by **Patrick** on 11 July 2003, 2:45 a.m.,*
in response to message #17 by Ernie Malaga

Observation 1: You can't use the w*ln(z) argument because ln(z) is undefined for z=0. You can't argue that a multiplication involving zero has to be zero when the other part of the multiplication is undefined!

Observation 2: The definition *does* cover the case when both are zero since it says that z^0 = 1 **for all z**. Surely, the number z=0 would have to be included in *all*, would it not?

0^0 != 0^0 ????? (edited)

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 11 July 2003, 2:54 a.m.,*
in response to message #17 by Ernie Malaga

Hi Ernie, guys;

There is no reason to discuss this fact. 0^0 is not defined, period. And what Patrick wrote is easily identified as conflicting.

> Quote:
>
> Likewise, the definition of y^x includes certain special cases:
>
> ```
> 0^x = 0 for any x != 0
> x^0 = 1 for all x (including zero)
> ```

Unfortunately, *x^0 = 1 for all x (including zero)* is wrong. Zero is not included. Suppose you have y^x and x^y.

If y == x, then x^y == y^x, right?

Based on what you wrote:

0^0 is not defined when you analise 0^x when x = 0; and

0^0 == 1 when you analise x^0 when x = 0.

So, 0^0 != 0^0. Not consistent, isn't it? And that's enough reason to make it undefined.

My 2¢.

Luiz (Brazil)

Edited: 11 July 2003, 3:01 a.m.

Are you sure ?

*Message #20 Posted by **Valentin Albillo** on 11 July 2003, 5:18 a.m.,*
in response to message #19 by Vieira, Luiz C. (Brazil)

Luiz wrote:*"There is no reason to discuss this fact. 0^0 is not defined, period."*

Are you sure ? It's certainly rare to see such a nice, *suave* person like you uttering such a bold, intransigent statement. I usually think that absolutely everything can be discussed, and that denying that possibility is akin to fundamentalism (i.e: "There is no reason to discuss the existence (or non-existence) of God (say). God (say) exists (or doesn't), period." Get the point ?

Also, I tend to think that mathematics aren't invented, but *discovered*, have an existence of their own, independent of human beings or a physical universe existing or nor, and thus tend to be rather impervious to anyone's attempt to "define" or not what they should do. For the case in discussion, x^x when x is 0, look at these results:

```
     x            x^x
--------------------------
```

```
0.1000000000  0.7943282347
0.0100000000  0.9549925860
0.0010000000  0.9931160484
0.0001000000  0.9990793900
0.0000100000  0.9998848774
0.0000010000  0.9999861846
0.0000001000  0.9999983882
0.0000000100  0.9999998158
0.0000000010  0.9999999793
0.0000000001  0.9999999977
```

Does that ring a bell ? Of course, one can argue that when x is *exactly* zero, an indefinition occurs. That's debatable but if it were true, so what ? Any calculation will show the values merrily going to 1 as x goes to 0, and if some mathematician's committee were to *define* that 0^0 = Pi, it would do them no good, for it would generate contradictions at once. If you are *forced* to accept a definite value to avoid contradictions, you're not *defining* anything, you're merely trying to save your face on account of the evidence.

As a further example, consider a function defined thus:

```
f(x) = x / x
```

Now, you evaluate it for all finite arguments, and find that f(x) is always 1. Then you try to evaluate it for x=0 and you claim that 0/0 is undefined, and so assigning the value of "1" to f(0) is a matter of *definition* ... Come on !! Common sense shouldn't be incompatible with mathematics !!

Best regards from V.

O.K.: I started my arguments wrongly...

Message #21 Posted by ***Vieira, Luiz C. (Brazil)*** *on 11 July 2003, 6:21 a.m.,*
in response to message #20 by Valentin Albillo

Thank you , Valentin;

I'd remove the first two sentences in my post and convert it to an open discussion and turn it into my view of the situation: I see as not defined based on what I wrote.

Back to the arena: B^}

Math approaches are (always?) a matter of discussion and definition. And I teach that...

Thanks.

Luiz (Brazil)

Another reference

Message #22 Posted by ***Vieira, Luiz C. (Brazil)*** *on 11 July 2003, 8:25 a.m.,*
in response to message #21 by Vieira, Luiz C. (Brazil)

I'm not sure this can be done, but I simply extracted part of what's written in the below mentiond site. Particualr attention to the first sentence I set as italic.

> Quote:
>
> Other than the times when we want it to be indeterminate, *0^0 = 1*
> ***seems to be the most useful choice*** *for 0^0* . This convention allows us

> to extend definitions in different areas of mathematics that would otherwise require treating 0 as a special case. Notice that 0^0 is a discontinuity of the function f(x,y) = x^y, because no matter what number you assign to 0^0, you can't make x^y continuous at (0,0), since the limit along the line x=0 is 0, and the limit along the line y=0 is 1.

Extracted from:

The Math Forum under 0^0 (zero to zero power)[/link]. This e-address was suggested by Juergen(CH)

Please, if this cannot be posted here, remove password is 12345.

Thanks.

Luiz (Brazil)

Edited: 11 July 2003, 8:27 a.m.

Re: Are you sure ?

*Message #23 Posted by **Ernie Malaga** on 11 July 2003, 7:03 a.m.,*
in response to message #20 by Valentin Albillo

Valentin:

Your table of X and X^X values only proves that the _limit_ (not the function itself) is 1 as x approaches zero.

> Quote:
>
> As a further example, consider a function defined thus: f(x) = x / x
>
> Now, you evaluate it for all finite arguments, and find that f(x) is always 1. Then you try to evaluate it for x=0 and you claim that 0/0 is undefined, and so assigning the value of "1" to f(0) is a matter of definition ... Come on !! Common sense shouldn't be incompatible with mathematics !!

And mathematics shouldn't be incompatible with common sense, either. You can't ignore singularities and discontinuities with special-case definitions and leave it at that. The function f(x) = x/x is a straight line, yes, but it gets interrupted for x=0. "Defining" f(0) as 1 goes against common sense.

-Ernie

[OT] Re: Are you sure ?

*Message #24 Posted by **Valentin Albillo** on 11 July 2003, 8:54 a.m.,*
in response to message #23 by Ernie Malaga

Hi again, Ernesto:

Obviously this discussion could go on a on, and we'll probably end it "agreeing to disagree", but there's one final remark I'd like to bring to your attention: stating that

x / x => 1

for all x, just means (passing the denominator to the right side) that:

x = x

which I'm sure you'll agree it's valid for every conceivable x, be it whatever it may, zero included. That's what the equation and the function are telling us, and trying to see "discontinuities" where there are none, and using "definitions" where none are necessary is just plain silly, a kinf of bureaucratic formalism, that goes against common sense. Also, "defining" that some function has such and such value where no other value is possible at all without inconsistency, is absurd, because if you have no choice, if your are forced, issuing a "definition" is a meaningless act on your part.

That said, don't think I'm blinded to the subleties of mathematical formalism, is just that sometimes I think some of them are pretty stupid, and 0^0 or x/x for that matter just trigger that feeling for me.

On the other hand, I know all too well that you can never prove anything my common sense or intuition alone; logically consistent, formal proofs are always necessary. For instance, assume that you are calculating this infinite sum:

Sum(n = 1, n -> inf, INT(n * tanh(Pi))/10^n)

and the answer you get coincides with 1/81 to 12 decimal places. "How nice!" you think, "I didn't expect this hyperbolic tangent thing to add up to a simple rational fraction as 1/81. Maybe it's just a coincidence ?" and so you duly proceed to compute it to greater accuracy, say 30 decimals.

It still agrees with 1/81 to all 30 decimals. "It's wonderful, let's try that multiprecision package I've got for my 48/49/71 !", you say, and proceed to compute the sum to 100 decimal places. It agress with 1/81. Then to 200 decimal places. It still agrees.

Obviously, common sense would dictate by now that the sum equals exactly 1/81, no doubt about it, right ? 200 decimal places in agreement is more than enough evidence to settle the matter, isn't it ?

Yet common sense would be wrong this time, as the sum does NOT equal 1/81. So much for common sense in mathematics ... :-)

Best regards from V.

Re: [OT] Re: Are you sure ?

*Message #25 Posted by **Ernie Malaga** on 11 July 2003, 2:02 p.m.,*
in response to message #24 by Valentin Albillo

Valentin:

> Quote:
>
> Obviously this discussion could go on a on, and we'll probably end it "agreeing to disagree"

Yes, the discussion could go on forever. Which is another way of saying "it's undetermined." If instead of "0^0 = x" it were "2 + 2 = 4" no one would question it and there would be no discussion at all.

It seems, therefore, that we need to agree to disagree.

> Quote:
>
> x / x => 1
>
> for all x, just means (passing the denominator to the right side) that:
>
> x = x

Except for x=0, of course, since you cannot divide by zero.

-Ernie

Re: Are you sure ?

*Message #26 Posted by **WigglePig** on 11 July 2003, 3:39 p.m.,*
in response to message #20 by Valentin Albillo

Luiz wrote:"There is no reason to discuss this fact. 0^0 is not defined, period."

Then Valentin responded:"Are you sure ?"

Right, here we go...

0^0 is undefined. Period. Simple as that. In fact, we can even go so far as to say that 0^0 is singular. Sometimes it is called an 'indeterminate form', but the outcome is the same.

Now, in certain applications we would like the expression x^x to be continuous. So, we define 0^0 to be 1, which is quite reasonable since lim(x->0) x^x is 1 whether x approaches zero from above or below.

Soooo...the point x=0 where f(x)=x^x is a 'removeable singularity'. Quite simple really.

Can we stop the argument now?

PS: 0.9999...=1

ttfn WigglePig

Sooo... if you were on the programming team...

*Message #27 Posted by **glynn** on 13 July 2003, 1:02 p.m.,*
in response to message #26 by WigglePig

Okay, What would all of you do?

"Error (0)" _or_ "1" ?

It would probably confuse heck out of the average user to offer a CHOICE, though this probably could be done, say, via some flag setting. The default might be "error

(0)", but you could flip a bit and make the calc default to 1.

Or, maybe we should have the calculator give predefined answers, but light up a "YMMV" ("Your Mileage May Vary") indicator: "I'm saying this is 1, but it's really not".

I have heard some describe mathematics as "the perfect science". I believe it probably is, but the subtleties and special cases here and there seem to indicate our mathematical grammar has had a hard time perfectly expressing it in toto.

So, what's a calculator to do? ;-)

1/3 × 3 = 1? 1/3 × 3 = .9999999999...?

*Message #28 Posted by **Vieira, Luiz C. (Brazil)** on 13 July 2003, 1:26 p.m.,*
in response to message #27 by glynn

Hi, Glynn;

good reading your posts again.

The title says much of what I want to express, but I'll take the benefit of doubt: 0^0 is not defined.

After reading The Math Forum comments about the limits for x^y when each one tend to zero, what shows it is discontinuous because both limits tend to different values, I embrace the cause.

About programming: I'd set flag 25 in an HP41/42 and test it later, or I'd use an IFERR structure if using an HP-RPL model or any error-trap structure available in other languages to detect this sort of fact, but I'd keep the original math definitions (unless others appear) if I'm developing a new language or compiler. I'd not let the user interfere at this point because it would lead to the development of "conditional programs", that would behave in different ways without specific pre-conditioning. I think the HP49G math approach is already outstanding when allowing the use of many flags to predefine the way the user want an answer to be treated by the O.S. and how it must be shown. The HP48G already gives much control, but after reading some (far from a complete reference) of CAS resources, I can see some interesting possibilities. Nothing I can convert into words right now, but surely new perspectives. About a year ago I posted a message where I criticized CAS without knowing what was it able to do. One of the contributors called my attention and mentioned Urroz' books. I bought four of them and read parts of them in brief. Enough to change my mind about CAS and related stuff.

I still keep math principles as valid and applicable, although many math enhancements have occurred and I'm not aware af them as a whole. For as long as there are math situations with doubtful answers, I'll take them as undefined. As you say, math must be precise all the times, mostly when treating its own lacks.

Luiz (Brazil)

Re: Sooo... if you were on the programming team...

*Message #29 Posted by **Patrick** on 13 July 2003, 1:55 p.m.,*

in response to message #27 by glynn

Well, I plead guilty to starting all of this brou-ha-ha. I never anticipated this kind of response. But here is what I think would happen...

If you have a company driven by engineering principles (e.g., the old HP) they might consider defining the function to be equal to 1. They would see the mathematical arguments for this, such as the rather important statement that the binomial theorem would extend naturally to the case of n=0.

If you have a company driven by marketing principles (e.g., the new HP) they would no doubt leave the function undefined at (0,0), and to hell with the binomial theorem and its ilk. A marketeer would need no further justification than this thread to convince them that is the right thing to do. You never want to confuse your customers. Not with that 50% rollback in customer support coming next month.

On the other hand, a company that *was* driven by engineering principles (i.e., the old HP) did in fact leave 0^0 undefined in their calculator logic. Earlier, I said that I was surprised that Dr. Kahan let this one slip through. I now believe him to be much wiser than I had ever thought. I now believe this was a conscious decision on his part. He was intimately aware of the *good mathematical logic* behind the reason to set the value to 1 -- he teaches this very fact in his complex analysis course for crying out loud -- so he must have had a very good reason not to do it. I think I might agree with him now.

Re: Sooo... if you were on the programming team...

Message #30 Posted by ***Rodger Rosenbaum*** *on 13 July 2003, 2:42 p.m.,*
in response to message #29 by Patrick

If you look at the sci.math reference: http://www.faqs.org/faqs/sci-math-faq/specialnumbers/0to0/ there you will see: "Kahan has argued that 0.0^(0.0) should be 1, because if f(x), g(x) --> 0 as x approaches some limit, and f(x) and g(x) are analytic functions, then f(x)^g(x) --> 1" As you know, Prof. Kahan was involved in the mathematical behavior of the later HP calcs, reaching its pinnacle, in my opinion, with the HP71. The HP71, when given 0^0, beeps, returns ERRN=6, and returns a value of 1. I guess this is the 71's way of saying "there is disagreement about what 0^0 should return, but we have chosen to return 1, and also return an error message." I'm pretty sure this didn't happen by accident; Prof. Kanan knew what he was doing. My HP48 returns 0^0=1 without error even if I set flags 20 and 21 and clear flag 22 to give it the greatest possibility to generate an error. I prefer the way the HP71 does it.

Re: Sooo... if you were on the programming team...

Message #31 Posted by ***Massimo Gnerucci (Italy)*** *on 13 July 2003, 6:29 p.m.,*
in response to message #30 by Rodger Rosenbaum

The 49G gives **1** in approximation mode and **?** in exact mode.

Massimo

Re: Sooo... if you were on the programming team...

*Message #32 Posted by **Werner Huysegoms** on 14 July 2003, 1:58 a.m.,*
in response to message #31 by Massimo Gnerucci (Italy)

Indeed. 0^0 (exact) is undefined. It is not because there is a large class of analytic functions for which the *limit* for x approaching zero of f(x)^g(x) equals 1 , that its value should be. Take sin(x)/x. The limit for x approaching zero is 1, but the *value* at x=0 is undefined. The 49G will thus return '?' for 0^0 - but will return 1. for 0.^0. - because of compatibility reasons with the 48, where it was probably chosen because it is a very convenient value to return.

Werner

Re: Sooo... if you were on the programming team...

*Message #33 Posted by **Massimo Gnerucci (Italy)** on 14 July 2003, 3:18 a.m.,*
in response to message #32 by Werner Huysegoms

Absolutely right Werner,
I pointed out the 49G behaviour to show how you can choose the result you like more depending on your taste/application.
I think that such a choice would be welcome in new calculators from HP...

Massimo

Re: Sooo... if you were on the programming team...

*Message #34 Posted by **Dave Shaffer** on 13 July 2003, 6:00 p.m.,*
in response to message #27 by glynn

Didn't the IEEE allow for similar situations: I think you can get NAN ("not a number") as the official result from illegal (questionable?) operations such as divide by zero or exponentiations giving results that are outside the range (e.g. 10^+/-99) handled by various computers and/or compilers?

Maybe 0^0 deserves something similar.

Re: Sooo... if you were on the programming team...

*Message #35 Posted by **Rodger Rosenbaum** on 13 July 2003, 11:29 p.m.,*
in response to message #34 by Dave Shaffer

IEEE 854 (IEEE Standard for Radix-Independent Floating-Point Arithmetic) only talks about +,-,/,* and remainder as required Operations. Most of the rest of it is about rounding, infinity arithmetic, normalization, NaN's, etc. The other functions such as trig, exponential, log, are left up to the implementor of a particular computer. Our topic here, 0^0 isn't mentioned at all.

Just for grins, I checked what Maple and Mathematica do. Maple returns 1 without any beeps or error indications. Mathematica returns "Indeterminate".

Re: Sooo... if you were on the programming team...

*Message #36 Posted by **unspellable** on 14 July 2003, 11:41 a.m.,*
in response to message #35 by Rodger Rosenbaum

leaving the theoretical aspects aside, 0^0 is abitrarily defined as 0 in some applications and as 1 in some others. So I'd vote for a three valued flag so you can set the calculator to return 0,1, or undefined as required.

Re: Sooo... if you were on the programming team...

*Message #37 Posted by **Rodger Rosenbaum** on 15 July 2003, 12:36 a.m.,*
in response to message #36 by unspellable

Which applications do you know of that define it as zero?

Re: 0^0

*Message #38 Posted by **Rodger Rosenbaum** on 11 July 2003, 5:59 a.m.,*
in response to message #15 by Patrick

See http://www.faqs.org/faqs/sci-math-faq/specialnumbers/0to0/ for a discussion the problem, which has been discussed to death.

Ask Dr. Math

*Message #39 Posted by **Juergen (CH)** on 11 July 2003, 5:45 a.m.,*
in response to message #14 by Ernie Malaga

Seems to be an old discussion: http://mathforum.org/dr.math/faq/faq.0.to.0.power.html

Re: definitions

*Message #40 Posted by **unspellable** on 11 July 2003, 8:42 a.m.,*
in response to message #39 by Juergen (CH)

Some place I have seen a defininiton of the fatorial function, n!, that includes 0! = 1 as a general case rather than a special case.

I'll try to dig it up.

As for 0^0 I don't have any answers just now, but 0 is often viewed as not being a number at all. Of course the thing about that view that bothers me is what do we put on the number line to plug the space between the smallest positive number and the smallest negative number? On the other hand the number line graphs like a function and lots of functions have discontinuities.

Now I have to go read the article on Z^W.

Re: definitions

*Message #41 Posted by **Ellis Easley** on 11 July 2003, 8:33 p.m.,*
in response to message #40 by unspellable

Quote:

> ... but 0 is often viewed as not being a number at all.

Would this one case: on digital computers, zero represents not one number but all the numbers between the positive and negative numbers with the smallest magnitudes that can be represented?

[OT] Re: Ask Dr. Math

*Message #42 Posted by **Valentin Albillo** on 11 July 2003, 9:20 a.m.,*
in response to message #39 by Juergen (CH)

Ask Dr. Math is a valuable service and 99.99% of the time their answers are accurate and useful. But not always ...

Have a look for instance at the answer they gave to this question:

Why is Pi Everywhere?

quoting from it:

" ... when pi appears, it is likely that some circle is present dictating the overall structure of the problem. If you think you can find a place where pi really does appear without circles around (not made up!), please send it along and I'll try to show you where the circle is."

Needless to say, most math-oriented members of this Forum can name *scores* of places where Pi does appear with *no* circle in sight, myself included.

Best regards from V.

Re: [OT] Re: Ask Dr. Math

*Message #43 Posted by **Thibaut.be** on 11 July 2003, 11:17 a.m.,*
in response to message #42 by Valentin Albillo

Valentino,

you wrote :

> Quote:
>
> Needless to say, most math-oriented members of this Forum can name scores of places where Pi does appear with no circle in sight, myself included

Well, I'm not a Maths specialist, so if you could give some examples, I'd be delighted !

Circles and PI

*Message #44 Posted by **Andrés C. Rodríguez (Argentina)** on 11 July 2003, 12:18 p.m.,*
in response to message #43 by Thibaut.be

At least the PI and/or SQRT(PI) which appears on normal distribution formulas (gaussian distribution) is not obviously related to any circle, but I am prepared to find someone with great math skills who may show the relation.

On the other hand, I do remember a curved surface we studied in my Math II course in Electronics Engineering, which was defined by many arcs (it was kind of part of a hemispheric surface, but with a S-shaped cut). While all its features looked unavoidably very "circular", PI was remarkably absent of it's area formula, obtained as an integration exercise.

I vaguely remember a possible name for such surface, which could be translated as Viviani's Vault (Bóveda de Viviani), but I may be confusing similar exercises from some 27 years ago, and I have no time now to look for more references. Undoubtedly some of the more math knowledgeable people here can offer enlightment and/or corrections to this comment.

Or, I can just wait for a couple of months, because my first daughter is about to take the same course on her first Industrial Engineering year. (She is taking many of the "same" courses than I did, but her calculator is a 32Sii, while mine was a 25 at the time)

Re: [OT] Re: Ask Dr. Math

*Message #45 Posted by **Valentin Albillo** on 11 July 2003, 12:40 p.m.,*
in response to message #43 by Thibaut.be

Hi, Thibauto:

Thibauto posted:

"Valentino, [...] Well, I'm not a Maths specialist, so if you could give some examples, I'd be delighted !"

I'm glad you're so interested in non-circle pi ramblings, but instead of using up bandwith with this very interesting off-topic, I suggest you have a look at this:

The Joy of Pi

by David Blatner. Read it, as I did, and afterwards, if you still want more examples, we can discuss it, ok ?

Best regards from V.

Re: [OT] Re: Ask Dr. Math

*Message #46 Posted by **Trent Moseley** on 11 July 2003, 2:44 p.m.,*
in response to message #45 by Valentin Albillo

Valentin,

Has anyone published "The Joy of 'e'"?

tm

Re: [OT] Re: Ask Dr. Math

*Message #47 Posted by **Dave Shaffer** on 11 July 2003, 5:26 p.m.,*
in response to message #46 by Trent Moseley

re: Has anyone published "The Joy of 'e'"?

That's not quite the name, but yes. I have it - somewhere! If I find it, I'll post a

proper reference. Actually, it was by the bed: "e The Story of a Number" by Eli Maor.

There is also a book about zero (which was a very strange idea all by itself to folks like the ancient Greeks - let alone the above discussion about 0^0): "ZERO The Biography of a Dangerous Idea" by Charles Seife.

Re: [OT] Re: Ask Dr. Math

*Message #48 Posted by **Trent Moseley** on 11 July 2003, 7:45 p.m.,*
in response to message #47 by Dave Shaffer

Thanks Dave.

tm

Re: [OT] From my bookshelf...

*Message #49 Posted by **Massimo Gnerucci (Italy)** on 12 July 2003, 6:28 a.m.,*
in response to message #47 by Dave Shaffer

> Quote:
>
> There is also a book about zero (which was a very strange idea all by itself to folks like the ancient Greeks - let alone the above discussion about 0^0): "ZERO The Biography of a Dangerous Idea" by Charles Seife.

Another one from Robert Kaplan: ***The nothing that is: a natural history of Zero***

Massimo

Re: [OT] Re: Ask Dr. Math

*Message #50 Posted by **Werner Huysegoms** on 11 July 2003, 3:16 p.m.,*
in response to message #43 by Thibaut.be

The probability that two random integers are relatively prime (ie contain no common factors) is 6/PI^2.

Werner

Stochastic statistic? (edited)

*Message #51 Posted by **Vieira, Luiz C. (Brazil)** on 11 July 2003, 5:52 p.m.,*
in response to message #50 by Werner Huysegoms

Hi, Werner;

such a well defined value, although with as many digits as a powerful computer can compute, remembered me Introduction to Stochastic Statistics. Just a feeling of mine? Or it is obtained by common statistics analysis?

Just curiosity.

Luiz (Brazil)

(This thread is heating up everytime I touch it to sense temperature... Wow! Brainstorm, for sure... Healthy... brainstorm)

Edited: 11 July 2003, 9:44 p.m.

Re: Stochastic statistic? (edited)

*Message #52 Posted by **Werner Huysegoms** on 14 July 2003, 8:17 a.m.,*
in response to message #51 by Vieira, Luiz C. (Brazil)

Hi Luiz. It was the first example in my Probability course, long ago.. Werner

Re: Stochastic statistic? (edited)

*Message #53 Posted by **Patrick** on 14 July 2003, 12:54 p.m.,*
in response to message #52 by Werner Huysegoms

The term "random integer" is, of course, not well defined. There is no such thing -- at least none which captures the implied uniformity of the distribution.

However, I believe the statistic of which you speak is obtained as the limit as N->infinity of the probability, P_N, of two random integers in the interval [1,N] being relatively prime. Picking two integers "at random" from a finite interval is, of course, very well defined.

What is the definition for PI?

*Message #54 Posted by **Vieira, Luiz C. (Brazil)** on 11 July 2003, 11:19 a.m.,*
in response to message #42 by Valentin Albillo

Hi Valentim, guys;

this is not a math forum, of course, but computing is always a related subject.

If the definition for PI goes beyond the relation between the radius (or diameter) of a circle and the lenght of a complete arc (360º, 400 grads, 2PI radians), then I see what you mean.

If not, if PI is only related to this particular relation, I think that what Dr. Math states is that wherever PI is used, that radius<->lenght relation is there, too. What he is proposing, in my understanding, is that: found the relation, a circle, as base defintion, is there, too.

My 2¢.

Luiz (Brazil)

Re: What is the definition for PI?

*Message #55 Posted by **unspellable** on 11 July 2003, 2:38 p.m.,*
in response to message #54 by Vieira, Luiz C. (Brazil)

Dr. Math is not always the best source for definitions and the like. For one thing it tends to written for those who have not been exposed to much math theory or higher math.

It's a bit like high school when I was told than negative numbers do not have logs. Utter nonsense, but they did not have the time to explain it to high school level kids.

My calculus text says that e^(x^2) has no integral. Also utter nonsense, but they probably didn't want to spend the time on the question. Made me mad, so I went home and solved the integral myself. Of course this is the sort of exercise all students should be doing. You learn far more this way than doing things by rote.

Once past calculus, the defintions angles (excepting circular angles and ordinary solid angles), trig functions, and the like do not involve circles at all. There is probably some such defintion of pi. After all, the ratio of diameter to circumferance of a circle is only pi if you are talking about plane geometry, a concept that does not exist in the real world. (At least given the thereotical physics models currewntly in vogue.)

For comittee decided defintions I have always heard a story to the effect that some state legislature created a legal defintion of pi as 3.14. I find this quite believable after lookign at some of the other lawas around.

Re: What is the definition for PI?

*Message #56 Posted by **Ernie Malaga** on 11 July 2003, 5:20 p.m.,*
in response to message #55 by unspellable

> Quote:
>
> For comittee decided defintions I have always heard a story to the effect that some state legislature created a legal defintion of pi as 3.14. I find this quite believable after lookign at some of the other lawas around.

That's nothing. According to _Asimov on Numbers_ by Isaac Asimov, "There is always the danger that some individuals, too wedded to the literal words of the Bible, may consider 3 to be the divinely ordained value of pi in consequence. I wonder if this may not have been the motive of the simple soul in some state legislature who some years back, introduced a bill which would have made pi legally equal to 3 inside the bounds of the state. Fortunately, the bill did not pass or all the wheels in that state (which would, of course, have respected the laws of the state's august legislators) would have turned hexagonal."

-Ernie

Re: What is the definition for PI?

*Message #57 Posted by **Karl Schneider** on 12 July 2003, 1:17 a.m.,*
in response to message #56 by Ernie Malaga

> Quote:
>
> According to _Asimov on Numbers_ by Isaac Asimov, "There is always the danger that some individuals, too wedded to the literal words of the Bible, may consider 3 to be the divinely ordained value of pi in consequence. I wonder if this may not have been the motive of the simple soul in some state legislature who some years back, introduced a bill which would have made pi legally equal to 3 inside the bounds of the state.

I've read about that story: the state was Indiana, I believe. Regarding approximations as "definitions", 22/7 wouldn't have been *too* far off the mark, but the HP-35 manual gives the amazingly-good example of 355/113.

Re: What is the definition for PI?

*Message #58 Posted by **Massimo Gnerucci (Italy)** on 12 July 2003, 6:56 a.m.,*
in response to message #57 by Karl Schneider

> Quote:
>
> the HP-35 manual gives the amazingly-good example of 355/113

Actually this approximation predates the HP-35 manual a little... ;-)

Tsu Ch'ung-chih (430-501) proposed this value versus 22/7. This was the best approximation until XV century even if the same Tsu Ch'ung-chih computed 3.1415927 as an "excess" approx. and 3.1415926 as a "defect" approx.

[source: ***A History of Mathemathics*** *by Carl B. Boyer*]

Quite impressive, isn't it?

Massimo

Re: What is the definition for PI?

*Message #59 Posted by **Howard** on 13 July 2003, 5:24 p.m.,*
in response to message #57 by Karl Schneider

In 1896 a bill was passed in the Indiana legislature 67-0 to make the value of pi = 3.2. The senate after representation from a Purdue University professor caused the senate to defer the bill "to a later date". It is still deferred.

Re: What is the definition for PI?

*Message #60 Posted by **Ed Martin** on 13 July 2003, 8:16 p.m.,*
in response to message #59 by Howard

The worst part about the Indiana legislature proposing that pi be made equal to 3.2 is that 3.1 would be a better approximation.

Maybe they decided 3.2, being larger than 3.1, was "better". Perhaps it's the same logic that leads modern politicians to spend more than they take in ....

- Ed

Re: What is the definition for PI?

*Message #61 Posted by **John (Norway)** on 12 July 2003, 11:54 a.m.,*
in response to message #54 by Vieira, Luiz C. (Brazil)

Since 1 radian = arctan(b/a), for e^i written in the form a+ib, and a complete circle is 2pi radians, then it looks like pi can be related to 'e' and 'i'. It is interesting to observe that ln(-n)

also has the form a+ib, where a=ln(n) and b=pi.

Definition of "pi"

*Message #62 Posted by **Norm** on 13 July 2003, 10:24 p.m.,*
in response to message #61 by John (Norway)

Its not about 3.1 or 3.2

The definition of pi is which flavor U like the best.

I think w/o question that chocolate pudding pi with whipped cream topping is absolutely unbeatable, but it needs some chocolate sprinkles to decorate the top.

All together

*Message #63 Posted by **Nenad (Croatia)** on 14 July 2003, 4:12 a.m.,*
in response to message #61 by John (Norway)

1 + e^(i * pi)= 0

In a single equation you related geometry (pi), mathemathical analysis (e), complex numbers (i), 1 and 0 (whatever the last two may mean).

Value × Definition

*Message #64 Posted by **Vieira, Luiz C. (Brazil)** on 13 July 2003, 11:20 p.m.,*
in response to message #54 by Vieira, Luiz C. (Brazil)

Hi, guys;

I read many posts related to PI as a number and its value. Unspellable posted:

> Quote:
>
> *After all, the ratio of diameter to circumference of a circle is only pi if you are talking about plane geometry, a concept that does not exist in the real world.*

I still wonder about its "origin" or "definition" because, as far as I remember, PI is considered an irrational number, together with "e" (:(I can't remember any other irrational constant). As an irrational number cannot be expressed by a relation, PI must be expressed in another way (maybe as a movie...).

I'm trying to keep only "plain" (number) set theory and definitions. I know many of you will discuss what is an irrational number, that all numbers have an infinite set of digits, and all numbers are contained in R-set (real), if Euclid is right/wrong... I think it's a valuable brainstorm, and I'll read all posts. But I still wonder if PI was defined as a relation based on circle elements (plane geometry) or in some other math relation, what leads us to the fact that PI is NOT an irrational number if it is defined as a relation. By definition, of course.

And concepts are mostly related to the "conceptual" world, not the real one, as unspellable stated so well. Algebra and math, in a conceptual, pure number theory, also deal with a conceptual world as well.

I know it's going a bit far from what we are used to, but this is a teasing subject and I'd love

going further.

Thanks.

Comments?

Luiz (Brazil)

Re: Value × Definition

*Message #65 Posted by **unspellable** on 14 July 2003, 8:02 a.m.,*
in response to message #64 by Vieira, Luiz C. (Brazil)

The square root of two is an irrational number. pi (A capital PI is the symbol for a series product.) and e are transcendental numbers.

Transcendental numbers, among other things, cannot be the roots of a polynomial equation. This is connected with the fact they are represented as an infinite series when evaluated.

Irrational Numbers (Was: Value × Definition)

*Message #66 Posted by **Mark Hardman (LED)** on 14 July 2003, 7:02 p.m.,*
in response to message #65 by unspellable

Let's not forget the golden ratio which is the ratio of height to width of a golden rectangle. It is frequently referred to as phi and is derived with the following series:

phi = sqrt(1+sqrt(1+sqrt(1+sqrt(1+sqrt(1+...)))))

phi = 1.6180339...

Mark Hardman

Re: Irrational Numbers (Was: Value × Definition)

*Message #67 Posted by **Patrick** on 14 July 2003, 9:36 p.m.,*
in response to message #66 by Mark Hardman (LED)

Odd, I've always known the derivation of phi as

```
phi = (1+sqrt(5))/2
```

It, and its reciprocal, are the solutions to the quadratic $x^2=x+1$. It is also the limit of f_{n+1}/f_n, where f_n is the n'th Fibonnacci number.

Re: Irrational Numbers (Was: Value × Definition)

*Message #68 Posted by **Mark Hardman (LED)** on 14 July 2003, 11:50 p.m.,*
in response to message #67 by Patrick

But its so much more fun to derive phi as an infinite series.

Here is another one for phi:

```
1
```

```
phi = 1 + ------------------
                      1
          1 + -------------
                        1
              1 + --------
                    1 + ...
```

One interesting property of phi is that **any** positive integer can be represented as the sum of nonconsecutive powers of phi. For example:

$234 = phi^{11} + phi^{7} + phi^{3} + phi + phi^{-5} + phi^{-9} + phi^{-12}$

You can visit The Phi Numbering System page to try this out on any integer you want.

Mark Hardman (LED)

Edited: 14 July 2003, 11:58 p.m.

The Golden Ratio

*Message #69 Posted by **Valentin Albillo** on 15 July 2003, 5:24 a.m.,*
in response to message #68 by Mark Hardman (LED)

Phi's always been a favourite constant of mine, though when I was young and fresh, it was called 'tau' (a greek letter), not 'phi'. This URL has a lot of interesting information on phi:

The Golden Ratio

It seems that the Indian mathematical Genius (with a capital 'G'), Srinivasa Ramanujan was also very fond of it, as he discovered a number of out-of-this-worldish identities and infinite series featuring it. No wonder world-class mathematicians Hardy and Littlewood were so impressed with him:

"In 1913, the English mathematician G. H. Hardy received a strange letter from an unknown clerk in Madras, India [...]Every prominent mathematician gets letters from cranks, and at first glance Hardy no doubt put this letter in that class. But something about the formulas made him take a second look, and show it to his collaborator J. E. Littlewood. After a few hours, they concluded that the results "must be true because, if they were not true, no one would have had the imagination to invent them".

(Source: Srinivasa Ramanujan)

An interesting phi fact rarely mentioned is that the increasing powers of phi are closer and closer to being integer values, something I noticed for the first time when programming a trivial loop on my recently acquired (1976 or so) HP-25, which simply filled up the stack with phi and kept on multiplying it by itself in an endless loop. I noticed at once that the results approached integer values, from above and from below alternately. Look at this 'evidence':

```
phi    =           1.6180339887498948482045...
phi^5  =          11.09 0169943749474241022...
phi^10 =         122.99 1869381244216651252...
phi^11 =         199.00 5024998740641490208...
```

```
phi^20 =       15126.9999 33893038648104029...
phi^21 =       24476.0000 40856349008447407...
phi^30 =     1860497.999999 462509500144429...
phi^31 =     3010349.000000 332187397540912...
phi^40 =   228826126.99999999 5629869660818...
phi^41 =   370248451.00000000 2700889084881...
phi^50 = 28143753122.9999999999 64468136299...
phi^51 = 45537549124.0000000000 21959899450...
...
phi^100 =  792070839848372253126.99999999999999999999 873...
phi^101 = 1281597540372340914251.00000000000000000000 78...
```

Speaking of near integers, Ramanujan knew about the following striking result, where a simple looking exponential expression gives a totally unexpected, very near integer value (less than 1E-12 from being an integer), called 'Ramanujan's constant':

e^(pi*sqrt(163)) = 262537412640768743.999999999999 25...

Certainly the number of amazing mathematical curiosities is inexhaustible, indeed !

Best regards from V.

Edited: 15 July 2003, 5:26 a.m.

Re: Irrational Numbers (Was: Value × Definition)

*Message #70 Posted by **Thibaut.be** on 15 July 2003, 3:53 a.m.,*
in response to message #66 by Mark Hardman (LED)

...89

Infinite Series and Transcendentals

*Message #71 Posted by **Patrick** on 14 July 2003, 9:52 p.m.,*
in response to message #65 by unspellable

There is no link between transcendental numbers and infinite series. While it is true that transcendental numbers can often be expressed as the sum of an infinite series, it is possible to get even rational numbers through non-trivial infinite series.

For those who have never seen it, the proof that sqrt(2) is irrational is quite short. We simply suppose the opposite is true and reach a contradition. Here goes...

If sqrt(2) is rational, then it must be expressed as a fraction of integers. Let a/b be such a fraction *reduced to lowest terms* (i.e., there are no common factors between a and b):

$$\sqrt{2} = a/b$$

Square both sides of this equation and clear denominators to get:

$$2b^2 = a^2$$

Clearly, this says that the square of a is an *even* number. Well, if you square any *odd* number you get an *odd* number, so a cannot be odd. Therefore *a must be even*! This means we can write it as equal to twice some integer, k:

$a = 2k$

Substitute into the earlier equation:

$2b^2 = (2k)^2 = 4k^2$

Divide both sides by 2:

$b^2 = 2k^2$

Well now, lookie here... the square of b is *also* even. Like before, we must reason that *b is even*!

Hold on, now. *Both a and b are even*, which means they have a common factor!! But we assumed right at the start that this was not the case. This *contradiction* proves that our starting assumption, that the square root of 2 was rational, is in error.

QED

Re: Infinite Series and Transcendentals

*Message #72 Posted by **unspellable** on 15 July 2003, 8:40 a.m.,*
in response to message #71 by Patrick

Transcendental numbers are not "often" expressed as an infinite series, they are always expressed as an infinite series. This a property stemming from the fact that they cannot be the root of a polynomial.

They are called transcendental numbers because they are always expressed as an infinite series.

Re: Infinite Series and Transcendentals

*Message #73 Posted by **Patrick** on 15 July 2003, 1:24 p.m.,*
in response to message #72 by unspellable

Every number is the sum of an infinite series whose elments are rational numbers. If you take a number, x, between 0 and 1, say, and let its decimal representation be $0.d_1d_2d_3...$ then what you are really saying is that x can be represented as the following infinite sum of rationals:

$x = \mathrm{Sum}_{(n=1,2,3,...)}(d_n/10^n)$

By adding an extra term to the above sum to represent the integer portion of x, you can easily see how to remove the restriction that x is between 0 and 1.

Of course, the sum isn't infinite if the decimal representation of x terminates, but that is not the point.

The point is that, since *every* number has such a representation, this property hardly distinguishes the ones which are transcendental. The thing about transcendentals is that there are usually *very few other ways* to represent them, such as by giving a rational polynomial for which they are its roots.

The motive for the original mathematician to call that class of numbers *transcendental* was that such numbers *transcend* normal arithmetic (at least,

this is how it was explained to me). You cannot get such numbers from integers through addition, subtraction, multiplication, division and the taking of roots.

Edited: 15 July 2003, 1:29 p.m.

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HP-85 start-up error

*Message #1 Posted by **John** on 9 July 2003, 6:56 p.m.*

Hi,

On my HP-85 (A), when I have more than one interface module connected (all with different ids) I get the following error on power-up or reset:

Error 111 : IOP

This is with a full set of ROMs plugged in too. I can run programs and the modules all work, any clues what this error means please?

With only one I/O module the machine starts fine. I also don't get this with the same three modules on my 85B.

Regards, John

Error 111

*Message #2 Posted by **Mike** on 9 July 2003, 7:18 p.m.,*
in response to message #1 by John

"An invalid input/output operation was performed. Use the ERRSC function to determine which interface generated the error."

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HP 11c

*Message #1 Posted by **In need of help!** on 9 July 2003, 5:55 p.m.*

Please help! – I'm away from the office and feeling naked without the manual for my 11c Mysteriously, my "period" has set itself to a "comma" – can someone kindly explain how to turn it back.

Many thanks in anticipation.

GW.

Re: HP 11c

*Message #2 Posted by **Raymond Del Tondo** on 9 July 2003, 6:15 p.m.,*
in response to message #1 by In need of help!

AFAIR press and hold the period key *before* pressing the ON key. After pressing ON release the period key. This should toggle between period and comma.

Raymond

Re: HP 11c

*Message #3 Posted by **Helped** on 9 July 2003, 6:27 p.m.,*
in response to message #2 by Raymond Del Tondo

Thanks Raymond - worked a treat! Cheers

Re: HP 11c

*Message #4 Posted by **unspellable** on 9 July 2003, 6:30 p.m.,*
in response to message #1 by In need of help!

He complains!

I have no manual at all for my 11C.

Since I'm used to the 28S and the 48SX, I never have really known how to properly operate an 11C.

Re: HP 11c

*Message #5 Posted by **Patrick** on 9 July 2003, 7:22 p.m.,*
in response to message #4 by unspellable

Such a terrible fate for a wonderful machine!

I think you have an obligation to sell your 11C to me for a very small amount of money. Maybe then the spirits of HP engineers gone by will forgive you your sacrilege!

(P.S. Alternatively, why not buy the museum's DVD/CDs which has all the manuals you could ever want? ?)

Blessed words! <:^) (n.t.)

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 11:44 p.m.,*
in response to message #5 by Patrick

...

Re: HP 11c

*Message #7 Posted by **unspellable** on 10 July 2003, 8:06 a.m.,*
in response to message #5 by Patrick

Actually, I have a manual for the 15C. It's a "one of these days" thing that I have to see how well the 15C manual works for the 11C.

The first programmable calculator I ever bought was a Sharp that served well. I mislaid it and bought a little sort of programmable pocket whazzit as a fill in. One of the guys in the lab had an HP 28S and that was it. Bought one, and later an HP 48SX so the 28 & 48 series became my thing.

I'm considering putting my extra calculators on eBay. they include the 11C, a 12C, a 32SII, possibly a 27, a 48GX, possibly a 48G+, and outside of HP, a TI 83 and a Casio 7000g.

Re: HP 11c with HP15C's manual

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 10 July 2003, 9:25 a.m.,*
in response to message #7 by unspellable

Hi, unspellable;

I own one of each: HP11C and HP15C. Using the HP11C with an HP15C Owner's Hanbook "in hands" is not hard at all, but some resources described in the HP15C's manual are not applicable to the HP11C, of course. Except for the four extra major enhancements found in the HP15C, being Complex Numbers handling, Matrices arithmetic, numerical SOLVE and Integration, both share the following equivalent points:

- math resources for real numbers, including trigs, logs and hypebolics
- stastics functions and ressources are the same for both, but there is a difference related to statistics registers location: in the HP15C the block is defined between R2 and R7, and in the HP11C it is located in registers R0 to R5;

Some of the differences are:

- memory handling, organization and availability: the HP15C has the equivalent to 67 registers (469 bytes) against 21 registers plus 63 program steps (210 bytes) in the HP11C available for the user
- register arithmetic in the HP11C is limited to [STO] *operation* [R0 to R9 and RI]; the HP15C goes far beyond this
- the hP15C allows RCL RAN# (Randon pseudo-generator seed) and the HP11C does not
- programming resources differ in three aspects:
relational operators - the HP15C has twelve and need TEST n function to access ten of them, while only ten are available in the HP11C
[LBL][.] *n*, [GTO][.] *n* and [GSB][.] *n* are not available in the HP11C
flags - the HP11C has general-purpose flags 0 and 1, while the HP15C has general-purpose flags 0

to 7; flags 8 and 9 in the HP15C have specifc meaning and application;
- [SCI] and [ENG] in the HP11C are not defined for eight and nine digits

I feel as if I'm missing something, but these are the raw differences and equivalences. Reading HP15C Owner's Handbook when using the HP11C demands taking these facts into account.

My 2¢.

Luiz (Brazil)

Re: HP 11c with HP15C's manual

*Message #9 Posted by **Valentin Albillo** on 10 July 2003, 10:24 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Luiz posted: *"[SCI] and [ENG] in the HP11C are not defined for eight and nine digits"*

Indeed they are, IIRC, but only if executed from the keyboard. SCI 8, SCI 9, ENG 8, and ENG 9 cannot be included as program lines because of the limit on just 256 different keycodes. The same happens with the HP-34C (where only 1 keycode is unused out of 256 possible).

"I feel as if I'm missing something"

Yes, a number of things, among them:

- ISG and DSE only work with the I register in the HP-11C, while the HP-15C versions can work with any register, directly or indirectly, including individual matrix elements
- in the HP-11C, you must use GTO . nnn to go to step nnn while in program mode, but as LBL . n is legal in the HP-15C you must use GTO CHS nnn instead.
- in the HP-11C, the x<> swap instruction can only work with arbitrary registers indirectly, while on the HP-15C, you can swap arbitrary registers directly (i.e: x<>3 or x<>.2), indirectly, or even individual matrix elements.
- the HP-11C allows for three levels of subroutine nesting, while the HP-15C allows for seven levels.

there are other minor differences as well.

Best regards from V.

Edited: 10 July 2003, 10:35 a.m.

Minor differences: Recall the current random number

*Message #10 Posted by **Patrick** on 10 July 2003, 4:14 p.m.,*
in response to message #9 by Valentin Albillo

One of those minor differences I just discovered is that you cannot recall the current random number. On the 15C, the sequence [RCL][f][RAN#] gets you the random number returned by the last call to [f][RAN#]. You can do this as often as you like, always getting the same number back. On the 11C, you can store into the random number register (i.e., set the seed), but not recall from it.

Luiz already pointed that out

*Message #11 Posted by **Valentin Albillo** on 11 July 2003, 5:28 a.m.,*
in response to message #10 by Patrick

Best regards from V.

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What the hell is a Mint Calculator?

*Message #1 Posted by **V** on 9 July 2003, 2:27 p.m.*

Mint Calculator??? Mint???

TY "\V/" -

It's where an old greasy calculator

*Message #2 Posted by **Norm** on 9 July 2003, 2:40 p.m.,*
in response to message #1 by V

It's where an old greasy calculator that was used in a truckstop next to a cigar ashtray for 20 years, subsequently got left in the hot sun underneath a box of peppermint patties that got melted into the keyboard.

Super-mint is where its delivered as is. Mildly mint is where a garden hose was used to clean off the worst of it.

:o)

Re: It's where an old greasy calculator

*Message #3 Posted by **Jim L** on 10 July 2003, 11:20 a.m.,*
in response to message #2 by Norm

> Quote:
>
> It's where an old greasy calculator that was used in a truckstop next to a cigar ashtray for 20 years, subsequently got left in the hot sun underneath a box of peppermint patties that got melted into the keyboard.

And "minty" is 20-90% worse than that.

What I love are the Mint.... but...

*Message #4 Posted by **John** on 9 July 2003, 7:14 p.m.,*
in response to message #1 by V

I just love how people try to be creative and insert the word mint on calculators that aren't mint. Like "Mint except for the 2 dents."

My definition of Mint

*Message #5 Posted by **Mike** on 9 July 2003, 7:51 p.m.,*

in response to message #1 by V

"Mint" has a very special meaning. In my opinion, Mint cannot have any scratches, dents or other flaws. Period! All the parts must be original.

"Mint" means used but implies "like new" condition.

"New" on the other hand, means never used.

As far as appearance goes, one should not be able to tell a "Mint" calculator from a "New" calculator.

But people stretch (i.e. exagerate) the description to include Mint, whereever they can.

There are two calculators on eBay right now that use mint. One is described as 9.5 (which is subjective) and not mint, in my opinion, if it has scratches. Another says Mint but has 2 obvious dents.

But, since this is all subjective and not defined anywhere, the only real important thing is does the seller tell you how he defines Mint. If he does, then no harm, no foul.

Edited: 9 July 2003, 7:57 p.m.

Re: What the hell is a Mint Calculator?

*Message #6 Posted by **gifron** on 11 July 2003, 1:40 p.m.,*
in response to message #1 by V

I believe the term comes from numismatics, though more descriptive terms (i.e. grading) are commonly used today. A coin fresh from the mint would be considered "mint uncirculated," shortened to "mint." "Brilliant uncirculated" would be a subset of "mint uncirculated," etc... A coin can have bag marks, and still be "mint."

Based upon this reasoning, I would not require a "mint" calculator to be perfect, but I would not expect it to have any marks that it didn't have when it left the factory, like corrosion, a tiny dent, engravings, etc... Someone mentioned a "bomber" issue calc in another posting, which reminded me of some 35's (I think) listed on The Bull Cabinet, which were issued to Lawrence Livermore Laboratory. These reportedly are heat stamped with "LLL," or some such thing. Since this is a designed in, factory (mint) applied mark (assuming it is - I don't know though), if the calcs are in mint condition otherwise, I think they still could be called "mint."

Saying something is "mint, with a tiny dent and my name written neatly on the back," is just wrong. On the other hand, saying "it would be mint, except for the..." is okay.

IMHO

If you compare to coin collecting

*Message #7 Posted by **Mike** on 11 July 2003, 1:58 p.m.,*
in response to message #6 by gifron

If you use Mint as in coin collecting, then Mint denotes a much higher quality than simply New. On a scale of quality, Mint should be at the top, in my opinion.

Re: If you compare to coin collecting

*Message #8 Posted by **Trent Moseley** on 11 July 2003, 2:56 p.m.,*
in response to message #7 by Mike

Seems to me in the old days with reference to cars the word was "cherry" (and sometimes this was said

of girls too).

tm

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HP-31E's thin Owner's Handbook

*Message #1 Posted by **Valentin Albillo** on 9 July 2003, 9:08 a.m.*

Norm posted to the Add section:

"Hi, interested in HP-31E [...] I've got an "owner's handbook" which is small and thin, but Surely there is an "owner's manual" that is bigger and thicker ??"

Nope. The HP-31E is such a simple calculator that its "Owner's Handbook" is correspondingly small and thin, not 34C's "class".

Similarly, the HP-10C Owner's Handbook is also very small and thin, unlike the very thick HP-15C's. This is just to be expected, there's only so much you can tell the user about his 31E or 10C. You may find some relief in comparing it to the pathetic "Owner's Handbook" of HP(?, more like "KP", for "Kinpo") latest models, i.e. that regal, *deluxe*, folded A3-size sheet (or should it be "sh*t" ?).

Best regards from V.

Re: HP-31E's thin Owner's Handbook

*Message #2 Posted by **Art Litka** on 9 July 2003, 9:57 a.m.,*
in response to message #1 by Valentin Albillo

Amen to that!

I'm shocked ! bbBBBzzzZZZTT!

*Message #3 Posted by **Norm** on 9 July 2003, 3:13 p.m.,*
in response to message #2 by Art Litka

Thanks for the update, Valentin.

I am shocked! The almighty invincible "HP Gods of the 1970's" seem to be ever more vulnerable to criticism.

The calculators have solderless designs, don't properly accept AA batteries, and now, no decent owner's manual for a 31E ??

Ok I'm looking at it now... that owner's handbook doesn't say much about the 3 storage registers..... there are no cute little "storybook" problems, its too quick and too short.

What got into HP at this moment in time (1978), did Bill Gates work there at the time as an apprentice ? ("lets get rid of the owner's manuals, and unplug the telephones so nobody can call us, derr yuk derr yuk!")

Would we presume that the Charlie Chaplin RPN tutorial guidebook "solving problems with your hewlett packard calculator" would be included in the original box of a 31E ??

Hey I still need a furry case.... I'd even take an extra copy of this 31E manual.....

- Norm

Re: I'm shocked ! bbBBBzzzZZZTT!

*Message #4 Posted by **David Smith** on 9 July 2003, 3:55 p.m.,*
in response to message #3 by Norm

The furry lined cases were reserved for the more expensive machines like the 38C/E... complete with belt loop so the finance guys could now look like a real engineering nerd.

The 31E came with the cloth lined case... the lining was backed with the infamous "disinegrates into black sticky dust" liner.

Some 34C's came with fur others had cloth.

Every 34C case i ever saw

*Message #5 Posted by **Norm** on 9 July 2003, 7:55 p.m.,*
in response to message #4 by David Smith

Every 34C case i ever saw had nice brown fur inside. They did not deteriorate, they are nice even today.

I guess that is the type of case I am looking for. Would take a raincheck on cloth..... wont protect the display as well ..... don't like that special feature where it automatically disintegrates into dust (probably the managers hired a polymer chemist to formulate something that disintegrates the day after the warranty expires).

Re: Every 34C case i ever saw

*Message #6 Posted by **David Smith** on 10 July 2003, 4:16 p.m.,*
in response to message #5 by Norm

Towards the end of the 34C production run, the bean counters got loose and switched to the cheaper cloth lined case.

If the backing to the cloth lining does turn to dust, just toss the case in the washing machine. It will come out looking good as new. Let it air dry with the zipper proped open.

always cracks me up

*Message #7 Posted by **Norm** on 10 July 2003, 5:24 p.m.,*
in response to message #6 by David Smith

always cracks me up, board of directors is sitting in their $3000 power suits, clustered around their $40,000 Mahogany boardroom table, in their $8 Million dollar building, charging a collective hourly rate of $5000 an hour to sit there, receiving perks and bonuses of $800,000 per board member per year. SO THEN WHAT..... they come up with the brilliant plan to deprive the CUSTOMER of 14 cents worth of fur fabric to be sewn into the calculator case.

Impressive psychological behavior. Very, very impressive. I bow down in admiration of these boardroom millionaires, they are so brilliant.

Re: always cracks me up

*Message #8 Posted by **bill platt** on 11 July 2003, 10:41 a.m.,*
in response to message #7 by Norm

Norm,

I have an "observed wisdom" concept which the other day I mentioned to someone, who said they thought exactly the same thing on their own.

The idea is simple: Approximately 10 years after a new "technology" or product type (e.g. VCR, CD player, handheld computer, weed wacker, plutonium beta decay powered hedge trimmer etc) has been introduced, you will reach the pinnacle of that product in terms of quality value for the dollar. The item may get less expensive from there on, but its lifespan or quality will reduce. Before 10 years, you have all sorts of problems or issues that really need to be improved.

The basic idea is that in the lifecycle of a product, you go from a rapid improvement phase, with rising sales, to a more mature phase, where the rate of increase in sales is levelling off. At this time, your corporate resouces have also been growing to meet the demands created by the development phase. So, when the sales growth rate flattens (with sales still rising of course) then the company looks to trim costs, because it is natural to think that (1) we should be able to maintain the same profit per unit, and (2) it sure would be nice to avoid laying off lots of people just yet...so we better cut costs--or, can we "minimize" or "optimise" (and they are not the same thing...).

So, that is why the 1980's HP caclulators are so valuable--and so cherished by us. Voyager, Pioneer, even the 41 (almost---someone-argue this one!) are at the pinnacle. We see the quality falling off already in the Pioneers--but higher reliability so they are "better". Look at the "classics" and "Woodstocks" and "Spices" and you find some really great early "built like a tank" features but you also find certain weaknesses....2 disease.....

yup, like a tree ...

*Message #9 Posted by **Norm** on 11 July 2003, 1:12 p.m.,*
in response to message #8 by bill platt

yup, like a tree ...

trees all grow the same, just like companies .

They go thru a rapid early growth phase and go from sapling to big tall tree.....

then they stop growing, and just sort of exist for awhile..... while moss builds up on the trunk and the limbs....

finally they become diseased..... and the bugs and the worms start gnawing away at the wood....

finally it dies and falls over .

Who are the bugs and the worms ? Why, those critters in the dark blue suits in the boardroom of course..... and their petty little "cost reducers" who steal 14 cents worth of cloth out of a calculator case.

It is the same at most companies.... of course it happens sooner at some companies than others.

Hmmmmmmm and some companies it doesn't happen at all. Those are the truly long-lasting companies and they are the heartbeat of America (since they don't succumb to disease).

Heartbeat of america

*Message #10 Posted by **burp** on 11 July 2003, 3:30 p.m.,*
in response to message #9 by Norm

Like:

Coca-Cola? Crane (paper) Revere Ware? L.L. Bean? M.L.Condon Lumber? Chris-Craft? GM!? General Electric? Sherwin-Williams? Ford Motor Company!? Random House Harper's Weekly Wall Street Journal New York Times Dixon Eaton Textron Yale somethingorothercolglomerate

Now some claim to be old, or still have the same name, but aren't--they just have the name:

CIGNA GM Chris-Craft Ford Motor Company HP Random House Harper's Weekly New York Times Dixon Eaton Textron Yale somethingorothercolglomerate

regards,

Bill

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Continuing: from another post

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 12:33 a.m.*

Hi, folks;

this is a new post (thread) that continues my reply to Valentin's Qwiz. I was afraid this reply could misdirect Valentin's interesting post and consequent thread. I would not like seeing a not-related thread growing after the starting post because of my answer. Maybe there is no answer and I'm overestimating my lines, who knows...

Valentin wrote in his original post:

> Quote:
>
> Though noone posted a solution to my latest HP-15C Quiz/Challenge, "Matrix Trilogy", and though it's pretty clear to me by now that most people participating in this forum are hardware/collector-oriented, being the unrepentant software guy that I am, here is yet another HP-15C Quiz/Challenge for you to try, the last one for a number of months to come.

I can't agree with your statement as a whole, my friend. I (amongst others?) read all your challenges, and when I figure out that I cannot contribute with some significant solution, I keep waiting till someone shows a reasonable one. Some get closer, some don't.

Now I have a wide open question: what good is a working calculator for if not for using it to accomplish the job it was designed for: computing?

I'm almost sure I'll be flamed for that, but if I have a (programmable) calculator in hands, I'll be scratching my head for as long as I need to understand how to use (program) it. My sin: read manuals from cover to cover, going to the next page only when I understand the one I'm reading now. I printed all manuals I found for the HP71B and I'm reading all of them. I cannot help avoiding this... I know others use calculators differently and I would never criticize them. I'm just mentioning my concerns and procedures.

But I assume: I'm a hardware guy. But God d..: I still want to know what good is a working calculator for if not for using it somehow! Why restore, repair, rebuild... if you are not going to use it the best way?

I wrote a lot of programs in some languages, RPN-like and RPL included. I like to use the "tools" as much as I enjoy repairing them.

Now, for your quiz: I cannot connect my existing knowledge base for the three specific subjects in the same time: polynomial solving, applicable matrix arithmetic/manipulation and HP15C matrix&programming related resources. I think this is because I am a bad Chess player: I cannot think of dynamic relations between subjects from different origins. I deal a lot with digital signals, analog signals and I used to "see" relations between digital data in time charts easily, but this is easy when compared to the three "universes" mentioned above.

Sometimes I delve into the problem till I find a reasonable solution and I post it, as I have done a couple of times. But sometimes I feel like waiting for an answer arise in my head so I can write it down here, but there are moments when I simply wait... and wait... and wait... and nothing! I feel I'm a typical Brazilian "Regular Joe": a specialist in

general subjects. I program, deal with, use and can repair (brief repairment) at least 20 different models of HP calculators and devices. But I'm no expert on any of them.

I wish I was.

Well, that's why I decided to post this "reply" in another thread. I'd be sorry if wasting one possible answer to Valentin's Quiz with non-related subjects.

Please, Valentin, forgive me.

Best regards.

Luiz (Brazil)

Edited: 9 July 2003, 1:00 a.m.

Re: Continuing: from another post

*Message #2 Posted by **Valentin Albillo** on 9 July 2003, 5:01 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi, Luiz:

Luiz posted: *"Now I have a wide open question: what good is a working calculator for if not for using it to accomplish the job it was designed for: computing?"*

I fully agree with you, but I'll play devil's advocate here: many reasons, for instance:

- a working calculator is preferred for display purposes in most collectors' vitrines; obviously, a cosmetically perfect but otherwise non-working one would do as well, but most collectors will opt for a working unit, even if much more expensive. No collector is really proud of a mint-looking but non-working unit, and they'll jump at every chance to replace it with a working one.

- a working calculator is a much more valuable property than a non-working one, so every collector and seller out there will certainly prefer them, if only for economic reasons.

- it gives you such a warm feeling having that mint HP-70 in your vitrine, even if you wouldn't be caught dead actually using it for anything.

etc, etc. As you can see, there's no shortage of reasons why many people do own calculators they'll never use for computing.

Anyway, I fully agree with your position, which is mine also: I only own handhelds that I actually intend to use, and the ones I do not want to use I do not plan to own, the HP48/49 being the most noticeable permanent absences in my collection. Matter of fact, I wouldn't trade a single Sharp PC-1350, say, for a box full of HP48/49's, not even to sell them for a profit.

"I wrote a lot of programs in some languages, RPN-like and RPL included."

Sticking to a single style of programming will cause stagnation and chauvinism in the long term. I suggest you begin to write programs in BASIC/Forth/Assembler for your wonderful HP-71B and so refresh your programming muscle a little. RPN/RPL are very smart and very cute and all that jazz, but they aren't necessarily the best ways to program there are, you know. Take my advice, you'll be glad you did.

"Please, Valentin, forgive me."

There's nothing to forgive, of course, and much to be indebted to you, indeed. I always read and appreciate your clear, honest, well-meaning messages, and really admire your commitment to try and help your fellow HP fans. If you're really the "average Brazilian Joe" as you put it yourself, Brazil must be a really amazing country and one fully deserving of having a top priority in everyone's travelling agenda.

Best regards from V.

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Remember the "Fee avoidance guy"

*Message #1 Posted by **Mike** on 8 July 2003, 11:29 p.m.*

Well, he's back with a new stragegy. He shows two calculators and even quotes shipping on the 2nd implying that he will sell the 2nd one off of ebay.

Fee avoidance

He is also likely counting on someone thinking two are for auction. He lists both serial numbers.

Edited: 8 July 2003, 11:29 p.m.

Re: Remember the "Fee avoidance guy"

*Message #2 Posted by **gifron** on 9 July 2003, 1:24 a.m.,*
in response to message #1 by Mike

Must have been an error, or he changed his mind. When I looked, there was information on only one calculator. Description has been changed several times.

Yes, he changed it

*Message #3 Posted by **Mike** on 9 July 2003, 1:46 a.m.,*
in response to message #2 by gifron

I think he is someone who comes here. I received a nasty (read: filthy and physically threatening) gram shortly after posting this here.

He sent two emails. One threatening and one using his normal ebay email address.

I guess he forgot that his IP was recorded for the originator. Both IPs were identical. I'm still debating whether or not to send the threat email to ebay and the police. His IP is easily traced.

Yes, he changed the auction. I asked him why he was listing both shipping prices and that it looked like he was trying to sell both with one auction. So, he changed the auction.

This is the same guy that sold two phones for $10 and tried to charge $110 for shipping a telephone.

Watch the other show up later.

Edited: 9 July 2003, 2:52 a.m.

Re: Yes, he changed it

*Message #4 Posted by **Wayne Brown** on 9 July 2003, 7:43 a.m.,*
in response to message #3 by Mike

> Quote:

> I'm still debating whether or not to send the threat email to ebay and the police. His IP is easily traced.

Yes, you should report him. I certainly would.

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LIF disks: I could use some help here...Dan? Guys?

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 8 July 2003, 9:20 p.m.*

Hi, folks;

sometime ago, I read a post by Dan McDonald about renaming LIF disks formatted in an HP9114 with the HP41 as a controller. Disks formatted this way cannot be read by LIFUTIL because NEWM, the 82106A initialize-media standard function, does not require a "media name", or "media ID name". Both the HP41 and the HP71B (I believe the HP75 as well) can read from and write to these disks, but LIFUTIL doesn't even recognize them.

I remember that Dan also mentioned that the "HP41 renaming program" needed an 82183A Extended IO module. I'm lucky having this ROM and I can use this program.

I read the HP71B documentation and found nothing but the mentioning that INITIALIZE is the only means to rename already formatted disks... but it also erases all of their information.

Today I know that disks formatted by LIFUTIL will be assigned a name (optional to the user) but I was not aware of this fact till I had three disks with some HP41 programs. I cannot read them in a PC because LIFUTIl cannot identify them. And I know I have the option to read each file in each of the three disks to the HP71B RAM so I can write them in another "labeled" disk, but I'd rather renaming the disk and copying all files to the computer at once.

Any clues?

Thanks in advance.

Luiz (Brazil)

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #2 Posted by **Vassilis Prevelakis** on 9 July 2003, 12:04 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Why don't you use Tony Duell's HP71/75 HP-IL LIF File Utilities (for Linux)
http://www.hpcc.org/hpil/lif_utils.html

**vp

Thanks!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 12:59 a.m.,*
in response to message #2 by Vassilis Prevelakis

Hey, Vassilis; long time, no see...

Thank you for the valuable tip. I should be asking Tony about these, but maybe you have the answers: instructions included? Say, any readme file with the pack?

I have a workstation running (stand-alone, do MS sharing HD) Linux. I'll unzipp programs there.

thanks again.

Luiz (Brazil)

Re: Thanks!

*Message #4 Posted by **Tony Duell (UK)** on 9 July 2003, 7:18 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Yes, I included documentation with the Lif Utilities for Linux. There is a README file (which basically lists the programs and what they do). There are manpages for all the programs. And of course you get the commented source code if you really want to know what's going on. There may be interesting information in the comments in said source code, by the way -- I think much of it is known to most serious HP calculator hackers, but you might pick up something from reading it. One thing I've not written yet is lifput(1) -- a program to write a file to a lif disk. You can read disks, extract files, get directories, copy disks to/from image files, etc. You just can't write a new file to a disk -- yet. I must get round to writing that sometime.

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #5 Posted by **Rodger Rosenbaum** on 9 July 2003, 3:17 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Luiz,

When you say you want to change the "name" of a LIF disk, are you referring to the "VOLUME LABEL"? If so, then it can indeed be changed by a HP71. I looked at the documentation for INITIALIZE in the HPIL Owner's Manual for the HP71, and I didn't see where it said that INITIALIZE was the ONLY way to change the volume label. Where (page number) did you see that? If it is the volume label you want to change, I can post a little program to do that.

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #6 Posted by **Dan M** on 9 July 2003, 7:38 a.m.,*
in response to message #5 by Rodger Rosenbaum

Hi Luiz,

Yes, the "Volume Label" needs to be changed -- from "nothing" to "something." I came up with a small program for the 41 to do so, based on a program I found in the PPC journals somewhere, but it would be difficult for me to locate it at this time :-(

Rodger, perhaps you could post the program for the HP-71 to change the disk volume label. It seems it is a lot easier for the HP-71 to do things like this to disks than the HP-41.

Tony's programs are an amazing set of very useful utilities, and he has been very kind to share them with the group. I unfortunately remain "linux-impaired" and have not taken the time to either become "linux-enabled" or convert Tony's source code to a less desirable platform.

Luiz, I will look for my 41 program, but I most likely won't find it very quickly.

Best regards,

Dan M

Thanks!

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 10:00 a.m.,*
in response to message #6 by Dan M

Hello, Dan;

you see, I'm a "newcomer" to the HP71B world and there are some things I did not get yet. The MoHPC CD set has the three volumes of the HP71 internal specs and I looked at some pages briefly; they are heavy reading, no doubts about it, but the fact HP allowed its internals to be known outside its headquarters was something new at the time it happened.

Thank you very much for your help. As I have an HP71B now (Thanks, Doc) and now I know that it's important specifying a "volume label", I'll do it with all disks and I'll probably need to rename only disks I did not handle. I tried to find a way to rename them through DOS LIFUTIL but I did not find a way.

Please, if you do not find the HP41 program to rename disks and there is a way to do it through the HP71, that's fine for me. Of course I'd like to keep the HP41 program listing that does it; it's information and I kinda collect this sort of "piece".

Thanks again. BTW, the HP9114B is working perfectly fine with the HP71B. I now have a set of disks for the HP41 and another for the HP71B.

Best regards.

Luiz (Brazil)

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 10:00 a.m.,*
in response to message #5 by Rodger Rosenbaum

Hello, Rodger;

thank you very much for your reply.

I found the information in the HP82401A HPIL Interface Owner's Manual, p. 28, bottom of the page, where "Volume Label" is explained. It's mentioned that *(...) you can't change the volume label unless you initialize the medium again"*. It's also stated in page 130 (same document) that INITIALIZE erases the entire medium.

As I'm a "newcomer" to the HP71B world, maybe there is a way to overpass the erasure action while renaming the medium; is it possible? If so, I'd like very much to know how to do it. If the program that allows this sort of maneuver is stored in a file and you can send it to my e-mail box, my e-mail address is:

lcvieira@quantica.com.br

I'm thanked if you can do it. Anyway, if you have it already listed in a file and you can share its contents with all Forum contributors, I'd like to see it listed here, too.

Thank you again.

Luiz (Brazil)

P.S. - I was wrongly writing "media", plural of "medium", in my previous posts; please, forgive me folks.

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #9 Posted by **Rodger Rosenbaum** on 11 July 2003, 2:39 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Luiz, From your post:

"Hello, Rodger;

thank you very much for your reply.

I found the information in the HP82401A HPIL Interface Owner's Manual, p. 28, bottom of the page, where "Volume Label" is explained. It's mentioned that (...) you can't change the volume label unless you initialize the medium again". It's also stated in page 130 (same document) that INITIALIZE erases the entire medium."

Here they are describing what INITIALIZE does. I think that they mean to say that you can't change the volume label with INITIALIZE unless you initialize the medium again. I'll list the program to change volume labels in another posting.

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #10 Posted by **Rodger Rosenbaum** on 11 July 2003, 3:02 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

```
10 CALL VOLUMEDT @ SUB VOLUMEDT
20 INPUT "Which drive? ","1";D
30 D=DEVADDR("%16("&STR$(D)&")")
40 IF D=-1 THEN BEEP @ DISP "Not a drive" @ END
50 SEND UNL UNT MTA LISTEN D DDL 4 DATA 0,0 TALK D MLA DDT 2
60 ENTER :D USING "#,8A";U$ @ ON ERROR GOTO 70
70 LINPUT 'VOLUME LABEL :',U$[3];V$ @ V$=(V$&"      ")[1,6]
80 OFF ERROR @ IF V$=U$[3] THEN END
90 SEND MTA LISTEN D DDL 4 DATA 0,0 DDL 3 DATA 2 DDL 6 DATA V$ DDL 8 DDL 7 UNL
100 S=SPOLL(D) @ IF BIT(S,5) THEN 100
110 IF S=29 THEN DISP "WRITE PROTECTED!"
```

This little HP71 program will allow you to change the volume label on a floppy disk. You obviously have to have an HPIL module to talk to the drive. The program first reads the existing volume label, if any, and then allows the user to type over it with a new label. If the disk didn't have a label, then the label the program reads will be all blanks and the new label can just be typed over them.

The CALL VOLUMEDT @ SUB VOLUMEDT sequence in line 10 is just to preserve any variables from other programs that may have been suspended.

I hope my attempt to use the advanced formatting techniques for the board resulted in a readable listing!

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #11 Posted by **Rodger Rosenbaum** on 11 July 2003, 3:11 a.m.,*
in response to message #10 by Rodger Rosenbaum

Some things I assumed but probably shouldn't have: Connect your 9114 to the HP71 with the HPIL cables. Execute RESTOREIO on the HP71. If you get an error when doing this, execute RESET HPIL and try the RESTOREIO again.

After you have got an error free RESTOREIO to happen, then the volume edit program should work.

A note: Any time you have been doing IO through the HPIL module, you should execute OFFIO when you're done. If you disconnect IO devices like the 9114 without doing this, the HP71 will take a long time to come on when you press the ON button next time. This is because the HPIL module is still active, and it's looking for things on the loop. If the IL loop is not connected, it will take a long time to TIMEOUT. An experiment you can do to see the effect is to connect a single HPIL cable from IN to OUT on the HP71 HPIL module, execute RESTOREIO, turn the HP71 off and back on. It should turn on fairly quickly. Now disconnect the cable and turn the HP71 off and on; there should be a long delay. Now execute OFFIO and turn it off and on; now it should come on much more quickly.

RESTORE IO and OFF IO

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 11 July 2003, 3:37 a.m.,*
in response to message #11 by Rodger Rosenbaum

Hello, Rodger;

I have already verified that, thanks, and I use OFF IO everytime I remember to switch the IL module off :)

What I tried to do these days was inserting an HP41 in the loop to see what happens: HP71, HP41 and 9114. I confirmed that the HP41 is a greedy lady: it does not allow other devices to control the loop, as already stated in other sources ("The loop is mine!", it says). It can play no other role except controller!

I was aware of this fact and I tried some "evasive maneuvers" with the HP71; I did not succeed. I changed the order of the elements in the loop, and was not successful. After a few "Loop broken" messages from the HP71 and [TRANSMIT ERR] from the Hp41, both HP41 and HP71 agree with their roles and everything goes fine: HP41 controls, HP71 talk/listen whenever needed. But I could not do anything else (I actually tried random commands...)

What bothered me was the fact that I could not restore I/O activities in the hP71B later. It did not talk to the 9114B till I initialize in with INIT: 3. Whatever I did - RESTORE IO, OFF IO, RESET HPIL and some other I/O commands I found - was not enough to "wake up" the HPIL. I think that after the so many commands I typed in the HP71B the resident O.S. concluded that there was an insane guy at the steering wheel so it decided to lock the HPIL till some confident driver was assigned... I think I set some internal flag or conflicting condition in the 82401A and it could not restore normal operation.

Question: is there a way to override the HP41 control while it is inserted in the loop?

Best regards and thank you again.

Luiz (Brazil)

Re: RESTORE IO and OFF IO

*Message #13 Posted by **Rodger Rosenbaum** on 11 July 2003, 3:56 a.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

Are you saying that when you:

"What bothered me was the fact that I could not restore I/O activities in the hP71B later. It did not talk to the 9114B till I initialize in with INIT: 3. Whatever I did - RESTORE IO, OFF IO, RESET HPIL and some other I/O commands I found - was not enough to "wake up" the HPIL"

you still had the 9114 and HP41 on the loop? A good thing to do if the HP71 seems locked up is to connect the IN and OUT on the HPIL module with a single cable and nothing else on the loop. Then try RESET HPIL, RESTOREIO and OFF IO, etc. Something should wake it up at this point. Also, some commands in progress on the HP71 need TWO pushes of the ATTN button to stop then; this is especially true of IO operations. (Maybe SEVERAL pushes, doncha know. :-))

I don't know if it is possible to override the HP41 control on the loop.

This kind of thing is why I like the HP71 so much. It has the most powerful and easiest to use HPIL controller HP ever made. The HP71 can be powered down and connected in an HPIL loop with other devices; some other device can send IL commands, and the HPIL will wake up and not lose anything that was sent. I don't think any of the other calculator/computer devices can do that.

Thank you, Rodger!

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 11 July 2003, 3:18 a.m.,*
in response to message #10 by Rodger Rosenbaum

Hello, Rodger;

thank you very much! Your listing is completely readable for me, even the number of spaces contained in the string in line # 70. When you use [pre], a monospaced font is used, what means all characters use the same length.

I'll type in my HP71B and run it. Even better, I'll copy the listing, paste it as-is to another file and save it as an ASCII text to a LIF disk (with a non-empty "volume label" field) using LIFUTIL. I'll load the text as LEX and TRANSFORM it to BASIC in the HP71B. Am I hallucinating or my assumptions are correct? I'm reading the HP71B Owner's Manual and swallowing whatever I read. Will it work fine?

Thanks again.

Luiz (Brazil)

Re: Thank you, Rodger!

*Message #15 Posted by **Rodger Rosenbaum** on 11 July 2003, 3:47 a.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

Don't load the text as LEX; load it as TEXT. I don't think you could load it a LEX anyway. It would alread be a TEXT file.

If you just type the program into a file called VOLUMEDT on the HP71, you could then transform it into a text file by typing TRANSFORM VOLUMEDT INTO TEXT VOLTEXT, for instance. You would then have a LIF (TEXT) file of the program, while preserving your original file. If you simply typed TRANSFORM INTO TEXT while VOLUMEDT was the current file, then VOLUMEDT would be converted into a TEXT file itself, and you would lose the BASIC version.

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #16 Posted by **Ellis Easley** on 9 July 2003, 5:34 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

This might not have any bearing on changing the volume label, but have you read the information in the 9114 manual (in an addendum for the HP41) about initializing disks for 630K capacity instead of the 128K capacity that the 41C HPIL normally intializes (emulating the tape drive, I guess)? It includes a 41C program that issues HPIL commands to the 9114 - maybe it will be interesting to you.

Yes, thanks!

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 10 July 2003, 1:15 a.m.,*
in response to message #16 by Ellis Easley

Hello, Ellis;

thank you for your mentioning this program. I have already used it, but I believe it would be better having it in ROM instead of main memory. It uses a big "slice" of main RAM, and this fact may void using it to record long programs.

In time: I remember it was possible to run programs saved in X-memory without copying them to main RAM, mostly because I remember that when I bought my HP41CX (80's) I was already hacking X-secrets, and when inspecting a program in X-Memory I switched the calculator to RUN mode and inadvertently I pressed [R/S] key. The program ran perfectly fine, but gave a [NONEXISTENT] message when attempting to execute a [GTO] *somewhere*. The same program executed error-free in main memory. Does anyone remember the tricks to run programs directly in X-memory?

About the full 630K-bytes for the HP41: I "dried-out" the program so it fits in regular X-memory (124 registers). The original is too big it does not fit in regular X-functions or 41CX: you need an extra X-memory. I replaced all ALPHA labels and related GTO/XEQ for numerical ones, reducing program size. Not necessary to mention, but all global ALPHA labels that replicate HPIL mass storage functions were kept.

Thank you again.

Luiz (Brazil)

Re: LIF disks: I could use some help here...Dan? Guys?

*Message #18 Posted by **Tony Duell (UK)** on 9 July 2003, 7:22 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

I know how I'd do it. I'd use the HP71 (which has the best HPIL implementation of any handheld). I'd use a DDT command (look in the _tape_ drive manual for details) to read block 0 into a string on the HP71. Then modify the appropriate bytes (look in the back of the HP71 HPIL user manual for details of what's in block 0) to give the disk a volume label. Then use a DDL command to write it back. Not a difficult program to write IMHO.

That's a starting point; and thanks, guys

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 8:59 p.m.,*
in response to message #18 by Tony Duell (UK)

Thank you all;

Tony, I was somewhat lost because of both: never used the HP82183 X-mass before having the HPIL, neither the 9114B; now I have an HP71B and I felt myself interested on going further. Anyway I could understand what you mean and I'll try the procedure in an empty disk and see what happens. I'll need to read a bit more to go further, but now I have a starting point.

Thanks again. (and you mentioned once you're not an SW man...)

Luiz (Brazil)

Edited: 10 July 2003, 1:28 a.m.

"Eureka" -- Found the File

*Message #20 Posted by **Dan M** on 9 July 2003, 9:33 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hello Luiz, my friend...

My filing system has worked and I found the program.

To make a long story short, here is the program I can use with the HP-41, Extended I/O Module, HP-IL Module, and 9114 disk drive to add a Volume Label to an existing LIF disk.

I have forgotten exactly how it works, but it somehow reaches into the disk header block and inserts the alpha name you input, byte-by-byte.

This listing has been hand-typed by me, as I am not currently PC-LIF-enabled, for various reasons. The program is short enough that you can enter it easily. Ask if you have questions about the listing, I can answer them.

Dan M

```
01 LBL 'LBLVOL
02 2.006
03 SF 05
04 STO 00
05 'VOL NAM:
06 AON
07 PROMPT
08 ASTO 01
09 AOFF
10 16
11 FINDAID
12 SELECT
13 ID
14 CLRDEV
15 CLA
16 ARCL 01
17 LBL 01
18 3
19 DEVL
20 RCL 00
21 INT
22 OUTXB
```

```
23 6
24 DEVL
25 ATOX
26 OUTXB
27 8
28 DEVL
29 ISG 00
30 GTO 01
31 FC? 05
32 GTO 02
33 CF 05
34 7
35 STO 00
36 '
37 GTO 01
38 LBL 02
39 CLRDEV
40 END
```

I sent you an e-mail but I'll post it here

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 11:58 p.m.,*
in response to message #20 by Dan M

Hello, Dan;

thank you very, very much.

I think other users will use it as well.

There is more in the e-mail I sent you, but the only doubt I have about the listing (I did not try to understand it so far, just a "spell checking") is related to step # 36: the single ' means a space character, an empty-ALPHA line or other "command"? If it is an empty-ALPHA line (but it is more likely not to be), would CLA do the same?

Thanks a lot, Dan; this is gold!

Best regards.

Luiz (Brazil)

Some Explanation

*Message #22 Posted by **Dan M** on 10 July 2003, 10:37 a.m.,*
in response to message #20 by Dan M

Hello Luiz,

I believe that program line 36 is a "space" and not a "clear alpha" register. One character of the alpha register after line 36 is written to the disk header, and I seem to recall that there must be something in the header after the volume label to mark the end of the volume label.

I am currently unable to get this program from a disk to a PC for further examination, so I can't be 100% sure right now but I can do it tomorrow if necessary.

ATOX gives "-1" if the alpha register is empty, and "32" if alpha register has a space. I don't know what OUTXB will do with "-1", so I think it should be a space and not a CLA

Again, credit for this program really belongs to the person who submitted the original version to the PPC Journal, I don't remember the name or the issue number. I revised that program by sticking on the prompt for "VOL NAM" at the start.

I also don't know/remember what the device-dependent-commands for the 9114B are (3, 6, 8 in this program). I think 3 is for "prepare to move to byte location, which will be sent next" and 6 is for "write the next byte sent to the current position" and 8 is for "move to home location" or "close device" or something like that.

This has been a useful program in the past. I will try to find the original author's name sometime and give due credit to him (or her!).

Best regards,

dan

ACK! And thanks again! (n.t.)

*Message #23 Posted by **Vieira, Luiz C. (Brazil)** on 10 July 2003, 12:11 p.m.,*
in response to message #22 by Dan M

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MLDL2000 update: bad news and good news

*Message #1 Posted by **Meindert Kuipers** on 8 July 2003, 1:46 p.m.*

A quick update:

The bad news is that there was a fundamental mistake in my MLDL design. The good news is that I fully understand it and allows me to do a redesign of the state machine which will make the MLDL less sensible for metastability and easier to update future enhancements.

For those who are interested: I could not get the WROM instruction to work properly. It seemed to work sometimes, depending on the program that I used for initiating the WROM. After hooking up a logic state analyzer to the prototype the fault was quickly determined. I assumed that the HP41 cycle first transmitted the contents of the C-register, and then the instruction to be executed. In case of the WROM instruction, the C-register contains address and data for the WROM to operate on. This assumption was wrong, the C-register is sent AFTER the instruction.

I am currently redesigning the state machine and will hopefully be able to rebuild and test the prototype during the weekend.

Meindert

Re: MLDL2000 update: bad news and good news

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 8 July 2003, 9:24 p.m.,*
in response to message #1 by Meindert Kuipers

I'm amused...

Meindert, I read your reports and I feel stuck in my inability to go so far.

Congrats. I wish I can read what you wrote and cooperate with it.

Best regards.

Luiz (Brazil)

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Quiz !: Evaluating polynomials [LONG]

*Message #1 Posted by **Valentin Albillo** on 8 July 2003, 1:19 p.m.*

Hi all,

Though noone posted a solution to my latest HP-15C Quiz/Challenge, "Matrix Trilogy", and though it's pretty clear to me by now that most people participating in this forum are hardware/collector-oriented, being the unrepentant software guy that I am, here is yet another HP-15C Quiz/Challenge for you to try, the last one for a number of months to come.

By the way, let me point it out once more that though the challenge's conditions and requirements are meant for an HP-15C, the techniques used in the solution are always equally efficient and thus applicable to other machines, most specially the 42S, 41C/Advantage, and even the 71B/Math, among others. You can attempt the challenge in said machines as well, and the published solution can give you a particularly efficient and novel implementation on your machine as well, which you might easily find useful for your own programs.

The Quiz/Challenge

Let's suppose that we've got some experimental or otherwise dataset and we have have fitted some suitable mathematical function to it, a rational function to be precise:

```
f(x) = P(x) / Q(x)
```

where P(x) and Q(x) are both polynomials of arbitrary degree **n**, i.e:

```
P(x) = a0 + a1 x + a2 x^2 + ... + an x^n
Q(x) = b0 + b1 x + b2 x^2 + ... + bn x^n
```

where the degree, n, is nominally the same for both, but as any of the ai, bi coefficients can be zero, the actual degrees could be distinct.

Now, for the challenge. You must write a subroutine (LBL, ..., RTN) which must use as fixed data the coefficients ai, bi, which will be stored in a (2 x [n+1]) matrix, in the exact way and order shown below:

```
A =  | a0  a1  a2  ...  an |
     | b0  b1  b2  ...  bn |
```

This matrix isn't to be considered a parameter passed to the subroutine, but a fixed data repository at a fixed place, matrix **A**. The degree, n, isn't passed either, the subroutine must deduce it from the number of columns in matrix A.

The only parameter which will be passed, in the X register, is a value **x** for which we want the above expression **f(x)** to be evaluated. The routine will evaluate f(x) = P(x)/Q(x) for such an x, and will return the result in the X register, i.e:

```
x, GSB A  ->  f(x)
```

An example will make it clear: If we have:

```
          -2 + 3x - 5x^2 + 4x^3
f(x) =  ----------------------
           5 - 6x + 3x^2 - 7x^3
```

then our routine must use matrix A, which holds the coefficients:

```
A =  |  -2   3  -5   4  |
     |   5  -6   3  -7  |
```

and **x** = 2.3, to return **f(x)** = -0.3472259...

As the subroutine is meant to be used a number of times to evaluate the function, matrix A shouldn't be altered at all between calls. That given, the primary and main requirement is to **optimize for speed**, i.e., f(x) must be evaluated *as fast as possible*. Once time is minimized, the shorter the subroutine, the better.

Subject to that, there exists a general solution for the HP-15C in *18 steps or less* (including both LBL and RTN) which will evaluate f(x) in just *4 seconds* for polinomials of the 4th degree, and in just *15 seconds* for 19th-degree polynomials.

If you succeed, try to generalize the routine in one or both of these ways:

- instead of a single x value, the routine would accept a vector of x values and would return a vector with the corresponding f(x) values
- instead of evaluating two polynomials, the routine would accept the coefficients of m polynomials and would return the evaluated values at x for all of them.

That's all. Give it a thought or two and let's see your ideas ... :-)

Edited: 9 July 2003, 9:55 a.m. after one or more responses were posted

Re: Quiz !: Evaluating polynomials [LONG]

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 12:34 a.m.,*
in response to message #1 by Valentin Albillo

Hi, Valentin;

I started to write a reply, but I saw it was heading to a direction not related to your post's interesting, primary subject. I was afraid a not-related thread could arise and that would be an upsetting fact.

So I decided to post my reply here, O.K.? If there is anything to be added to that particular reply, it will not interfere that much in your original post/thread.

I did this to avoid disturbance and misdirection, and I hope not creating others...

Best regards.

Luiz (Brazil)

Edited: 9 July 2003, 12:56 a.m.

Re: Quiz !: Evaluating polynomials [LONG]

*Message #3 Posted by **Tizedes Csaba** on 9 July 2003, 1:09 p.m.,*
in response to message #1 by Valentin Albillo

I do not see Vieira~s solution, yet... This is my version:

LBL A STO 9 'store x RCL f DIM A 1 STO f DIM B f MATRIX 1 u STO B LBL 9 RCL mul 9 u STO B GTO 9 RCL f MATRIX A RCL f MATRIX B mul u RCL C RCL C div RTN

'mul' mean 'multiply', 'div' mean 'divide'.

I do not measure running times, I do not know how fast this program. But it is works...

Csaba

Re: Quiz !: Evaluating polynomials [LONG]

*Message #4 Posted by **Patrick** on 9 July 2003, 7:14 p.m.,*
in response to message #3 by Tizedes Csaba

Hello All

It will come as no surprise to you all that I have been trying this quiz myself. I have a long-ish solution that is close to the idea of Csaba's above:

```
001 LBL A
002 RCL DIM A
003 EEX
004 DIM B
005 RUP              // Get x back from T register
006 ENTER
007 MATRIX 1         // Prepare for loop
008 EEX
009 ENTER            // Stack is now [1,1,x,x]
010 LBL 0
011 *                // Get next power of x, starting at 1
012 u STO B
013 GTO 0
014 RCL MATRIX A
015 RCL MATRIX B
016 RESULT E
017 *                // E = [ P(x) Q(x) ]^T
018 u RCL E          // P(x), R0, R1 update
019 RCL E            // Q(x), R0, R1 do not update
020 /                // f(x) = P(x) / Q(x)
021 RTN
```

The general idea is to create a column vector (matrix B) consisting of the powers of x:

$B = [\ 1\ x\ x^2\ \ldots\ x^n\ ]^T$

When you multiply A by this column vector, the result, E, is a column vector consisting of the values of the polynomials P(x) and Q(x).

The difference between my version and Csaba's is mostly in the way we generate the matrix B. There is a problem in coding the loop (his LBL 9, my LBL 0) in that the first element of the matrix requires special handling. Csaba handles this by a duplicate STO B instruction, one inside his loop and the other before it. I handle it by creating a stack with values X=1, Y=1, Z=x, T=x. The first time you do a multiply inside the loop, you get 1. Successive times you get the higher powers of x.

While longer, my routine will operate in two conditions where Csaba's fails:

1. When n=0.
2. When the result matrix is not its default value of C

The first is a reasonable limitation, I think, but the second is questionable. If we accept the first limitation but not the second, then Csaba's solution only increases by 1 step.

There is one point in my solution where something of a trick is played. If you look at my step 007, it seems to be out of place. Right in the middle of some stack manipulations we insert an instruction which is aimed at preparing a loop some steps later. Why not do it later? The answer is that the MATRIX 1 instruction has

the useful side effect of enabling stack lift! Without that instruction there, we would have needed an additional ENTER.

Re: Quiz !: Evaluating polynomials [LONG]

*Message #5 Posted by **Patrick** on 9 July 2003, 7:20 p.m.,*
in response to message #4 by Patrick

Another thought occurs to me that you might speed this routine up some more at the cost of more steps by using rapid branching through the I register rather than using LBL 0. I've never used it myself, so I don't know how much of a speedup it would bring. Of course, it also costs you the I register.

Re: Quiz!: Evaluating polynomials

*Message #6 Posted by **Karl Schneider** on 10 July 2003, 4:09 a.m.,*
in response to message #4 by Patrick

Here's a less-elegant and slower program that does not really utilize the matrix-math capabilities, but instead uses a loop-counter (DSE) and subroutine calls (GSB). With a few modifications, it would be more portable to the 11C and 34C, although those machines could accept only 20 coefficients not in a matrix structure.

The "key to acceptable speed" in these calculator routines is the use of Horner's Method to decompose the exponential calculations of polynomials into arithmetic operations. This is implemented in the "looping" code in both Patrick's routine and mine. Horner's Method is explained in the manuals for the 34C and 15C (and presumably the 11C); the 49G has a "HORNER" function.

The "clever trick" in Patrick's routine is the looping code of of lines 010-013, in which the HP-15C is smart enough to stop filling the array and jump out of the loop (by skipping line 013?) when it got to the end. I believe that Valentin's program from "Long Live the HP-15C" exploited this feature, but I'll have to check if it's documented.

So, here's another program:

```
001  LBL A
002  ENTER
003  ENTER
004  RCL DIM A
005  MATRIX 1
006  STO 1
007  STO 2
008  X
009  CLx                 // stack has  0 x x x
010  GSB 0               // calculate numerator
011  X<>2                // store numerator and retrieve # of coefs
012  STO 1
013  CLx
014  2
015  STO 2
016  CLx                 // stack has  0 x x x
017  GSB 0               // calculate denominator
018  STO/2
019  RCL 2
020  RTN                 // return answer
021  LBL 0               // "Horner's Method" loop
022  RCL A
023  +                   // add coefficient
024  DSE 1               // decrement index of coef; check if = 0
025  GTO 1
026  RTN                 // if = 0, done; return
027  LBL 1
028  X                   // if not = 0, multiply by x
029  GTO 0
```

Now, here's a solution using Matlab (if you are fortunate to have it on a PC or Unix workstation at your desk). A private license for one copy is only $1900 -- 10x the price of a 49G!

```
C:> matlab
>> p = [4 -5 3 -2; -7 3 -6 5]   ; note order of coefs
>> x = 2.3
>> f = polyval (p(1,:),x) / polyval (p(2,:),x)
```

Thought required for programming: mimimal
Speed of results: virtually instantaneous
Using the right tool for the job: priceless!

(I would expect only those in America who have seen the TV ads for MasterCard to get the reference. My apologies...)

Of course, the "right tool" is not always available or affordable.

Loop exit trick

*Message #7 Posted by **Patrick** on 10 July 2003, 4:09 p.m.,*
in response to message #6 by Karl Schneider

Hey Karl

Nice to see some new faces in the quiz threads. Maybe Valentin will be encouraged by this and continue to post new ones! (hint, hint)

The loop trick you refer to is documented on page 176 of the HP-15C Owner's Handbook, in the section "Using Matrix Operations in a Program". If you look back at the solutions of some of Valentin's previous quizzes, you'll see this technique used there as well -- it is very handy.

The other useful part of that same feature is that, when the row and column numbers (R0 and R1) get exhausted for a particular series of matrix operations, not only is there a program line skip, but both counters are also reset to 1, obviating the need for another call to MATRIX 1. Steps 018 and 019 in my solution depend on this as well. Note in particular that step 019 is done with user mode **off**. Otherwise the division in step 020 would be skipped!

Patrick has right and a new question: Nested loops

*Message #8 Posted by **Tizedes Csaba** on 10 July 2003, 4:59 p.m.,*
in response to message #4 by Patrick

(Sorry for my poor english, I never learn it...)

Hi Patrick!

You are right in the two limitations! And must be insert 'RESULT C' instruction!

Csaba

Ps.: New quiz question for everybody: How are you programming nested loops on HP15C? I will post in my next response my version. Its not a challenge, just interest me, how it to do with another brain... :)

Csaba

Nested loops

*Message #9 Posted by **Tizedes Csaba** on 11 July 2003, 11:00 a.m.,*
in response to message #8 by Tizedes Csaba

Hi All!

I wrote this program about four years ago.

General method:

```
--------
LBL 0
1
STO I
--------
LBL 1
RCL RR2
STO 2
1
STO + I
--------
LBL 2
RCL RR3
STO 3
1
STO + I
--------
  .
  .
  .
--------
LBL n-1
RCL RRn
STO n
1
STO + I
--------
LBL n
########################
#                      #
# Loop's instructions  #
#                      #
########################
ISG (i)
GTO I
--------
LBL decrement
DSE I
GTO jump
RTN
--------
LBL jump
ISG (i)
GTO I
GTO decrement
--------
```

RR2, RR3, ..., RRn contains original value of loop counters (2nd, 3rd, ..., nth registers of calculator) Before running it must be set.

An example: Calculate how many 3*4*5:

```
LBL 1
RCL 5
STO 2
1
STO + I
LBL 2
RCL 6
STO 3
1
STO + I
LBL 3
1
```

```
STO + 0
ISG (i)
GTO I
LBL 8
DSE I
GTO 9
RCL 0
RTN
LBL 9
ISG (i)
GTO I
GTO 8
```

For running:

```
1.003 STO 1
1.004 STO 5
1.005 STO 6
1 STO I
GSB 1
```

I'll continue on sunday...! I'm running now!

Csaba

Re: Quiz !: Evaluating polynomials

*Message #10 Posted by **Fernando del Rey** on 11 July 2003, 12:20 p.m.,*
in response to message #1 by Valentin Albillo

I don't have a 15C and I'm not familiar with it, but here's a solution to the original problem on the 42S:

```
01 LBL "FB"
02 STO ST L
03 INDEX "MATA"
04 I-
05 RCLIJ
06 1
07 DIM "MATB"
08 INDEX "MATB"
09 LBL 00
10 STOEL
11 LASTX
12 x
13 I+
14 FC? 77
15 GTO 00
16 RCL "MATA"
17 RCL "MATB"
18 x
19 STO "MATC"
20 INDEX "MATC"
21 RCLEL
22 I+
23 RCLEL
24 /      (divide)
25 RTN
```

This one takes about 3 or 4 seconds for polinomials of degree 19.

I have another solution in 17 steps, but it is slower (6 to 7 seconds for the same case).

Regards to all!

My original solution

*Message #11 Posted by **Valentin Albillo** on 11 July 2003, 12:57 p.m.,*
in response to message #1 by Valentin Albillo

Hi all,

Thanks to all of you who posted your solutions and ideas on this 15C Quiz/Challenge. I've read all of them with utmost interest, you're quite a clever audience, indeed ! . My original solution for the HP-15C, which works for polynomials of degree 1 and upwards (a polynomial of degree 0 is a *constant*, and thus hardly needs to be evaluated for arbitrary x arguments), was as follows:

```
01   LBL A
02   STO I
03   RCL DIM A
04     1
05   DIM B
06   MATRIX 1
07 u STO B
08   LBL 0
09   RCL* I
10 u STO B
11   GTO 0
12   RCL MATRIX A
13   RCL MATRIX B
14   RESULT C
15     *
16 u RCL C
17   RCL/ C
18   RTN
```

and as you can see, Csaba arrived at a nearly identical solution, the main differences being:

- he omitted the *necessary* RESULT C. Csaba's solution does use matrix C for the result, but he forgot to add RESULT C, which is needed, as the default result matrix upon initial conditions (memory reset), is *matrix A*, unless otherwise changed.

- he ended the routine with uRCL C, RCL C, /, but my original uRCL C, RCL/ C, using *recall arithmetic*, saves one program step and runs slightly faster.

Apart from that and minor changes in the names of labels, etc, Csaba's routine is basically identical to my original, which reinforces the impression that the solution is very probably *unique* and can't be significantly shortened or altered.

A couple of comments on the solution:

- though this routine runs twice as fast as a direct approach evaluating the polynomials using Horner's rule, it actually performs *more* arithmetic operations, because you must construct the x-powers vector, which needs n extra multiplications. The speed is achieved because the HP-15C is optimized for numeric computations, but not for branching, step-decoding, etc, so the more time we can spend within its microcode program, the better. In this case, once the x-powers vector is created, all the work of actually evaluating both polynomials is done by the single "*" at step 15, thus saving so much time that it more than pays to create the vector in the first place.

- In view of the previous point, we would save even more time if we could avoid the powers loop. However, I've found no way to create all the powers non-iteratively, using some sequence of matrix operations, without external looping. It would be very interesting if some way to do it was discovered.

Thanks again to everyone who did participate, see you in a next challenge.

Best regards from V.

Edited: 11 July 2003, 1:09 p.m.

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HP 17Bii

*Message #1 Posted by **V** on 8 July 2003, 9:52 a.m.*

Wazup, where can i get info on the hp17bii? i mean stuff that the manual doesnt include, like programing trigs and stuff like that.

ty

Re: HP 17Bii

*Message #2 Posted by **W** on 8 July 2003, 10:05 a.m.,*
in response to message #1 by V

Such stuff is in the articles forum.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=222

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Anyone using HP 12C Platinum?

*Message #1 Posted by **eric** on 7 July 2003, 10:23 p.m.*

Hi every body

Anyone using the new HP Financial Calculator 12C platinum?

Are there any "bugs", I intend buy one? I 's OK?

Please give me some advices !!!

Thank alots

Re: Anyone using HP 12C Platinum?

*Message #2 Posted by **Jordi Hidalgo** on 9 July 2003, 1:05 p.m.,*
in response to message #1 by eric

Eric,

Let me know an address where I can send you the review I wrote for Datafile, where I describe the bugs found so far.

Jordi

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Looking for suggestion on calibration of a HP-3421A

*Message #1 Posted by **Renato** on 7 July 2003, 3:54 p.m.*

```
I got this nice HP-3421A. Both the SLA and Lithium
batteries were bad. After replacing them, the newborn
requests breastfeeding - oops - calibration.
Does anyone have experience with that ? Service manual
suggests using a 6 digit multimeter and a voltage
reference. As i do not have neither of those, what do you
suggest (appart from packing it and sending it to you as a
gift) ? This one will go to a good home (or hospital).
```

Re: Looking for suggestion on calibration of a HP-3421A

*Message #2 Posted by **Lawrence** on 7 July 2003, 7:50 p.m.,*
in response to message #1 by Renato

Renato, Agilent Technologies now handles the HP line of instruments. You can contact them at 1-800-403-0801. I had them check the calibration on my 3421A. The cost is $275 which includes shipping to and from Agilent. I received excellent service and documentation of the accuracy of my unit.

Please bear in mind that if the calibration is due to broken equipment (as opposed to loss of calibration memory due to bad batteries) Agilent may no longer have the obsolute parts.

Good luck.

Re: Looking for suggestion on calibration of a HP-3421A

*Message #3 Posted by **Renato** on 8 July 2003, 10:05 a.m.,*
in response to message #2 by Lawrence

```
Lawrence,
Thank you for your reply. $275 is reasonable for a
professional use unit. Mine is for a hobbist, and $275 would
be too much. Also, in this case, calibration is not a
burden, but part of the fun.
Thanks, anyway.It is good to know that Agilent is still
offering service to this old calculator related HP
instrument.
Renato
```

Re: Looking for suggestion on calibration of a HP-3421A

*Message #4 Posted by **James** on 7 July 2003, 9:01 p.m.,*
in response to message #1 by Renato

It depends on what level of accuracy you are after.

For starters, and if your needs are modest, for a few dollars you can use resistors to divide battery voltage to the voltages required for the reference. Depending on the batteries and resistors used, you might get down to a few percent accuracy.

For more accuracy, you will need access to a voltmeter of (a bit more than) your desired accuracy. You can

then use a potentiometer to set the reference voltage for calibration to the accuracy of the voltmeter. You can probably borrow or rent a voltmeter.

If you want the maximum possible accuracy, it may be best to have a calibration facility (eg. HP, but there may be someone cheaper that is close to you) do it for you.

(I haven't gone through the 3421A calibration procedure, so there may be something else required...)

Good luck!

Re: Looking for suggestion on calibration of a HP-3421A

*Message #5 Posted by **Renato** on 8 July 2003, 10:21 a.m.,*
in response to message #4 by James

```
James,
I took a quick look at 3421A Service manual. It seems that
three itens are required:
1. A HP-IL controller (Hp-85,HP-41) with proper software
2. A multi-scale voltage reference
3. A 6 digit multimeter


I'm doing this for fun. Part of the job is choosing the best
precision for a hobbist budget. Current candidates for
each required component are:
1. HP-41CV with 3421a control module
2. Battery in a temperature controlled situation (Luiz
suggestion). Another possibility is special designed
eletronics
3. Another HP-3421A (old calibration, unchecked)


Exchanging ideas and discussing possibilities is also part
of the fun.


Looking for reference labs around here is a good idea.


Thanks,
Renato
```

Re: Looking for suggestion on calibration of a HP-3421A

*Message #6 Posted by **Christoph Klug** on 9 July 2003, 2:42 a.m.,*
in response to message #5 by Renato

Dear Renato,

may be you find a low price kit for creating a voltage referece from your local electronic shop. You only need a precision reference voltage IC and some precision resistances.

For reference voltmeter you can take a second HP3421 or the HP3468 multimeter.

Actual I have tow HP3421 available, and one needs calibration - like your system :-)

Therefore your results are interesting for my own calibration procedure. Like you I will use HP41 plus DAC module...

Best wishes from Germany - Christoph Klug

Re: Looking for suggestion on calibration of a HP-3421A

*Message #7 Posted by **James** on 9 July 2003, 3:49 a.m.,*
in response to message #5 by Renato

1) HP-IL controller. Yes you need one (or HP-IB) to calibrate the 3421A. Of course you would need one to use the 3421A anyway, so this is not a great burden. However, you don't need the 3421A specific module. I suspect that any HP-IL interface module (41, 71, 75, 85) will be sufficient, along with the usual ability to send commands.

2) Voltage reference. Since the calibration can be done fairly quickly (I hope), the reference does not need good long or medium term stability. I suspect it does need to be clean DC (no AC ripple), so a battery is almost certainly the best choice for a hobbiest. Since the reference would normally be set/checked with the reference voltmeter (3) the accuracy and precision of the voltage reference is likely irrelevant, so long as it is stable over the course of a few minutes.

3) Reference Voltmeter. Since this is what the 3421A is calibrated against, it will be the limiting factor for the accuracy of the 3421A. A $50 3.5 digit DMM is likely good enough for a hobbiest application, but if a 6 digit meter is available, so much the better.

If no reference voltmeter is available, then we do have an interesting intellectual problem...

a) if relative-only measurements are all that is desired, then I think one could make do with a poor reference (eg. new alkaline batteries and 1% resistors). In this case your 3421A could tell the difference between X volts and X + 0.01 volts, but you wouldn't be sure if X was 0.900 or 1.100. Also, X would jump when the 3421A switched ranges. This would be confusing, and perhaps rather ugly.

b) Christoph's suggestion of using a precision reference IC is a good idea if absolute readings are required. This might give 0.1% calibration accuracy. However, I fear the task of building a reference voltage box around the IC is not practical for someone who does not have a voltmeter (due to the variety of voltages required, and the difficulty of maintaining the precision through to the output). Perhaps Christoph will build such a box to add to his product line... CK could be the new HP!

Other ideas?

I thought about something but I wonder if it works

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 11:01 a.m.,*
in response to message #7 by James

Hi, folks;

I had something in mind that I proposed to Renato through an e-mail. It would involve a voltage reference and I'll change it a bit in this post. Please, if there is any lack of reasoning, I'd be glad to know. I do not want this to be a pattern, I want to know if it works. I did not test the procedure, it's a first proposal. Analog-related guys (Norm? Ellis? Others?), support me, please!

Let's take a new, high-capacity fully charged NiCad or NiMH battery and make sure it is in a 0ºC environment, what can be granted by putting the battery inside an insulated plastic bag immersed in melting ice. With the use of a thermometer, the temperature inside the bag may be confirmed, and tracking it's voltage till it does not change for about half an hour will make sure it is stable. Under these circumstances, this battery is measured with the use of a precision instrument and reading value is written down. Then this same battery is sent to someone who wants to calibrate another instrument. The "receiver" will charge it again (let's consider days between sending and delivering) and measure it under the same circumstances: 0ºC (melting ice) environment, so the reading value is adjusted to match the one read with first precision instrument.

Three facts must be taken into account to avoid battery voltage drifting:

- atmospheric pressure; if the sender and receiver locations have considerable highness difference, then it must be checked if battery voltage will vary as well; I think three-digit precision instruments would not be affected, but I'm not sure if five- or six-digit instruments will not.
- recharging method; electronic "smart" chargers of the same type and brand would be strictly necessary in both places OR sending the recharging equipment with the battery so the receiver will charge it in the same way;
- maximum voltage drop after being recharged; I think the first charges will not cause maximum voltage to drop, but after many recharging cycles, battery voltage must be checked again in a precision instrument. If the battery has already been charged many times, then fully charging it, measuring under these circumstances and sending it for a one-shot calibration must be safe as for reference, but if it is recharged again will probably give a lower voltage in its terminals.

I'd like to be able to test these procedures at home. Even if the 3421A is not calibrated it will serve to confirm my proposal: fully charge a NiCad or NiMH, measure its voltage under these circumstances, wait for a few days to simulate mail postage (average in local mail is about two days, and long-distance posting usually goes for two weeks), fully charge it again and measure its voltage. In this case, if there is a difference when reading with the same 3421A unit, this is the difference that must be taken into account when sending the battery to someone else.

In my first proposal, I asked Renato to use a regular, fresh new alkaline battery if the mail time is small (two days), but I thought about a way to use rechargeable batteries and keep precicion, and I think the approaches I mention above may be of use. The 0ºC temperature reference is necessary to reduce the number of external "variables".

Any other ideas to increase precision?

Hope this is of any use.

Best regards.

Luiz (Brazil)

Edited: 9 July 2003, 11:07 a.m.

Re: I thought about something but I wonder if it works

*Message #9 Posted by **Dave Shaffer** on 9 July 2003, 11:43 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Why not combine Christoph's and Luiz's ideas:

Somebody build a little precision voltage circuit, based on "a precision reference voltage IC and some precision resistances." This could be (rechargable?) battery powered. WIth a little effort, the temperature coefficient of this unit could be determined. Then, it is mailed around to whoever needs the reference standard.

How accurate could such a unit be?

Re: I thought about something but I wonder if it works

*Message #10 Posted by **Ellis Easley** on 9 July 2003, 6:11 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

I don't know if NiCads have a repeatable output voltage. Just from watching them charge and discharge, their voltage seems to vary quite a bit (in a fairly narrow range, like 1.2 - 1.5V). There is a standard cell that includes mercury for one of the electrodes, I'm not sure what the other one is, the output voltage is about 1.08V I think. I regret forgetting to bid on one on Ebay a couple of years ago. It went for a pretty low bid, <$20 I think. Like most precision instruments, it was probably only as good as its last calibration. My first meter was a Heathkit VTVM I got in high school, it came with a "D" cell (for the ohms range) that also served as a calibration standard: the meter face had a hand-marked spot on it that I was to use to calibrate the meter to the cell on a certain voltage range, after the unit was assembled (and presumably, before the cell was used for ohms measurements).

I have found that very fresh, unused alkaline cells usually measure 1.580 volts, + or - maybe .006 volts. If you believe me and my meters, you should be able to use this information to achieve approximately 0.4% accuracy.

I have a Ballantine RMS voltmeter that measures down to 1 mV full scale. It is basically a high gain AC tube amplifier followed by a ladder circuit with a bunch of crystal diodes that convert AC voltage to an approximation of the RMS equivalent DC voltage, then that voltage is measured by a DC voltmeter. It includes a built-in calibrater that generates a precise AC voltage, analogous to an IC voltage reference. It uses the negative-resistance characteristic of an incandescent lamp to regulate a sample of the AC line voltage, not unlike the way the HP200A oscillator (and its descendants) use that characteristic to regulate the output amplitude.

3421a ranges

*Message #11 Posted by **Renato** on 9 July 2003, 8:07 p.m.,*
in response to message #5 by Renato

```
This is a very interesting discussion.
From 3421a specs, these are the measurement ranges:
DCV: 0.3V, 3V, 30V, 300V
ACV: 3V, 30V
2/4wire ohm: 300,3K,30K,300K,3M,30M


From 3421a Service manual
Recommended accuracy for Voltmeter: +/-.004%(30V,300V)m,+/-.005%(.3V,3V)
For DC Voltage standard: Short term stability: better than .0002%
For AC calibrator: Accuracy:.04%,stability +/-.02%
Resistance standard: +/-.0005% for 100R,1KR,+/-.001 for 10KR,100KR,.01% for 1MR,10MR


Goal is to get as close as possible to those figures, while keeping the hobbist
budget.
```

Re: Looking for suggestion on calibration of a HP-3421A

*Message #12 Posted by **James** on 10 July 2003, 4:35 a.m.,*
in response to message #11 by Renato

From the 3421A service manual, it seems the desired calibration inputs are:

0.3, 3, 30, and 300 VDC

3 VAC rms @ 100 Hz

300, 3K, 30K, 300K, 3M, and 30M Ohms, or 100, 1K, 10K, 100K, 1M, and 10M Ohms (it appears that either the 1x or 3x value from each decade can be used)

There is also temperature calibration using a thermistor.

Presumably the 0.3 and 3 VDC can be generated with batteries and a simple voltage divider (perhaps preset by someone with a high accuracy unit). Perhaps after calibrating these ranges, the 3421A itself can be used (via a 100x divider) to adjust a 30 / 300 VDC source made from rectifying and filtering the AC line (dangerous... use appropriate care, do not try this without supervision, etc.), which can then be used to calibrate the upper ranges.

Generating the 100 Hz AC signal might be easier if it were done as a square wave, but the voltage would need to be adjusted to compensate for the waveshape if the 3421A is not "true RMS". Or, perhaps we can discover if the frequency is not a significant factor, allowing 50/60 Hz to be used. However, the accuracy of the power line sinusoid may be a big problem in some areas/countries, so making a generator independent of the power line waveform seems a better choice. Regardless, it seems that something more than a battery and a handful of resistors is needed to do the AC calibration.

The resistance standards seem to be the easiest; DigiKey having 1% resistors (eg. 311-100HCT-ND) around $1 for 10 pieces of one value, with some 0.1% types available (eg. RR12P100BCT-ND) at $7 for 10 pieces of one value. So you might get 10 each of 100, 10K, and 1M; put them in series to make 1K, 100K, and 10M, and pay only $3 for 1%, or $20 for 0.1%.

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Want to Know Where HP is Heading?...

*Message #1 Posted by **Trent Moseley** on 7 July 2003, 1:42 p.m.*

Try these web sites:

www.hp.com/go/scrapbooking

www.hp.com/go/quilting

tm

Me too...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 7 July 2003, 2:45 p.m.,*
in response to message #1 by Trent Moseley

Hi, my friend;

I'd guess... What? To be honest, no idea!

Some may say: They're trying to survive!

And I'd say: Survive to what?

And they will say: Market!

And I'll say: And what are they doing to achieve this?

Others will say: They're being profitable!

and I'd say: Why?

Some may say: Because they're trying to survive!

Then, I'll rest.

I just tell you I'll not go that way, thank you!

I'd rather doing something I can tell may grandchildren I did... without being ashamed of.

But this is just me.

Best regards.

Luiz (Brazil)

Re: Want to Know Where HP is Heading?...

*Message #3 Posted by **Renato** on 7 July 2003, 3:17 p.m.,*
in response to message #1 by Trent Moseley

I think it is useless to bash HP, only because we like old
HP and old calculators.
It is like we are knocking on a house door, but the family
that used to live there has moved a long time ago - and the
new residents have the same family name.
These are not the people we want to talk to.
IMO, we should beg for Agilent to try to save the
calculator business.

See below:

Current HP mission statement:

> Quote:
>
> HP is a leading global provider of products, technologies, solutions and services to consumers and business. The company's offerings span IT infrastructure, personal computing and access devices, global services, and imaging and printing.

Old HP statement from a 60s magazine ad:

> Quote:
>
> Many people know us as an instrument manufacturer: we make more than 2,000 products for measurement, test and analysis. Others know us as a computer company: more than 10,000 own our programmable calculators and computers. We prefer to think that our business is to serve measurement, analysis and computation needs . . . in science, industry, medicine and education

Current Agilent statement at their web site:

> Quote:
>
> Agilent's pioneering spirit was kindled more than 60 years ago, when two engineers - Bill Hewlett and Dave Packard - invented the future in their garage. In 1999, Agilent was spun off from Hewlett-Packard Company, and we have continued to support the values so important to the two visionary founders. We have also continued to innovate in territory that matters, blazing trails in the fields that are shaping the modern world.
> While, physically, we have outgrown HP's garage, we continue to live the values handed down from Bill and Dave: uncompromising integrity; trust, respect and teamwork; and innovation that makes a difference.

Re: Daydream

*Message #4 Posted by **Paul Brogger** on 7 July 2003, 3:37 p.m.,*
in response to message #3 by Renato

I visited Agilent's web site recently, and caught myself thinking . . .

What if Agilent saw a need for a personal data collection, collation, reduction and communication device? It would be hand-held, robustly-built, expandable, connectible and configurable.

It would have a simple hook-up to a universal data collection and sharing interface -- perhaps a wireless connection or some sort of "interface loop" -- that would enable collection from various points and delivery to a workstation. It would include the mathematical functions necessary to analyze and reduce raw data and to configure it for delivery to computer-based presentation and storage devices.

It would be built take abuse in the field, and to last as long as the owner was likely to be able to put it to use.

It would be programmable, and have a simple, logical, easy-to-learn and -to-remember user interface, and would be supported by a full array of add-ons and peripherals that made it applicable to a number of uses.

Then I snapped back to reality and said to myself, "You've gotta be half nuts -- maybe fully nuts -- to even think of such a thing . . . "

Re: Daydream

*Message #5 Posted by **Ernie Malaga** on 7 July 2003, 4:57 p.m.,*
in response to message #4 by Paul Brogger

> Quote:
>
> It would be programmable, and have a simple, logical, easy-to-learn and -to-remember user interface, and would be supported by a full array of add-ons and peripherals that made it applicable to a number of uses.

Oh, you mean, the HP-41? 8^)

-Ernie

Re: Daydream

*Message #6 Posted by **Paul Brogger** on 7 July 2003, 5:02 p.m.,*
in response to message #5 by Ernie Malaga

Like I said, I'd have to be **half-nuts** to dream such a thing . . .

Re: Want to Know Where HP is Heading?...

*Message #7 Posted by **Paul Brogger** on 7 July 2003, 5:28 p.m.,*
in response to message #1 by Trent Moseley

I just saw an ad in Real Simple magazine suggesting the use of HP digital cameras and printers to make party masks . . .

Duhhhhh . . . Where do I send the check?

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I am designing a calculator

*Message #1 Posted by **Wilneed Heart** on 7 July 2003, 5:18 a.m.*

but only the box, the outside. I wonder if anyone has any suggestions for problems they have using a basic business type handheld calculators, that I might be able to try and solve. Cheers.

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Opening a Spice machine

*Message #1 Posted by **Randy Sloyer** on 6 July 2003, 9:02 p.m.*

Yes, I know I'm LCD kinda guy, but in a moment of weakness I agreed to help out with a spice machine. I have one missing it's battery contacts that is otherwise dead, so it's time to find out what's inside. I know this is not going to be pretty (shudder).

I've looked through the archives and cannot find anything on separating the lower case halves. I remember reading about a trick with dental floss but can't find the posting. While the new compressed format archives saves bandwidth, I haven't figured out how to search them easily.

Can anyone point me to the Rosetta stone of spice opening? Thanks all.

PS: Heh Norm, this might be your only chance to say "I told you so", or just "LED's rule" :^)

Re: Opening a Spice machine

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 6 July 2003, 10:43 p.m.,*
in response to message #1 by Randy Sloyer

Hello, Randy;

have a look at the images below. They are not in scale but will help you understand how do Spices are interlocked:

http://www.logeng.com.br/images/spice-interlock.gif http://www.logeng.com.br/images/spice_cut.gif

There are some techniques to open the case, and one of them involves using dental floss. As you may see, what you have to do is slightly and carefuly fasten both halves in the bottom while you pull the back half backwards, so it slides over the small plastic "tab" (is it correct?). The dental floss creates a "path" so the back half slides safely. I use a small plastic cut from new HP-blister case. There are plastic surfaces not thick enough to injure the plastic "tab".

Hope this helps.

Luiz (Brazil)

Re: Opening a Spice machine

*Message #3 Posted by **Karl Schneider** on 7 July 2003, 2:17 a.m.,*
in response to message #1 by Randy Sloyer

Randy --

The "dental floss technique" for opening Spice units

On of these days, I'll write an article, complete with my pictures and Luiz' illustrations (he's already assented.)

-- Karl

My pleasure!

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 7 July 2003, 11:27 p.m.,*
in response to message #3 by Karl Schneider

Hey, Karl;

as North-Americans say: anytime, anywhere. You and anyone else are granted to use the drawings. They are so specific that I cannot see another use for them.

I'll correct the drawings (just few "adjustments") but I'll keep the file type and size: they are somewhat small (4K and 34K) and I think this is an advantage.

I did not keep correct scale, because the interlock is, in fact, closer to the "edge", a bit more to the right in my drawings. I thought it would be easier to understand if I exagerated this distance a bit.

Thank you for your (and others, too) support.

Luiz (Brazil

Edited: 7 July 2003, 11:28 p.m.

re:"anytime, anywhere"

*Message #5 Posted by **Ellis Easley** on 9 July 2003, 6:23 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I'm not sure, but I think maybe "them are fightin' words"! (Kind of like "bring them (or was it "it"?) on!")

Re: re:"anytime, anywhere"

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 10 July 2003, 1:26 a.m.,*
in response to message #5 by Ellis Easley

Hi, Ellis;

you know what? I remember seeing these words in a soft situatuation, but now you made me remember that in other situations it was exactly like this: a call for fighting.

Karl, I hope you did not understand the wrong way... I was trying to let you know that you can use the drawings anytime you need, anywhere you want to.

Thank you, Ellis.

Luiz (Brazil)

Re: Opening a Spice machine -- Thanks!

*Message #7 Posted by **Paul Brogger** on 7 July 2003, 11:15 a.m.,*
in response to message #1 by Randy Sloyer

Like Randy, I remembered something vague concerning dental floss. When I got curious about my working HP-34c, I just wasn't curious *enough* to overcome my squeamish uncertainty about simply forcing things

apart.

The diagram and instructions will enable me to take a look.

Thanks, Luiz and Karl!

Re: Opening a Spice machine

*Message #8 Posted by **Jon** on 7 July 2003, 2:38 p.m.,*
in response to message #1 by Randy Sloyer

It can be done without deltal floss. Remove the screws under the battery cover. Then take one half with the left hand, the other one with the right one and pull firmly. Don´t care I have opened a lot of them and I have never broken anything.

Good luck

Re: Opening a Spice machine

*Message #9 Posted by **David Smith** on 7 July 2003, 4:16 p.m.,*
in response to message #8 by Jon

Yes, just pulling the case halfs apart can work and in some really stubborn cases is necessary. But there is a MUCH safer way to try first. Basically you remove the two top screws and lift the top half of the case up enough to clear the battery contacts. Then place your thumbs in the battery compartment and fingers along the logo strip on the top half of the calculator. Then you squeeze the machine so that the bottom half of the case is slid forward and the internal latch is released.

Spicy stuff

*Message #10 Posted by **Randy Sloyer** on 8 July 2003, 9:10 p.m.,*
in response to message #9 by David Smith

Well, it's open and it's not pretty. Thanks all. David's push/pull method worked fine. Now on to the ugliness of what embodies a Spice.

It is a 32E that is missing it's battery and contacts. No biggy, that's why there are bench power supplies. 3 volts applied shows no sign of life. About 0.5 ma off, 1.0 ma on. Definitely no LED activity here. It is a compression/solderless unit. It has been apart and ravaged before, as there are three ugly solid wires soldered from the battery connector onto the circuit board, bypassing or at least backing up the flex circuit. Everything there is in order, the wires go to the proper locations. The power switch board pads were trashed with extraneous solder balls for no apparent reason. That cleaned up reasonably well, at least now the switch is smooth.

The first thought since it has been apart is: Are the chips in the proper locations? The two 8 pins are at the top and bottom left positions with nothing in the middle location. The top chip is 1MA1-0209, bottom, 1MA304. The 40 pin is AMI 1820-2162. Correct so far?

The next question is: Should I solder them into place? The bottom carrier has some indentations where the chips are. Could the contact be that bad?

I've now got a pile of parts that once was a calculator. Putting it back together mechanically is easy. Doing that so the pieces will work as the engineers at HP intended back whenever it was they designed this monster is very questionable.

Anybody out there with the lumps, bumps, bruises and warts to help me improve my chances at getting this thing to work? It just makes me love the 41 all the more...

Re: Spicy stuff

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 12:42 a.m.,*
in response to message #10 by Randy Sloyer

Hey, Randy;

welcome to the Spice's world. (no music, please...)

I do not own an HP32E, but I see that the 8-pin IC's codes "look" strange; well, as David Smith called our attention many times, seeing these codes leads me to think that it's possible to find RAM-like codes in these 8-pin IC's and no ROM-like code. I placed all data I found (there is some missing data, but I'll find it and post it, too) in one single table (credits given)

ID#	"2"	CT	CPU ID #	1	2	3	OBS
31E	N	SL	1820-2105-B (7922YY)	----	----	1MA301	
31E	Y	S	31E 2438	00031	----	1MA15002	(1)
33E	Y	SL	1820-2105 (7822EX)	----	1MA10204	1MA10003	
34C	N	S	34C/B-2102 00034-69110	1LB902	1MA10014	1MA115	(1)
37E	Y	SL	1820-2122 (7819MO)	00031	no_label	1MA10008	(2)
38C	N	S	38C/B-2102 00038-69110	1LB903	1MA30006	----	(1)
38C	N	SL	1820-2162 (7944DY)	1LB903	1MA305	----	
38E	Y	SL	1820-2122-A (7850MC)	1MA107	1MA10013	1MA10005	
38E	Y	SL	1820-2122-A (7916CS)	1MA105	1MA113	1MA30003	
(Ellis posted these ones)							
34C	Y	SL	1820-2162 A (7906)	1LB5002	1MA1 14	1MA10015	S#1934A
34C	N	S	1820-2162 (8047)	1LB902	1MA1 14	1MA115	S#2051S
(Randy posted this)							
32E	?	SL	1820-2162	1MA10209	----	1MA304	

I see we're growing. Soon we'll have a considerable database that will help others to check their Spice's safely.

About the non-working condition: I had an HP31E that could not charge batteries. After removing the flex circuit completely and placing wires, it worked perfectly fine. Have you inspected or measured (continuity) the flex connections? If you have broken trail(s), it's more likely to happen what you described.

I have no HP32E, but the HP31E seems to have the power board. If you need, I can take some measurements, but let me tell you Ellis' post about the HP34C and its power supply is a must-read.

Success!

Luiz (Brazil)

Edited: 9 July 2003, 12:45 a.m.

you're doomed

*Message #12 Posted by **Norm** on 9 July 2003, 1:46 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

Randy you're doomed. The ESD alone is going to blow those chips away. I have written some views about dealing with these units ONLY with anti-ESD precautions. You'll almost certainly catch "2 disease" from the ESD, in my opinion.

I have an article posted about 34C, if you want to do research, you might want to read that over.

You see, I have tried soldering chips down..... and the observations about whether to try it are in the article.

To make SPICE units better, one thing I would definitely recommend is gentle trimming of certain plastic clips with an X-Acto knife, so that they release easier.

This includes the 6 clips that hold the calculator module down. And, it includes the various surfaces on that frightful full-width latch at the bottom edge of the calculator.

The X-acto knife can be used to advantage, for future disassemblies ..... of course, you have to know how much is enough. If you trim away too much then you wreck it.

There are actually 2 full-width locations, both on the bottom-shell of the calculator, that can be trimmed to advantage for future disassemblies of that lower latch.

Norm, did the "plastic" melt?

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 10:18 a.m.,*
in response to message #12 by Norm

Hi, Norm;

I remember I read in one of the first posts about Spices (yours?) about solder the IC's in a solderless unit. I want to know if you used conventional soldering iron and if the flex material (sort of plastic) melted when soldering the chips. Did you use any particular technique? There is an article about using soldering flux and microwave oven to produce regular and safe solder. Have you ever tried this?

Just curiosity.

Best regards.

Luiz (Brazil)

Re: How about "gluing" the chips on?

*Message #14 Posted by **Paul Brogger** on 9 July 2003, 10:48 a.m.,*
in response to message #12 by Norm

I don't have a solderless unit (yet), or I might be tempted to try this . . .

I've fixed a couple of TI's recently with conductive copper fluid from a Permatex "rear window defroster repair kit". The tiny bottle of liquid seems to be alcohol-based, is loaded with very fine copper filings, and dries almost instantly.

I suspect that, if the a chip could be held in position and the circuit not flexed or moved, a tiny drop of this fluid could be introduced separately into each lead/pad joint and surface tension/capillary action would spread it around. After drying the stuff should help insure more reliable electrical bonds.

Buuuut . . . I haven't tried it in this application, so it (or some other conductive ink/glue/paint) might be worth considering, but I've no experience to back up the notion.

Conductive ink???

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 9 July 2003, 11:06 a.m.,*
in response to message #14 by Paul Brogger

Hey, guys;

based on Paul's idea, why not to "paint" the flex tags and the IC's terminals with conductive ink? That would be safe and would allow future replacements and maintenance, what I take as the best advantage for solderless units.

Best regards.

Luiz (Brazil)

answers to Paul and Luiz

*Message #16 Posted by **Norm** on 9 July 2003, 2:51 p.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

Hello,

Yes, the article I posted described that there is a tendency to see melting of the plastic underlay. In fact, it was still quite useable, but nevertheless there was some melting, which was worrisome.

Yes, it was a precision temperature-controlled iron, digital readout, using standard solder, set as low as is fair and reasonable. One could get into specialty low-melt point Indium solders, BUT, those stick lousy so you are back to where you started. You're triple-doomed if you don't have a precision controlled iron.

THE CONCLUSION is that the Luiz "clean it up and oil it and put it back together" is right on-target.

No, I dont think U want to use conductive epoxies. If they get a hairline crack, you are in trouble once again. You have no assurance that they will bond mechanically.

Back to the "keep it solderless" then what oil? A little unsure there, some kind of "tv tuner cleaner", etc. Just enough oily stuff to keep the oxygen from coming in and creating fresh corrosion.

I say keep it like the manufacturer intended. This is true for many situations, including car repairs. The more U modify, the more trouble U got. If you keep it solderless, U have the option of swapping chips later if there is a problem. Solder it, and its all over. Just clean it up enough so that it works OK. The article I posted says that the little 8-pin chips are seen to form a bluish oxide, which may contribute to not making a connection. Probably the oil would reduce the tendency to oxidize.

I use a "Leica Zoom 2000" microscope, a very low power (x7 to x30), yet exceptionally convenient inspection microscope. Just set it to 7 power. Flip the chip upside down and put it on the stage, then U start working on those chips to make the blue oxide go away, and see fresh metal.

What do you use? I dunno, maybe the finest wet/dry sandpaper U can buy at Home Repot.

In all of this, you are at grave risk of wrecking the chips w/o the MAXIMUM

possible ESD protection. I would suggest some of those "chip clamps" from the early 1980's, that had a clip every 0.1" and you clamped it onto the chip. Short all the pins together on the clip. Now you've shorted out every pin on the chip, and can work on its oxidation problems quite freely.

Remember that if all pins are shorted together, ESD damage is impossible.

That STILL leaves you with 100 other issues about dealing with ESD, at other moments in time. But if you want to work on each pin of each IC, try those clamps, shorted out.

Put it back together at the end, avoid ESD trouble to avoid "2 disease" and it should be fine, even as a solderless unit. That's what I learned by trying to solder one.

time for spice news; rubber keycushion

*Message #17 Posted by **Norm** on 9 July 2003, 2:59 p.m.,*
in response to message #16 by Norm

Greetings, when time permits, I have continued to try to solve technicalities regarding spice calculators.

The key cushion pad between the keys and the domes, I am still trying to locate a good substitute. Thanks for those who supplied samples. I am now dealing with a die-cutting shop that is making reasonable effort to match the material.

Firstly, its NOT "Nitrile 60 rubber" because that stuff stinks too much. U dont want your calculator to stink like a tire shop do you ?

And, its NOT the pool liner at Home Depot. That's made of PVC and has no dry lubricants.

The dry lubricants appear to be important. Under the microscope, the white powder is STRONGLY embedded into the black silicone (I'll say silicone until I learn what it really is). Whereas rubber products from a gasket shop has a superficial talcum powder that rubs away easily.

I think the dry lubricant is important . We are still trying to match the material. If anybody KNOWS a supplier for the material, now is the time to talk.

The genuine HP item is about 0.011" thick . I think it could go thicker... maybe 0.015" or even 0.020" thick.

Where I tend to be going, is for a few hundred bucks, they will make a tool and DIE CUT the material and supply me with a boxful. Folks, dont forget the industries where this stuff really comes from (rubber feet folks, paying attention?) you get the material and have it die cut. They want a few hundred bucks to prepare a tool (a bunch of razor blades) then they stamp away... So I'd say that you may spend more time foolin' around with scissors than just getting the real thing (and it wont look homemade either). Then sell the extras to people who need the same item.

After all, one good HP calculator costs a few hundred bucks anyway, why not get the genuinely tooled parts you really need, at least for things as simple as die-cut rubber.

- Norm

time for spice news; low battery

*Message #18 Posted by **Norm** on 9 July 2003, 3:06 p.m.,*
in response to message #17 by Norm

Greetings, We've got a lot of issues with the spice units, including "2 disease", what batteries to stuff in, how to service a solderless unit, how to open them, how to lube the slide switches, and maybe how to trim the plastic clips so they dismantle a little easier.

HOW ABOUT THE low battery indicator?? When I use "AA" Alkaline, whats noticeable is that the indicator seems to light up long before the battery is near the end-of-the-road.

Anybody else notice this? It gets brighter as you illuminate more segments of the display.

I put the batteries on the scope, I saw there is 0.1 volt of noise on the batteries, pretty consistently. It's the chopped loads from the display multiplexer. That right there is enough to perhaps make the low battery indicator less reliable (adds 0.1V of slop).

Where I would go here..... I think the low battery indicator may have a threshold that is TOO HIGH A VOLTAGE and furthermore may be too RAPIDLY SENSITIVE. It should be filtered to turn on only to the AVERAGE BATTERY VOLTAGE, and maybe have a lower threshold. Its enough screwed up that I dont feel happy with it.

ANYBODY GOT A SCHEMATIC? Not a marginal one, but a thorough one... say for an HP-34C. With an exact schematic, I could see what's the deal with the low-batt indicator and clean up the circuit a little (maybe add a cap, or change a resistor).

FACT: If you add 1000 uF across the battery, the low battery light is less likely to illuminate. This means the current spikes are tending to draw down the battery on a spiked microsecond basis, and triggering the low-batt indicator.

- Norm

Re: time for spice news; low battery

*Message #19 Posted by **RR** on 9 July 2003, 4:00 p.m.,*
in response to message #18 by Norm

Well, the low battery indicator was designed to warn you about when a rechargable would fail, not an alkaline. Rechargables of that era would hit the lower voltage level and then take a steep nose dive.

Many people use rechargables for their Hp48's and complain about this problem. What you are seeing is the low charge lite designed for a rechargable, when your alkaline still has as much electrical capacity of the older rechargables with a full charge. Your redesign would probably

work for your alkalines, but ruin its use for rechargables if you ever wanted to return to them.

Re: time for spice news; low battery

*Message #20 Posted by **David Smith** on 10 July 2003, 4:20 p.m.,*
in response to message #19 by RR

On a lot of Spice machines the low battery light will flicker a bit when modern batteries are installed and fully charged. I think the duty cycle of the PWM is shortened to the point where it fools the circuit into thinking the battery is low.

yeah but with a schematic,

*Message #21 Posted by **Norm** on 10 July 2003, 5:30 p.m.,*
in response to message #20 by David Smith

yeah but with a schematic, maybe I could add a filter cap or change a resistor and then it would work fine. That's why I'm interested to look into this further, as time permits.

Problems like this should be fairly trivial to correct..... its really kind of embarassing to HP that they did not accomodate disposable Alkaline batteries in the spice units from day #1 ..... since they were available at the time ..... and since they last so much longer than a charged-up NiCad.

HP34C schematic

*Message #22 Posted by **Ellis Easley** on 9 July 2003, 6:45 p.m.,*
in response to message #18 by Norm

I know it isn't graphical, but the netlist I posted includes every net that contains more than one device pin. All unlisted device pins are no-connects.

Re: time for spice news; rubber keycushion

*Message #23 Posted by **David Smith** on 9 July 2003, 4:09 p.m.,*
in response to message #17 by Norm

I have a couple of machines with a black rubber sheet that does NOT have any white powder. They are slightly sticky and several keycaps lift with up with it. But, it works just fine... mayby even better than the powdered ones since the keys tend to not float around as much. Probably no need for a special powdered liner.

I also found a third type of HP liner material. It is a lot like the yellow foam rubber material but is green and has a slightly higher density.

Re: time for spice news; rubber keycushion

*Message #24 Posted by **David Smith** on 11 July 2003, 4:08 p.m.,*
in response to message #17 by Norm

Based upon the number of machines out there that would need a new sheet, it will probably be much more cost effective to have them laser cut. Lower set up charges and the ability to do smaller production batches.

Re: Spicy stuff

*Message #25 Posted by **Jon** on 9 July 2003, 5:55 p.m.,*
in response to message #10 by Randy Sloyer

Randy:

Some time ago I saw a 37E that had been serviced and didn´t work. The CPU was rotated 180º. After placing in it´s position it worked. May be is worth you try it. I don´t think you will damage the CPU because it didn´t happen with that calculator.

Good luck

Jon

Re: Spicy stuff

*Message #26 Posted by **Randy Sloyer** on 9 July 2003, 10:41 p.m.,*
in response to message #25 by Jon

Hi Jon,

Already looked at that. All pin 1's are toward the top of the unit. I was curious about the empty hole in the middle of the 8 pin devices - I didn't know if the previous fixer forgot a part. Wouldn't be the first time. I later noted that it probably never had a part in that position as the pads where free of indentations unlike the positions that held parts. I'm sorta stuck. Everything looks fine, no oxidation or creepy crud anywhere. Not sure what to try next.

Re: Spicy stuff

*Message #27 Posted by **Ellis Easley** on 11 July 2003, 8:09 p.m.,*
in response to message #26 by Randy Sloyer

Even though there is no corrosion evident, have you cleaned the mating surfaces? Some people say to clean with alcohol, and this might make sense to remove invisible residue from plastic outgassing, etc. but I don't know if it will remove invisible metal oxides that could be causing high resistances. Personally, I like to use the "Pink Pearl" pencil eraser that has been recommended for a long time to clean the gold plated contact fingers of plug-in option boards. When I reworked my unsoldered 34C recently, I used an eraser to clean all the pads of the flexible PCB, the pads on the power supply flex circuit where it mates with the main flex PCB, the mating surfaces of the LED display module pins and the bottoms of the IC pins that contact the main flexible PCB. Then I used a rubber bulb (I'm too cheap to buy canned air!) to blow air to sweep away the eraser crumbs. Also I used the eraser to clean the slide-switch contact surfaces on the flexible PCB and the the little moving metal contacts, too, before lubricating them with Radio Shack Lube Gel. The switch contacts looked like they had never been lubricated - same on my soldered 34C - and on the unsoldered one there was some serious battery corrosion on the slide switches, which I cleaned off first. Basically, I just used a sharp probe to scrape the corrosion down to something shiny, then used the eraser to polish it up.

Re: Spicy stuff

*Message #28 Posted by **David Smith** on 12 July 2003, 4:55 p.m.,*
in response to message #27 by Ellis Easley

Occasionally Fry's has two can packs of "air" for $0.99! Usually limit one pack. Pay cash, take to car, repeat until x<=0.

Re: Spicy stuff

*Message #29 Posted by **David Smith** on 12 July 2003, 4:57 p.m.,*
in response to message #28 by David Smith

Forgot to mention while at Fry's pick up a Caig "Gold Pen". Like a magic marker filled with anti-corrosion stuff. Kinda pricey, but seems to work well on Spice connections, classic keyboards, etc. They also make something called Deoxit pens. Probably filled with the same stuff, but it is red and costs a bit less.

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The manual of the Aurora FN1000 (again)

*Message #1 Posted by **jose goncalves (brasil)** on 6 July 2003, 8:34 p.m.*

I've been examining the Aurora FN1000 that is sold as a replacement for the HP12C. Here are some of my findings: a) The manual is a 224 pages booklet full of instructions and examples. Sure it does ! It's a shameless transcription of the Portuguese version of the HP12C manual ! Names and amounts in the exemples have been changed and some exercises had their statements simplified. But it's all there ! It even has a copyright notice favoring the Brazilian distributor ! Copyright of the copy ! Amazing. b) The graphic presentation of the manual is low quality and the Portuguese version displays some language errors. There is a small, 30 pages complement that has the errata for the main manual. c) Now for the main point. Programming instructions were adapted for the keyboard layout of the FN1000. It's to say that the firmware had to be also adapted ! Everything else in the FN1000 is equivalent to what we find in the 12C: number of program lines, number of storage registers, number of keys etc. But the key addresses were changed to comply with the keyboard layout.

Jose

Re: The manual of the Aurora FN1000 (again)

*Message #2 Posted by **Luc** on 6 July 2003, 9:15 p.m.,*
in response to message #1 by jose goncalves (brasil)

Do you know which site I can download the softcopy manual of the Aurora FN1000.

Thank you.

Re: The manual of the Aurora FN1000 (again)

*Message #3 Posted by **jose goncalves (brasil)** on 7 July 2003, 10:40 a.m.,*
in response to message #2 by Luc

No, I don´t know the site from where to down load the manual for the FN1000. I´ve been studying the paper version of it. I looks like if it was composed in a typewriter, because they tried to draw boxes for the keys around the letters and the result is poor.

Since the manual I saw was in Portuguese and had a copyrught notice for a Brazilian company, I would like to know what kind of manual is offered with the FN1000 that is sold in other countries.

If you know, please let me know.

Jose

Re: The manual of the Aurora FN1000 (again)

*Message #4 Posted by **Ellis Easley** on 9 July 2003, 9:16 p.m.,*
in response to message #1 by jose goncalves (brasil)

Can you account for the display in the photo that Joerg posted a link for:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=37597

```
"54-4333 65"
```

On a 12C this means "line 54: GTO line 65"

What does it mean on the FN1000? Or could the photo be from a pre-production unit, before they changed the keycodes?

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Meeting II

*Message #1 Posted by **Matthias** on 6 July 2003, 8:50 a.m.*

Hello my dear friends... Now it's one week ago when I posted you wish to organize a meeting here in Basel, Switzerland... Many of you were enthousiastic about that.. Some of you gave possible dates... So let's do a second turn...

My holidays last till 8/10/03, so I propose you the following dates:

16/17 august 23/24 august 30/31 august 6/7 september 13/14 september 20/21 september

I do not know, if saturday or sunday is better for you, so I please you to tell me.. Please post all possible dates directly here in the forum and I will coordinate it...

Wish you a nice summer ...

Re: Meeting II

*Message #2 Posted by **Andreas Stockburger** on 6 July 2003, 10:34 a.m.,*
in response to message #1 by Matthias

Hi,

I would prefer the following dates:

30/31 august 6/7 september 13/14 september 20/21 september

Best regards

Andreas

Re: Meeting II

*Message #3 Posted by **thibaut.be** on 6 July 2003, 11:56 a.m.,*
in response to message #1 by Matthias

September is fine for me (I'm on holiday in August)

uly would also be fine, even if a bit short notice.

Would you organize some side activities ?

Re: Meeting II

*Message #4 Posted by **Meindert Kuipers** on 6 July 2003, 2:21 p.m.,*
in response to message #1 by Matthias

Last weekend in August or last weekend in September. If we do the last weekend in September we may be

able to exchange news from the conference in the US (if any of us is going there).

Meindert

Re: Meeting II

*Message #5 Posted by **Achim Bürger** on 8 July 2003, 2:19 p.m.,*
in response to message #1 by Matthias

I'm delighted of this idea and prefer one of the dates in august. Would would be the topics of the meeting? E.g. repair and restauration issues, trading, software exchange? I'm personally mainly interested in the 98xx series.

Achim

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Does anybody have information on a 30 series power supply?

*Message #1 Posted by **Harry** on 6 July 2003, 8:02 a.m.*

I recently bought a HP 37E. It has lots of corrusion from a leaky battery inside. I cleaned it all up, but it still does nothing. The "power supply" (don't know what you would call it, the part inside the calculator) does not seam to work at all. Now I am am wondering how to fix it. Does anybody have a shematic of it or at least specifications, like what output voltage at wich pin? I would also need information on the LED display. Do they have common Anode? And wich pin is connected to wich part of the display.

Thanks a lot, Harry from Germany, sorry for my bad english, i need some more practice :)

Re: Does anybody have information on a 30 series power supply?

*Message #2 Posted by **Emmanuel, France** on 6 July 2003, 8:09 a.m.,*
in response to message #1 by Harry

```
Instead of the HP battery pack, you can use two 1.5V
Alkaline batteries. It works.
Yours.
```

Thanks, but that was not my question...

*Message #3 Posted by **Harry** on 6 July 2003, 8:39 a.m.,*
in response to message #2 by Emmanuel, France

i was talking about that electronic cirucuit inside the calculator. It generates diffrent voltages out of the 3V battery voltage.

Haryy, Germany

Re: Thanks, but that was not my question...

*Message #4 Posted by **Emmanuel, France** on 6 July 2003, 9:27 a.m.,*
in response to message #3 by Harry

```
Please accept my apologies.
Read your message too quickly.
However it's an extra solution.
I also sometimes use two 1.28V rechargeable batteries that an external standard
recharge.
Good luck !
```

Re: Does anybody have information on a 30 series power supply?

*Message #5 Posted by **Jon** on 6 July 2003, 11:33 a.m.,*
in response to message #1 by Harry

Hi Harry

That calculator doesn´t work without batteries. If you plug the charger be sure you have rechargeable batteries

inside or you could damage it.

These calculators always fail because of broken flex connector. I have found just once one spice non working after repairing this connector. I replaced all the capacitors in the AC/DC circuit and it worked. First of all try to replace the flex connector for wires. And test it with alcaline cells. Take care with the poarity. The contact closest to the top of the calculator is "minus". You have to apply 2.4-3V in the contacts (two alcaline AA batteries work fine as Emmanuel said)

Good luck

Jon

Re: Does anybody have information on a 30 series power supply?

*Message #6 Posted by **Harry** on 6 July 2003, 1:19 p.m.,*
in response to message #5 by Jon

I already did replace that connector with wires. All capacitors seam to be fine. I might have had the batteries in the wrong way round though (this is my first spice), what kind of damage would that do? I can see one bridge that has been cut on the circuit board, i am not sure if it came from HP like that or if somebody else did that. To me it looks like it bridges the "On/Off" switch to test the circuit at the factory. I am quite sure the problem the calculator has is that little power-suply-circuit. I think i will test the transistors next. But i can't read anything on them, so i would not know what to replace them with.

Thanks, Harry

Re: Does anybody have information on a 30 series power supply?

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 6 July 2003, 2:33 p.m.,*
in response to message #6 by Harry

Hi, harry;

for as long as I remember, this is the only jumper available in the power board. Compare it to the image below:

http://www.logeng.com.br/images/comma_jumper.jpg

Believe me: this jumper allows you to select if you want comma or dot as radix mark. The relation is:

```
Jumper closed - dot for radix mark
Jumper opened - comma for radix mark
```

In your case, you'll have to use a small wire and connect both terminals if you want to keep north-american number representation. If you check for the serial number, your calculator will have a country ID letter in its fifth position, and the origin COUNTRY is usualy written right below it.

Let us know when you have success repairing your unit.

Luiz (Brazil)

Edited: 6 July 2003, 2:40 p.m.

Thats the jumper i was talking about!

*Message #8 Posted by **Harry** on 6 July 2003, 3:34 p.m.,*

in response to message #7 by Vieira, Luiz C. (Brazil)

Thanks for that interesting information. And for the very good pictures. With the help of the link to the older post I found out that my power-supply is definatly not working as it should. So i will try and find out whats wrong with it.

Regards, Harry

I second Jon's advice

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 6 July 2003, 1:08 p.m.,*
in response to message #1 by Harry

Hi, Harry;

I'm adding an image with a partial view of an HP31 with wires replacing the flex circuit. You can see the points I used to solder the three wires that go to the battery/AC connections assy.

http://www.logeng.com.br/images/repair_.jpg

I did not take any measures in this board, but Ellis Easley made a complete description of what he found in this post, along with some other interesting reports. And be aware of the fact that continuous memory Spices (HP33C, 34C and 38C) have a power board that's different of the ones found in regular units (HP31E, 32E, 33E, 37E and 38E; there is no HP34E).

If you need further advice, let us know.

Luiz (Brazil)

Edited: 6 July 2003, 1:10 p.m.

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To those who believe that I am a crook

*Message #1 Posted by **Emmanuel, France** on 6 July 2003, 5:38 a.m.*

```
My name is COMPES, Emmanuel COMPES
The previous months I had a lot of problems (too
many!) with La Poste or another service (at Evreux
or elsewhere?).
I'm actually solving them.
Some of my sendings were found back without any mention
or explanation, some were certainly lost, some were opened
and their contents stolen and some reached correctly their
destination.
To those who believe that I am a crook, please be patient.
Thanks.
```

Re: To those who believe that I am a crook

*Message #2 Posted by **Jon** on 6 July 2003, 5:47 a.m.,*
in response to message #1 by Emmanuel, France

Emmanuel:

I know you are not a crook. I have had problems with "la poste" in other transactions. I hope we will make bussiness in the future again

Cheers

Jon

Re: To those who believe that I am a crook

*Message #3 Posted by **Namir Shammas** on 6 July 2003, 7:16 a.m.,*
in response to message #1 by Emmanuel, France

Hello,

I have bought several calculators from Emmanuel. The La Post took its sweet time to ship them, but they made it here, except for one machine (Emmuanuel is asking La Poste for a refund). I also experienced similar delays in shipping from a German eBay seller who sold me TI calculators. I did receive all these TI calculators eventually. Let me assure everyone that Emmanual is not a crook. He is a collector and a hobbiest juts like most of us. I know France well enough (have lived in Paris for a year and visited many times over 40 years) that their postal system is slow and that delays may occur due to custom inspections that seem to take their sweet time.

Re: To those who believe that I am a crook

*Message #4 Posted by **Thibaut.be** on 6 July 2003, 12:03 p.m.,*
in response to message #3 by Namir Shammas

Emmanuel, like *everybody* on this forum, is an asset to our community and a fine guy. I traded with hime some calcs, as a buyer and as a seller without any problem excpted some reasonnable delay.

It is true that recently parcels seem to take more time to reach their destination. I also experienced this as a buyer and as a seller.

It is also true that the opening hours of european post offices do not necessarily match our working hours and that sometimes a parcel remains 1 or 2 weeks in the car boot before being shipped.

More and more the solution seem to be dhl or ups with tracking systems but they are far more expensive : the costs often beats the calc's purchase price.

Maybe some guy who often flies from and to the US could act as a postal service...

Psssssstttt!

*Message #5 Posted by **Richard Nixon** on 6 July 2003, 1:59 p.m.,*
in response to message #4 by Thibaut.be

Hey Emmanual, careful with that language, once you tell them you aren't a crook, everybody says that you are !!

Richard Nixon was one of our best presidents

*Message #6 Posted by **Mike** on 6 July 2003, 2:01 p.m.,*
in response to message #5 by Richard Nixon

Crook notwithstanding. I'd vote for him again, in a NY minute, were he still alive and running again for president.

I'm not running again

*Message #7 Posted by **Richard Nixon** on 7 July 2003, 4:05 a.m.,*
in response to message #6 by Mike

I'm not running again unless Air Force One agrees
to bring back my trustworthy 707.

But I think they can take care of that. If elected,
I will reinstate the draft, 45 rpm jukeboxes, and
25" color TV consoles sold at Sears Roebuck.

vote for me instead.

*Message #8 Posted by **George McGovern** on 7 July 2003, 4:08 a.m.,*
in response to message #7 by Richard Nixon

dont vote for Nixon, vote for me! That's right, George McGovern. I'll give you a democratic party you can be proud of.

I wouldn't vote for a Democrat

*Message #9 Posted by **Mike** on 7 July 2003, 10:41 a.m.,*
in response to message #8 by George McGovern

if you have me every HP 9100 on earth. http://www.msdsite.com/images/mad.gif

Re: I'm not running again

*Message #10 Posted by **Euclid** on 8 July 2003, 12:57 a.m.,*
in response to message #7 by Richard Nixon

 But I think they can take care of that. If elected, I will reinstate the draft, 45 rpm jukeboxes, and 25" color TV consoles sold at Sears Roebuck.

How about reinstating HP-41's ?

Euclid :) www.livindsoftware.net

I know Emmanuel

*Message #11 Posted by **Mike** on 6 July 2003, 12:46 p.m.,*
in response to message #1 by Emmanuel, France

and I can tell you he is no crook. If there is any problem, it is La Poste.

Packages to and from France take longer than just about any other country.

I once sent something to Emmanuel on Mar 16th and it took until April 22nd by Airmail.

Be patient.

Re: I know Emmanuel

*Message #12 Posted by **David Smith** on 6 July 2003, 4:40 p.m.,*
in response to message #11 by Mike

And the German post office is just as bad. A airmail letter posted in Koln 14 May just reached me in the US on 3 July. Say what you like about the USPS but they are an order of magnitude better than anything Europe has to offer. And two orders of magnitude better than the rest of the world.

Re: I know Emmanuel

*Message #13 Posted by **Les Bell [Sydney]** on 6 July 2003, 8:27 p.m.,*
in response to message #12 by David Smith

Cough
Cough

Best,

--- Les [http://www.lesbell.com.au]

Re: I know Emmanuel

*Message #14 Posted by **David Smith** on 8 July 2003, 5:52 p.m.,*
in response to message #13 by Les Bell [Sydney]

I could tell you about a couple of my down under mail adventures but the details are too gory for mortal men. But I have also managed to exchange packages with AU in three days...

I actually have that beat

*Message #15 Posted by **Mike** on 6 July 2003, 9:41 p.m.,*

in response to message #12 by David Smith

I sent a package to Spain on Dec 8th, 2002 and it arrived on May 8th, 2003. Ask Fernando del Rey about that one http://www.msdsite.com/images/smile.gif

5 Months in route to Spain.

Edited: 6 July 2003, 9:44 p.m.

Re: I actually have that beat

*Message #16 Posted by **Valentin Albillo** on 7 July 2003, 6:57 a.m.,*
in response to message #15 by Mike

Mike posted:

" sent a package to Spain on Dec 8th, 2002 and it arrived on May 8th, 2003. Ask Fernando del Rey about that one. 5 Months in route to Spain."

Yes, he told me. The problem was that Mike sent the item *insured*, and because of this seemingly logical procedure, instead of following normal mail treatment and getting duly delivered to Fernando's home is 4-5 days at most, it was sent to some hitherto-unknown company in Barcelona (500 miles apart from Fernando's hometown, Madrid), which seems to be the one in charge of delivering insured packages, and there it stood for a number of months (they have a lot of "work", it seems), till they were "so kind" as to let Fernando know that they had a package for him. Which is more, Fernando had to pay yet another fairly unreasonable fee ($20 or so), in addition to shipping costs already paid to Mike, just to get it delivered from Barcelona (Spain) to his home in Madrid (Spain) !

Afterwards, I suffered the same fate. Some eBay seller sent me an item I had won, and did the same thing, he sent it insured. As you can imagine, it was also delivered to that dreaded company's address in Barcelona, 500 miles from my home, I had to pay $25 extra, etc, etc, etc.

My advice: As the risks of sending items without insurance from the US are minimal (I've never lost a single package out of 100+), *never* ever sent anything insured to Spain, unless you want the buyer to wait a number of months and pay $20-30 for the privilege. I don't know if this happens in every case, but two out of two is enough for me.

Best regards from V.

Edited: 7 July 2003, 7:06 a.m.

Re: I actually have that beat

*Message #17 Posted by **Fernando del Rey** on 7 July 2003, 9:30 a.m.,*
in response to message #15 by Mike

The 5 months en route to Spain is absolutely true!

I don't know if the delay was due to the package being insured, as Valentin suggests, or was rather caused by a general state of turmoil due to the war in Iraq. I suspect the latter rather than the former. I've had a recent package sent by USPS arrive in a question of days.

Unlike Valentin in a similar situation, at least in my case I did not have to make any payment for the company in Barcelona to have my package delivered.

I can only suggest to be patient if you are in a similar situation.

Re: I actually have that beat

*Message #18 Posted by **Jordi Hidalgo** on 8 July 2003, 2:21 p.m.,*
in response to message #17 by Fernando del Rey

I haven't had any problems with insured items from the US (the latest one being a mint-in-box 15C with the leather pouch and the Advanced Functions handbook). In fact, I find it unwise to send valuable items without insurance.

Was Cronopost, perhaps, the Barcelona company? The delay might be due to a failed delivery attempt. They once told me that if the package cannot be delivered at the first or second attempt, it is the receiver that has to go and pick up the item!

By the way, Fernando, what happened to the Spanish chapter of PPC? Any chance to be active again?

Regards,

Jordi Hidalgo
HPCC #1046

Edited: 9 July 2003, 11:10 a.m.

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Battery terminals on the HP-35?

*Message #1 Posted by **Karl Schneider** on 6 July 2003, 4:49 a.m.*

"Classic" afficionados --

I have temporary custody of an heirloom HP-35 from 1971 that is not for sale (no, it's not a "red dot" moedel). It has no battery pack or charger, but I am aware that it uses 3x 1.2V cells in series. I also have a copy of an article regarding the fabrication of battery packs for these units.

Looking at the opened battery compartment from the underside of the calc, which terminal is "+"? From a diagram in the article, it seems that the terminal nearer the informational backplate is the "+" terminal. (This would be consistent with the Spice-series units.)

Thanks!

I don't have my Calculator here, but a battery pack....

*Message #2 Posted by **Harry** on 6 July 2003, 10:28 a.m.,*
in response to message #1 by Karl Schneider

So i don't know wich way it is inserted into the Calculator. But i hop this will help you: the Contacts are not centered. If i place it contacts up on the desk and the contacts are more to the left, then its the top one wich is + .

regards, Harry

I just looked at a picture of an HP45, and..

*Message #3 Posted by **Harry** on 6 July 2003, 12:49 p.m.,*
in response to message #1 by Karl Schneider

figured out that you are right. It is the contact closer to the lable (and to the centre of the calculator) wich is connected to +

Regards, Harry

Re: Battery terminals on the HP-35?

*Message #4 Posted by **David Smith** on 6 July 2003, 4:42 p.m.,*
in response to message #1 by Karl Schneider

If you have an ohm meter, you can check which battery contact is ground (negative). It is connected to the middle of the three pins in the charger plug.

Re: Battery terminals on the HP-35?

*Message #5 Posted by **Karl Schneider** on 7 July 2003, 2:07 a.m.,*

in response to message #4 by David Smith

Harry and David --

Thanks for the help. In fact, Figure 1 of the (still-available) article I mentioned Making New Battery Packs for the HP-35 Calculator shows the connections between the calculator terminals for the battery, adaptor plug, and the internal circuitry.

It seems as though either the calculator power switch is bad, or there is a break in the circuitry. All the resistance tests are normal, except that I get "open circuit" between the battery terminals and between the center- and right adaptor terminals with the power switch closed.

It also seems that six screws must be removed in order to take the back off; the middle two are under the thick foil on which the instructions are printed. I would rather not remove the foil, without a replacement available.

Best regards,

-- Karl

Re: Battery terminals on the HP-35?

*Message #6 Posted by **Dave Shaffer** on 7 July 2003, 1:15 p.m.,*
in response to message #5 by Karl Schneider

Karl,

Does your HP35 not turn on, even with good batteries, as indicated by your comment "It seems as though either the calculator power switch is bad ... "?

I have an old HP35 (from 1973) and its power switch barely works - I often have to slide it back and forth several times to get the machine turned on reliably. You might want to spray some contact cleaner down into the switch (using some precaution to not overspray everything else!). Others here may have alternate suggestions for a bad switch.

Re: Battery terminals on the HP-35?

*Message #7 Posted by **David Smith** on 7 July 2003, 4:35 p.m.,*
in response to message #5 by Karl Schneider

You can check a lot of the internal wiring with an ohmeter.

First remove the battery pack and switch the unit on. Next measure across the outer two posts in the charger port. They should show zero ohms becuase they are connected together by a strap when the charger is unplugged... one pin is connected to the battery and the other connects to internal circuitry. If the strap is not making contact the machine will not run on a battery, but should run on a known good charger.

If the machine runs on the charger and the strap is making good contact but will not run on a known good battery then you probably have (often invisible) corrosion on the battery contacts. The battery pack makes contact to the terminals along the SIDES of the tips of the gold contacts. Clean well with very fine sandpaper.

Next measure between the center charger port pin and the negative battery contact. This should always show a connection.

Next measure between one of the outer charger port pins and the positive battery contact. This should show a connection. If not then the power switch probably needs cleaning.

Classic series chargers are notorious for bad connections in their plug. Also well known for a bad main electrolytic filter capacitor. Either problem can cause the machine to not light up.

If you need to open the machine to clean the power switch you can do it without removing the label. You need to peel up the top two corners of the label about 1/2 inch to access the screws. I wet a razor blade with the temporary adhesive releaser called UnDu and slide it under the corners. Be careful not to slice the label or sharply fold it up. Often the label corners will stick back down. Sometimes you need to glue them to keep them down. I never reinstall the screws under the label so that future repairs do not risk further damage to the label.

Re: Battery terminals on the HP-35?

*Message #8 Posted by **Karl Schneider** on 8 July 2003, 1:49 a.m.,*
in response to message #7 by David Smith

David and Dave --

Thanks much for the "tech tips"! I'll try the contact cleaner, but will open the back only with permission from the owner.

BTW, Dave -- I attended UNR part-time during several terms in 1993-94.

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Hp 41cx self test

*Message #1 Posted by **Pierre Brial** on 6 July 2003, 1:41 a.m.*

Hello,

A friend give me a broken Hp41cx. With a lot of soldering I succeed to repair this mythical machine. Everything seems to work fine now, but is there a self test like in more recent HP ?

All the best

Pierre (Reunion Island, France)

Re: Hp 41cx self test

*Message #2 Posted by **Ernie Malaga** on 6 July 2003, 2:09 a.m.,*
in response to message #1 by Pierre Brial

To the best of my knowledge, there is no self-test. HP technicians used to use a special plug-in module that contained a test program, but those modules are very difficult to find, since supposedly they never left the hands of HP technicians (they were not sold to the public).

-Ernie

Re: Hp 41cx self test

*Message #3 Posted by **Emmanuel, France** on 6 July 2003, 5:47 a.m.,*
in response to message #1 by Pierre Brial

```
Dear Pierre,
Some modules have programs or MCode routines in order to test HP-41s:
Service module was made for that.
PPCROM DT program tests the display.
Yours.
```

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eBay Auction - Read The Fine Print

*Message #1 Posted by **Tony Copley** on 5 July 2003, 10:19 a.m.*

I almost pulled the trigger with a “Buy It Now” on this HP-35. Below the series of three photos is an additional, added, photo of what appears to be a red dot. A comment below the three photos, “PLEASE DISREGARD PICTURE ON BOTTOM OF PAGE” is easily overlooked. A mistake in listing or an interesting way of sucking a buyer in with “Buy It Now”? http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3034043964&category=11713

Re: eBay Auction - Read The Fine Print

*Message #2 Posted by **Vassilis Prevelakis** on 5 July 2003, 3:22 p.m.,*
in response to message #1 by Tony Copley

I see that this auction allows payment via PayPal which offers a "buyer's insurance". To use this you pay PayPal a fee and if you do not like your item you can get the money you paid for the item back.

I have not used this feature yet, but it looks a neat way to ensure that you do not get saddled with some mangled piece of hardware that was described as "in mint condition" on the auction page.

Note that this insurance does not protect you against items lost or damaged in transit.

If anybody has additional info/experiences with this feature, please write on.

**vp

I don't believe this was accidental or an oversight

*Message #3 Posted by **Mike** on 5 July 2003, 6:59 p.m.,*
in response to message #1 by Tony Copley

Look... some facts. I suspect this was deliberate.

He "added" the photo, using "add to description". If he wanted to change the photo, he could have just deleted it, instead of saying, "disregard bottom photo." You can edit and delete all you want, until someone bids.

Now, if someone bid, preventing him from deleting the photo, he THEN would not have been able to change the original auction description. But he had that "disclaimer" in the original description. He could not have added the disclaimer, had someone already bid.

So, it appears that he 1) had the disclaimer before he added the photo OR 2) he just added the disclaimer and left the photo in.

Finally, you can check his feedback. He has more than 50 less than positive, including 27 negatives.

I'm finding that there are more and more that are simply using deceptive selling tactics on eBay trying to leverage off of the higher value calculators that collectors sell.

He wound up selling a $50 for $150. I suspect that if you go back and read all his feedback, you will find other negatives because of deception.

Edited: 5 July 2003, 7:00 p.m.

Re: I don't believe this was accidental or an oversight

*Message #4 Posted by **Vassilis Prevelakis** on 6 July 2003, 1:48 a.m.,*
in response to message #3 by Mike

```
Mike wrote on 5 July 2003:
> Finally, you can check his feedback. He has more than 50 less than positive,
including 27 negatives.
```

Come on Mike, the guy has almost 3800 positive comments from *unique* eBay users.

I'd think that it would be suspicious if he *didn't* have these negative ratings.

**vp

Re: I don't believe this was accidental or an oversight

*Message #5 Posted by **David Ramsey** on 6 July 2003, 11:37 p.m.,*
in response to message #3 by Mike

It certainly did look suspicious, especially after I used the "Buy it now" button and THEN noticed the disclaimer text!

The seller was very accomodating, refused my transaction, and re-listed the calculator noting that it wasn't a red dot.

I feel foolish for making this newbie mistake, though.

I've pulled the trigger a little to quickly myself

*Message #6 Posted by **Mike** on 7 July 2003, 12:24 a.m.,*
in response to message #5 by David Ramsey

When you find something that looks like a bargain, your fingers start moving quickly, trying to beat the other 10 people that are looking at it too. We've probably all been burned once or twice like that.

It's back!

*Message #7 Posted by **Dave Mabry** on 6 July 2003, 11:12 a.m.,*
in response to message #1 by Tony Copley

Well, it appears that the buyer didn't complete the transaction. That HP-35 is back, photos and all, including the one with the serial number. But no red dot photo or disclaimer, and no mention of the last auction in either feedback. Same HP-35, new auction.

Re: It's back!

*Message #8 Posted by **Raymond Del Tondo** on 7 July 2003, 4:19 a.m.,*
in response to message #7 by Dave Mabry

However, the description says:

>In excellent working condition. THIS IS NOT RED DOT MODEL >

So the sentence in capitals is ok. But the first sentence only says that the unit works in an excellent way. Cosmetically the machine is near to trash, IMHO.

I once got a *mint* HP-35 (no red dot) in trade for a new TI35X, which cost about 35 DM (Deutsche Mark) at that time. That was fate:-)

Raymond

Re: eBay Auction - Read The Fine Print

*Message #9 Posted by **Thibaut.be** on 8 July 2003, 5:04 a.m.,*
in response to message #1 by Tony Copley

A red dot simply could not have a S/N starting with 12...

HP AC adapter?

*Message #10 Posted by **Ellis Easley** on 9 July 2003, 8:37 p.m.,*
in response to message #1 by Tony Copley

Is that really an HP AC adapter? I've never seen an HP adapter built like that - it looks like a TI adapter to me. Did HP ship adapters that looked like that one?

Re: HP AC adapter?

*Message #11 Posted by **David Smith** on 10 July 2003, 4:23 p.m.,*
in response to message #10 by Ellis Easley

Yes, that style was used with the earlier HP35 and HP80 machines. The hard cases have a little raised ridge in them where the charger sits. The early model hard cases will not hold the later model chargers properly.

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Anyone have the ROM image for the SKWID Barcode modules?

*Message #1 Posted by **Gene** on 5 July 2003, 9:24 a.m.*

Since it's now possible to get a 16k rom module made up, this would seem like a really good option to have. Anyone have the ROM file in a form that could get burned to the blank Zeproms?

Re: Anyone have the ROM image for the SKWID Barcode modules?

*Message #2 Posted by **Emmanuel, France** on 5 July 2003, 1:31 p.m.,*
in response to message #1 by Gene

```
Yes I have it.
Please give me your e-mail.
I'll send a couple of binary files for 2716 and 2732 Eproms,
and its disassembled listing.
Do you need its user's manual too?
Yours.
```

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HP15C

*Message #1 Posted by **Thierry** on 5 July 2003, 3:34 a.m.*

I have change the batteries of my HP15C and I have lost the setting. As I have lost the user manual, I have two problem now. I have message "error 3" when I want to use the memories from "2" (no problem with "0" and "1"). And I want to use the virgule to separate the decimal (sorry, i'm french). I know the solutions are in the manuals, because I had the problems the last time I change the batteries, but it's few years ago, and I forget the solutions. Thanks Thierry

Re: HP15C (edited)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 5 July 2003, 4:13 a.m.,*
in response to message #1 by Thierry

Hello, Thierry;

the problems are simple, so far. To change comma (virgule) for period (dot), do the following:

1 - make sure the calculator is turned to OFF (hors-fonction);
2 - press and hold down the [.] key;
3 - while [.] is held down, switch the calculator ON;
4 - release [.] key

You can perform this set of operations for as many times as you need. They will toggle comma to dot everytime you press the keys in sequence.

About the [Error 3] message, you can choose a few options. Before that, find the [RCL] key and you'll see [MEM] printed in blue in one of its faces. Now, with the calculator switched to ON, please, follow this sequence:

1 - press the blue [g] key and release it;
2 - press and hold the [RCL] key (you performed [g][MEM]);

You'll see something like this:

```
[ 1 fr pr-b ]
```

where:

1 - number of the highest available register; as you cannot access any register above R1, you'll see '1'; this value may reach 65 and is named registers' segment, sort of a memory "share" to hold the numbered registers (*)
fr - number of free (available) registers in the "common segment', i.e., part of the existing memroy that can be occupied with program steps, matrix elements, complex stack and SOLVE/Integrate temporary scratch area
pr - number of hole registers currently used by program(s)
b - remaining bytes from last "assigned" register for program steps storage. b can be in the range 0 to 6
(*) except for registers RI, R0 and R1 that are permanently available

fr, pr and b vary in accordance with memory use register

The HP15C user can manualy specify the first parameter (that we assumed 1 in your case) by using the sequence [f][DIM][(i)] like this:

-enter the number of the highest register you plan to use (not the number of registers you plan to use);
- press [f][DIM][(i)]

Now you can check memory again and you'll see:

[g][MEM] (hold [MEM]-key pressed for as long as you ned to see)

```
[rr fr  pr-b]
```

where rr is the number of the last available register. Remember that you will not be able to specify rr for a value bigger than the existing memory.

The other choice is memory clear [Pr Error]. Consider doing this only as a last alternative. If you want to perform this "master clear", do it:

1 - make sure the calculator is turned to OFF (ors-fonccion);
2 - press and hold down the [-] key;
3 - while [-] is held down, switch the calculator ON;
4 - release [-] key

You'll see [Pr Error], and if you press [g][MEM] right after clearing all memory, you'll see:

```
[ 19 46  0-0]
```

What means you may use any register from R0 to R9 and R.0 to R.9 and the index register RI

Hope this helps for now. If not, let us know.

Luiz (Brazil)

Edited: 5 July 2003, 3:42 p.m.

Re: HP15C (edited)

*Message #3 Posted by **Thierry** on 7 July 2003, 2:23 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi, Thanks for your help, know I have refind my old good HP15C, I don't know to mork without it. I have need to clear all the memory. I regret have lost the manual. I don't imagine how precious my calculator could be. I have a HP33E, 34C and 41CV, with manuals, so if you need help or informations for there, I could try to help you. Thanks Thierry

Re: HP15C (edited)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 7 July 2003, 6:22 a.m.,*
in response to message #3 by Thierry

Hey, Thierry;

thank you so much! Help is always welcome.

If I can say the same, count on me (us), too. One of our contributors, Valentin Albillo, will surelly find many additional information for your HP15C daily use. He is an HP15C's expert, no pun intended at all.

Best regards.

Luiz (Brazil)

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An HP-65 ebay set to watch

*Message #1 Posted by **gene** on 4 July 2003, 9:21 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3033957060&category=11713

Pretty good set up. Already at $100. Guesses where it will end up?

Re: An HP-65 ebay set to watch

*Message #2 Posted by **Mark Hardman (LED)** on 4 July 2003, 11:16 p.m.,*
in response to message #1 by gene

<SARCASM>Thanks Gene.</SARCASM>

It looks like the $275 I've already bid will NEVER hold up now. I guess I'll have to cash in my now nearly worthless HP/Compaq stock so that I can double that bid.

Mark Hardman

Re: An HP-65 ebay set to watch

*Message #3 Posted by **Gene** on 5 July 2003, 9:59 a.m.,*
in response to message #2 by Mark Hardman (LED)

Sorry about that Mark. But that would only work if no one else had seen it before the end. Since it showed up in my unsophisticated search, that was unlikely. It does look like quite an impressive set. :-)

If you double that bid...

*Message #4 Posted by **Mike** on 6 July 2003, 12:33 p.m.,*
in response to message #2 by Mark Hardman (LED)

you still won't win :-) I estimate it will go for $775.00. Let's see.

Re: If you double that bid...

*Message #5 Posted by **David Smith** on 6 July 2003, 4:51 p.m.,*
in response to message #4 by Mike

I don't think it will break $500. The machine has seen enough use to have trim wear above the display and the hard case is for an HP80. Figure it is worth $250. Add 50 bucks a pop for the boxed pacs. Discount the total value a bit because it is sold as a lot (they would bring more separately). My guess is $450 tops.

Re: If you double that bid...

*Message #6 Posted by **Mark Hardman (LED)** on 6 July 2003, 8:17 p.m.,*

in response to message #5 by David Smith

I've already made it clear that I'm willing to go above $500.

So...

There is no point in anyone else running up the bidding here.

Really...

there is no possible way you can win!

There is not point in trying.

Really...

Mark Hardman (LED)

(Crap, I know Mike Davis is going to take the whole lot. Why am <I> even trying.)

Nope! I'm passing this one up

*Message #7 Posted by **Mike** on 7 July 2003, 12:28 a.m.,*
in response to message #6 by Mark Hardman (LED)

I would like the application pacs but I'm sure it will go higher than I'd bid. I might bid if it stays under $450 but there is no way in that happening.

I might have also bid if the calculator was really nice but it has the normal thumb wear (to the trim) from pulling it out of the case. Because of this, I don't think the calculator itself will be anything but average.

Reading eBay photos is a little like aerial photography analysis.
http://www.msdsite.com/images/smile.gif

Edited: 7 July 2003, 12:31 a.m.

Re: Nope! I'm passing this one up

*Message #8 Posted by **Thibaut.be** on 7 July 2003, 8:55 a.m.,*
in response to message #7 by Mike

I know there is an ad forum but Mike did not leave his e-mail address.

Mike, I do have some 65 pacs. (Navigation 1 & Avitation 1 pac. Complete, in their plastic holder. No manual). I don't want to sell them but maybe trade them.

Contact me should you be interested.

Here is my breakdown

*Message #9 Posted by **Mike** on 6 July 2003, 10:34 p.m.,*
in response to message #5 by David Smith

$75 each (unopened) application pack $375 total

$250 HP-65

$30 Standard Pack

$40 leather case

$50 Manual and QRG

$15 Extra battery

Discounting for package deal and you are still at $700+

We shall see.

I Used to Play Poker but...

*Message #10 Posted by **Trent Moseley** on 7 July 2003, 12:15 a.m.,*
in response to message #9 by Mike

My wife made me quit...

tm

Re: An HP-65 ebay set to watch

*Message #11 Posted by **David Smith** on 14 July 2003, 4:52 p.m.,*
in response to message #1 by gene

And the winner is.... $450

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HP-34 C

*Message #1 Posted by **Jon** on 4 July 2003, 5:12 p.m.*

I have repaired an 34C. It has the 2 disease as posted before but it has also another problem. When I turn it off and on again in few seconds everything is ok. But if I wait more than 5 seconds then it loses the constant memory and displays "Pr error".

Does anybody know the reason?

Thanks

Jon

I guess...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 4 July 2003, 6:00 p.m.,*
in response to message #1 by Jon

Hi, Jon;

taking your own reference, position # 1 must be always used by RAM. This 8-pin DIP tab set has a separate +Vcc supply, so the chip positioned there (RAM) is always fed for as long as you have charged batteries installed. I saw your post again and compared the codes you posted: there is a ROM chip in the first position. My HP34C looks like this:

```
34C  N  S   34C/B-2102 00034-69110  1LB902 1MA10014 1MA115    (1)
```

I guess the "unknown" 8-pin DIP chip is the RAM chip, as the other have codes taht are close to the ones I found in mine. Simply exchange chips #1 and #2 in your calculator and tell us what happened. No chance to dammage the chips: except for pin #8, all others are connected in paralell.

Success!

Luiz (Brazil)

Edited: 6 July 2003, 12:15 a.m.

its 4th of july

*Message #3 Posted by **Norm** on 4 July 2003, 7:55 p.m.,*
in response to message #1 by Jon

its 4th of July. Put that HP-34C in a drawer and deal with it tomorrow. Today, get out one of Carly's Kinpo calculators, and stuff some firecrackers underneath it and light the fuses.

:o)

Re: its 4th of july

*Message #4 Posted by **Ernie Malaga** on 4 July 2003, 8:27 p.m.,*
in response to message #3 by Norm

> Quote:
>
> Today, get out one of Carly's Kinpo calculators, and stuff some firecrackers underneath it and light the fuses.

8^)

Or, if you can manage it, use dynamite sticks instead of firecrackers for an even bigger bang.

-Ernie

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"2 disease" information

*Message #1 Posted by **Jon** on 4 July 2003, 5:09 p.m.*

Luiz:

Here you have some information of two calculators with the "2 disease" I have dissasembled today.

Hp 33E: Solderless, CPU 1MA4 01 13205(80092) Chips: empty 1MA1204 and 1MA302

HP 34C: Solderless, CPU unknown Chips 1MA114, unknown and 1MA115 (1)

(1) I don´t know why but the reference id of CPU and chip 2 are not readable

When I repair other calcs I will post the info

Sorry but I don´t know how to post the information in rows as you made ...

Cheers

Jon

Re: "2 disease" information

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 4 July 2003, 5:54 p.m.,*
in response to message #1 by Jon

Hi, Jon;

thank you very much for the valuable info.

About text format: use PREformat text. Start text with [pre] and finish it with [/pre]. Like this:

[pre] one
two
three[/pre]

It will look like this:

```
one
two
three
```

Somewhat easy... when we know. Further info: Advanced format techniques

Best reagrds.

Luiz (Brazil)

HP-34C CPU id number

*Message #3 Posted by **Jon** on 5 July 2003, 4:20 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz:

I have cleaned the HP-34C CPU wit solvent. It had some kind of glue. It should be forbidden some people service these calcs. Ok, id number is: 1820-2162-A (7905BV).

Cheers

Jon

Re: HP-34C CPU id number

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 5 July 2003, 11:52 p.m.,*
in response to message #3 by Jon

Hi, Jon;

thank you again. It seems the HP33E you mentioned in previous post has a paper label or a CPU code that's different of those I saw so far. As you mentioned you had some glue in the HP34C's CPU chip, it probably had a paper label on it, tto.

BTW, is this HP34C the one that had a [Pr Error] problem? Did you read my post about it? If so, did you succeed repairing it by changing the position of the chips (1) and (2)? I'm just curious about it, because if you did not get positive results, you may also have a power supply board with some sort of problem.

Best regards.

Luiz (Brazil)

Edited: 6 July 2003, 12:09 a.m.

HP-34C REPAIRED

*Message #5 Posted by **Jon** on 6 July 2003, 5:43 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi Luiz:

You are great!!!. I have changed the ICs and now it works great. When I got your answer I was ready to replace every capacitor in the AC/DC circuit. The only fault it has is the “2 disease” and rests of glue everywhere inside, but it coesn´t affect to function and you don´t notice it when reassembled. Another calculator badly serviced with that problem……

Thanks again

Jon

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42s manuals

*Message #1 Posted by **Jason** on 4 July 2003, 2:52 p.m.*

Does anyone know what 42-s manuals (english) are going for lately?

Re: 42s manuals

*Message #2 Posted by **Thomas** on 5 July 2003, 4:06 a.m.,*
in response to message #1 by Jason

Hello,

I asked HP for buying books for the HP 42S. OK the support for this calculator ist closed, but maybe the have a few exemplares in the archive.

The sent me an adress from Moravia GmbH. They told me that they have the searched book (German Programmierbeispiele und -techniken).

They told me also that they have some other books for the HP 42S. i.e. an Owners Manual (in German), some Engeneering books in english. If I have right in mind 50? incl. shipping (Owners manual).

Please contact Mr. David Kirchner at calc-d@moravia-consulting.com

Greetings Thomas

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My First e.Bay "burn"

*Message #1 Posted by **Scuba Diver** on 4 July 2003, 2:40 p.m.*

Well, I figured it would happen sooner or later.

I bid on an auction for an HP-28S. Here's the description of the item.

"This calculator has been in it's box since I bought it for college but never used it. If you are a collector it doesn't get better than this. It was always stored at room temperature/humidity. I just installed new bateries and it looks and runs like new."

The one thing that I noticed was that although he had a couple of positive feedbacks, his account was less than a month old. The other issue was that the auction was ending in a couple of hours...bad combination!

I sent the seller an email asing "if the item was never used, then are the manuals still shrinkwrapped?" There was no reply, so at the last moments of the auction, I went against my gut and put in a bid...it was high, but I thought it would be worth it for a calculator that is as mint as the seller described.

A couple of hours after the auction, I received a reply from the seller "it's used". Hmmm...I'm a bit dubious...so I ask him how "used" this calculator could be, since he said it was bought for college but never used. His reply was that he opened it to try out the features but that was all.

At this point, I knew I was in trouble, but I had already won the auction.

Anyhow, the item arrived yesterday. The inside of the clamshell is covered in dirt and dust, the rubber feet are worn, and there is a scratch on the top right hand corner, with a small chip missing from the plastic near the battery door.

I gave the seller the benefit of the doubt and wrote him, telling him that I wasn't satisfied, that I don't think he described the item accurately, and that I want my money back. His reply was curt (to say the least), but he agreed. So I asked him to send 1/2 the money now, I'll ship it, then he could send the other 1/2 when it arrives.

Well, he said that he won't send any money until the unit arrives back, because he wants to check the condition! I can already see what the outcome will be...he'll get it, say that it was pristene when he sent it, and that I must have dropped it, and then I'm out both the calculator and the money. He has done nothing thus far to show me that he's trustworthy or that his is a man of his word, so why would I start to trust him now?

I figure it's a case of I said, you said...and there's nothing that can be done. I told him that none of this would have happened if he would have just been open and honest...someone would have gladly paid $80 US for this calc...he went to all of this trouble to lie just for what, an extra $40? It's very sad...if this person thinks that it's worth treating people like that for $40, then they must be really hard up.

I just hope he realizes that what goes around, comes around.

If anyone has any other ideas, I'm listening! Oh, and keep your eyes open on the Classifieds for a "mint" 28S that I might be selling soon! :)

B.

Re: My First e.Bay "burn"

*Message #2 Posted by **Matthias** on 4 July 2003, 3:13 p.m.,*
in response to message #1 by Scuba Diver

I also had problems with sellers. Perhaps some tipps for you:

1) Never bid on a item without seen a picture of the item. 2) Don't trust the word "mint". 3) Don't big on a item, when you are not absolutely shure, that you get what you want. Not in the last minute.

For now, you could send the seller some pictures, holding the calc. So he can check it's condition. I wouldn't give him a negative feedback, cause he will change his user name at ebay and you will get a negative feedback too...

Sorry, that's all I can do for you, but I feel with you as I has the same probleme one year before...

Matthias

Re: My First e.Bay "burn"

*Message #3 Posted by **Scuba Diver** on 4 July 2003, 3:28 p.m.,*
in response to message #2 by Matthias

Thanks Matthias!

I know...usually I ask all of my questions days in advance, get closeups, etc...but this time I didn't and it obviously burned me.

Live and learn, right? B.

Re: My First e.Bay "burn"

*Message #4 Posted by **Ernie Malaga** on 4 July 2003, 4:30 p.m.,*
in response to message #1 by Scuba Diver

I've been advocating against eBay ever since I knew of its existence. You're trusting someone you've never met, who lives you-don't-know-where, who can lie and deceive with impunity by way of fictitious descriptions and phony photographs.

I know that there are many satisfied eBay customers. But, contrariwise, there are many who got burned the way you just did. I have no idea what legal recourse you may have, but I suspect you have none. That's the risk you take.

People, please always remember that eBay is an auction carried out by anonymous people and that there will always be crooks waiting for an unsuspecting fellow to fall in their nets. These crooks can disappear anytime by simply changing their email address, and (pobably) can be anywhere in the world.

I'm sorry you got burned. I hope you won't use eBay ever again.

-Ernie

Re: My First e.Bay "burn"

*Message #5 Posted by **Scuba Diver** on 4 July 2003, 4:40 p.m.,*

in response to message #4 by Ernie Malaga

Well, 98% of my transactions have been completed to my satisfaction. I think that most people are honest, but there will always be people out there who are liars and cheaters who take advantage. When they were kids, they probably wrote the answers to tests on their arms and now that they've grown up (physically, not emotionally or cognitively), they continue.

I think that my lesson learned here is to apply lots more due diligence before making a bid.

B.

Re: My First e.Bay "burn"

*Message #6 Posted by **Patrick** on 4 July 2003, 8:25 p.m.,*
in response to message #4 by Ernie Malaga

I have made some 50+ transactions through eBay with purchase amounts ranging from a couple of dollars to $340. I have had just a few disappointments so far. In most of those cases, the seller has offered to make amends, usually by refunding my money or by re-negotiating a smaller sale amount.

If I had stayed away from eBay like you suggest, there would have been no practical way for me to amass the wonderful machines I now have in my collection, and which continue to give me a great deal of pleasure. I have also met and had wonderful email conversations with a great many of my sellers. There are a lot of very good and kind folks who offer their wares through eBay.

Yes, the possibility (more like probability) exists that I will also get burned one day. Amortized over all of my eBay transactions, it is not much different financially than buying insurance and having the insurance company reimburse my loss. Even Scuba Diver's loss, while disgraceful and lamentable, apparently amounted to only $40.

I personally feel that staying away from eBay is akin to flushing the baby with the bathwater.

Re: My First e.Bay "burn"

*Message #7 Posted by **Valentin Albillo** on 4 July 2003, 8:56 p.m.,*
in response to message #6 by Patrick

I fully agree with Patrick.

I've made 60+ transaction through eBay, always for amounts of $100-$300, and never once have I suffered any obvious scams or attempts to deceive, which would have been even easier in my case, being an international buyer. Should the seller decide not to send the item, or send a faulty one, there's nothing at all I can do from 6 thousand miles across the ocean.

Despite that hard fact of having to purchase entirely on faith, I've had only two very minor incidents, the worst being the seller specified that the machine included new cells and a manual, and the machine came with no cells and no manual, but otherwise cosmetically perfect and working.

On the contrary, I've found a number of extremely honest and helpful sellers, which didn't mind my check taking up to two weeks to arrive (before I got a Paypal account), which were eager to stablish an agreed Buy-It-Now price when I asked if they would, that would deliver items much better than described (even new !), that would take all care to package items properly so that they could withstand the long, hazardous journey. Most of them were also extremely kind and friendly, and left wonderfully caring feedbacks.

I don't think this is just pure luck, but even if it is, I agree with Patrick: there was no practical way for me to get the wonderful machines I now have, and even if one transaction would come off bad every 60 (or even every 30) excellent ones, that's a risk I'm willing to take, and it won't certainly keep me from taking advantage of such an incredible treasure trove as eBay offers every day.

Take care, Scuba, I hope your actual disillusioned state wears out as soon as you get some wonderful machine from an honest, friendly eBay seller, they are the vast majority for sure. I agree that if HP calc prices continue skyrocketing, that may attract an increasing number of scammers and dishonest people in the future, but right now it isn't that bad at all, and if you stick to a number of well-known, large-positive feedback sellers, *and refrain from hunch-driven, impulsive bids on dubious products offered by unknown sellers*, your success rate will improve dramatically and will stay so.

Best regards from V.

I got gypped once... Scuba Diver is missing something

*Message #8 Posted by **Norm** on 5 July 2003, 3:57 a.m.,*
in response to message #7 by Valentin Albillo

eBay is too fantastically powerful a tool to dismiss using it because of the usual human dirt that are out there.

I got gypped once on a portable oscilloscope.

The guy says 'its in great shape' and the photos were arranged to conceal how messed up it was.

The thing shows up.... the lid is taped on with duck tape !! And that's just the tip of the iceberg.

So I'm feeling gypped and I am ready to leave negative feedback but it says 'give the seller a chance to make it right'.

So I talk to the seller, he says "fine send it back and I send you the money back". So I sent it back, and along the way, a cashier's check shows up in the mail. I was surprised how willing they were (even a crooked seller) to cancel the transaction.

Now, here's where Scuba Diver is missing something. He should not fear the other guy. He should not fear that he will say 'you did all that' etc etc. and do not fear that he will not refund the money.

Send it back, and cross your fingers. Why ?????? Because of NEGATIVE FEEDBACK. Negative feedback can be a powerful tool. I suppose its not if the guy is a total fake. That's why you can get real suspicious with sellers who aren't here long term..... who don't have 40+ items of pos feedback.

So the guy accepts the merchandise back, and doesn't refund? Post negative feedback and move on.

Out of about 100 eBay transactions, I've had about 3 total klinkers (person never shipped, drastically worse than said, etc). A few more than that were duds, but the seller made it right in the end.

The biggest losers I've had involve sales of small-time music CD's and maybe a few low-budget DVD's. Those $5 transactions are the WORST for somebody not fulfilling their obligations.

YES, be real cautious and bid with caution and really STUDY that seller before you decide that he's worth it. How much feedback, what other auctions, and trade some e-mail with him. If the jerk won't trade substantive e-mail before the sale, then maybe he won't trade email properly afterwards

either.

In the end, eBay is a blast. Back around 1990, I could NEVER have predicted that the internet could create such an extraordinarily powerful tool. Now, if we could just relocate Carly and Bill Gates to their wonderful new residences on the surface of Mercury (use one-way rockets).

- Norm

Re: I got gypped once... Scuba Diver is missing something

*Message #9 Posted by **Iqbal** on 5 July 2003, 6:21 a.m.,*
in response to message #8 by Norm

Sorry for your bad experience Scuba Diver. My first and hopefully only bad experience on ebay was a little more costly than yours. There was a photo of a Sokkia Set 5F total station with a buy it now feature for $1500. The guy said it was great condition but didn't have a battery to try it out. No problem, I was prepared to have it serviced anyway. I sent a cashier's check, and for the first time in my life I was told that there were problems at the bank and I had to wait 7 days for it to clear. Well at that point I knew something was wrong. Anyway, one week later he shipped it out. To add to the start of my woes, I had to pay duties on entry to Trinidad, West Indies. "It was junk" was the description a service technician gave me. The major chassis was forced open and bent beyond repair. The telescope couldn't make a complete 360 degrees. Any child could see the physical destruction of the instrument. The guy replied to my negative feedback and said that he didn't know anything about surveying. The idiot.

However, ebay is not always a sad story. I did get some good stuff there.

I did learn a "valuable" lesson though. Never pay more than $250 for anything on ebay unless you're postively sure of the seller's description.

Re: I got gypped once... Scuba Diver is missing something

*Message #10 Posted by **Scuba Diver** on 5 July 2003, 8:14 a.m.,*
in response to message #9 by Iqbal

Thanks to everyone who has been posting replies to my "rant".

I wanted to clear something up; I am going to continue to use eBay to purchase items, because to be honest, I can't be bothered going to garage sales and hunting for old calcs.

I will, however, be leary of people who don't have long-term accounts and high feedback rates. This guy's account is less than a month old and has 3 positives; I doubt that some negative feedback will stop him. He'll just close up shop and open a new account...

I'm going to see if he's willing to refund part of the money, otherwise I'll probably just list it on eBay (honestly, of course) and see what I get...

Unless, of course, someone wants a mint 28S...if you're a collector, it doesn't get any better than this! :)

B.

Re: Limitations of Negative Feedback

*Message #11 Posted by **Paul Brogger** on 7 July 2003, 5:24 p.m.,*

in response to message #8 by Norm

From the perspective of someone who sets up a SINGLE eBay account for all his dealings, and who wants to build, over the long term, a reputation as a trustworthy buyer and/or seller, eBay feedback is a powerful tool and incentive.

It sounds, however, as if this seller's account is relatively new. I'm not sure, but I imagine that someone with a number of scams to pull will simply create a new account as soon as the negative feedback starts accumulating.

I don't know what eBay's policies are with regard to multiple accounts to the same person, and/or whether there's a way to abandon an account with a bad reputation and start anew. (But I suspect there is.)

I've seen that an item listed by an established seller with a good reputation can command a significant premium over a similar item offered by a new seller. Bargains are available from the newbies, but **Communicate**^{3} before sending money!

False descriptions are VERY common now

*Message #12 Posted by **Mike** on 5 July 2003, 7:07 p.m.,*
in response to message #1 by Scuba Diver

I'm finding more and more auctions that have calculators that are nothing like the description. Be careful...

There is even one seller, that sells lots of HP calculators that offers a DOA guarantee and sells non-working or partially working calculators and refuses to honor the DOA "because it's not 100% dead."

Here are some **calculator buying tips**.

Never buy a calculator without asking questions. Some givens.

- MINT calculators are almost never MINT
- Any calculator that has a card reader, will have a defective reader, unless the seller says it has been tested.
- Any HP computer that has a tape drive, will be defective, unless the seller says it has been tested
- Phrases like "Worked last time it was used" is code for "probably doesn't work now"
- DOA guarantee that does not cover all forms of non-working calculators, is WORTHLESS

You can find great stuff on eBay but you MUST ASK QUESTIONS.

Don't accept short vague answers. Ask for detailed specifics. Vague terms like "works" does not mean it is 100% functional to most sellers. A classic example on almost every HP-85 sold is the claim that it "works" But most sellers mean "something shows up on the CRT." But 99.99% of these will have defective tape drives and about 50% have printers that are about to die. Both the tape drive capstan and printer belts are prone to disolving. I have yet to find a 100% working HP-85, that hadn't already been repaired and advertized as such.

They all have bad tape drives. eBay is getting really bad. Too many wholesale sellers trying to get collector prices on calculators that aren't even working.

Edited: 5 July 2003, 7:18 p.m.

HP-85 capstan "repairs"

*Message #13 Posted by **Vassilis Prevelakis** on 5 July 2003, 9:27 p.m.,*

in response to message #12 by Mike

```
Mike wrote on 5 July 2003:
> [HP-85s] have bad tape drives. eBay is getting really bad. Too many wholesale sellers
> trying to get collector prices on calculators that aren't even working.
```

And some of the "fixed" ones are ready to fall apart again.

You can test such "repairs" by doing a

```
CTAPE
```

Which does a wind to EOT and then a rewind to BOT, to retension the tape. Most "repaired" rollers will fall apart. Doing a

```
CAT
```

on a tape is not sufficient.

**vp

Mine don't (AFAIK) - Good Tip

*Message #14 Posted by **Mike** on 5 July 2003, 10:38 p.m.,*
in response to message #13 by Vassilis Prevelakis

I haven't ever seen any problems with my tape capstan repairs. At least, no one has ever told me about any problems.

Because of your tip, I just checked my latest repair and I performed **5 CTAPE operations,** in rapid succession and there is no weakening of the bond. Still works great. **Great tip.**

I did have one band come off one time but that was on one of my earlier repairs but that was after about 4 hours of continuous tape copying. I think I put that unit through about a tough a test as one could do. After I reattached the band, it worked great. I suspect I didn't let the bonding agent cure well enough.

The secret is to use the proper material and a good bonding agent. I use a precisely cut band and a very good bonding agent. The bond is very strong. I don't like using o-rings, surgical tubing or heat shrink tubing, for this repair.

Here is a photo of the capstan material I use.

Edited: 6 July 2003, 1:19 a.m.

Re: My First e.Bay "burn"

*Message #15 Posted by **Garry** on 5 July 2003, 10:13 p.m.,*
in response to message #1 by Scuba Diver

Sorry about your "bad" Ebay eperience. I've gotten a new "burn" of my own from someone selling eproms off the HP WANT ADS. I think all of us that read the HP FORUM should publish a bad seller's id name, and not buy from these individuals. I also think if a person gets burned buying something off the HP WANT ADS, they should be able to post that person's name, and the person selling not be allowed to use the site to sell.

I don't sell off of the HP Site but...

*Message #16 Posted by **Mike** on 5 July 2003, 10:50 p.m.,*

in response to message #15 by Garry

There is another side to the coin. I don't sell of of the HP Museum site. I try to limit my use of the wantads for "trades." However, I once DID get burnt buying something from the HP wantads **but one can get burnt anywhere.**

The problem with posting names is that I have also had people try to scam me. Someone once bought something from me and said it didn't work. I told them to return the item, for repair, and I discovered that the buyer took out a part that they needed. It was obvious. He tried to get a refund rather than a repair. That was also a giveaway.

I have a real simple process to protect against this now. I take high resolution images of one or two of the screws that hold the cases together. Anyone tampering with them, surely woudln't be able to get everything back as it was. The photos take only a couple of seconds to take.

Bottomline is that one can get burnt as a buyer or a seller. It would be completely unfair to post the seller's name and allow buyers to scam and hold sellers hostage. With vintage electronics, you can't have "buy and try" which is what some buyers like to try and get away with.

The ONLY real solution is to ask questions and ask for photos.

Re: I don't sell off of the HP Site but...

*Message #17 Posted by **Garry** on 6 July 2003, 1:01 p.m.,*
in response to message #16 by Mike

I didn't post anyone's name on my previous post but my own. I apologize for any bad feelings I've generated in this community with my previous post. My intent was to see if others had similar experiences.

Re: My First e.Bay "burn"

*Message #18 Posted by **Gordon Dyer** on 6 July 2003, 6:25 p.m.,*
in response to message #1 by Scuba Diver

Ask him for a phone number to discuss it with him.

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July, 4th. Fireworks....

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 4 July 2003, 12:21 p.m.*

Hey you all, North-Americans!

Take care with the fireworks...

Congratulations! As we celebrate ours, I think Independence Days must be celebrated everywhere. And USA's is know by almost everybody.

In Brazil we celebrate ours in September, 7th.

Luiz (Brazil)

Edited: 4 July 2003, 12:28 p.m.

Re: July, 4th. Fireworks....

*Message #2 Posted by **Scuba Diver** on 4 July 2003, 1:01 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Luiz, in Canada we celebrated ours on July 1st.

Unfortunately, ours fell on a Tuesday, which meant no long weekend for us :(

Happy Independence Day to everyone south of the border!

B.

I like firecrackers and smoke pots

*Message #3 Posted by **Norm** on 4 July 2003, 1:07 p.m.,*
in response to message #2 by Scuba Diver

I like firecrackers and smoke pots. They are fun for stuffing into mailboxes and old plastic models.

And they fit so nice into the battery slots of those Kinpo HP calculators.

Then you light fuse, and get away.

Happy 4th of July ...

*Message #4 Posted by **Valentin Albillo** on 4 July 2003, 1:07 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

... to all US people, from sunny Spain !! :-)

Very Best regards from V.

Re: Happy 4th of July ...

*Message #5 Posted by **Fred Lusk** on 5 July 2003, 3:33 p.m.,*
in response to message #4 by Valentin Albillo

Thanks all of you for the kind words…

My wife, my son, one of his friends, and I and 13,000 other baseball fans spent the evening watching the Fresno Grizzlies (AAA) defeat the Tuscon Sidewinders 6-5 in the 10th inning. After the game we were treated to a 40 minute fireworks show that is the about the best I have even seen.

It's hot outside, so I think I'm going to jump in the pool.

Fred

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Printer Paper

*Message #1 Posted by **Howard** on 4 July 2003, 7:44 a.m.*

From what I've seen HP calculator printer paper (82143a and the 8224a and I suspect the hp 97 series) is very scarse and expensive.

Can I let you into a little secret which works here in Australia and it might work in your neck of the woods.

In Australia they have a huge number of EFTPOS (Electric Funds Transfer at Point Of Sale) terminals - they are everywhere. They even have them in taxis. These machines give a receipt which is generated by a printer which uses the heat sensitive paper that these printers use. I just ask the shopkeeper if they have any spare rolls. They give them to you as the bank gives them to them. Just tonight the cabdriver gave me two rolls of this paper. From what I have seen on ebay he gave over $US20 worth of paper for zilch, zero, nothing.

I don't know if these EFTPOS machines are as numerous in your country as they are in Australia but if they are they are a great free source of heat sensitive paper.

Re: Printer Paper

*Message #2 Posted by **Richard Garner** on 4 July 2003, 12:12 p.m.,*
in response to message #1 by Howard

I have found that just plain thermal adding machine paper of the same size works just fine in my 82162A and 82240B printers. You can get it at any office supply store for about $3 to $5 for a pack of 6 to 8 rolls.

Re: Printer Paper

*Message #3 Posted by **Ellis Easley** on 9 July 2003, 7:23 p.m.,*
in response to message #2 by Richard Garner

Still, Howard's post gives us another great reason to visit Australia!

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Replacement for the 32s

*Message #1 Posted by **Matthew Jones** on 4 July 2003, 3:39 a.m.*

Hi folks; I'm an Australian currently doing my honours year research project in organic chemistry. Last year, after my final exams I left my 32s calculator in the bar at our campus and never saw it again. This year I've been using my dads old HP 35 in exams, but I really wish I still had my 32s. I spoke to a boffin in HPs development department a few months ago, and he assured me HP were working on a replacement for the 32s. Several of the calculator specialist shops here in my home town (Melbourne) tell me that this replacement model will be in their store late August, but noone knows much about it. This is what I've heard: named the 33s it will be a real calculator and not a childs toy, ie, it will have RPN entry logic and will offer features very similar to the 32s; but this is all heresay. Does anyone know more? The HP website makes no mention of an RPN replacement for the 32s. Cheers Matthew Jones.

Re: Replacement for the 32s

*Message #2 Posted by **Tom (UK)** on 4 July 2003, 3:50 a.m.,*
in response to message #1 by Matthew Jones

We would all like HP to make a quality (hardware + software + manual) replacement RPN scientific it but I'll believe it when I see it.

HP's recent offerings have been a bit disappointing in different ways (HP6/9/12p/30/49?), but is it too much to expect new calculators that were as good as the oldies?

According to HP marketing the HP30 could be described as a 32s 'replacement' so I wouldn't put too much weight on marketing speak or trade talk until you see and feel the product.

Anyone out there doing beta testing - or will this be done by the customers!

32S nicer than 32Sii

*Message #3 Posted by **Norm** on 4 July 2003, 4:15 a.m.,*
in response to message #2 by Tom (UK)

Although many will disagree, I think the 32S is a nicer calculator than 32Sii. It has a cleaner and simpler layout, with a single shift button. The 32Sii looks cluttered.

So Mr. Jones, if U lost your 32S, think twice before you replace it with 32Sii, or yet another that they release later. HP has been taken over by mafia thugs and does not build what we want anymore. They are unlikely to start selling what U want. Their most recent offering, the HP-12CP (financial calculator for mafia thugs to add up their take) is designed so pathetic that they were too dumb to use reasonable color combinations, such as to choose ink that can be viewed under ordinary lighting conditions against a shiny aluminum back panel.

Based on everything you just said, my recommendation is that U get a used 32S off of eBay, and put it to work.

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HP42S beeps all the time

*Message #1 Posted by **John Robinson** on 4 July 2003, 2:53 a.m.*

My 42S beeps at me instead of turning on when I press the ON key. Is this just batteries ?, or does it need a reset, if so how ??. Any help appreciated - Thanks, John

Re: HP42S beeps all the time

*Message #2 Posted by **Thomas** on 4 July 2003, 2:58 a.m.,*
in response to message #1 by John Robinson

Hello John,

please search in the messages. I could remember this problem was discused a little time ago. If I remember right it was a low batterie problem.

Regards Thomas

Chances are...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 4 July 2003, 6:06 a.m.,*
in response to message #2 by Thomas

... you have a program that runs everytime you switch it on.

Both the HP42 and the HP41 have this option: set flag 11 (SF 11) and when you turn the calculator ON, the current program automatically runs. If the program is something like this:

```
LBL 00
SF 11
STOP
GTO 00
```

then everytime you switch your calculator ON, flag 11 is set and the program stops. The fact is that when you switch it back OFF and later ON, the program runs automatically (flag 11 is set), executes GTO 00, sets flag 11 again and stops.

When the calculator is switched ON and flag 11 is set, the beeper produces a standard tone to remind ist state. Then flag 11 is cleared and the current program automatically starts running.

After you switch your calculator ON again, press these keys: (obs: [SHIFT] is the golden key)

```
[SHIFT][PRGM]
```

If you see:

```
[04 GTO 00    ]
```

then you actualy found the reason. To get rid of it:

```
[HHIFT][PRGM]
[SHIFT][CLEAR][CLP][ALPHA][ALPHA]
[SHIFT][FLAGS][CF] 11
```

Let us know if it changed something.

Best regards.

Luiz (Brazil)

Edited: 4 July 2003, 6:11 a.m.

Re: Chances are...

*Message #4 Posted by **Ernie Malaga** on 4 July 2003, 7:31 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz:

A much more "amusing" program is as follows:

```
SF 11
OFF
```

Now turn on flag 11 and power off the calculator. When you turn it back on, it will just turn itself off. I don't think there's a way out of this nincompoop joke except by master-clearing the calculator.

-Ernie

Re: Chances are...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 4 July 2003, 8:36 a.m.,*
in response to message #4 by Ernie Malaga

Hi, Ernie;

You bet; this is the smallest one, as far as I know. In the HP41, if you have a fast finger, you can beat it. In the HP42, about 15 times faster in some circumstances (TONE uses about the same time), I'm not sure if it can be done...

Best regards.

Luiz (Brazil)

Edited: 4 July 2003, 8:37 a.m.

Re: Chances are...

*Message #6 Posted by **Thibaut.be** on 4 July 2003, 8:39 a.m.,*
in response to message #4 by Ernie Malaga

Yes, you can beat it : turn it on and off and on quickly enough so that the "boot" program does not have to start.

This is far more difficult with a 42S as this calc is faster.

Re: HP42S beeps all the time

*Message #7 Posted by **Erik Ehrling (Sweden)** on 4 July 2003, 6:35 a.m.,*
in response to message #1 by John Robinson

I experienced exactly the same behaviour when I was upgrading one of my HP-42S to 32K. The reason which I found out was that one of the legs of the RAM chip did not have contact with the PCB (even if it appeared to have so), therefore if you have tried everything else, one last option could be to open it and check the solderings...

Best regards, Erik Ehrling (Sweden)

This I was not aware about...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 4 July 2003, 8:43 a.m.,*
in response to message #7 by Erik Ehrling (Sweden)

Hello, Erik;

man, thank you for the information. I was not aware about this fact!

If the calculator becomes acting like this for no cause, of course there is no way to "emerge" a program inside it. I even thought about asking John to force a "memory clear" procedure, but I was affraid to cause important data loss inadvertently. In this case, causing a "memory clear" and confirming the calculator is still beeping will lead to no other cause but the one you mention.

Thank you again.

Luiz (Brazil)

Edited: 4 July 2003, 8:44 a.m.

Re: HP42S beeps all the time

*Message #9 Posted by **John Robinson** on 7 July 2003, 3:28 a.m.,*
in response to message #1 by John Robinson

Thanks guys, it was just dud batteries, it's now alive and happy again.

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Computing Before Computers Book

*Message #1 Posted by **Gordon Dyer** on 3 July 2003, 8:08 p.m.*

For those of you who are interested in the history of computing, there is a book available here:
http://ed-thelen.org/comp-hist/CBC.html
which is interesting.
Each chapter is available as a pdf to download.
That site has a huge amount of material on old mainframes and links to many other sites.

Re: Computing Before Computers Book

*Message #2 Posted by **hugh steers** on 8 July 2003, 7:50 a.m.,*
in response to message #1 by Gordon Dyer

thanks for this! its taken a while to read it. theres a lot of detail here.

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HP-30S

*Message #1 Posted by **Thomas Cox** on 3 July 2003, 6:47 p.m.*

Not all is bad about this calculator. It has a good display.

Re: HP-30S

*Message #2 Posted by **Ralf Fritzsch** on 4 July 2003, 12:37 a.m.,*
in response to message #1 by Thomas Cox

I can't acknowledge this in full. I have two of them, which in consequence of having other RPN and RPL HP calculators I use very rarely (One is used once a week to calculate gasoline consumption of my car, the other only very seldom). After three years of marginal use, the display is heavily scratched from the protective cover, since the "ears" of this cover every time rub against the screen. BTW, any TI protective cover hasn't such "ears" and so doesn't scratch the screen.

Ralf.

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82120A Battery Pack

*Message #1 Posted by **41Jeff** on 3 July 2003, 1:12 p.m.*

Can someone tell me what nominal charge current the 82120A battery pack supplies to the cells? What type of regulator does the pack use?

Re: 82120A Battery Pack

*Message #2 Posted by **Ellis Easley** on 3 July 2003, 1:59 p.m.,*
in response to message #1 by 41Jeff

There is more than one version, but mine has a 78L12 three terminal regulator (HP P/N 1826-0275) and then an isolation diode and a 365 ohm resistor in series with the battery, so the charging current is about (12-0.7-4.8) volts divided by 365 ohms equals 17.8 mA. There is a 6.2V (or maybe 6.8V) zener diode in parallel with the battery, this is thought to be a failsafe to protect the calculator when the battery leaks and becomes open circuit.

Re: 82120A Battery Pack

*Message #3 Posted by **41Jeff** on 3 July 2003, 2:08 p.m.,*
in response to message #2 by Ellis Easley

Ellis thanks for the info, but if the charger supplies a 17.8 ma current to the batteries and given that the original 1/2 N cells are rated approx. 80 maH, how can you charge them for 12 to 14 hours? Wouldn't the correct charge time be about 5.5 to 6 hours?

Re: 82120A Battery Pack

*Message #4 Posted by **David Smith** on 3 July 2003, 2:44 p.m.,*
in response to message #3 by 41Jeff

Even though the cells are rated at 80mah, they have enough mass so that a 15-20maH charge rate does not cause them to heat up when they reach full charge. It is the heating that causes the most damage to a cell when it is overcharged.

Re: 82120A Battery Pack

*Message #5 Posted by **Ellis Easley** on 3 July 2003, 3:21 p.m.,*
in response to message #3 by 41Jeff

It seems that NiCads are supposed to receive 1.5 times the capacity during recharging, so 80*1.5=120, 120/17.8=6.74 hours. I have no documentation for my battery pack so I don't know what the recommended charging time is (*). Generally, all NiCads can be charged at a current equal to 1/10 of the Amp-hour capacity for 15 hours, and quick-charge capable cells can be charged at 3/10 of capacity for 5 hours, to achieve a full charge. In principle (according to my 1988 Sanyo NiCad databook), quick charge-able cells (everything Sanyo made at that time) could be left charging at 3/10 of capacity indefinitely with no damage. They get warm after charging is complete because of a chemical reaction

that prevents buildup of gas, and this temperature rise can be detected to signal that charging is complete, but leaving the current on is not supposed to be harmful - and I think this is what HP communicates in the Woodstock and Spice manuals, which specify 4-6 hours for full charge but say the calculators can be left charging indefinitely without harm.

I have tried NiCad "N" cells in the standard HP41C battery holder. According to some data in the 2000 DigiKey catalog for Panasonic NiCads, the recommended quick charge rate for their 150 mA-h "N" cells is 38 mA, instead of 45 mA which would be 3/10 capacity, for 6 hours instead of 5, which comes out to 228 mA-h which is close enough to 45*5=225. This suggests that smaller cells shouldn't be charged in 5 hours at 3/10 capacity, now that they think about it. "N" cells are the smallest ones in that catalog, I don't know how much more Panasonic might derate the quick charge current for 80 mA-h cells. 17.8 mA is 0.2225, or 2.225/10 of 80 mA-h. 38 mA is 2.533/10 of 150 mA-h.

They say what ultimately kills NiCads is reverse charging that happens to the weakest cells during "deep discharge". The weakest cell stops pulling its weight (pushing electrons) and the current from the other cells flows through it in the opposite direction from charging current. This is why it is important to turn off NiCad powered equipment as soon as the battery indicator comes on - the system has detected a sudden drop in voltage of about 1 volt from the battery pack, which means the weakest cell has lost its charge and is going into reverse charge. Aggravating this situation (as I have just learned through making measurements on my HP34C) is that the voltage regulation in the DC-DC converter causes the battery current drain to rise as the battery voltage falls, so just as the weakest cell gives up, the (now reverse charging) current jumps up. The reverse charging current causes little needles of metal to be deposited is such a way that they short circuit the cell. Next time you connect the recharger, the shorted cell results in too high charging current for the remaining cells, since HP didn't use constant current charging circuits and depended on some small resistances (~6 or 7 ohms from the transformer winding plus an 8.2 ohm resistor in the case of Woodstock and Spice) and the normal operating voltage of the NiCads to establish the charging current. With the regular charging current being 3/10 capacity, the new excess charging current is more than the cells can withstand without overheating, producing too much gas, and venting the corrosive electrolyte through the pressure relief valve.

(*)I should mention that I got my rechargable pack in corroded form and have never used it! The cells are no good but the electronics cleaned up. I got a set of 110 mA-h (1/3 AA?) cells, which will require trimming the plastic case to fit, and I haven't done it yet. I also have a set of unmarked cells, very close in size to the actual cells, which a local battery store found for me, but I haven't installed those either - I'm waiting till I perfect my own spot-welding technique!

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General Voyager display question

*Message #1 Posted by **jimc** on 3 July 2003, 10:01 a.m.*

While running a self test, my 10C showed some annunciators not listed in the manual.

They are: USER g BEGIN D.MY C

I know what the USER, g, and the D.MY are, but what are the others? While I am certain these are in the 11/12/15/16 series, it leads me to wonder why they are displayed as active, if the function is not in the calculator.

Re: General Voyager display question

*Message #2 Posted by **Valentin Albillo** on 3 July 2003, 10:05 a.m.,*
in response to message #1 by jimc

The display hardware is the same for all vintage Voyager models, so probably the software part of the ROM which does the display test is the same as well for all of them.

BEGIN is used in the HP-12C (begin/end), and C is used in the HP-15C (complex mode) and HP-16C (carry) IIRC.

Best regards.

Re: General Voyager display question

*Message #3 Posted by **Thibaut.be** on 3 July 2003, 10:19 a.m.,*
in response to message #2 by Valentin Albillo

Well, your 10C is totally screwed up.

I would agree to buy it as salvage ofr USD 50. Ok for you ?

Thibaut, my friend, don't be greedy! :D

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 3 July 2003, 12:20 p.m.,*
in response to message #3 by Thibaut.be

Offer a little more or he will salle it to someone else!

You're a bad guy!

About the annunciators: to add a few more information to the one Valentin correctly posted. As a man of Voyagers, he nows it well, I'm just reinforcing.

The "C" annunciator is used bu the HP12C as well, to indicate that odd periods will be considered in compound interest calculations. [STO][EEX] in an HP12C toggles its state from ON (visible) to OFF.

In the HP16C, "C" indicates a carry or borrow condition when arithmetic with binaries is accomplished or any bit manipulation shifts/rotates a "1" bit through (or into) the carry bit.

Valentin's answer is complete, I just want to participate on it :^) (I'm a nosy guy, shame on me...)

Best regards.

Luiz (Brazil)

Re: Thibaut, my friend, don't be greedy! :D

*Message #5 Posted by **Thibaut.be** on 4 July 2003, 9:16 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Well, I'm sure everybody took my comment as ironical...

I'm just, like a lot of us, jealous (albeit happy for him) that jim owns a calc I've never been able to come to in all these years !

This is compensated by the fact that I've found a mint 10...

Re: Thibaut, my friend, don't be greedy! :D

*Message #6 Posted by **Valentin Albillo** on 4 July 2003, 9:48 a.m.,*
in response to message #5 by Thibaut.be

Thibaut posted:

"I'm just, like a lot of us, jealous (albeit happy for him) that jim owns a calc I've never been able to come to in all these years !"

As Wlodek says in his wonderful "A Guide to HP Handheld Calculators and Computers", "It is remarkably difficult to find". If they were that difficult to find in 1996, just imagine how hard it can be now: dogs chew on them, toddlers throw them against the nearest floor or wall, ex-girlfriends never return them, eBay astronomic prices, etc.

Yet, I own two and Patrick owns three ... so it can be done, it's just a matter of time and a quick sleigh-of-hand when you happen to find one over someone else's table, unattended , kinda that old Woody Allen's movie, "Take the HP-10C and run" ... :-)

Best regards from V.

Edited: 4 July 2003, 9:50 a.m.

How rare is it really?

*Message #7 Posted by **Patrick** on 4 July 2003, 1:33 p.m.,*
in response to message #6 by Valentin Albillo

Actually, I don't think the HP-10C is as unattainable as we are all giving it out to be. If you look at eBay activity just over the last couple of months you would have seen maybe 6-8 sold. The mint/nib ones sold very high -- $300+ -- but there were at least two of the others under $200 -- about $150 for one without manual and $173 for one with a manual.

These prices are in the same ballpark as a decent 11C, so if someone **really** wanted a 10C, they surely are attainable -- relatively speaking. For me, and perhaps for others, I sometimes

find it hard to bid on a 10C -- especially a mint one -- when that would take serious money away from what I could bid on a nice 15C! While rare, I like to actually *use* my acquisitions, and the 10C is limited enough to be a little on the frustrating side whenever you have the need to write a program.

And, just to correct the record a wee bit -- Valentin must have confused my thinking about bidding on a 10C with actually having won it. You see, I still have only(!) two 10C's. One was an extremely fortunate Buy-It-Now at $20. The second was a normal eBay auction which I went after primarily to get a copy of the manual. Unless I see another Buy-It-Now, or get lucky at a thrift store, I'm likely to stay with my current holding!

Re: How rare is it really?

*Message #8 Posted by **jimc** on 4 July 2003, 7:59 p.m.,*
in response to message #7 by Patrick

In response to Patrick's posting, I can't say that it is a calculator that is ALL that rare. What tickled me was the price (and the thrill of the "kill"), but I am seeing the limitations that Patrick has described. Nonetheless, as I stated in my earlier post, I will use this little fellow daily as a replacement for my number crunching when my 41 just isn't convenient. I think I would have preferred a 15, but users can't be choosers...

I tend to look at this not as a shirtpocket 41, but rather like my old 21 Pumpkin. Fairly basic, but excellent for quick and dirty's. Just a little handier in the daylight. That it is slightly rare makes it all the sweeter to use.

(BTW, I found the answer to the original posting in the manual hidden in subtext at the bottom of the page. I guess a fella just has to RTFM). Again, thanks to all for help.

Re: How rare is it really?

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 5 July 2003, 1:53 a.m.,*
in response to message #8 by jimc

Hi, JimC;

May I?

> Quote:
>
> I tend to look at this not as a shirtpocket 41, but rather like my old 21 Pumpkin. Fairly basic, but excellent for quick and dirty's.

I know you are not comparing, just relating one to another. Your post just called my attention to the fact that I'd compare the HP10C to a sophisticated HP25C or a low-resourced HP33C with LCD display, because the HP10C is programmable and the HP21 is not.

Sophisticated HP25C because the HP10C adds few enhancements you may use or not: memory check, mantissa, dot/comma selection for radix mark, self test, amongst others. I mentioned a low-resourced HP33C because the HP10C does not have subroutine calls, neither available in the HP25C.

And the HP10C available RAM is composed of shared 70 steps/ten registers memory plus nine permanently available program steps (bytes), which is physically less than

what the HP25C has, but if you manage to take advantage over the "automatic movable partition", you can do things with the HP10C you cannot do with an HP25C or 33C: store nine or ten different numbers in memory registers, create programs with more than 49 steps and some unique combinations.

I must confess I'm almost getting to a point that any additional calculator to the ones I have will be greedy possession. Not that I have all models available, instead I own the ones I consider the most significant tools for the job, and oppositely to Norm, I prefer LCD to LED's.

I repeat, I'm no calculator's collector, I rather collect data. I wrote all of this about the HP10C by heart. I do not own one of them and I would not like to, actually, because I'd not use it. I cannot think of having an extraordinary original HP calculator (not a Kimpo-clone) in my possession and not allow it to do what it does better: serve as a top-tech, sophisticated state-of-the-art personal computing device.

I must thank to some contributors, guys I have in great consideration. They helped me a lot in adding some important units to the ones I own. I'm currently taking some spare time (when I have some) to read the HP71B documentation; not that I intend developing sophisticated BASIC programs, but I intend to understand and use it as deep as I can so I'll be able to help HP71B owners if there is no expert available when questions about it start new threads. And I'm waiting for an HP75 to be delivered so I can do the same with it.

I would not feel O.K. with myself if I could only look at these calculators trough glass "shields". I have absolutely nothing against those who keep them this way; I myself would not be able to.

Wow! I wrote too much (whatelse is new...) and I explored subjects ahead of the original thread. If you think this post must be removed, I'll use 12345 for password. (but I'll keep a copy of it in my HD).

Best regards.

Luiz (Brazil)

P.S. - Valentin, have you already written "Long Live the HP10C!"? I think "she" is the one "who" deserves better.

Edited: 5 July 2003, 3:40 a.m.

Re: How rare is it really?

*Message #10 Posted by **Valentin Albillo** on 5 July 2003, 11:10 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Luiz posted:

"I'm currently taking some spare time (when I have some) to read the HP71B documentation; not that I intend developing sophisticated BASIC programs, but I intend to understand and use it as deep as I can so I'll be able to help HP71B owners if there is no expert available when questions about it start new threads."

Get an HP-71 Math ROM. Without it, you don't have a whole HP-71B, just 2/3 of it. The Math ROM was to be included internally, but someone decided that it

needed a CALC feature, which gobbled large amounts of ROM, so the matrix functions and complex numbers capabilities had to go. Still, they couldn't remove it completely without rewriting large portions of ROM code, so there are plenty of hooks and remains still left. For instance, try to enter this line:

10 A=(2,3)+(4,5)

and you'll see no syntax error appears, because although the 71B per se can't add those two complex numbers nor assign the result to a real variable, it still recognizes them and enters the line into program memory. Attempt to execute that line will give an "XFN not found" error if the Math ROM isn't present. The Math ROM offers so many advanced capabilites which can be used in so many powerful ways, out of the realm of their nominal use, that no HP-71B is worth its salt without it.

"P.S. - Valentin, have you already written "Long Live the HP10C!"? I think "she" is the one "who" deserves better."

Sort of ... but I can't give any further details without spoiling it all ... :-)

Best regards from V.

Thank you.

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 6 July 2003, 12:11 a.m.,*
in response to message #10 by Valentin Albillo

Hi, Valentin;

thank you for the valuable tip. I'll search for this ROM module, for sure.

I'm looking forward to know about (and read) your new paper.

Best regards.

Luiz (Brazil)

Re: General Voyager display question

*Message #12 Posted by **jimc** on 3 July 2003, 10:53 a.m.,*
in response to message #2 by Valentin Albillo

Thanks Valentin!

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Intergation algorithm

*Message #1 Posted by **rick cameron** on 2 July 2003, 11:54 p.m.*

Hi, all

Several years ago I managed to get a copy of an article that described the algorithm used by HP calculators to do numerical integration. I seem to have lost the article.

Does anyone have an explanation of the algorithm?

Thanks

- rick

Re: Intergation algorithm

*Message #2 Posted by **Patrick** on 3 July 2003, 1:09 a.m.,*
in response to message #1 by rick cameron

The article of which you speak is very likely this one written by William H. Kahan, the numerical analyst who consulted with HP on many of their calculator algorithms.

Re: Integration algorithm

*Message #3 Posted by **rick cameron** on 3 July 2003, 1:17 a.m.,*
in response to message #2 by Patrick

Thank-you - that's the one!

Re: Integration algorithm

*Message #4 Posted by **Patrick** on 3 July 2003, 4:42 a.m.,*
in response to message #3 by rick cameron

As a calculator fan(atic) and ex-mathematician, I would be interested to know what you had in mind for the algorithm? Do you plan on re-implementing it somewhere, or is it just curiousity?

Personally, I would like to get a flowchart or pseudocode for the solve algorithm. I've read Kahan's article on the matter (you can find it in the same place as the integration article) but there is still lots of holes to be filled in.

Re: Integration algorithm

*Message #5 Posted by **hugh** on 3 July 2003, 2:20 p.m.,*
in response to message #4 by Patrick

hi there,

recently ive been reviewing a bunch of quadrature algorithms. tooling up for version3 of my palm calculator. my search is along the lines of; what is the best numerical quadrature algorithm given a pocket device with a bit more poke than a normal calculator (poke=50-500Mhz).

candidates: simpsons rule, newton-cotes etc., romberg (open and closed), gauss and spectral techniques like clenshaw-curtis and other FFT accelerated forms.

BTW, does anyone have any code or doc for gauss-kronrod? i know what it is but i dont have enough details to write it (gauss-kronrod is adaptive gauss apparently now used by casio).

my test suite (so far)is: sqrt(x), cos(log(x)), exp(-x)/x, sqrt(fabs(x-1)), exp(-x*x), cos(1/x), sin (x)/x.

the most promising so far is a modified romberg in the way suggested by kahan. i've come up with something that i think might well be very similar to the method used on the 15c. ok, you wont get the same answers, but algorithmically.

as a taunt i implemented it on the 9g, like this:

INPUT A,B,E H=2;D=0;M=0;J=1;B=B-A FOR (K=0;K<9;++K) { L=D;F=H/2-1;C=0 FOR (I=0;I<J;++I) { D=1-FF;X=((F+DF/2)*B+B)/2+A GOSUB PROG 9;C=C+DY;F=F+H;} F=4;D=M;M=(M+HC)/2 FOR (I=0;I<=K;++I) { C=N[I];N[I]=(F*M[I]-D)/(F-1);D=C;F=4F } D=M[I] IF (ABS(D-L) < 16E*ABS(D)) THEN { GOTO 1; } J=2J;H=H/2 } Lbl 1: S=3DB/4;PRINT S END

if you find this too worrying you can read it clearer here, http://www.voidware.com/rombint.htm

Re: Integration algorithm

*Message #6 Posted by **David Smith** on 3 July 2003, 2:46 p.m.,*
in response to message #5 by hugh

For some unknown reason, I have always liked Gaussian Quadrature... a hangover from my IBM 1130 days...

Re: Integration algorithm

*Message #7 Posted by **hugh** on 3 July 2003, 2:51 p.m.,*
in response to message #6 by David Smith

i did some work on the basic gauss-legendre so that the method calculated the weights and sample points as it went along. thus avoiding storage.

the idea was to see if this would work on real calculators. the trouble was that you have to loop over `n' samples for each coefficient, so you got n^2/2 performance. it flew on a pc, but as you can imagine, after only small n, poor old calculator was too slow.

Re: Intergation algorithm

*Message #8 Posted by **Ralf Fritzsch** on 3 July 2003, 1:09 a.m.,*
in response to message #1 by rick cameron

Googling with the title of the article, "Handheld Calculator Evaluates Integrals", reveals a link at one of the original author's Pages (http://www.cs.berkeley.edu/~wkahan/Math128/), namely

http://www.cs.berkeley.edu/~wkahan/Math128/INTGTkey.pdf

Hope that helps, Ralf.

Re: Integration algorithm

*Message #9 Posted by **rick cameron** on 3 July 2003, 1:19 a.m.,*
in response to message #8 by Ralf Fritzsch

Funny - Google won't find it for me. Thanks for the pointer!

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41CV Card Reader Repair Problem

*Message #1 Posted by **John Smith** on 2 July 2003, 8:43 p.m.*

I recently tried to clean the gummy wheel. Old gummy rubber sleeve has been replaced by fuel line tubing. Appeared to be same OD and ID. Tube was carefully placed on the spindle with a small drop of superglue on the spindle. There was no excess glue leftover. Allowed ample time to dry. After reassemble to the system, now I'm getting the MALFUNCTION message. It pulls the card beautifully. Initially I used to get "weak battery" complain, now I don't see that complain any more. But when I take the card reader out of the calculator, I don't get that "weak battery" message at all. Few times that I saw when the card reader was attached to the calculator. Is it possible that batteries are NOT strong enough to drive the card reader, but still OK just for the calculator alone? If so, should it cause card reader to display MALFUNCTION? Or, is the card reader completely toast?

Before I discard that or auctioning out as out-of-order product, I need your help. Is there any hope left for me to further repair this unit?

Perhaps, you can provide me step by step diagnostic procedure, or maybe outline the steps for the process of elimination.

Please rescue me at your earliest convenience. Thanks.

Edited: 2 July 2003, 8:46 p.m.

Re: 41CV Card Reader Repair Problem

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 July 2003, 9:58 p.m.,*
in response to message #1 by John Smith

Hi, John;

first of all, DON'T throw it away! AFAIC, MALFUNCTION is caused by many reasons, but this is a card-reader exclusive message.

> Quote:
>
> Is it possible that batteries are NOT strong enough to drive the card reader, but still OK just for the calculator alone? If so, should it cause card reader to display MALFUNCTION?

If you have the card reader owner's handbook, have a look at page 51 and you'll see it's possible to happen. But if you simply insert the card reader and switch calcaultor to ON and you see BATT (low battery) indicator lit, than there is something wrong.

If it is actualy toasted, it is more likely to freeze calculator's operation (not even turnning it to off is possible) or not allowing it to turn ON. I had one that is probably turnning around the globe and it used to disrupt calculator operation. After plugging it in and switching calculator to ON, it was necessary to remove batteries because it was not even able to be turned OFF again.

Possible problems are scratched or magnetized head, open coils inside the head (this is impossible to repair) or bad contact somewhere (small daugtherboard, head wires). Also, check if wires are in correct order (I once did it and thought I lost my working unit...). Mechanical problems are more likely to force motor and produce strange noises; as your card passes fine, it is not an issue. Oh, yes; there are two small "flat springs", like metal strips (cooper?), one that alignes the card and another presses it to the head while it is pulled. You should check if they are correctly settled.

If you need more advice, let us know.

Success.

Luiz - (Brazil)

Very elegant causes

*Message #3 Posted by **Mike** on 2 July 2003, 10:27 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

No offense but these are very elegent causes. It still amazes me that people always look for the more exotic causes before looking for the more simple causes. It's a Engineer thing, I guess.

I have a degree in Engineering and also have worked as a technician. I find this same phenomena with some of my Engineer coworkers when they try to troubleshoot electronics. They come up with the most exotic possible problems before looking for the simple ones. I always say, "look for a simple cause before lookig for a comlex cause."

In all the readers that I have ever repaired, I have never found any of these possible causes, to be the cause of any reader problem that I've tried to fix. Doesn't mean it's not possible but I've not seen them and I've repaired over 100 readers. The most likely causes of dirty head or bad cap or misadjusted eccentric isn't even mentioned.

My suggestion:

If there is no reason to believe the reader was bad and all that was done was to replace the drive rubber, then the most likely cause of problems are related to something you did. Possible causes 1) dirty head, 2) misadjusted eccentric or 3) contact problem.

If the reader was already bad, regardless of the drive wheel, then look for other problems. Bad capacitors can cause problems. I doubt very seriously that the head wires are in the wrong place, unless the person doing the repair remembers pulling them out.

Malfunction simply means the reader thinks the hardware is broken. Could be just about anything but start with the simple causes. I have removed these problems with as simple a step as adjusting the card tension.

Re: Very elegant causes

*Message #4 Posted by **David Smith** on 3 July 2003, 10:29 a.m.,*
in response to message #3 by Mike

A dirty head or bad head wiring almost always causes the "CARD ERR" message and not MALFUNCTION. I would check the card sense leaf springs, the internal sense LED, and the reader to calculator contacts. Also make sure the motor is installed properly and is engaging the drive gear properly. Also the worm gear tip should be in its little hole.

Re: Very elegant causes

*Message #5 Posted by **Gordon Dyer** on 3 July 2003, 4:56 p.m.,*
in response to message #3 by Mike

My card reader gave the CARD ERR message and it turned out to be an open circuit coil in the magnetic head.
Luiz helped me get a spare head from another reader which fixed it.
Is this very unusual? (I mean the fault, not Luiz help!!)

Re: Very elegant causes

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 3 July 2003, 6:37 p.m.,*
in response to message #3 by Mike

Hi, Mike; thank you for your comments.

> Quote:
>
> No offense but these are very elegant causes.

I'm not offended. (is the term "elegant" offensive somehow?)

> Quote:
>
> It still amazes me that people always look for the more exotic causes before looking for the more simple causes. It's a Engineer thing, I guess.

I'm an electrical engineer, and I'm not offended at all.

> Quote:
>
> In all the readers that I have ever repaired, I have never found any of these possible causes, to be the cause of any reader problem that I've tried to fix. Doesn't mean it's not possible but I've not seen them and I've repaired over 100 readers.

I've repaired three myself and helped others to repair I-don't-know-how-many; you're experienced, that's good.

> Quote:
>
> The most likely causes of dirty head (...)

I assume, maybe wrongly, that if someone has already opened the reader, removed the gunk, replaced the gummy wheel for O-rings or fuel tubes and tested it, then the head has probably been cleaned. If the card causes CARD ERR message when reading, I ask him to clean the head.

> Quote:
>
> (...) or bad cap (...)

I knew that bad caps could cause problems in card readers after reading some posts in here.

> Quote:
>
> (...) or misadjusted eccentric isn't even mentioned.

As I mentioned in another post, I used to think the exocentric was not to be touched. Anyway, as we have O-rings and fuel tubes, adjusting pressure is necessary. Also, I believe measuring current drain when pulling cards is an important reference to adjust the eccentric, do you agree?

> Quote:
>
> Malfunction simply means the reader thinks the hardware is broken.

This I did not understand. I used to take [MALFUNCTION], maybe wrongly (again), as generated by the firmware when the reader as a hole was not working properly.

Thank you, Mike; thoughtful and reasoning considerations are always welcome. I did not write this post till now because I did not have the time to elaborate the text.

Best regards.

Luiz (Brazil)

Edited: 3 July 2003, 9:47 p.m.

A simpler suggestion

*Message #7 Posted by **Renato** on 2 July 2003, 11:11 p.m.,*
in response to message #1 by John Smith

I would check if the fuel line tube used is not dragging the gear by rubbing against the inner sides of the gear case. I had that problem (low battery message) when i used two o-rings , but did not glue one ring to the other. As one slipped away from the correct position, it rubbed against the case - I guess it caused too high current drain.

It is possible to test card transportation by connecting a regular AA 1.5V battery to the motor terminals. I tried this, and could check for a smooth card transport before reassembling the inner parts.

Good luck and have fun.

Renato

Re: A simpler suggestion

*Message #8 Posted by **Stefan Hauschild** on 3 July 2003, 3:00 a.m.,*
in response to message #7 by Renato

The most common error during my repairs was a high current through the motor because of wrong o-rings or fuel line. If the pressure is not correct it may transport the card but the motor drains a higher current than normal and may go with external power connected (I test my repair before reassembling with external voltage to the motor) but not with power from the internal battery. The other reasons for errors that are mentioned often (misadjustment) never occured during my repairs because I only remove the two screws from the motor and try to clean the system and to replace the wheel from the top. Maybe I was lucky and the head wasn´t too dirty.

Good luck and best regards

Stefan

Accepted average current drain??? (edited)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 3 July 2003, 6:28 a.m.,*
in response to message #8 by Stefan Hauschild

Hello, Stefan;

I thihk your approach is very interesting. Based on your figures, what's the acceptable curretn drain when the reader is pulling a card? I do not know if you have the figures in both situations, but I thought about both cases:

1- a 1.5Vcc battery directly connected to the pulling assembly (no electronics connected, just the motor) and
2- the complete set: calculator plus reader

When you measured current drain you probably did it with the complete set, right? Hve worst and best case, or average measurement? It would help (me) a lot.

(Added later:) As we a dealing with particular measurements, reading operation would be better than writing when measuring card-pulling current. If writing is considered, an extra small amount of current will be drained to record data.

Thank you.

Luiz (Brazil)

Edited: 3 July 2003, 6:44 a.m.

Re: Accepted average current drain??? (edited)

*Message #10 Posted by **Stefan Hauschild** on 3 July 2003, 10:30 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I did not make any current drain measurements. An indicator for higher current consumption for me was the "Battery Low" Indicator on an HP97. If the batteries are good and you only run out of power when pulling a card the motor draws to much current. Then I connected the motor only to a regulated power source and saw a significant increase of current consumption short before the system gets stuck. When it is stuck it takes more than 1A at 1,5V.

After disassembling/reassembling all was fine.

Perhaps when I have to refurbish my next card reader (there is one HP97 in the queue) I will make some exact measurements.

Best regards

Stefan

Re: Accepted average current drain??? (edited)

*Message #11 Posted by **Ellis Easley** on 3 July 2003, 10:46 a.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Luiz, please read the extract from the PPC Journal v13n9p11 that I sent along with the HP41 rechargable pack schematic. It says 170 - 250 mA is the "average" current drain with the card reader motor on, with peaks of 1000 mA. Also it has a good explanation of why alkaline batteries can't run the card reader when they still have plenty of life to run the calculator alone.

Thank you both, Stefan and Ellis...

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 3 July 2003, 12:10 p.m.,*
in response to message #11 by Ellis Easley

Hi;

I repaired at least three card readers (gummy whell problem) after getting in contact with the HP Museum folks; before that, I had no clue about how to do it. All of them got ready and working 100%, but I was not aware of the fact things could be bad if pressure was too high or not enough over the pulling cam. I saw the excentric since the first time I disabssembled one card reader in the 80's, but I thought that one was for production-line adjustments and never touched it. If I reason about it, maybe I would find the reason.

Excessive current drain or sloopy card pulling action may be directly related to this adjustment, if the pulling gum "replacement" succeed. So, measuring current drain when card is being pulled is one good reference to adjust the excentric and make sure the card is being pulled and there no excesive pressure that will stress the small gears and fastly consume battery poewer. If More than, say, 250mA is measured, then it's time to adjust the excentric or to check for something else that may be wrong.

Thanks, guys; now I'll do that every time I get an 82104A reader (if any) to repair. Very good points, indeed.

Luiz (Brazil)

Re: 41CV Card Reader Repair Problem

*Message #13 Posted by **John Robinson** on 4 July 2003, 3:06 a.m.,*
in response to message #1 by John Smith

Hi John,

I have exactly the same problem with one of my readers, but I do also have a good reader. I swapped the mechanicals (motor, slot etc.) as a whole from the good reader to the bad reader to find the bad reader still had the problem. I therefore deduced that the electronics in the bad reader was cactus.

If you discover that "MALFUNCTION" is due to another cause, I'd love to hear about it.

Cheers, John

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email problem with Emmanuel

*Message #1 Posted by **Matthias** on 2 July 2003, 7:38 p.m.*

Sorry, but normally this is not a forum for network problem, but it's the only way I have. Emmanuel, your mail server has a big problem, he allways sends back my mails...

The original message was received at Thu, 3 Jul 2003 01:32:43 +0200 from dclient80-218-165-228.hispeed.ch [80.218.165.228]

----- The following addresses had permanent fatal errors ----- <Xeq41@aol.com> (reason: 550-(RLY:B1) The information presently available to AOL indicates this)

----- Transcript of session follows ----- ... while talking to mailin-01.mx.aol.com.: <<< 550-(RLY:B1) The information presently available to AOL indicates this <<< 550-server is generating high volumes of spam complaints from AOL's <<< 550-member base. Based on AOL's Unsolicited Bulk E-mail policy at <<< 550-http://www.aol.com/info/bulkemail.html AOL may not accept further <<< 550-e-mail transactions from this server or domain. For more information, <<< 550 please visit http://postmaster.info.aol.com. ... while talking to mailin-02.mx.aol.com.: >>> QUIT

Please contact me by ICQ: 17413627. I will delete this posting as soon as the problem is solved.

Re: email problem with Emmanuel

*Message #2 Posted by **Emmanuel, France** on 3 July 2003, 10:48 a.m.,*
in response to message #1 by Matthias

```
Dear Matthias,
I saw... Always AOL or common everywhere?
Yours.
Emmanuel
```

Re: email problem with Emmanuel

*Message #3 Posted by **MAtthias** on 3 July 2003, 11:47 a.m.,*
in response to message #2 by Emmanuel, France

Yes, allways the same error since 1-2 weeks.. Do you have ICQ (www.mirabilis.com).. Please join me there. My UIN is 17413627

Re: email problem with Emmanuel

*Message #4 Posted by **Emmanuel, France** on 3 July 2003, 12:55 p.m.,*
in response to message #3 by MAtthias

Dear Matthias, Will install it tomorrow. Yours. Emmanuel

Re: email problem with Emmanuel

*Message #5 Posted by **Les Bell [Sydney]** on 4 July 2003, 1:39 a.m.,*
in response to message #1 by Matthias

Matthias, the problem is that AOL has started blocking large ranges of IP addresses which they feel either are open relays used by spammers or are cable modem or consumer ADSL addresses which should be sending email via their ISP's outgoing mail servers and not directly.

If you are dclient80-218-165-228.hispeed.ch and you are running your own mail server, that's the problem. Like it or not, you are an innocent victim in the fight against spam. Reconfigure your mail server to use the hispeed.ch mail server supplied for you, and all should be well. If it is not, then you should contact both tech support at your ISP and AOL to have the situation resolved.

Best,

--- Les [http://www.lesbell.com.au]

Re: email problem with Emmanuel

*Message #6 Posted by **Emmanuel, France** on 4 July 2003, 3:33 a.m.,*
in response to message #5 by Les Bell [Sydney]

Thanks, Les !!!

Re: email problem with AOL

*Message #7 Posted by **Chris(FLA)** on 4 July 2003, 7:47 a.m.,*
in response to message #5 by Les Bell [Sydney]

Matthias, the problem is that AOL has started blocking large ranges of IP addresses which they feel either are open relays used by spammers or are cable modem or consumer ADSL addresses which should be sending email via their ISP's outgoing mail servers and not directly.

I started getting this about 1 year ago also from AOL when I had my mail server running on my linux server on DSL whenever I tried to email my dad. Even though I had a FQDN. Luckly he finally got rid of AOL.

What I got was "your IP is part of a dialup range of IP adresses and this server does not accept connections from these IPs". There server also directed me to some page with more info about it.

The one thing that got me was that AOL could send mail to my "dialup" server though. So I guess they can spam any server.

Chris

Re: email problem with AOL

*Message #8 Posted by **Les Bell [Sydney]** on 5 July 2003, 9:17 a.m.,*
in response to message #7 by Chris(FLA)

Just having a domain name is not enough. AOL has been constructing lists of network address ranges used for consumer-type ADSL and cable modem connections, where people "shouldn't" be sending mail directly but instead through their ISP's outbound SMTP server. If your IP address falls in one of those ranges, rightly or wrongly, AOL will not accept email from you.

Another problem arises when you're legit, on a permanenet IP address, but your ISP doesn't have any way of doing classless in-addr.arpa delegation. Your mail server contacts another and says "HELO

mail.chris.org" and the other MTA does a reverse DNS lookup and finds that you seem to be cpe-203-35-202-153.some-isp.net and not mail.chris.org. Some MTA's are configured to reject mail if the HELO string doesn't match the reverse DNS lookup result, and you're hosed again.

If you're on some kind of dial-up or consumer-grade broadband connection, then it's just safer all round to send your outgoing mail via your ISP's mail server. It doesn't cost you any more, and it's a little more reliable.

Best,

--- Les [http://www.lesbell.com.au]

Re: email problem with Emmanuel

*Message #9 Posted by **Donald Leonard** on 10 July 2003, 5:25 a.m.,*
in response to message #1 by Matthias

I sent Emmanual an e-mail with questions regarding my MLDL from an unknown european source. It was NOT returned 'undeliverable', but I received no reply. Maybe my email was also one that got caught in his e-mail trap. Don

Re: email problem with Emmanuel

*Message #10 Posted by **Emmanuel, France** on 13 July 2003, 4:27 a.m.,*
in response to message #9 by Donald Leonard

```
 Dear Don,
Please resend it ASAP. I did not receive it.
Yours.
Emmanuel
```

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hp 21s manual - Scarce commodity?

*Message #1 Posted by **Neil** on 2 July 2003, 5:54 p.m.*

There have been a few auctions on ebay lately for the hp 21s calc and I happened to win one. The calc came without the manual however, and I noticed the other recent 21s auctions didn't offer manuals either.

I get the impression that these manuals are very scarce (the museum CD set doesn't have it). Somebody even put an add in the classified ads section of this site looking for it, and I ended up asking him if he had received it, and if he had and it happened to be in pdf format, could he mail a copy to me. Unfortunately, he hadn't so far gotten any response.

So, what's with these 21s manuals? Does anybody know where or how to get one?

Re: hp 21s manual - Scarce commodity?

*Message #2 Posted by **Ron Ross** on 3 July 2003, 8:37 a.m.,*
in response to message #1 by Neil

The 21s wasn't a very popular calculator (probably due to its price compared to a 20s). It is nearly identical to an Hp20s aside from its statistics speciality and a different set of libraries installed. It programs the same. Key layout is nearly identical for the shared functions (and probably 80% of its functions are shared).

So if you really need a manual, you could probably get by with an Hp20s manual, and just discover the other features and functions. I bought mine via an educalc closeout, minus box or manual also. My wife is using at present for her last course to graduate (a stat course with no graphics allowed, how appropriate).

Re: hp 21s manual - Scarce commodity?

*Message #3 Posted by **Art Litka** on 3 July 2003, 10:15 p.m.,*
in response to message #1 by Neil

Neil,

I happen to HAVE an HP21S manual but no calculator! Since I hope to acquire one for my collection someday, I really do not want to part with it at the moment. I found the manual in a second-hand bookstore in Florida. Whenever I find an HP calc manual in a used bookstore I grab it. Most stores don't take them in, however, because of a very limited market to their way of thinking. (On the other hand, old TI manuals are more easily found in such places.)

I might be able to photocopy some of it for you but you probably want the real item for your collection. The manufacturer's number was 00021-90026-March 1989.

Re: hp 21s manual - Scarce commodity?

*Message #4 Posted by **Neil** on 4 July 2003, 11:54 a.m.,*
in response to message #3 by Art Litka

Hi Art,

Thanks for your generous offer. I have the 20s manual, and Ron Ross is right in saying that most of that manual is applicable to the 21s as well (Ron, thanks for your response) So, the only pages I am missing are the additional statistics and built-in program details. If you are prepared to photocopy just those pages and send them to me I would really appreciate it. Of course, if I come across the real manual, I will buy it for my collection anyway.

Thanks

Neil

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New site with HP-42S programs...

*Message #1 Posted by **Erik Ehrling (Sweden)** on 2 July 2003, 5:16 p.m.*

Stumbled across this homepage by chance. I don't know how new it is, but it can't be very old. Although it is all in Dutch it has some interesting HP-42S programs on it

http://www.geocities.com/dreinouter/

Best regards, Erik Ehrling (Sweden)

Re: New site with HP-42S programs...

*Message #2 Posted by **Richard Jones** on 2 July 2003, 11:11 p.m.,*
in response to message #1 by Erik Ehrling (Sweden)

And it looks like it starts with a stolen picture too.

Re: New site with HP-42S programs...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 3 July 2003, 12:26 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Hi, Erik;

I saw the page, but I don't understand dutch. As he mentions Belgium, I felt curious: is it dutch also spoken by the Belgian? Or Reinut Maes is dutch, too? Just curiosity.

I'll try to e-mail him and ask for further information in English; what do you think?

Thank you for the valuable address indication.

Luiz - Brasil

Re: New site with HP-42S programs...

*Message #4 Posted by **Werner Huysegoms** on 3 July 2003, 3:37 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

58% of the Belgians have Dutch as their mothertongue 35% French 7% German

Regards, Werner

Re: New site with HP-42S programs...

*Message #5 Posted by **Thibaut.be** on 3 July 2003, 4:02 a.m.,*
in response to message #4 by Werner Huysegoms

That's right, there are 3 official languages in Belgium. Though I feel that the a 7% German speaking population is somehow overstimated, this gives a good picture.

In addition many Belgian people speak 2 or more national languages, and if you add English that is also spoken by a wide percentange of the population, it is not rare to see a belgian person feeling comfortable in 4, 5 or 6 languages.

Native languages in Belgium

*Message #6 Posted by **Karl Schneider** on 3 July 2003, 4:56 a.m.,*
in response to message #5 by Thibaut.be

Werner Huysegoms said,

"58% of the Belgians have Dutch as their mothertongue 35% French 7% German"

Thibault said,

"That's right, there are 3 official languages in Belgium. Though I feel that the a 7% German speaking population is somehow overstimated, this gives a good picture."

I could be mistaken, but I thought that the third official language was Flemish -- a Germanic-type language (as opposed to a Roman(t?)ic language like French).

Anyway, I'm a native fourth-generation American (don't be fooled by the name). When I was a USAF serviceman traveling through Begium on leave in 1989, I visited an Italian restaurant very near the German frontier (and a US WWII cemetary). I didn't speak French or Dutch, but did have a few years of German-language classes.

I walked in speaking German, figuring that the locals there would be conversant, and received a somewhat cool treatment from the young waitress. Afterward, I showed her my USAF military ID, and her friendliness improved markedly. I don't know if this treatment was due to her dealings with German tourists or whether it was rooted in, shall we say, "historical events"...

Re: Native languages in Belgium

*Message #7 Posted by **Werner Huysegoms** on 3 July 2003, 5:18 a.m.,*
in response to message #6 by Karl Schneider

Flanders, where the Flemish live, is a region. We speak Dutch, albeit with a different accent and day-to-day vocabulary than the Dutch in the Netherlands, much as the French of the Belgians is somewhat different than in France, the differences between US and UK English, the German in Germany, Swiss, Austria etc.. But the language is the same, there is but one Dutch spelling.

Cheers, Werner

This is the site...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 3 July 2003, 6:06 a.m.,*
in response to message #7 by Werner Huysegoms

Wow!

I LOVE culture! Thank you, guys; it's too bad there's an ocean and a low-to-dimes bank

account I need to surpass... If not, I'd find a way to be there (and other countries as well) sometimes.

Cheers.

Luiz (Brazil)

Re: Native languages in Belgium

*Message #9 Posted by **Thibaut.be** on 3 July 2003, 6:55 a.m.,*
in response to message #6 by Karl Schneider

After WW2 Belgium recevied some land from Germany as war compensation.

We adapted our constitution and recognized German as official language.

There are no 1st, 2nd and 3rd national languages, all are national languages.

Officially you are supposed to use a specific langhuage depending on many criterias.

As you were in this part of land Belgium received, people there usually speak German.

Re: New site with HP-42S programs...

*Message #10 Posted by **Reinout Maes** on 4 July 2003, 6:38 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

hi

Re: New site with HP-42S programs...

*Message #11 Posted by **Reinout Maes** on 4 July 2003, 6:43 a.m.,*
in response to message #1 by Erik Ehrling (Sweden)

Hi guys,

I'm a Belgian indeed and I speak Dutch. Unfortunately I don't have time to translate my site in English. I have exams next month... But all program lines are available if you click on the items "programmalijnen + uitleg" (program lines + explanation) or "tonen/verbergen" (show/hide). All programs are self-made. The picture of hp42s is stolen, I admit ;)...

Nice to meet you! greetz, Reinout

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HP 48G Series Advanced User's Reference Manual

*Message #1 Posted by **Mike Judy** on 2 July 2003, 12:11 p.m.*

Where can I find a HP 48G Series Advanced User's Reference Manual? Any ideas?

Mike

Re: HP 48G Series Advanced User's Reference Manual

*Message #2 Posted by **Jeff** on 2 July 2003, 12:58 p.m.,*
in response to message #1 by Mike Judy

I have never ordered from this place, but they seem to have what you want.
https://www.calcpro.com/cgi-bin/catalog.cgi

Re: HP 48G Series Advanced User's Reference Manual

*Message #3 Posted by **DougT** on 2 July 2003, 7:04 p.m.,*
in response to message #2 by Jeff

A coworker and I both bought AURs from Calcpro a few months back, and were happy with the quick delivery. The book's already helped me as I figure out how the heck to operate my 48GX. Get one while you still can!

Re: HP 48G Series Advanced User's Reference Manual

*Message #4 Posted by **Mike Judy** on 3 July 2003, 11:26 p.m.,*
in response to message #3 by DougT

Thanks! I have placed my order!

Mike

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Links to most 41c module rom images?

*Message #1 Posted by **Gene** on 2 July 2003, 10:14 a.m.*

I know that a couple of websites have some, but does anyone have a set of links to many/most of the HP-41 rom images on a webpage? If not, that sounds like it would be quite useful.

Examples might be a single page like this:

CCD ROM ver B - link to rom image

ZENROM ver A - link to rom image

PPC ROM - link to rom image

Finance 1D - link to rom image

etc. Anyone have such a page or feel like trying to help put one together? Would be very useful for things like the HP-41 Palm emulator that lets you use rom images, the Emu41 on the PC that lets you use them, and so on.

HP41 module rom images for EMU41

*Message #2 Posted by **Christoph Klug** on 2 July 2003, 10:25 a.m.,*
in response to message #1 by Gene

Dear Gene,

if you are looking for HP41 rom-image files for EMU41 I can help you :-)

Best wishes from Germany - Christoph

Actually, that AND potentially for your 16k modules

*Message #3 Posted by **Gene** on 2 July 2003, 10:55 a.m.,*
in response to message #2 by Christoph Klug

Since there are uses now for many of these, I thought a central page with links to where each rom image could be found would be a good thing. :-)

Re: Actually, that AND potentially for your 16k modules

*Message #4 Posted by **Matthias** on 2 July 2003, 2:11 p.m.,*
in response to message #3 by Gene

I collected some of these ROM-files as well... (CCD, Hepax, ..) very usefull....

Re: Links to most 41c module rom images?

*Message #5 Posted by **Mike (Stgt)** on 3 July 2003, 5:48 a.m.,*
in response to message #1 by Gene

I would offer copies, alas I did not start yet to ask for permision to do so from the copy right owners. So I only show this: http://ourworld.compuserve.com/homepages/nutem/romim.htm

Ciao.....Mike

Re: Links to most 41c module rom images?

*Message #6 Posted by **Emmanuel, France** on 5 July 2003, 4:32 a.m.,*
in response to message #1 by Gene

```
I have a lot of them.
I think, but may be I'm wrong, that disassembled listings
of ROM such *.LST easily get authorization and problems do not occur.
*.BIN files for JFG's Emu41 are real copies of ROM, *.41R for HP SDS II also.
I'm building a site with those files.
To be continued...
```

Re: Links to most 41c module rom images?

*Message #7 Posted by **Emmanuel, France** on 5 July 2003, 5:13 a.m.,*
in response to message #6 by Emmanuel, France

[pre]Another and smooth solution is to use Kazaa. On my site I'll put a listing of file names and you can download it easily via Kazaa. What do you think about?[pre]

Re: Links to most 41c module rom images?

*Message #8 Posted by **Gene** on 5 July 2003, 9:23 a.m.,*
in response to message #6 by Emmanuel, France

Kazaa? What's that? :-) Seriously, what's the URL for your site again?

Re: Links to most 41c module rom images?

*Message #9 Posted by **Emmanuel, France** on 5 July 2003, 1:36 p.m.,*
in response to message #8 by Gene

[pre) Please visit my site under construction: http://pageperso.aol.fr/xeq41/ About Kazaa: http://www.kazaa.com[/pre]

Re: Links to most 41c module rom images?

*Message #10 Posted by **Vassilis Prevelakis** on 5 July 2003, 3:32 p.m.,*
in response to message #9 by Emmanuel, France

Note that SPACE (ASCII character 32) is NOT allowed in URLs, despite what Microsoft says[1].

So your link:

```
http://pageperso.aol.fr/Xeq41/PANAME ROM.htm
```

will not work with browsers that follow the URL conventions.

**vp

[1] Microsoft also considers \ characters to be path separators (like /) so that DOS/Windows file paths work. However, this is also incompatible with the URL conventions and is not likely to work with other browsers.

Re: Links to most 41c module rom images?

*Message #11 Posted by **Emmanuel, France** on 5 July 2003, 5:28 p.m.,*
in response to message #10 by Vassilis Prevelakis

```
Thanks, Vassilis !
Replaced the wrong URL:
http://pageperso.aol.fr/Xeq41/Paname/PANAME.htm
In case of "space", please replace by "%20".
Yours.
```

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reparation

*Message #1 Posted by **ricardo pascual** on 2 July 2003, 8:06 a.m.*

Hello out there:

I would like to know where in Spain I could have repaired a card reader 82104A of a set of HP41C, Quad memory, card reader and thermal printer, in Spain.

I lost the machine memory and I need to recharge the programs from the magnetics card, and the reader is out of service. When I introduce the card, the reader stops so the card does not go through. Then, it spells out some grease that cancells data.

I would be grateful if anyone could inform me about the steps to follow in order to have the machine repair in Spain.

You can write me to the following E-mail rpascual@berriozar.animsa.es

Thanks in avance.

Edited: 3 July 2003, 1:58 a.m. after one or more responses were posted

Re: reparation

*Message #2 Posted by **Valentin Albillo** on 2 July 2003, 8:34 a.m.,*
in response to message #1 by ricardo pascual

[English translation below]

Hola Ricardo, yo que tu probaria a enviarle un e-mail con tu problema a esta dirección de e-mail:

jonjosebaib@euskalnet.net

Este caballero tiene muy buena mano para las reparaciones de calculadoras HP, y no hace mucho reparó una de un amigo mio, que la daba ya por imposible, quedando muy satisfecho.

Por cierto, creo que has puesto mal tu direccion de e-mail de contacto, pone "pacual" y seguro que es "pascual", verdad ?

Saludos de V.

[the promised translation for those interested]

Hi, Ricardo, if I were in your shoes I'd send an e-mail describing your problem to this e-mail address:

jonjosebaib@euskalnet.net

This gentleman is really gifted in all matters concerning repairing HP calcs, and recently repaired some friend of mine's machine, who deemed it hopeless, to perfect satisfaction.

By the way, I think your contact e-mail address is posted wrong, it says "pacual" where correct is "pascual", right ?

Best regards from V.

Re: reparation agradecimiento

*Message #3 Posted by **ricardo Pascual** on 3 July 2003, 2:03 a.m.,*
in response to message #2 by Valentin Albillo

Muchas gracias, y vamos a a ver si se puede salvar el lector y poder reinstalar la información de los programas de estructuras.

Por cierto, tenías razón en lo del correo. Es rpascual@berriozar.animsa.es

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A few interesting links ...

*Message #1 Posted by **Valentin Albillo** on 2 July 2003, 7:12 a.m.*

A few interesting documents (PDF format) and links, related to recently posted assorted subjects:

HP-12C Platinum's CPU:

- Data Sheet
- Confirm Sheet
- Product family (12C's CPU = SPLB20D)

Hyperbolic Functions Theory and Applications:

- Superstructure Engineering (Suspension Bridges)
- Curves in Traditional Japanese Architecture and Engineering
- Lecture on the exponential function, the trigonometric functions and the hyperbolic functions
- Hyperbolic functions in the art of M.C. Escher

Trigonometric Functions Applications in Financial/Business

- The Discrete Wavelet Transform with Financial Time Series Applications

Some HP-related Datafile articles by me [shameless plug]:

- Long Live the HP-12C !
- HP-12C Tried & Tricky Trigonometrics
- HP-12C's Serendipitous Solver
- Long Live the HP-15C !

Enjoy ! Best regards.

A few (VERY) interesting links ...

*Message #2 Posted by **Vieira, Luiz C.** on 2 July 2003, 2:57 p.m.,*
in response to message #1 by Valentin Albillo

Hi, Valentin;

man, what a collection of good stuff! I'm sure I speak for the others interested on these subjects when I say: thank you very much for sharing the treasure.

I already have your HP12C Tried and Tricks, but I was not aware about the others.

Thanks again.

Luiz C. Vieira - Brazil

Edited: 2 July 2003, 4:45 p.m.

Re: A few interesting links ...

*Message #3 Posted by **Gordon Dyer** on 2 July 2003, 7:32 p.m.,*
in response to message #1 by Valentin Albillo

Thanks for those links, I enjoyed them!
Do you have any more of your articles you can post, like Long Live The HP-11C?

Long Live the HP-11C !

*Message #4 Posted by **Valentin Albillo** on 3 July 2003, 4:23 a.m.,*
in response to message #3 by Gordon Dyer

Gordon posted:

"Thanks for those links, I enjoyed them! Do you have any more of your articles you can post, like Long Live The HP-11C? "

Certainly. Here's the link to my "Long Live the HP-11C !" article, published in Datafile, V20 N5 (September/October 2001) issue, pag.36-40:

Long Live the HP-11C !

I'm glad you liked the other articles, and hope you'll like this one as well.

Best regards from V.

Re: Long Live the HP-11C !

*Message #5 Posted by **Tom Scott** on 3 July 2003, 8:16 p.m.,*
in response to message #4 by Valentin Albillo

Great articles on the HP-15 and HP-11. HP should hire you to add these types of articles to their manuals! Have you written any "Long Live the: HP 42S, HP 67, or HP 32SII?

Tom Scott, Lander, Wyoming

Re: Long Live the HP-11C !

*Message #6 Posted by **Valentin Albillo** on 4 July 2003, 4:26 a.m.,*
in response to message #5 by Tom Scott

Tom posted:

"Great articles on the HP-15 and HP-11. HP should hire you to add these types of articles to their manuals! Have you written any "Long Live the: HP 42S, HP 67, or HP 32SII?"

Thanks for your kind words, I'm really glad you enjoyed the articles, that's why I write them and your enjoyment is reason enough for me to continue to do so.

And yes, I have a (large) number of yet unpublished "Long Live ..." series of articles, some ready, some in the making. I'll post links to them here a month or two after they're published. They will include all machines you mention, plus many more, as well as a number of plugins and more ! :-)

Best regards from V.

Re: A few interesting links ...

*Message #7 Posted by **Trent Moseley** on 2 July 2003, 11:17 p.m.,*
in response to message #1 by Valentin Albillo

Valentin,

As they say in the "hoods" you be bad. All kidding aside these illustrations are a marvelous demonstration of different mathematical techniques. My oldest daughter, a huge fan of Escher will love the discussion by Sara Robinson. Thank you.

tm

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HP of old times - recruitment ad for marketing engineers

*Message #1 Posted by **Renato** on 2 July 2003, 1:00 a.m.*

Found this ad in the same Scientific American as the other one. The photo shows one HP engineers talking on the phone.

Quote:

A new approach to engineering

At Hewlett-Packard you can take your engineering training to market.
   There´s little point to designing and manufacturing an electronic measuring instrument unless it´s going to be useful to someone. That´s why, at Hewlett-Packard, many engineers make a career of marketing.
   All engineers at Hewlett-Packard are marketing oriented, but a defined and trained group is assigned the engineering task of helping customers. These engineers work at our headquarters, at operating divisions and in the field, helping customers select, apply and get the best use out of their instrumentation.
   With our concept that every new instrument must make a contribution to the science of measurement, our instruments and marketing engineers create new markets, and the sales engineers finds his stimulation ... and success ... in defining and exploring these markets and in helping to solve the measurement problems found there. And at Hewlett-Packard you can start as a design engineer and later move into marketing.
   If, as an engineer, this type of dynamic work interests you, we´d be interested in talking to you. At Hewlett-Packard marketing is career, and our sales success - over $200 million this year - is an ever growing challenge to our marketing engineers. Would you like to join them ?
   Write Ray Wilbur, Vice President, 1501 Page Mill Road, Palo Alto, California 94304. An equal opportunity employer.

Re: HP of old times - recruitment ad for marketing engineers

*Message #2 Posted by **Raymond Del Tondo** on 2 July 2003, 1:23 a.m.,*
in response to message #1 by Renato

Seems today all of those engineers made their marketing career, and no one was left for the desgn & development part;-)

Raymond

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HP of old times - ad at 60s Scientific American Magazine

*Message #1 Posted by **Renato** on 2 July 2003, 12:39 a.m.*

Found this ad at a 60s Scientific American. The photo shows HP engineers rolling a timekeeping equipment on a airplane ramp. Sorry - i have no scanner at home.. Here is how it begins:

> Quote:
>
> Somewhere...
> between 21 global timekeeping stations...
> we lost a microsecond.
>
> Last year, Hewlett-Packard engineers traveled with two "flying clocks" to 21 different timekeeping facilities in 12 nations, correlating their time standards to within tenths of millionths of a second. During this 31-day journey around the world, these portable clocks, without adjustment of any kind, kept to within one microsecond of each other and of the Hewlett-Packard frequency standard in Palo Alto, California. This is an accuracy equivalent to one second in 88,000 years, an accuracy that could guide an object from earth to the sun with a potential error of only a few inches.

HP atomic clocks

*Message #2 Posted by **Ellis Easley** on 3 July 2003, 9:32 a.m.,*
in response to message #1 by Renato

HP cesium clocks have been used to compare the standard clocks of the different nations that paticipate in generating the Coordinated Universal Time since the program started. The basic model is 5061A. I bid on a service manual for it on Ebay but lost, I just wanted to read about the insides! With "high performance beam tube" and batteries for portability, the unit cost about $40,000 in the 1986 HP catalog. It is better than the national clocks because some countries' standards organizations (including the US) think they can build a better clock (best laid plans!)

I toured the US National Bureau of Standards facility in Boulder, Colorado where the US clock is kept. They told us that the US engineers have designed a clock with a cavity twice as long as other clocks which should theoretically work better. They tune it up and put it in operation as the standard clock but after a while it proves to have poor long-term reliability so they put an older clock back in its place. Then they work on the double-length machine for a while and the process repeats. (It was in the late 1980's that I learned this - they might have worked the bugs out by now.)

As I understand it, the way they accomplish the "coordinated" part of Coordinated Universal Time is by flying a bank of 8 HP clocks to all the national sites, comparing each clock to the HP clocks, then calculating a correction for each national clock to make them all agree. It is a continuous process.

This might be old information, but however they do it now, I'll bet some HP or Agilent clocks are involved!

Re: HP atomic clocks

*Message #3 Posted by **Norm** on 4 July 2003, 4:20 a.m.,*
in response to message #2 by Ellis Easley

Carly should smash all the tooling for the HP 5061A atomic clock. And burn up the schematic diagrams. And throw out the file cabinets where the engineers worked.

That way, the only way for a country to get another HP 5061A is a used one from eBay.

Besides, nobody needs atomic clocks anymore. All U need is an HP personal computer, running Microsoft Windows XP, so that you can trade e-mail and play videogames.

The software people can write an atomic clock simulator for it, so problem solved.

Re: HP atomic clocks

*Message #4 Posted by **Patrick** on 4 July 2003, 8:37 p.m.,*
in response to message #2 by Ellis Easley

I wonder if they take Dr. Einstein's theories into account when they do the comparison?

Seriously, there very well may be some relativistic effects from flying the clocks around. Time should slow down on the plane relative to a "stationary" point on the Earth. These clocks may very well be accurate enough for that to matter.

Relativistic Effects on Atomic Clocks

*Message #5 Posted by **Valentin Albillo** on 4 July 2003, 9:05 p.m.,*
in response to message #4 by Patrick

Patrick posted:

"I wonder if they take Dr. Einstein's theories into account when they do the comparison? Seriously, there very well may be some relativistic effects from flying the clocks around. Time should slow down on the plane relative to a "stationary" point on the Earth. These clocks may very well be accurate enough for that to matter."

Correct. Have a look at this most interesting PDF document:

Around the World in Fifty Hours: Transport of Atomic Clocks

Best regards from V.

Re: Relativistic Effects on Atomic Clocks

*Message #6 Posted by **ted** on 9 July 2003, 3:47 a.m.,*
in response to message #5 by Valentin Albillo

Thanks for this fantastic link! Really interesting and clear description.

Re: Relativistic Effects on Atomic Clocks

*Message #7 Posted by **David Smith** on 9 July 2003, 4:15 p.m.,*

in response to message #6 by ted

One thing they have to do with the GPS satellite signals is compensate for the relatavistic effects of the signal falling down the gravity well onto a spinning planet. Subtle but important. As Bunky Hunt once almost said... a nanosecond ain't what it used to be.

I once worked on a seismic project that required time sync across the planet on the order of 10 milliseconds. This was almost impossible to achieve. Now with GPS, 10 nanosecond time sync can be had for a c-note and 1 nanosecond for a grand.

Re: Relativistic Effects on Atomic Clocks

*Message #8 Posted by **Dave Shaffer** on 9 July 2003, 8:00 p.m.,*
in response to message #7 by David Smith

David,

It's just the gravity part that GPS worries about (as well as time dilation due to their speed). They offset the satellite oscillator so that the received frequency is "correct." There is a big article about "Relativity and the Global Positioning System" in the May 2002 issue of Physics Today.

Were you doing location of seismic events?

Yeah, GPS has really made precise timing trivial. We used to hope for microsecond time from LORAN (after separating skywave and groundwave) for our Long Baseline Interferometry - and usually were close enough (meaning that it might take only several tries at correlating the data until you "found" the fringes). Nowadays, you plug in the clock offsets (we prefer to let our hydrogen masers do their own thing and measure time offsets against GPS) for all the sites and begin processing.

Re: Relativistic Effects on Atomic Clocks

*Message #9 Posted by **David Smith** on 10 July 2003, 4:35 p.m.,*
in response to message #8 by Dave Shaffer

The project that we had the most problems with had stations in Egypt, New Zealand, Greenland, etc. Loran was not available. We had to use WWV, etc. which was REALLY grim at those distances.

At one time we built a portable clock that was moved to each of the stations for calibration. It was probably one of the most accurate non-atomic clocks ever built... into a 50 cal ammunition can no less. Try bringing one of those on an airplane today.

A much improved later version used the Navy TRANSIT satellites... but just send money for the receivers...

Re: HP atomic clocks

*Message #10 Posted by **Renato** on 6 July 2003, 2:49 a.m.,*
in response to message #2 by Ellis Easley

Current model for cesium frequency standard is 5071 and is a Agilent product. Please take a look at Agilent site, and read about 5071. In my opinion, Agilent looks very much like the old HP.
Why don´t we give up badmouthing current HP and its executives, and try to get Agilent to produce

professional calculators ? They have the brains for doing it much better than HP, and Agilent customers are the target market for scientific HP calcs.

re: Why not ask Agilent to build calculators?

*Message #11 Posted by **Ellis Easley** on 9 July 2003, 7:17 p.m.,*
in response to message #10 by Renato

Does this not beg the question: Why didn't the calculators go with Agilent in the first place?

Maybe Agilent isn't any more interested in calculators than HP is.

However, I did find some pages on the Agilent website a while back with information about porting HP Series 80 programs to their current Windows-based Basic language VXI instrumentation systems. That was refreshing!

HOW ABOUT A PETITION TO AGILENT

*Message #12 Posted by **Norm** on 10 July 2003, 4:42 a.m.,*
in response to message #11 by Ellis Easley

How about a petition

that we send to the board of directors of Agilent,

asking them to buy out the calculator topics from HP.

Everything I personally have noted thus far, in visiting this chat board the last 3 months, suggests that calculators are academic tools of intelligent scientific, engineering, and professional people. Such people are still represented at Agilent, makers of exceptionally sophisticated electronic instruments (impedance analyzers, oscilloscopes, frequency generators, etc etc etc).

Meanwhile, HP ding-dong board of executives is thinking about how to rip people off on the next hula hoop that they sell 20 million units of. Maybe they want to sign a joint merchandising agreement with "incredible hulk" to sell a computer that is painted green with a bottle of green slime in each packing carton.

HP management are idiots with no comprehension of test instruments, technical professionals, engineers, physicists, and other parts of the University (Academic) communities.

They should turn it over to Agilent and quit fooling around with something they know nothing about. Imagine the current crop of HP idiots holding the car-keys to the network analyzer products and infrastructure. They would go 'derrr how do you work it, derrr, lets discontinue it'. They are too dumb to even know how to plug it in the wall, so thats why such instruments are at Agilent.

We should have a petition as such, and send it to both board of directors. No, I didn't offer to do all the work. But I can clearly state that this is what we should do (rather than grouse about how Carly discontinues all the products..... of course she does.... she doesn't understand them, her brain is too tiny, understands only greed, and counting of money).

Put my name on the list!

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 10 July 2003, 12:15 p.m.,*
in response to message #12 by Norm

Hi, Norm;

put my name on the list, please.

Best regards.

Luiz (Brazil)

[quote]*(...)her brain (Carly's) is too tiny, understands only greed, and counting of money.*[quote]
Touchè!

Re: HOW ABOUT A PETITION TO AGILENT

*Message #14 Posted by **Frank Travis** on 15 July 2003, 11:06 a.m.,*
in response to message #12 by Norm

I strongly support the idea of Agilent taking over the HP Calculator business. Another idea I had was that HP could sell its entire calculator business intact to another company that would be HP Calculator. MICRONPC was part of Micron Electronics Corp. until a few years ago. Their PCs got rave reviews, but Micron was not doing financially well with their PC division. Micron Electronics website www.micron.com sold their PC division (marketting, sales, manufacturing, etc.) to Gores Technology Group which called the division MICRON PC website www.micronpc.com. Micron PCs still got rave reviews. Recently when I got on the website www.micronpc.com I was redirected to www.buympc.com. If HP does not want to continue making quality calculators, they might considering selling their calculator division to another company.

Yes, Serious, we should do this

*Message #15 Posted by **NH** on 15 July 2003, 1:31 p.m.,*
in response to message #14 by Frank Travis

Thanks for nod of approval Frank.

Although this idea has gotten very little replies, deep down, I think any of us on this chat board can see its true.

I didn't volunteer to do all the work..... I suppose its got to be Mr. David Hicks anyway because its about gathering of data online .....

But the essential detail is that "HP" is now a hula-hoop company with no appreciation of scientific instruments or the scientific community. They want to sell wireless internet cell-phones at Starbucks, and that is their mentality. They could be sitting on a cure for cancer and they would throw it in the dumpster so they could concentrate on their hula hoops.

The types of calculators the scientific community appreciates is entirely beyond the understanding of HP, but Agilent would do very well with it, and probably create the models we would be satisfied with.

BTW isn't it humorous that the engineering/scientific community was able to create financial calculator design(s) that are immensely valued by the MBA/business types.

HOWEVER, the converse is not true... MBA/business types are not capable of creating (merely maintaining or selling even) a decent engineering/scientific calculator. I suppose there's no great surprise in that logic..... U wouldn't want to take a ride on a space shuttle

designed by MBA/business types either.

C'mon.... volunteers..... approval..... petition..... lets change the world, let's excuse the diabolical beast (Carly) from a responsibility she does not want..... everybody will get happier.

- Norm analogee@gte.net

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What's this?

*Message #1 Posted by **Matthias** on 1 July 2003, 9:16 p.m.*

Hi guys.. you see, I'm on holidays. So I do have much more time for my hoppy... collecting HPs... This night (now it is 3.15 am) is was looking at my PRISMA magazines.. but... I stopped laughing when I read about some items I've never heared about: What is the HP-41CW (I know the CY) and what about the RADIO module (HP82186A). Does someone has one? I allways thought, that HP82184A is the last module. Does a HP82185A also exists?

Matthias

Re: What's this?

*Message #2 Posted by **Raymond Del Tondo** on 2 July 2003, 1:26 a.m.,*
in response to message #1 by Matthias

Have you checked the date (month) of the Prisma?

Raymond

Re: What's this?

*Message #3 Posted by **Matthias** on 2 July 2003, 2:02 a.m.,*
in response to message #2 by Raymond Del Tondo

HP-41CW turbo: PRISMA no. 3/1987 page 23: It's a price list of W&W HP82186A: PRISMA no. 3/1983, front (picture) + page 1 (inkl CAT2)

Re: What's this?

*Message #4 Posted by **Raymond Del Tondo** on 2 July 2003, 8:40 p.m.,*
in response to message #3 by Matthias

Yes, you're right. I saw the ad. I think it's a version with 32K RAM box, or simply the Turbo w/o additional RAM.

For the HP82186A: I have nearly all Prisma's, but it seems the 1983 annual is missing from my archives...

Could you provide a scan of these pages of PRISMA no. 3/1983 ?

Raymond

Re: What's this?

*Message #5 Posted by **Matthias** on 3 July 2003, 3:04 a.m.,*
in response to message #4 by Raymond Del Tondo

Just pass me your email address...

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Charger for HP-29C

*Message #1 Posted by **er** on 1 July 2003, 8:21 p.m.*

Recently came across an HP 29C that has a separate charger module. The batteries are in the charger, underneath the tan plastic cover. I can't seem to be able to remove this cover to get the batteries out, to be able to place them into the calculator. There is an indented arrow on one end and when I attempt to gently pry it up, it does not move. It does not slide either. I don't know if it's stuck or what, but I don't want to damage it.

Any ideas?

Re: Charger for HP-29C

*Message #2 Posted by **David Ramsey** on 2 July 2003, 1:03 a.m.,*
in response to message #1 by er

That cover is actually the back side of the battery pack. Push HARD in the direction of the arrow, and the far end of the battery pack should pop up.

First picture: Battery in charging unit. Press hard in direction of red arrow:

http://neko.com/pack1.jpg

Second picture: Battery pack pops out of charger unit:

http://neko.com/pack2.jpg

Re: Charger for HP-29C

*Message #3 Posted by **David Smith** on 2 July 2003, 5:48 p.m.,*
in response to message #2 by David Ramsey

If the battery cells have puked their vile, corrosive guts out then the pack can be very difficult to remove. You may have to use a screwdriver or knife blade to lever the thing out (pry in the drirection of the arrow on the far side away from the arrow). Of course this risks damage to the pack and/or charger.

Re: Charger for HP-29C

*Message #4 Posted by **Ellis Easley** on 3 July 2003, 11:56 a.m.,*
in response to message #3 by David Smith

The only way I can develop enough force to remove the battery pack from my HP25 is to push with both thumbnails against the molded ridge surrounding the arrow. With one thumbnail near the arrow and the other on the opposite end of the box outline, I can apply enough force and control the popping out of the pack.

Re: Charger for HP-29C

*Message #5 Posted by **er** on 4 July 2003, 11:46 a.m.,*
in response to message #4 by Ellis Easley

Thanks for all the good suggestions. The only way I was able to get the battery pack out of the charger was to use latex gloves on both hands and apply the pressure. This kept my fingers from slipping and not being able to reach the required force to release it.

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Re: HP41 - PC interfacing and Free Advertising

*Message #1 Posted by **John Smith** on 1 July 2003, 7:37 p.m.*

Hi Sebastian,

Before you jumped on Christoph, did it occur to you that he had been attempting to answer my questions? Did you try to read my post first? In some of my questions I directly asked him for prices and sources.

What the hell is wrong with you? I'm outraged by your insensitive comments to Christoph. Person like you are absolutely disservice to the board.

Do you know how much effort is required for an individual to innovate and design compatible accessories for HP 41 series so that we can still function when HP pulled their plugs (and turned back on us) 16 years ago leaving us high and dry?

If someone's product performs better than what is available today, or even better than what HP came up with, then that individual should be proud of with his accomplishment. Nothing wrong with that. We, all should be proud of Christoph.

John

Edited: 1 July 2003, 7:40 p.m.

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Double X-Memory

*Message #1 Posted by **Matthias** on 1 July 2003, 7:36 p.m.*

I wand to get a double X-Mem.. I do have two X-Mem modules. Can anyone built me a double X-Mem?

Matthias

Re: Double X-Memory

*Message #2 Posted by **Raymond Del Tondo** on 1 July 2003, 8:14 p.m.,*
in response to message #1 by Matthias

Hi,

I remember there once was an article about this topic. AFAIR it's in the articles archive.

Raymond

Re: Double X-Memory

*Message #3 Posted by **Emmanuel, France** on 3 July 2003, 5:12 p.m.,*
in response to message #1 by Matthias

```
Easy to build from 2 HP-82181A X-Memory modules.
I have plans somewhere.
Will communicate them soon.
Yours.
Emmanuel
```

Re: Double X-Memory

*Message #4 Posted by **Matthias** on 3 July 2003, 5:26 p.m.,*
in response to message #3 by Emmanuel, France

I found them, thanks

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What about a collector's meeting

*Message #1 Posted by **Matthias** on 1 July 2003, 7:05 p.m.*

To all european HP collectors: What about a collector's meeting? I would like to invite you to join a party here in Switzerland. I would really like to meet you face by face... I know, we do not live door by door, but if we can fix a date still in 2003 I would be very happy!

Matthias

Re: What about a collector's meeting

*Message #2 Posted by **Raymond Del Tondo** on 1 July 2003, 8:15 p.m.,*
in response to message #1 by Matthias

Hi,

that sound great. Where and when?

Raymond

Re: What about a collector's meeting

*Message #3 Posted by **Matthias** on 1 July 2003, 9:12 p.m.,*
in response to message #2 by Raymond Del Tondo

Where: Basel, Switzerland When: Whenever we find some other collectors... Please post some possible dates...

Re: What about a collector's meeting

*Message #4 Posted by **Thibaut.be** on 2 July 2003, 2:41 a.m.,*
in response to message #3 by Matthias

It would be great !

If we're in Basel, we could visit the Vitra Design museum (Weil am Rhein). Or visit some wineyards in Alsacy.

This would be just great !

Re: What about a collector's meeting

*Message #5 Posted by **Andreas Stockburger** on 2 July 2003, 2:44 a.m.,*
in response to message #3 by Matthias

Hi,

Basel, Switzerland - Thats great! Possible Dates:

august september oktober

looking forward

Andreas Stockburger

Re: What about a collector's meeting

*Message #6 Posted by **Ted** on 2 July 2003, 3:11 a.m.,*
in response to message #5 by Andreas Stockburger

Second half of august is perfect for me, and I will be in CH on business then anyway. Keep me posted.

Re: What about a collector's meeting

*Message #7 Posted by **thibaut** on 2 July 2003, 5:16 a.m.,*
in response to message #6 by Ted

I'd prefer July, 1st half of augustus or september.

I've got somme family near lausanne

Re: What about a collector's meeting

*Message #8 Posted by **Matthias** on 2 July 2003, 4:07 p.m.,*
in response to message #7 by thibaut

So, many of you gave a possible date, great. I will have a look for some people more. Let's wait for a fiew days and the date. Please also informe other collectors of that meeting. They shall also post a possible date here...

Matthias

Re: What about a collector's meeting

*Message #9 Posted by **Raymond Del Tondo** on 2 July 2003, 8:45 p.m.,*
in response to message #3 by Matthias

Currently I could arrange nearly any date to join.

Viel Urlaub abzufeiern;-)

Raymond

Re: What about a collector's meeting

*Message #10 Posted by **Thibaut.be** on 2 July 2003, 5:17 a.m.,*
in response to message #1 by Matthias

The HPCC in London has a monthly meeting.

Why wouldn't we join them one time ?

Re: What about a collector's meeting

*Message #11 Posted by **Matthias** on 2 July 2003, 4:09 p.m.,*
in response to message #10 by Thibaut.be

I'm also a member of HPCC, but London isn't that near to Switzerland.. But why not.. Once in my life it would be fine (hehehe)..

Matthias

Only collectors allowed?

*Message #12 Posted by **HrastProgrammer** on 3 July 2003, 2:29 a.m.,*
in response to message #1 by Matthias

Are there only collectors allowed to join the meeting?

Regards.

Re: Only collectors allowed?

*Message #13 Posted by **Matthias** on 3 July 2003, 3:47 a.m.,*
in response to message #12 by HrastProgrammer

Who else would like to join us (if you're not a collector or a user..)?

Re: Only collectors allowed?

*Message #14 Posted by **Mike (Stgt)** on 3 July 2003, 6:08 a.m.,*
in response to message #13 by Matthias

There are others interested in such a meeting: I once organized a meeting in Stuttgart (lasting 3 days with visit of Daimler production in Sindelfingen, guided walk to historical places of Stgt, and some other events) but only few Swiss collectors joined. When I talked about that at a Palmtop meeting (Palmtom = HP200LX, 100LX, 95LX, 700LX, 1000CX <G>) they said 'Ha! Next time you tell us, pls. We would have joined too.' And it came out that several use JF Garniers emu41 on their Palmtop.

So such a meeting would be for emulator programmers and users too, I suppose. (I still have the duty to make a date in Lausanne to meet JFG together with some Swiss collectors <G>)

Ciao.....Mike

Re: Only collectors allowed?

*Message #15 Posted by **HrastProgrammer** on 3 July 2003, 7:26 a.m.,*
in response to message #13 by Matthias

Who else would like to join us (if you're not a collector or a user..)?

Programmers, perhaps ...

Re: Only collectors allowed?

*Message #16 Posted by **Matthias** on 3 July 2003, 10:05 a.m.,*
in response to message #15 by HrastProgrammer

Shure you are also invited.. Sorry, but I do not often chat with programmers, cause I'm a hardware collector.... Please forgive me...

Matthias

Re: Only collectors allowed?

*Message #17 Posted by **HrastProgrammer** on 4 July 2003, 2:11 a.m.,*
in response to message #16 by Matthias

No problem. Software, hardware - it is all the same :-)

Best regards.

Re: What about a collector's meeting

*Message #18 Posted by **Meindert Kuipers** on 3 July 2003, 11:29 a.m.,*
in response to message #1 by Matthias

Count me in as well! I am not really a collector or programmer, more a hardware guy, but if there is a party I will be there!

Meindert

Re: What about a collector's meeting

*Message #19 Posted by **Matthias** on 3 July 2003, 11:47 a.m.,*
in response to message #18 by Meindert Kuipers

Wellcome on board my friend....

Re: What about a collector's meeting

*Message #20 Posted by **Emmanuel, France** on 3 July 2003, 12:59 p.m.,*
in response to message #1 by Matthias

Really good idea, Matthias!!!

Re: What about a collector's meeting

*Message #21 Posted by **Juergen (CH)** on 4 July 2003, 5:07 a.m.,*
in response to message #1 by Matthias

Great opportunity to meet some of the nice people visiting this forum!

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HP's Fall 03 Line

*Message #1 Posted by **Park** on 1 July 2003, 6:43 p.m.*

I talked to Hp's Calc support today, and the person told me that there's a new calculator line coming out this fall that is on the level of the 48/49 series. Does anyone here know anything about these machines? Know where to view a picture of a preproduction unit?

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address No. 2

*Message #1 Posted by **Matthias** on 1 July 2003, 5:14 p.m.*

Does someone has the email adress of Mike (Stgt)?

Thanks

Re: address No. 2

*Message #2 Posted by **Emmanuel, France** on 1 July 2003, 5:50 p.m.,*
in response to message #1 by Matthias

Try hp41cx@web.de Michael uses an HP-200LX for internet. Yours.

Re: address No. 2

*Message #3 Posted by **Mike (Stgt)** on 3 July 2003, 6:13 a.m.,*
in response to message #2 by Emmanuel, France

Thanx, Emmanuel! I'll forward all spam to you. My address is well known and so I do not like to change it too often.

Now let's hope no one else scanns this list.

M.

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Speed

*Message #1 Posted by **bill platt** on 1 July 2003, 1:33 p.m.*

Hi all voyager and pioneer fans,

Just got my copy of a 15c. Just to start the fires, I thought I would make a post about speed.

1.st: My 15c is about 10-15% slower than my 11-C. There is variation from machine to machine (old posts talk about this).

Now, given a simple loop: (pioneer syntax)

LBL A

-1

+

x>0?

GTO A

1.E40

RTN

start by putting a number in the stack, say 50, and when done cycling, display wil say "1 E 40"

Difference in speed:

15c: 50 loops = 24.0 sec

32sii 200 loops = 5.0 sec

or about 19:1

(incidentally I used my 48gx as a stopwatch :-})

So, what is the difference in time between rele4ase of these products? 1981 for voyager, 1988 for pioneer, so 7 years.

Extrapolating linearly, that would mean that today, we should be able to build a caclulator with a speed of 63 times that of the Voyager. I bet it is even faster (but we have to be fair on caoparing at a similar price point).

Re: Speed

*Message #2 Posted by **Patrick** on 1 July 2003, 2:10 p.m.,*
in response to message #1 by bill platt

The famous Moore's law says that speed (and memory capacity) approximately doubles every 18 months, meaning there is exponential growth. Those of you with a calculator handy (!) can compute an equivalent of about a 58 3/4% growth rate, compounded continuously.

Using this rate, one would expect an approximate 25 fold speedup in speed in 7 years, very much in line with the factor of 19 in your experiment.

Extrapolating from 1981 to 2003, we might expect a speedup factor of 26,000! (No, that isn't factorial)

This is where reality sets in and we have to look at whether we are comparing apples to apples. The Voyager series was specifically designed for long battery life. The technology at the time might have supported making a faster processor at about the same cost, but the HP engineers might have sacrificed speed for extra battery life.

A famous scientist once said "Prediction is very difficult, especially when it is about the future."

Re: Speed

*Message #3 Posted by **bill platt** on 1 July 2003, 5:01 p.m.,*
in response to message #2 by Patrick

Patrick,

Thanks for your reply,

so, at the moore's law worked backwards, starting from a 500 MHz Palmtop, I work backwards to find a 19.2 kHz speed for the old 15C. Question is, "what was the processor speed of the old 15C?"

regards,

Bill

Re: Speed

*Message #4 Posted by **David Ramsey** on 2 July 2003, 1:06 a.m.,*
in response to message #2 by Patrick

Actually, Moore's law says the number of transistors on a chip doubles every 18 months. But it's been extended before...

Re: Speed

*Message #5 Posted by **Trent Moseley** on 1 July 2003, 3:11 p.m.,*
in response to message #1 by bill platt

Same results for a 1988 16C and a 1999 32SII. For the record a 1980 67 did 50 loops in 20.5 seconds.

tm

The Old Time Speedy: HP-25C

*Message #6 Posted by **Trent Moseley** on 2 July 2003, 12:53 a.m.,*
in response to message #5 by Trent Moseley

Fifty loops in 14 seconds! 1978 vintage. No LBL A of course.

tm

Misleading !

*Message #7 Posted by **Valentin Albillo** on 2 July 2003, 5:29 a.m.,*
in response to message #1 by bill platt

Hi Bill,

Bill posted:

"Just got my copy of a 15C"

First of all, congratulations and welcome to the club ! But let me point out that you didn't get a "copy" of a 15C, but a real, genuine *original*, right ? There are no *copies* of 15C's whatsoever, that is until and unless CFKAHP (Company Formerly Known As HP) releases an HP-15C Platinum, Iridium, Praseodimium, or something, though they'll probably release instead a "32SII Platinum" aka 33S.

Now, for the speed issue, this is a very thorny affair, because measuring speed isn't as trival as setting up a loop and timing the seconds it takes to run. There are *serious* problems with that simple approach, namely:

- The coding of the loop can make *all* the difference, because a finely tuned loop can run many times faster than a sloppy approach. For instance, you can code a loop in the HP-15C like you did, with that **-1, +, x>0?** construct, but why not **1, -** instead of **-1, +**, which seems much more natural, or even using the powerful **ISG** or **DSE** looping instructions which are provided in the instruction set precisely for that very purpose, or use **GTO (i)** for rapid reverse branching, thus avoiding the label and the time-consuming label search, or ...

- related to the point above, the best way to code a loop in a particular machine (say a 32S) usually is *not* the way to code same loop in another one, and here the coder can't usually avoid to incur in *language chauvinism* or the constructs he/she is used to in another language and/or machine. Only a user absolutely knowledgeable about a number of different machines and who puts aside any preferences on language or coding techniques (say structured vs. goto) can actually produce optimal tests for a given machine or set of machines.

- finally, the very concept of testing the speed using a simple loop is as *misleading* a concept as one can be. There are machines that will run a 1000-cycle loop blidingly fast, yet will choke to death upon encountering a floating point sine computation, not to mention doing it properly (range, accuracy, etc).

  The HP-15C is optimized for *mathematical computations*, not branching and looping, and at that it excels. Its instruction set includes functions to do almost all things mathematical with as little looping as possible. If you study my past HP-15C Quizs/Challenges, you will see that the matrix operations, for instance, are so powerful that you can do *without loops* many computations that seemed to require them, and even when loops are needed, they can be kept to a bare minimum.

In other words, if you want to make a *fair* speed comparison and learn something about the relative speed of machines, avoid coming to premature conclusions by resorting to the use of an inadequate, quick & dirty test. I'd suggest the following instead:

> Run a test which does significant computation, using a lot of mathematical functions [which is what a calculator such as the HP-15C is optimized to do], operators, storage, etc, and little branching. You should strive for a 90% computing, 10% branching or less. See what figures you get then. I'll bet you *won't* get a 19:1, right ?
>
> If really trying to asses the speed of the HP-15C in particular, try to solve a 7x7 linear equations system

in both your 15C and your 32S, and compare the times. See ?

Of course the 32S doesn't have matrix operations but so what ? That's not the 15C's fault, and we're testing speed in solving real-life math problems, aren't we ? **;-)**

Matter of fact, I've done computations on my HP-15C, in 40+ steps, in a few seconds, that you wouldn't even dream of doing on a 32S, in 200+ steps, in many minutes [see my Datafile article next month], that is, if you could attempt them, which you can't because they won't fit. A comprehensive, well thought, awesomely powerful instruction set more than makes for lack of speed in other areas.

That said, welcome again and enjoy to the max your HP-15C. And I fully **expect** that you'll post a solution to my next HP-15C Quiz/Challenge, to be posted in a few days, you have that much time to learn all the capabilities of your wonderful machine, lest it becomes painfully obvious you simply don't deserve to own one. Do not try it with your 32S, though, it won't work :-)

Best regards.

Edited: 2 July 2003, 5:31 a.m.

Re: Misleading !

*Message #8 Posted by **R Lion (España)** on 2 July 2003, 11:55 a.m.,*
in response to message #7 by Valentin Albillo

> Quote:
>
> or use GTO (i) for rapid reverse branching

What is GTO (i)?
Thanks in advance

Raul

Rapid Reverse Branching

*Message #9 Posted by **Valentin Albillo** on 2 July 2003, 1:54 p.m.,*
in response to message #8 by R Lion (España)

Hi, Raul:

Actually, GTO (i) is the correct form for such machines as the HP-67, HP-34C, HP-11C, etc. For the HP-15C, the correct form is GTO I, with a capital "I" instead of "(i)".

GTO I, when register I does contain a negative integer (say -15), branches execution to that program step number (step 15 in this case), instead of searching for a label.

As no label search is performed whatsoever, it executes much faster, and besides it doesn't require a label at all at the destination step. It's a rarely seen technique, but available and powerful nevertheless.

Best regards.

Re: Rapid Reverse Branching

*Message #10 Posted by **gene** on 2 July 2003, 5:00 p.m.,*
in response to message #9 by Valentin Albillo

My guess about why this is a rarely seen technique (GTO I in particular) is because of the overhead required to store the step number into I, particularly when one wanted to change the destination in a program.

And, of course, the difficulty of debugging and maintaining a program using absolute addressing. Yuck! I know it RUNS faster, but the pain involved in getting there is nasty. :-)

Speed is Misleading

*Message #11 Posted by **bill platt** on 7 July 2003, 10:30 a.m.,*
in response to message #7 by Valentin Albillo

Valentin,

Thanks for your excellent response--it is just the sort of dialog I hoped to start!

Just now back from a short vacation---so looking forward to your next 15c quiz.

Regards,

Bill

Re: Speed -- a few more data points . . .

*Message #12 Posted by **Paul Brogger** on 2 July 2003, 11:21 a.m.,*
in response to message #1 by bill platt

HP-97 -- 50 loops in 21.5 seconds

HP-34c -- 50 loops in 21.9 seconds

HP-32s -- 200 loops in 4.0 seconds

HP-28C -- didn't care to figure out RPL (again)

HP-48G -- too lazy to figure out RPL

(I used my watch as a stopwatch . . .)

Lesson: RPL -- Use it or Lose it!

Re: Speed -- a few more data points . . .

*Message #13 Posted by **bill platt** on 7 July 2003, 11:46 a.m.,*
in response to message #12 by Paul Brogger

Paul,

looks good. Notice the correlation between your 97 and Trent's 67---this should be, as they are the same in their guts, yes?

Take a look at Valentin's post---he has great points about the validity of speed tests. I am going to play with some other loop structures and see what happens.

Regarding RPL---I am a newbie to RPL---but yes it seems a bit like "use ot or lose it." But I did successfully figure out how to do an IF-THEN-ELSE recently on RPN, so maybe I will be able to make a REPEAT-WHILE.....

regards,

Bill

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Using HP-IB For Mass Storage

*Message #1 Posted by **Mark Hardman (LED)** on 1 July 2003, 12:18 p.m.*

I frequently see HP-IB floppy drives like the 5-1/4" HP-82901 or the 3-1/2" HP-9121 available on eBay. I've even seen HP-IB hard drives come up for auction.

What is the feasibility of using one of these devices for HP-41CX mass storage using the 82169A HP-IL/HP-IB interface?

Mark Hardman (LED)

Re: Using HP-IB For Mass Storage

*Message #2 Posted by **Emmanuel, Normandy** on 1 July 2003, 12:53 p.m.,*
in response to message #1 by Mark Hardman (LED)

```
I save all my HP-41 data onto a PC and recall them easily.
My system includes:
- 1 HP-41CX
- 1 HP-82160A HP-IL module
- 1 HP82183A Extended I/O module
- 1 HP82169A HP-IL/HP-IB interface
- 1 Amd K6/266 with Win95
- 1 HP82335 HP-IB/PC ISA card
I use special softwares and libraries made for that previous card.
Yours.
```

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Consider this...

*Message #1 Posted by **Juergen (CH)** on 1 July 2003, 7:23 a.m.*

Sebastian,

please consider the following points, then think about your complaint again.

1. Christoph has invested many, many hours to professionaly rebuild the HP-IL/PC Interface Card. Try to get one on eBay, it's hard and more expensive.

2. To rebuild the interface card, Christoph needs some original IL chips. Without the help of many other HP enthusiasts around the world (which highly appreciate his efforts, too), he would not be able to get enough such chips.

3. Christoph Klug and Jean-Francois Garnier cooperated in adding IL support to EMU41. Now, they can offer a unique and very powerful solution. Nothing comparable out there!

4. Christoph has a very deep knowledge of all the IL stuff and many other HP-41 hardware. I'm absolutly sure he will share his knowledge with us if any "hard-core" question arises.

5. The price of EUR 150.- is absolutely fair. The HP-IL/PC Interface card is hand-made by Christoph, and of very good quality. I don't think it's the big business, it's more like a service to HP-41 enthusiasts.

6. Carefully read all the possibilites of the HP-IL/PC Interface Card/EMU41 package. That's really great! You can archive your HP-41 programs on the PC, you can easily print barcode, you have many ROM modules to play with (even on your "real" HP-41 if it is connected to the PC), you have virtual IL devices, etc.
EMU41 does not have a click-e-di-clack user interface, but that's not a problem. If you get used to it, you can work efficiently.

I highly appreciate the work of Christoph Klug and Jean-Francois Garnier (and all the others working on amazing HP related hardware and software projects). They offer a very powerful and reliable package for HP-41 enthusiasts which I can highly recommend!

Questions about interfacing the HP-41 with a PC appear frequently on this forum, and I really don't see any reason why Christoph should not point to his wonderful solution.

Best wishes from Switzerland,
Juergen

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Questions for a 33S Beta Tester

*Message #1 Posted by **Tony David Potter** on 1 July 2003, 6:56 a.m.*

I remember us having several regulars on this board being 12C Platinum beta testers, so I have some questions for anyone who is a 33S beta tester. If necessary, anonymity is better than nothing. Since the tech-service bots still disavowed knowledge of the HP-12C Platinum until last week, I'm hoping we can get some answers to tide us over until the HP-33S is released.

1. What architecture will be used? The Pioneer Series (HP-32SII or HP-42), the Voyager Series (HP-11, HP-15, HP-12C Platinum, the Cosmos series (HP-6S, 9S, and 30S), or something new?

2. Will it be exclusively RPN, RPL, or a dual-system series like the 12C-Platinum?

3 If it has ALG entry, will it be arithmetic (3 + 4 * 5 = 35) or algebraic (3 + 4 * 5 = 23)?

4. Is it programmable? If so, how many programming steps are available to the user? Does using this space cut down on space available for variables/memory registers?

5. What standard features/programs does it have built in? Solving for roots of equations? Definite integration? Statistics packages?

6. Will it have a dot-matrix display of a fixed element display?

7. How much of the stack is visible at a time? One line? Two lines? 4 Lines?

I'm probably forgetting some obvious stuff, which I'm sure my esteemed colleagues will add to this question.

Thanks ahead of time.

Tony David Potter

Re: Questions for a 33S Beta Tester

*Message #2 Posted by **John Cadick** on 1 July 2003, 10:02 a.m.,*
in response to message #1 by Tony David Potter

Tony:

If I were a beta tester, I would be deeply offended that you are asking me to break a non-disclosure agreement. We don't have much when we enter this world, and we don't have much when we leave. If we can keep our integrity in tact, I beleive that is a plus.

I sincerely hope that no one answers your questions.

No offense intended - just my thoughts.

John

Re: Questions for a 33S Beta Tester

*Message #3 Posted by **Tony David Potter** on 2 July 2003, 12:56 a.m.,*
in response to message #2 by John Cadick

John,

I apologize if I offended you. I didn't even think about that.

Tony David.

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address of NutEm

*Message #1 Posted by **Matthias** on 1 July 2003, 6:50 a.m.*

I wanted to contact the developper of NutEm, a HP-41 emulator. On his homepage (http://ourworld.compuserve.com/homepages/nutem/) I didn't find his email.. does someone has it?

Matthias

Re: address of NutEm

*Message #2 Posted by **Mike (Stgt)** on 3 July 2003, 5:40 a.m.,*
in response to message #1 by Matthias

Yes, I know him! <VBG> Well, it's me!

I do not publish my address here any longer to prevent spam.

Ciao.....Mike

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Pic of the Aurora FN1000

*Message #1 Posted by **Joerg Woerner** on 1 July 2003, 6:36 a.m.*

Here it is in good quality:

http://www.aurora.com.cn/Sys_Code/PROD/show.ASP?Prod_ID=200&Ver=EN

Regards, Joerg

Another one

*Message #2 Posted by **Juergen (CH)** on 1 July 2003, 8:16 a.m.,*
in response to message #1 by Joerg Woerner

http://procalc.net/imgs/base/113g.jpg

About Aurora FN1000

*Message #3 Posted by **Renato** on 1 July 2003, 10:50 a.m.,*
in response to message #1 by Joerg Woerner

It looks better in pictures than in real life. I tried one in a shop in Brazil, even tried a short program loop (quite fast execution). The plastic finish, keys and display are not much better than a $30 calc. I´m happy that another manufacturer launches a RPN calculator. Maybe HP (or better: Agilent) do something better that the 12cp. That´s the only positive point of all this.
Being RPN and programmable does not turn a financial calculator in a 12c replacement. FN1000 regular price in Brazil is 60% of 12c price - but discounts on the FN1000 are starting to appear in online auctions.
In a few months, I bet prices will go much lower. At $20 i´d buy some to leave around the house and in the car.

Re: About Aurora FN1000

*Message #4 Posted by **Ellis Easley** on 3 July 2003, 11:24 a.m.,*
in response to message #3 by Renato

The numbers displayed in the first picture look like program steps. Especially "43" which would be the "g" prefix key on a real 12C ("43 33 65" = GTO 65). Is this how they implemented program keycodes - exactly the same as the 12C? How does the user read a program? Do they have a keycode conversion chart?

Re: About Aurora FN1000

*Message #5 Posted by **Renato** on 3 July 2003, 1:26 p.m.,*
in response to message #4 by Ellis Easley

I *think* fn1000 uses the same keycodes as the 12c.
As the price falls, chances are that i´ll buy one. Just allow me to wait for price to be right.

Re: About Aurora FN1000

*Message #6 Posted by **Paul Brogger** on 3 July 2003, 4:43 p.m.,*
in response to message #4 by Ellis Easley

Other ways of asking the question are,

"Did they copy the HP-12C ROM bit-for-bit?"

or,

"Did they simply reverse-engineer the 12c without understanding (!!!) what the keycodes meant?"

One might also wonder, was either of these paths taken with permission from H-P?

Very bizarre . . .

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a VHS movie -- Pirates of Silicon Valley

*Message #1 Posted by **Norm** on 1 July 2003, 5:34 a.m.*

Hey folks, thanks a bunch for recommending 'Pirates of Silicon Valley'.

It passes the test of being good and interesting movie material (so many modern movies these days are as rotten as the modern HP calculators).

And there's even that little bit where Wozniak of Apple had been working at HP (with calculators) and had to cut loose of any development rights that HP had priority on.

Although Bill Gates is generally depicted as the great satan, doesn't that prize really go to Carly Fiorina? Or to all business people in general? U gotta love how they portray those jerks in dark suits..... in their big $10M boardroom, can't even understand something like a 'mouse' and haven't got a clue about anything, too dumb to change a lightbulb..... why in heck have they got all the money then?

beats me... but great movie. Looks like the real reason Apple didn't come out on top, was that Steve Jobs of apple was an adopted nut-case who never got to the long couch for a tuneup from a good shrink.

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Compaq-HP support

*Message #1 Posted by **Simon** on 1 July 2003, 4:19 a.m.*

Good day,

I had a Compaq laptop of PII model (I don't remember the model, it's been a year) in witch the keyboard controller broke down and the laptop couldn't boot. So I brought it to Compaq Israel the only place that had parts for this laptop and the price offer for the controller I got was 950$!!!! witch is more then a new laptop one of that type costs !!!!!!!! (I believe they didn't wanted to fix it in the fist place so they gave me this price offer). I refused to fix it for that price and since I couldn't take it to another place. So Compaq Israel offered to buy the laptop from me for 100$!!!!!!!!!!!!! And since I had no other choice I agreed with once condition I keep my hard disk. A year had passed since then till today they claim they "lost" my hard disk or so they say and I didn't see the 100$ or even a dollar it in the mail just wait !!!!!!!!!!!!!!!

I am a M.Sc. in Electronic Eng. In past I was a system Admin. in the Army with 1000 end units under my control. I have worked with Compaq support in past and as far as I am concerned it's the worst company to get support from and I never recommended buying anything from Compaq. I don't think that after these years you will change I just build this morning after another iteration with you and decided to write this letter.

Since then I bougth another laptop from Toshiba and these days I am looking for another one and it deffenetly would not be a Compaq (Compaq-HP as you call it today).

Sincerely, Simon Cooper

Re: Compaq-HP support

*Message #2 Posted by **Dave Hicks** on 1 July 2003, 1:45 p.m.,*
in response to message #1 by Simon

> Quote:
>
> I don't think that after these years you will change I just build this morning after another iteration with you and decided to write this letter.

I don't know if you realize this but "you" ("us") is a bunch of users, fans, and collectors of HP calculators - mostly older ones. This is not an HP/Compaq corporate site. There are HP employees who read this forum but not in an official capacity.

I understand your annoyance, but the problem you're describing is quite common to modern electronic devices. Because they aren't all that repairable, the $950 quote was probably for an entire new main board or maybe even a replacement laptop. Of course, the replacement was most likely built and stored back when they made yours, which means it has a terrible price/performance ratio in comparison to anything new. Which of course causes people to take this "opportunity" to upgrade to the new/better machine which discourages manufacturers from going out of their way to make things more repairable - especially anything that would increase the price or weight of a laptop.

If you have a similar problem in the future, here are a couple of ideas: Look for a “laptop repairman” who might be able to fix just the keyboard controller. We have some freelance calculator repairmen who hang around this forum who can work miracles on calculators that HP doesn’t try to repair. I assume there are similar people for laptops.

Another option is to find another dead one (should be easy - laptops live hard lives) and buy it for the same $100 that Compaq offered you and swap parts.

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converting magnetic cards

*Message #1 Posted by **Juan Luglio** on 1 July 2003, 1:37 a.m.*

My uncle in South America has an HP41CV with a magnetic card reader and infra red printer that he used in his contact lens manufacturing business. He used a program from Nisel (a company that no longer exists)to calculate dimensions for the lenses. The program is stored on magnetic cards. The calculator is no longer functioning and neither is the card reader. I have an HP41CX that is functioning, but without the card reader I can't do much for him. Is there anyone who can convert the program into a form that can be loaded into an emulator(V41 or similar)?

Re: converting magnetic cards

*Message #2 Posted by **Juergen (CH)** on 1 July 2003, 7:53 a.m.,*
in response to message #1 by Juan Luglio

Juan,

anyone who has a functioning card reader and a PC interface for its HP-41 may convert the program. Basically, a card reader and a printer suffice, but that requires typing in the program.

I offer my help, but I'm far away (Switzerland). Perhaps, there is someone in South America who can do the conversion. Otherwise, don't hesitate to contact me.

Regards, Juergen

Re: converting magnetic cards

*Message #3 Posted by **Chris(FLA)** on 1 July 2003, 10:29 a.m.,*
in response to message #1 by Juan Luglio

The calculator is no longer functioning and neither is the card reader. I have an HP41CX that is functioning, but without the card reader I can't do much for him.

Juan,

Is the card reader just dead or does it maybe have the "gummy" wheel problem? If it has the "gummy" wheel problem it is fixable and you could then use it with your 41CX.

Can you "CAT 2" the card reader when connected to your 41CX?

There are articles here on the site on how to fix card readers with the "gummy" wheel problem.

Maybe you can bring the card reader back to life.

Chris

Re: converting magnetic cards

*Message #4 Posted by **Renato** on 1 July 2003, 11:07 a.m.,*
in response to message #1 by Juan Luglio

Juan,
I have 41cv and card reader, both working ok. I know some other people here in Brazil with 9114 floppy disk drive.
My suggestions are:
Option a- If you mail me a backup of the cards, i can try to read them - i can have the programs printed, scan the listings and mail the files to you. If backup copy of the programas are available, this is the less expensive option, with less risk.
Option b- Buy a functional card reader on ebay (around $60) - I have one here in Brazil, available for trading with HP itens.
Option c- Send the card reader for someone to repair - I can repair, and Luiz can too (better than me).
Option d- Follow instructions for repairing the card reader. High risk of not fixing it, unless done by someone with watch-repairing skills.

Ask your uncle to contact me, I'd be glad helpping

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 1 July 2003, 12:57 p.m.,*
in response to message #1 by Juan Luglio

Hi;

I read the tittle and did not have a clue about what was card convertion; I thought you were using other brands' magnetic cards and wanted to convert them to HP cards. If I read the post at the moment I saw it, I'd offer this promptly.

I have some HP41, a card reader and the means to generate bar codes, list the programs in an 82143A, copy them to disks (text format, RAW or any other) and even translate them to run in an HP48S/G or any other HP RPN/RPL calculator that can hold them. If he wants to give it a try, I can also try to repair both the HP41 and the card reader.

My e-mail is:

lcvieira@quantica.com.br

Your uncle may write in Spanish, English or, if he knows, in Portuguese, but I can only reply in Portuguese or English.

I'm waiting for his contact, if he wants to. Sorry I did not reply earlier, I should read the post instead of wondering about the title...

Best regards.

Luiz C. Vieira - Brazil

Edited: 1 July 2003, 7:31 p.m.

I tried to send you an e-mail...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 2 July 2003, 3:06 p.m.,*
in response to message #1 by Juan Luglio

Hello, Juan;

I tried to send you an e-mail and I got a "lmper.com host unknown" message.

I'm waiting for any contact from you or your uncle. If you read this, please contact me or. To remove this message, the password is 12345.

Best regards.

Luiz C. Vieira - Brasil

Edited: 2 July 2003, 3:09 p.m.

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Classic Battery Covers

*Message #1 Posted by **John Robinson** on 30 June 2003, 10:19 p.m.*

Is the battery cover for a HP-35 the same as that for a HP-45 ? - Thanks, John

Re: Classic Battery Covers

*Message #2 Posted by **David Smith** on 1 July 2003, 6:20 p.m.,*
in response to message #1 by John Robinson

Yes, the HP35/45/80 covers are the same. Also the same as the HP55 and HP70, except for the color.

The HP65 and HP67 covers are interchangeable.

The HP91/92/97/97S covers are interchangeable. The 82143A printer, 82161A (?) cassette tape drive, and 82162A (?) HP-IL printer covers also match the HP97 covers except for the color. The cassette drive and HP-IL printer were made in both black and dark green colors.

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HP 32Sii - How do you open it for cleaning?

*Message #1 Posted by **Kent Harbert** on 30 June 2003, 6:55 p.m.*

Some of the keys on my HP 32Sii are non-responsive, so I wanted to open it up and clean it. But, there are no screws and I don't want to pry too hard without knowing if I will break something or not.

Re: HP 32Sii - How do you open it for cleaning?

*Message #2 Posted by **Randy Sloyer** on 30 June 2003, 7:35 p.m.,*
in response to message #1 by Kent Harbert

Opening the back will bring you no closer to the problem. The keyboard is sealed. The only effective method is to clean in distilled water in an ultrasonic cleaner. But having said that, this is a conditional solution. This applies only if the problem is random keys, usually the enter or a numeric key. Happens most often when the unit is used outdoors in dirt, i.e. Surveying.

If the problem is one or more columns or rows of keys that are non-responsive, cleaning will not solve the problem. In this case, the keyboard has lost contact with the logic board. Instructions for opening the unit can be found here: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=5

You'll find the problem to be the mylar of the keyboard and foam backing pad. The mylar is going one direction, the pad is to push against. The pad has lost it's spring tension and no longer holds the mylar connector against the logic board. Shimming the pad is the easiest solution.

Re: HP 32Sii - How do you open it for cleaning?

*Message #3 Posted by **Frank B. (Germany)** on 1 July 2003, 11:28 a.m.,*
in response to message #1 by Kent Harbert

Recently I had a 32SII, where the right hand side of the keys wasn't working. Pressing gently at certain spots on the bezel (right hand side, just below the display) the keys started to respond again. Using my fingernails I was able to force apart the upper and lower part of the calculator (on the right hand side) by a millimeter or so, and appplied some pressure to the appearing metal part (housing of the lcd?) using a paper clip. Pressed it from below against the upper part of the calculator. Since that everything is fine again! Just be careful not to damage the plastic with the paper clip, not to damage any of the boards, the display or your fingers ...

Frank.

Re: HP 32Sii - How do you open it for cleaning?

*Message #4 Posted by **Randy Sloyer** on 1 July 2003, 1:55 p.m.,*
in response to message #3 by Frank B. (Germany)

Poking something blindly into a Pioneer will most likely kill it. The keyboard connector can be easily destroyed this way, the LCD can be cracked by applying pressure in the wrong place.

IMO, it's much better to open the unit to see and understand the problem.

Edited: 1 July 2003, 1:55 p.m.

Re: HP 32Sii - How do you open it for cleaning?

*Message #5 Posted by **FrankB. (Germany)** on 1 July 2003, 3:14 p.m.,*
in response to message #4 by Randy Sloyer

I agree, poking around blindly isn't a very good idea. Not only in calculators. That's why I used the word "careful", and that's why one should look where to poke.

If it works the "look-and-poke" method is non-destructive and fast, compared to opening the case by cutting heat stakes. One doesn't need any fancy tools. Maybe opening it is easy, but I haven't dared yet, especially opening a precious 32sii!

Re: HP 32Sii - How do you open it for cleaning?

*Message #6 Posted by **Randy Sloyer** on 1 July 2003, 5:19 p.m.,*
in response to message #5 by FrankB. (Germany)

That's why you buy a few 10B and 20S's to practice on :^)

Re: HP 32Sii - How do you open it for cleaning?

*Message #7 Posted by **Frank B. (Germany)** on 1 July 2003, 6:08 p.m.,*
in response to message #6 by Randy Sloyer

I promise I'll do ;-)

Although - even these two models become more and more rare nowadays ...

Frank.

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Details on Christoph's 16K custom module?

*Message #1 Posted by **Gene** on 30 June 2003, 6:00 p.m.*

Saw that he's advertising being able to burn us custom 16k modules for the 41c.

So, what could we put in one?

Ext IL module (SKWID)? 4K CCD? 4k? (or is this 8k)? 1 user code module Zenrom? 4k?

What would you put together? Are there limitations? Wonder what he will charge?

Re: Details on Christoph's 16K custom module?

*Message #2 Posted by **Matthias** on 30 June 2003, 6:43 p.m.,*
in response to message #1 by Gene

I would say, that this is one of the most popular mixture... Perhaps a PPC instead of the CCD? If you have a look at ebay, the prices of PPC modules increases more and more... I would say, CCD is not a very rare module, so keep these 8k free for modules that are rarer... BareCode Generation (SKWID), ASTROROM, AECROM,..

Or what would you say top a Zeprom full of test and diagnostic modules? Would be very helpfull as well...

Matthias

Re: Details on Christoph's 16K custom module?

*Message #3 Posted by **Daniel Diggelmann** on 1 July 2003, 2:29 a.m.,*
in response to message #2 by Matthias

I just got a ZEPROM from Christopg containing the following modules: CCD 8k / EXT IL 4k / EXT IO 4k As I'm mostly interested in HPIL controlling this is the most powerful combination.I'm amazed at the power you can put in just one slot. Two slots are occupied by XMEMORY. The fourth port contains either HPIL or IR Module.

My "16k" module layouts :-)

*Message #4 Posted by **Gene** on 1 July 2003, 4:35 p.m.,*
in response to message #2 by Matthias

Well, here are the ROMS I would want to put into a 16K HP-41 module...I'd want 2. :-)

Module 1 - CCD (debugged one hopefully) 8k; PPC rom (quite right about needing a back up of this one) 8k

Module 2 - Ext IL (primarily for MCPRP and full 1MB HP-IL disk drive access) 4K; SKWID Bar Code printing ROM 8k (is that right?); Ext IO 4k (or is that 8k too?)

My fear is that this would cost an arm and a leg. :-(

I also don't agree that the CCD is all that easy to find!

Re: My "16k" module layouts :-)

*Message #5 Posted by **Raymond Del Tondo** on 1 July 2003, 7:19 p.m.,*
in response to message #4 by Gene

Hi Gene,

what do you mean with 'debugged CCD'? Could it be the 'B' revision? (I consider my private version as rev C. I'll post the FAT in another thread the next few days)

The ExtIL has 4K.

>My fear is that this would cost an arm and a leg. :-(

Maybe Christoph gives kinda 'mass discount';-)

And yes, the CCD module is relatively rare.

A few thousand units were made, many of them went to club members. Maybe for people who have more than one of these modules they aren't that rare;-)

Raymond

Re: My "16k" module layouts :-)

*Message #6 Posted by **Gene** on 1 July 2003, 8:43 p.m.,*
in response to message #5 by Raymond Del Tondo

Hi! Yes, I meant the non-Version A without the deadly space in alpha bug. Having a version C available that could be burned on a ROM would be a great benefit to the community!

Re: Details on Christoph's 16K custom module?

*Message #7 Posted by **Christoph Klug** on 1 July 2003, 5:34 a.m.,*
in response to message #1 by Gene

Dear Gene,

personally I prefer the CCD (8KByte) + EXT-I/O (4KByte) + EXT-IL (4KByte), because I am Fan of HP-IL. And this configuration works nice in combination with EMU41 and HP-IL/PC Interface Card.

Alternatively I use a 4KByte software page with special routines for hardware interfacing measurement data logging control applications with I/O-Board and IL2000 System.

Best wishes from Germany - Christoph Klug

Re: Details on Christoph's 16K custom module?

*Message #8 Posted by **Christoph Klug** on 1 July 2003, 5:39 a.m.,*
in response to message #7 by Christoph Klug

For getting maximally power to your HP41, insert a Double X-Memory Moduel (port2) beside the Zeprom (port 1). Than port 3 is free and port 4 holds the IL-Module

Best wishes - Christoph

Re: Details on Christoph's 16K custom module?

*Message #9 Posted by **Juergen Rodenkirchen (GER)** on 1 July 2003, 12:52 p.m.,*
in response to message #1 by Gene

Which Christoph? Where did you read his advertisement? Seems that I missed something very interesting here ...

Juergen

Re: Details on Christoph's 16K custom module?

*Message #10 Posted by **Juergen (CH)** on 1 July 2003, 2:47 p.m.,*
in response to message #9 by Juergen Rodenkirchen (GER)

From the "Classified Ads" section:

> Quote:
>
> Create your own HP41 plug in module (SO)
>
> By completing some special parts and tools, now I am able to support you with burning 16 KByte Zeprom-Modules...
>
> Best wishes from Germany – Christoph Klug
>
> Contact christoph.klug@de.bosch.com

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Hp Calculator, Hard Choice

*Message #1 Posted by **AC** on 30 June 2003, 1:06 p.m.*

Hi, after all the help ive gotten here, ive decided to go with the HP17 or 19Bii, but those are WAY to expensive.

Is there any calc, preferablly low cost (at least under 80-100$) that has an equation solver and is none programable? ? (teacher wont allow them, sort of ignorant)

Thanks for all the help>

[AC]

Buy one off ebay

*Message #2 Posted by **gene** on 30 June 2003, 1:10 p.m.,*
in response to message #1 by AC

There are almost always 17b (original) and 17bii's on ebay.

Cost for some original 17b's are sometimes near $20-30.

That might be worth the ebay chance.

Re: Hp Calculator, Hard Choice

*Message #3 Posted by **Ron Ross** on 30 June 2003, 1:33 p.m.,*
in response to message #1 by AC

If you have given up on RPN, you should consider an Hp30s. It does have a solver (only one eq. can be in solver at a time). It has lots of functions, but is CHEAP both in quality and price. About $15 retail, and its keyboard is on par with your Hp49G (except they are hard plastic, not rubber, but nowhere near the quality of an older Hp).

Re: Hp Calculator, Hard Choice

*Message #4 Posted by **hugh** on 30 June 2003, 2:53 p.m.,*
in response to message #3 by Ron Ross

solver? where?

not sure id recommend the 30s. and its not really a "perennial favorite" as hp claim either.

the 17bii is a nice machine. very easy to use and you can select either RPN or ALG at your preference. it has a solver, but its not scientific.

the 20s (although the underdog to the 32sii) was, until recently, available. on ebay they are still cheap. its not RPN. the display is fantastic. its scientific & very stylish. sightly programmable.

Re: Hp Calculator, Hard Choice

*Message #5 Posted by **Chan Tran** on 30 June 2003, 3:04 p.m.,*
in response to message #4 by hugh

I think AC problem is that even slightly programable is not acceptable.

Re: Hp Calculator, Hard Choice

*Message #6 Posted by **Chan Tran** on 30 June 2003, 3:08 p.m.,*
in response to message #1 by AC

It's irony that 20 some years ago I had no problem using the HP41 in any of my classes and exams.

Re: Hp Calculator, Hard Choice

*Message #7 Posted by **Luca Passaggio (Switzerland)** on 1 July 2003, 3:16 a.m.,*
in response to message #6 by Chan Tran

I had the same advantage 20 years ago, I lived in Italy at that time and none of my professors were understanding a programmable calculator, therefore I stored my HP-41C with every sort of formulas and programs. Guess who had the best marks ?!?

Re: Hp Calculator, Hard Choice

*Message #8 Posted by **Massimo Gnerucci (Italy)** on 1 July 2003, 1:00 p.m.,*
in response to message #7 by Luca Passaggio (Switzerland)

> Quote:
>
> I had the same advantage 20 years ago, I lived in Italy at that time and none of my professors were understanding a programmable calculator, therefore I stored my HP-41C with every sort of formulas and programs. Guess who had the best marks ?!?

Imagine me with a 41C in 1979... nobody aware of its power apart from some professors (but I had mine *before* them ;-)).

I never cheated, but it helped me a lot.

Where were you studying at the time?

Greetings, Massimo

Re: Hp Calculator, Hard Choice

*Message #9 Posted by **Luca Passaggio** on 2 July 2003, 4:29 a.m.,*
in response to message #8 by Massimo Gnerucci (Italy)

At that time I lived in Torino and I was eighteen. I have to admit that sometimes I have cheated (only a little bit) but I had no time to study because of girls, beer and motorbikes ! I am not really a collector but I use my HP-41C and my HP-12C every day (I am in R&D, marketing and sales of minimally invasive surgical devices).

Best regards to everybody in this beautiful forum, you have remembered to me very happy moments when men were real men, women were real women and calculators were RPN !

Luca

Re: Hp Calculator, Hard Choice

*Message #10 Posted by **Stephan (Germany)** on 1 July 2003, 4:16 p.m.,*
in response to message #7 by Luca Passaggio (Switzerland)

Unfortunately professors became more knowledgeable in between. I recently visited the web space of Technical University of Munich, where I studied EE a while ago. Guess what? Calculators are not allowed for exams any more today. But slide rules. No yoke.

Re: Hp Calculator, Hard Choice

*Message #11 Posted by **David Smith** on 1 July 2003, 6:23 p.m.,*
in response to message #10 by Stephan (Germany)

Gee, can you use a programmable slide rule?

Re: Hp Calculator, Hard Choice

*Message #12 Posted by **Stephan (Germany)** on 2 July 2003, 12:57 a.m.,*
in response to message #11 by David Smith

As the restriction says "mechanical calculation aids" I guess there are no objections to attaching a motor drive to the slide rule and using one or more abaci as memory.

HP-17BII

*Message #13 Posted by **Renato** on 30 June 2003, 5:37 p.m.,*
in response to message #1 by AC

Andres, 17BII can be found at less than $100. I don´t think 19BII is a good choice (unless you need trigs functions, or find one real cheap). My reasons: 1- batteries for 19bii are not so easy to find, they leak if you are not careful, and they last much less than 17bII, 2-clamshell design it not as convenient or compact, 3- 17bii is a more robust design.
Renato

Re: HP-17BII

*Message #14 Posted by **Thibaut.be** on 1 July 2003, 8:22 a.m.,*
in response to message #13 by Renato

Sorry Renato, i disagree with you.

The 17BII is definitely a very nice machine, but the 19BII is extremely powerful and is really worth the effort compared to a 17BII, even if the 17BII is more attractive on certain characteristics : smaller, lighter, ...

It is not programmable, so it matches AC's choice, but the solver is far faster than on the 17BII and more practical to use.

Ebay should be the alternatvie source for finding one at a reasonnable price.

Good luck !

Re: HP-17BII

*Message #15 Posted by **Jim** on 1 July 2003, 5:06 p.m.,*
in response to message #14 by Thibaut.be

I have a 19BII and I like it a lot. I don't know much about the 17BII. So please explain this statement:

"It is not programmable, so it matches AC's choice, but the solver is far faster than on the 17BII and more practical to use."

To set up the solver you have to program it, right? If the 17BII has a solver, wouldn't it be programmable? Thanks.

Re: HP-17BII

*Message #16 Posted by **AC** on 1 July 2003, 5:34 p.m.,*
in response to message #15 by Jim

Yea, it would be, but not to some teachers!

Re: HP-17BII

*Message #17 Posted by **Thibaut.be** on 1 July 2003, 6:22 p.m.,*
in response to message #16 by AC

Well, on 15C, 34C, 32SII, 42S, ... the solver needed to call a program where you equation was stored.

On the 17BII and 19BII there is a quite powerful equation writer, a bit as if you were storing an excel formula.

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pricing on CPU in new HP calcs (Sunplus SPL...)

*Message #1 Posted by **Bill Wiese** on 29 June 2003, 9:55 p.m.*

I lost track of the thread position, but just saw some speculation on the pricing of Sunplus chips in HP calcs.

This is a fairly low-tech chip (slow, prob not a fine-line-size chip (thus maybe .85? 1.0? u), without tricky analog features, and not requiring an expensive reticle, or any features that can affect yield (i.e., flash ROM). Also the fabs involved may be old and already paid for.

Plus the chips are prob bought as 'bare die' and are mounted to PCBs with "COB" (chip on board) technology. Some dimly remembered numbers for small-pin-pitch packages are that these run around 1/2cent (USD) per pin for pin + pkg.

So for a large run of chips (w/given ROM masking) Kinpo is prob paying Sunplus a buck or less. Even $0.70/chip wouldn't be surprising, really, given competition and reduced state of semiconductor market.

HP prob buys HP9x calcs in bulk for $3-$9 ea (9S, 9G).

For a MODERN semiconductor process, say 0.23u or 0.18u without special RF/analog considerations, 1 square mm of silicon probably *costs* less than $0.40 to make, on average, including corp overhead.

Many smal/midsize Asian semiconductor firms/fabs do designs at/near cost and make money on the 'float' of the money paid by the customer. In essence, they are financial organizations, not chip companies!

Bill Wiese San Jose, CA

Re: pricing on CPU in new HP calcs (Sunplus SPL...)

*Message #2 Posted by **Tom (UK)** on 30 June 2003, 7:29 a.m.,*
in response to message #1 by Bill Wiese

Your prices look about right.

We make mixed analogue + digital devices and anything bigger than 0.5um technology is getting a bit out of date!

For smaller geometries the mask costs are very high and need production of 100k+ chips per year to justify. (An estimate)

Asian companies (excluding Japan) in our end of the market tend to be much better than Europeans / US at making user equipment but the US / Europe seems better at designing it, but this may be sector dependent.

Re: pricing on CPU in new HP calcs (Sunplus SPL...)

*Message #3 Posted by **David Smith** on 30 June 2003, 5:44 p.m.,*
in response to message #1 by Bill Wiese

Most low end single chip micros sell for under a dollar in quantity. There are many under 50 cents in million plus quantities.

Re: pricing on CPU in new HP calcs (Sunplus SPL...)

*Message #4 Posted by **Ellis Easley** on 3 July 2003, 11:03 a.m.,*
in response to message #3 by David Smith

WalMart sells a "LeWorld" four banger plus square root, percent and memory, battery and solar, for $1.00 every day. Unless they are doing this as a community service, they must be buying the calculator for about 30¢. They charge $2 for a replacement battery!

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Trigonometrics in financial applications

*Message #1 Posted by **Valentin Albillo** on 29 June 2003, 9:06 p.m.*

Karl Schneider posted:

"Just curious: Is there any practical application of trigonometric functions for business/finance (excluding calculation of biorythms and constellation positions for making business decisions)?

Of course. There are many practical applications of trigonometric functions for financial purposes, but they tend to be of a sufficiently high level and complexity that the average financial Joe, with his trusty 12C's 99 program steps and not-exactly-very-advanced programming features, won't be able to cut it.

Trigs are used extensively, for instance, to compute the discrete wavelet transforms in financial time series applications (stock price evolution, volatility, ...) as well as in the creation of financial simulation models, where you need to perform a lot of trigonometric decomposition operations to the large matrices that are usually needed to implement the models, among others.

To deal with such advanced financial computations using a handheld, you'd better put aside your cute little 12C and use a really capable machine, such as the vintage Sharp PC-1421 (sold in the US as EL-5510) Business/Financial Computer.

This beautiful, metallic, very slim and light machine is fully alphanumeric, has a complete qwerty keyboard, all financial and statistics functions, a fast 768 Khz 8-bit processor, 4 Kb RAM on board, expandable via RAM/ROM cards, full serial and parallel I/O for connection to a PC or peripherals such as printer and mass storage, and further it's programmable in an enhanced version of BASIC, including two-dimensional string arrays, long variable names, input/output commands, and of course, all financial functions are *integrated as BASIC commands and can be included in complex BASIC programs* ! All this in a beautiful, solid, very small machine.

If you want to see what it looks like, visit these links:

http://www.promsoft.com/calcs/pc1421.htm

http://pocket.free.fr/html/sharp/pc-1421_e.html

http://pocket.free.fr/images/sharp/pc-1421.jpg

So much for HP chauvinism. As they say: "Never send a kid to do a man's job !"

Best regards.

Re: Trigonometrics in financial applications

*Message #2 Posted by **Trent Moseley** on 29 June 2003, 11:39 p.m.,*
in response to message #1 by Valentin Albillo

Valentin,

I agree. While it doesn't have nearly all the same functions, my 1986 Sharp PC-1500A looks almost like the one you describe.

tm

Re: Trigonometrics in financial applications

*Message #3 Posted by **Ernie Malaga** on 30 June 2003, 12:34 a.m.,*
in response to message #1 by Valentin Albillo

> Quote:
>
> Of course. There are many practical applications of trigonometric functions for financial purposes,

Amazing. I would've sworn that finance had no use for trigonometric functions. Logarithmic ones, yes. How about hyperbolics? So far I haven't learned of a _single_ use for hyperbolic functions in any field.

-Ernie

Hyperbolics everywhere ! (almost)

*Message #4 Posted by **Valentin Albillo** on 30 June 2003, 6:38 a.m.,*
in response to message #3 by Ernie Malaga

Ernesto wrote:

"How about hyperbolics? So far I haven't learned of a _single_ use for hyperbolic functions in any field."

They're used *all the time* in some *very* important Civil Engineering fields, a few assorted examples:

- electrical transportation (trains and such, which draw power from a suspended conducting wire). The wire's shape is a curve called catenary, which is a hyperbolic cosine, and thus you need hyperbolics to compute lengths, weights, stress, costs, etc. This also applies to high-voltage power lines and, in general, to any kind of chain, rope or wire suspended from two points that hangs freely under its own weight.

- superstructure engineering (suspension bridges and such), where you need to compute the elastic curve and the deflection, also require hyperbolic cosines in spades.

- architecture, specially traditional japanese architecture and civil engineering, where curves have various important social and philosophical meanings (temples and other relevant buildings). Japanese and oriental architects frequently use the catenary shape (hyperbolic cosine) for the upward-pointing curves in their constructions instead of the less-quickly-raising parabolas.

- aerospatial engineering: engineers (from Boeing, for example) face a problem in applying a surface coating to fighter aircraft. The critical feature is the electrical conductivity at the surface. This physical property determines how an electromagnetic wave will scatter when it hits the aircraft. For some fighter parts, the ideal coating varies along the surface according to the hyperbolic cosine function.

etc, etc. Matter of fact, students of the Civil & Environmental Engineering divisions of most universities are required to be confident with the manipulation of hyperbolic functions and the solution of hyperbolic equations. I guess such an student would find himself as much at a loss using a calculator without hyperbolics as you and me would be using one without division, say.

"There are more things in heaven and earth, Horatio, Than are dreamt of in your philosophy."

--From Hamlet, Prince of Denmark - 1601 - Act I. - Scene 5. - Rows: 166-167

:-)

Best regards.

Edited: 30 June 2003, 6:44 a.m.

Re: Hyperbolics everywhere ! (almost)

*Message #5 Posted by **Ellis Easley** on 30 June 2003, 8:43 a.m.,*
in response to message #4 by Valentin Albillo

> Quote:
>
> I guess such an student would find himself as much at a loss using a calculator without hyperbolics as you and me would be using one without division, say.

Except hyperbolic functions are fairly easy to calculate, if you have natural log and exponential functions, I think (I can't find the functions right now! But they are fairly simple).

Re: Hyperbolics everywhere ! (almost)

*Message #6 Posted by **Thibaut.be** on 30 June 2003, 9:25 a.m.,*
in response to message #5 by Ellis Easley

These functions were on the cover of the electrical engineering solution book for the 41C. The artwork of this book was so well designed that even if I never had to use them I memorized the formula for ever. They are geniously simple :

sinh x = (e^x - e^-x)/2 cosh x = (e^x + e^-x)/2 tanh x = sinh x / cosh x (who wouldn't have guessed this one ?)

now go on with the properties of sin, cos, tan and see if they apply to hyperbolics...

Things are not what they seem

*Message #7 Posted by **Valentin Albillo** on 30 June 2003, 9:51 a.m.,*
in response to message #5 by Ellis Easley

Ellis wrote:

"Except hyperbolic functions are fairly easy to calculate, if you have natural log and exponential functions, I think (I can't find the functions right now! But they are fairly simple)."

Yes, the hyperbolic sine and cosine seem fairly easy, being

sinh(x) = (e^x - e^(-x))/2, cosh(x)) = (e^x + e^(-x))/2

but then the derived and inverse functions begin to *complicate* somewhat:

tanh(x) = (e^x - e^(-x))/(e^x + e^(-x))

arcsinh(x) = ln(x + (x^2 + 1)^(1/2))

arccosh(x) = ln(x + (x^2 - 1)^(1/2))

Not having them built-in means, then, that:

- you must *remember* the above expressions (and the ones for the remaining functions not shown) *flawlessly*, or else you'll have to program them, which requires a programmable calculator which isn't usually admitted in most exams !
- if you can't program them (for above reason or simply you don't have a suitable programmable calculator), you must resort to sheer memory and very precise keypunching. After you've calculated more than a few that way, you'll be craving for a calculator which includes them built-in.
- even if you can use a programmable calculator and/or don't mind frenetic keypunching, there's the *big* problem of *accuracy*. Not all calculators have really accurate versions of e^x and, specially, logarithmic functions, at all. But even if they did, there's the catch that for certain arguments which happen very frequent in real-life applications (such as values near 0 or near 1, depending on the function) there's *a lot of cancellation*, and you'll end up losing most significant digits, and so getting *wildly inaccurate results*. That's why the HP-41C (which didn't have hyperbolic functions) did nevertheless include the two rather exotic functions E^X-1 and LN1+X !!

So, you see, if you need to use hyperbolic functions frequently, you *absolutely* need to have them built-in from the start in your choice calculator. Else you'll lose time, effort, accuracy, or even worse, the possibility of using your carefully programmed versions in an exam.

Best regards.

Edited: 30 June 2003, 10:06 a.m.

Re: Hyperbolics everywhere ! (almost)

*Message #8 Posted by **Ellis Easley** on 30 June 2003, 9:55 a.m.,*
in response to message #5 by Ellis Easley

sinh(X)=((e^X)-(e^-X))/2

cosh(X)=((e^X)+(e^-X))/2

tanh(X)=sinh(X)/cosh(X)

I found these in the HP35 Math Pac. Beyond this, they use formulas with trig functions [including for tanh(X)], which I guess are easier (if trig is available) than sticking with the log formulas.

I wish I could remember where I saw all three functions and inverses using only log and exponential. (I guess I could try to derive them from the three formulas above, but I wouldn't trust me either!)

And don't even get me started ...

*Message #9 Posted by **Valentin Albillo** on 30 June 2003, 10:37 a.m.,*
in response to message #3 by Ernie Malaga

... on *elliptic* sines and cosines ! :-)

They're tremendously useful in many advanced technological fields (design of *optimum* high-pass, low-pass and band-stop filters comes to mind), unlike their hyperbolic cousins there are *no* simple formulas to compute them, yet I know of no calculator or handheld that did ever include them as built-in functions !

And it's a real pity: it would be very elegant and proper for an advanced 21st-century calculator to have all three kinds of trigonometric functions: *circular* [like sin(x)], *hyperbolic* [like sinh(x)], and *elliptic* [like sn(x)] ... :-)

Best regards.

So, now defend Gradians . . .

*Message #10 Posted by **Paul Brogger** on 30 June 2003, 12:57 p.m.,*
in response to message #3 by Ernie Malaga

. . . they alwasys seemed kind of bogus, and were looked-down-upon by my pure-math pro-HP-calculator professor. (But he looked down upon Degrees, too, and wanted to use Radians for everything -- the formulas are so much cleaner.)

So what's GRAD for? Is it a weird decimal hold-over, or is there some intrinsic value there?

(I think I'm ready to admit that "There are things, Horatio . . . ")

No way ...

*Message #11 Posted by **Valentin Albillo** on 30 June 2003, 1:04 p.m.,*
in response to message #10 by Paul Brogger

I've never used gradians in my whole life, and don't feel like starting now. You'll need another paladin to defend that lost cause, methinks ... :-)

Best regards.

Elementary, my dear Watson...

*Message #12 Posted by **Bob** on 30 June 2003, 3:02 p.m.,*
in response to message #10 by Paul Brogger

The Gradian is a measure that is traditionally applied in the field of surveying. (No pun intended) 100 Gradians is equal to 90 degrees so it is more suited for these calculations. As you can tell from the link below, it is seldom seen in pure mathematics.

http://mathworld.wolfram.com/Angle.html

Unless you are a Civil Engineer, a Surveyor, or just interested in finding out, you probably just learned the conversion (or not) and moved on.

There is also an explanation for the use of Radians and Steradians.

I forgot to add...

*Message #13 Posted by **Bob** on 30 June 2003, 3:06 p.m.,*
in response to message #12 by Bob

...that it is a pretty cool website too. Check out the "Recreational Mathematics" area.

Re: So, now defend Gradians . . .

*Message #14 Posted by **Tizedes Csaba** on 1 July 2003, 11:16 a.m.,*
in response to message #10 by Paul Brogger

I hope it will be post...

---------- Gradians:

It's came from Earth's sizes:

Average Radius of Earth (IAU): R=6371.024km; average circumfence: C=2*R*Pi=40030.3km; 1grad=C/400=100.08km (about 100km) on Earth's surface;

Like nautical mile: 1nmi=1852m=(about)=40030.3km/(360*60); 1nmi=1arcmin on earth surface;

And 1knot=1arcmin on Eart surface/1hour

Csaba

Re: So, now defend Gradians . . .

*Message #15 Posted by **Trent Moseley** on 1 July 2003, 4:02 p.m.,*
in response to message #14 by Tizedes Csaba

I find this info about grads very interesting. As an amateur astronomer the nautical mile/earth circumference relationship is well known (no metrics here). Thanks for your informative post.

tm

Re: Trigonometrics in financial applications

*Message #16 Posted by **Karl Schneider** on 30 June 2003, 4:55 a.m.,*
in response to message #1 by Valentin Albillo

Valentin --

Great post! -- exceptionally well-presented and informative.

I have no knowledge about the "discrete wavelet transforms" and "trigonometric decomposition operations" for finance, but they sound similar in principle to Fourier analyses. It would certainly make sense to try to identify all significant periodic components of a stock price, and its relationship to multiple factors.

I surmised in my original post the the 19B/ii had trigs (Luiz confirmed "yes"; interestingly, the predecessor 18C did not.

Great effort!

Karl

Re: Trigonometrics in financial applications

*Message #17 Posted by **unspellable** on 30 June 2003, 10:28 a.m.,*
in response to message #16 by Karl Schneider

I have often thought that business, finance, politics, etc. could benifit from the application of a few engineering principles. Especially politics. Unlike the current political scene, when the bridge falls down, everbody knows the engineer screwed up.

Please don't !

*Message #18 Posted by **Thibaut** on 30 June 2003, 10:36 a.m.,*
in response to message #17 by unspellable

... they would use the chaos theory at its best !

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HP41 Custom Module ???

*Message #1 Posted by **Randy Sloyer** on 29 June 2003, 7:47 p.m.*

I have an HP41 module that I would love to know what it is. It has no external markings of any kind, the label area on the bottom where the HP label normally resides is a bit smaller and is blank.

When the module is inserted in a CX, the contents will execute upon power up. I see one goose for about a second then the display shows WAIT.. After about 30 seconds to a minute the 41 beeps and shows READY in user mode.

Doing a CAT 2 shows NAVCOM 2. Anybody have any idea what this puppy is ?

Edited: 29 June 2003, 7:49 p.m.

Re: HP41 Custom Module ???

*Message #2 Posted by **Raymond Del Tondo** on 29 June 2003, 8:19 p.m.,*
in response to message #1 by Randy Sloyer

Hi,

it seems to turn the HP-41 into a NAVigation COMputer;-)

Raymond

Re: HP41 Custom Module ???

*Message #3 Posted by **Randy Sloyer** on 29 June 2003, 8:22 p.m.,*
in response to message #2 by Raymond Del Tondo

Via HP-IL? Or ?

Who made it and what else does it need to function?

Edited: 29 June 2003, 8:23 p.m.

Re: HP41 Custom Module ???

*Message #4 Posted by **Raymond Del Tondo** on 30 June 2003, 5:06 p.m.,*
in response to message #3 by Randy Sloyer

Hi,

sorry I don't have this module (so far), but I'm sure the 'hardcore module collectors' Matthias, Mike, or Peter Petersson do have it, and could give more info on it;-)

I think it's a stand-alone solution, which seems to be most practical when sea is rough (not many items which can fly through the cabin).

Raymond

Re: HP41 Custom Module ???

*Message #5 Posted by **Randy Sloyer** on 30 June 2003, 7:43 p.m.,*
in response to message #4 by Raymond Del Tondo

Hi Raymond,

You're right, hard core. Someone offered to buy but no information on what it is. I was hoping for a great story on it's history and use. Oh well.

Thank you for the effort, at least you tried.

HMC - Hardcore Module Collector

*Message #6 Posted by **Mike (Stgt)** on 1 July 2003, 4:08 a.m.,*
in response to message #4 by Raymond Del Tondo

I do not know who you ment with 'Mike', if it's me: I do not regard myself as a "hardcore module collector" as too many third-party modules (the rare birds) are still missing in my collection. What I did is a nice tool to analyse the contents of HP-41 modules, alas it runs only on VM/CMS (IBM mainframe). http://ourworld.compuserve.com/homepages/nutem/aro.htm

If you don't mind, you may send me a copy (hp41cx_at_web_dot_de) and I analyse it like all this: http://ourworld.compuserve.com/homepages/nutem/romim.htm

Ciao.....Mike

Re: HMC - Hardcore Module Collector

*Message #7 Posted by **Emmanuel** on 1 July 2003, 3:06 p.m.,*
in response to message #6 by Mike (Stgt)

```
Here is a part of its disassembled listing.
The first 4K look like the HP Navigation Pac for HP-41s.
I have somewhere its user's manual.


C000 00E XROM NO.=14
C001 040 64 FUNCTIONS
C002 00F FCT:-NAVIG 2A
C003 094 ADR: CF94
C004 207 FCT:`NA
C005 0C8 ADR: C7C8
C006 207 FCT:`*NA
C007 0D0 ADR: C7D0
C008 20E FCT:`STAR
C009 009 ADR: CE09
C00A 001 FCT:*STAR
C00B 07F ADR: C17F
C00C 20F FCT:`SUN
C00D 07D ADR: CF7D
C00E 001 FCT:*SUN
C00F 04B ADR: C14B
C010 000 FCT:*SUNL
C011 0D9 ADR: C0D9
C012 000 FCT:*SUNU
C013 0E1 ADR: C0E1
C014 20F FCT:`MOON
C015 05B ADR: CF5B
C016 001 FCT:*MOON
C017 02E ADR: C12E
C018 000 FCT:*MOONU
C019 0F3 ADR: C0F3
```

```
C01A 000 FCT:*MOONL
C01B 0EA ADR: C0EA
C01C 20F FCT:`VENUS
C01D 049 ADR: CF49
C01E 000 FCT:*VENUS
C01F 0FC ADR: C0FC
C020 001 FCT:P
C021 044 ADR: C144
C022 20F FCT:`MARS
C023 06C ADR: CF6C
C024 001 FCT:*MARS
C025 01D ADR: C11D
C026 20F FCT:`JUPITER
C027 022 ADR: CF22
C028 001 FCT:*JUPIT
C029 005 ADR: C105
C02A 20F FCT:`SATURN
C02B 036 ADR: CF36
C02C 001 FCT:*SATUR
C02D 026 ADR: C126
C02E 20E FCT:`SRT
C02F 037 ADR: CE37
C030 000 FCT:*SRT
C031 0B5 ADR: C0B5
C032 001 FCT:JD
C033 00A ADR: C10A
C034 20D FCT:`D+T
C035 0A4 ADR: CDA4
C036 001 FCT:LBRYZX
C037 037 ADR: C137
C038 001 FCT:ZYXdHA
C039 040 ADR: C140
C03A 20E FCT:`DSPHAd
C03B 08E ADR: CE8E
C03C 20C FCT:`*IN
C03D 074 ADR: CC74
C03E 20C FCT:`*IN1
C03F 045 ADR: CC45
C040 000 FCT:*DMT
C041 096 ADR: C096
C042 001 FCT:*DMS
C043 052 ADR: C152
C044 000 FCT:*HR
C045 0C2 ADR: C0C2
C046 001 FCT:*T
C047 05D ADR: C15D
C048 001 FCT:FA
C049 00F ADR: C10F
C04A 001 FCT:GST
C04B 015 ADR: C115
C04C 20B FCT:`BODY
C04D 0DF ADR: CBDF
C04E 20B FCT:`*BODY
C04F 0F1 ADR: CBF1
C050 209 FCT:`SIGHT
C051 0E3 ADR: C9E3
C052 000 FCT:RM
C053 086 ADR: C086
C054 20C FCT:`DR
C055 0A6 ADR: CCA6
C056 20C FCT:`*DR
C057 0D7 ADR: CCD7
C058 20D FCT:`GCPOS
C059 02E ADR: CD2E
C05A 000 FCT:*GCPOS
C05B 09F ADR: C09F
C05C 20E FCT:`GC
C05D 0DE ADR: CEDE
C05E 000 FCT:*GC
C05F 0A5 ADR: C0A5
C060 20A FCT:`GCPLAN
C061 09F ADR: CA9F
C062 20A FCT:`*GCPLAN
C063 0CC ADR: CACC
C064 206 FCT:`GCPLOT
C065 069 ADR: C669
C066 206 FCT:`*GCPLOT
C067 080 ADR: C680
C068 20E FCT:`DSPP2
C069 064 ADR: CE64
C06A 20D FCT:`LOTOL
```

```
C06B 06C ADR: CD6C
C06C 000 FCT:*LOTOL
C06D 0AE ADR: C0AE
C06E 000 FCT:DSPL
C06F 0C9 ADR: C0C9
C070 000 FCT:DSPLO
C071 0D1 ADR: C0D1
C072 20C FCT:`RLPOS
C073 0ED ADR: CCED
C074 000 FCT:*RLPOS
C075 08F ADR: C08F
C076 20E FCT:`RL
C077 0B7 ADR: CEB7
C078 001 FCT:*RL
C079 058 ADR: C158
C07A 000 FCT:*M/a
C07B 0BC ADR: C0BC
C07C 20F FCT:`*ec
C07D 004 ADR: CF04
C07E 207 FCT:`*RLGC
C07F 042 ADR: C742
C080 208 FCT:`*GLOBE
C081 0EF ADR: C8EF
C082 000 NOP
C083 000 NOP
...
D000 00F XROM NO.=15
D001 033 51 FUNCTIONS
D002 209 FCT:`RISE
D003 063 ADR: D963
D004 208 FCT:`MCT
D005 0F4 ADR: D8F4
D006 208 FCT:`MNT
D007 0DD ADR: D8DD
D008 209 FCT:`MP
D009 0AD ADR: D9AD
D00A 209 FCT:`ECT
D00B 00B ADR: D90B
D00C 209 FCT:`ENT
D00D 024 ADR: D924
D00E 209 FCT:`SET
D00F 0EC ADR: D9EC
D010 204 FCT:`PSG
D011 08A ADR: D48A
D012 205 FCT:`STD
D013 023 ADR: D523
D014 201 FCT:`TRK
D015 0F0 ADR: D1F0
D016 204 FCT:`SOA
D017 0F9 ADR: D4F9
D018 201 FCT:`PIM
D019 043 ADR: D143
D01A 20E FCT:`FM-M
D01B 0E4 ADR: DEE4
D01C 20F FCT:`M-FM
D01D 05C ADR: DF5C
D01E 20E FCT:`FT-M
D01F 0D0 ADR: DED0
D020 20F FCT:`M-FT
D021 034 ADR: DF34
D022 20D FCT:`TOGEO
D023 0CD ADR: DDCD
D024 20D FCT:`TOGRID
D025 0BF ADR: DDBF
D026 20D FCT:`DRIN
D027 012 ADR: DD12
D028 20D FCT:`DROUT
D029 042 ADR: DD42
D02A 20D FCT:`ZONE
D02B 095 ADR: DD95
D02C 000 FCT:*ZN
D02D 0A8 ADR: D0A8
D02E 000 FCT:*HM
D02F 0AE ADR: D0AE
D030 000 FCT:*DHM
D031 0F1 ADR: D0F1
D032 000 FCT:*H+
D033 0C9 ADR: D0C9
D034 000 FCT:*DT-
D035 0D0 ADR: D0D0
D036 000 FCT:*PRMPT
```

```
D037 0C3 ADR: D0C3
D038 000 FCT:BAD?
D039 0A2 ADR: D0A2
D03A 001 FCT:*MSG
D03B 005 ADR: D105
D03C 20F FCT:`*M
D03D 0CD ADR: DFCD
D03E 000 FCT:*AGE
D03F 0DE ADR: D0DE
D040 000 FCT:*PH
D041 0BA ADR: D0BA
D042 000 FCT:*360
D043 08E ADR: D08E
D044 000 FCT:*BG
D045 094 ADR: D094
D046 001 FCT:*1L0
D047 038 ADR: D138
D048 000 FCT:*F0
D049 0EA ADR: D0EA
D04A 001 FCT:*F1
D04B 03E ADR: D13E
D04C 000 FCT:MJ*?
D04D 09B ADR: D09B
D04E 001 FCT:TRK?
D04F 022 ADR: D122
D050 000 FCT:*WP
D051 0B4 ADR: D0B4
D052 000 FCT:*WP2
D053 0D7 ADR: D0D7
D054 001 FCT:*GWP
D055 01B ADR: D11B
D056 001 FCT:*GWP2
D057 02A ADR: D12A
D058 001 FCT:*PWP
D059 00C ADR: D10C
D05A 001 FCT:*PWP%
D05B 014 ADR: D114
D05C 000 FCT:*DI
D05D 0E4 ADR: D0E4
D05E 000 FCT:*DT
D05F 0FE ADR: D0FE
D060 000 FCT:*DT$
D061 0F8 ADR: D0F8
D062 001 FCT:*ET$
D063 031 ADR: D131
D064 20D FCT:`*SIZE
D065 05E ADR: DD5E
D066 20D FCT:`*END
D067 086 ADR: DD86
D068 000 NOP
D069 000 NOP
...
```

HMC - Hardcore Module Collector

*Message #8 Posted by **Mike (Stgt)** on 2 July 2003, 8:12 a.m.,*
in response to message #7 by Emmanuel

Ha! Là il est! Le vrai HMC! Salut Emmanuel! Ca va?

Well, yes most functions seem to be the same as in NAV1B, but there are few new ones. Is it possible that someone copied together what he found useful for his/her own purpouses. Or do you have a manual especially for the NAV2A in your hands?

Ciao.....Mike

PS: More off-list pls.

Re: HMC - Hardcore Module Collector

*Message #9 Posted by **Emmanuel, France** on 2 July 2003, 5:40 p.m.,*
in response to message #8 by Mike (Stgt)

[pre]Salut, Michael! Je n'ai hélas qu'un aide-mémoire. @ bientôt. Amitiés.

I just have Quick Reference Guide and overlay for its use. Read you soon. Yours. [pre]

Analysing ROM images

*Message #10 Posted by **Tony Duell (UK)** on 1 July 2003, 5:34 p.m.,*
in response to message #6 by Mike (Stgt)

If you don't have an IBM mainframe handy (:-)), then you might want to look at the 'rom41cat' program in my LIF Utilities for Linux distribution. It's written in C, and should be reasonably easy to port to other OSes. It doesn't do quite as much, but it will list the function names, whether they are Focal or Mcode, and the entry points. I find it quite a useful tool for looking at unknown ROM images.

Analysing ROM images

*Message #11 Posted by **Mike (Stgt)** on 2 July 2003, 8:13 a.m.,*
in response to message #10 by Tony Duell (UK)

In a few month our IBM host will be shut down for ever. So I'll remember soon your routine, shure <G>.

Ciao.....Mike

Re: Analysing ROM images

*Message #12 Posted by **Massimo Gnerucci (Italy)** on 2 July 2003, 10:47 a.m.,*
in response to message #11 by Mike (Stgt)

No mainframe, no party?
Time to resort to an emulator... **;-)**

Take a look here: http://www.conmicro.cx/hercules/

Have fun,
Massimo

Re: Analysing ROM images

*Message #13 Posted by **Mike (Stgt)** on 3 July 2003, 4:23 a.m.,*
in response to message #12 by Massimo Gnerucci (Italy)

Hey Massimo! Thank you very much for that hint. I will have a lot of fun with that. Will Pipe http://vm.marist.edu/%7Epipeline/ run in that emu?

Ciao.....Mike

Re: Analysing ROM images

*Message #14 Posted by **Massimo Gnerucci (Italy)** on 3 July 2003, 10:02 a.m.,*
in response to message #13 by Mike (Stgt)

Quote:

> Will Pipe http://vm.marist.edu/%7Epipeline/ run in that emu?

Sorry Mike, I really don't know.

I tried this emulator a couple of years back for a short time and had a few problems with it (some errors in the source prevented compilation, but I finally managed to try it a little. At the time I was in a nostalgic mood for the days past... kinda like when I began collecting HPs. No, I won't begin looking for used IBM mainframes: already out of space! **;-)**

I really hope that it can be of help to you.

Massimo

Re: Analysing ROM images

*Message #15 Posted by **Mike (Stgt)** on 8 July 2003, 8:27 a.m.,*
in response to message #12 by Massimo Gnerucci (Italy)

Thnx again for that hint. Our sysman bit the hook! <VBG>

Ciao.....Mike

Re: Analysing ROM images

*Message #16 Posted by **Massimo Gnerucci (Italy)** on 8 July 2003, 12:10 p.m.,*
in response to message #15 by Mike (Stgt)

> Quote:
>
> Thnx again for that hint. Our sysman bit the hook!

I'm glad that your fun won't stop!

BTW: I just got curious about Hercules again, maybe I'll try it out once more...

Massimo

Re: Analysing ROM images

*Message #17 Posted by **Vassilis Prevelakis** on 8 July 2003, 11:56 p.m.,*
in response to message #12 by Massimo Gnerucci (Italy)

```
Massimo Gnerucci (Italy) wrote:
> No mainframe, no party?
> Time to resort to an emulator... ;-)
```

This reminds me of the famous Chaostron April Fools paper which ended as follows:

> Quote:
>
> Our acknowledgments and thanks are due to Mr J.B.Puffadder for his assistance in the detailed design of Chaostron, and to Mr V.A.Vyssotsky for manually simulating the [IBM] 704, simulating STRETCH, simulating Chaostron, to complete run 133 after the budget funds ran

out.

**vp

Subject-drift: now Emulators in general

*Message #18 Posted by **Mike (Stgt)** on 9 July 2003, 4:04 a.m.,*
in response to message #17 by Vassilis Prevelakis

Haha!!! Manually simulating the host! <VBG> That's a good one. Leeds to a new challenge: Simulating the HP-41 with an abacus. The real challenge is the speed compare. ;-)

Ciao.....Mike

Re: Analysing ROM images

*Message #19 Posted by **David Smith** on 3 July 2003, 2:49 p.m.,*
in response to message #11 by Mike (Stgt)

On the day the last IBM mainframe goes down the world will be a better place... and Satan invented JCL.

Re: Analysing ROM images

*Message #20 Posted by **Les Bell [Sydney]** on 4 July 2003, 1:47 a.m.,*
in response to message #19 by David Smith

Since IBM mainframes don't go down, you're in for a long wait.

--- Les [http://www.lesbell.com.au]
[Currently working on Linux on IBM mainframe]

Re: Analysing ROM images

*Message #21 Posted by **Mike (Stgt)** on 8 July 2003, 8:25 a.m.,*
in response to message #20 by Les Bell [Sydney]

I have no advantage in the "renascence" of VM as long as our host is kicked out.

Sadly.....Mike

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Spices: Internal check for ID # and the "2" disease

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2003, 6:33 p.m.*

Hello guys, Norm mostly;

I summarized below all information I could gather about Spices (some with me, some with other people). If I have the chance to collect more data OR if anyone else can add new info, let's feed this thread and later we can put all of the information together and, maybe, identify common points related to the "2" disease.

Columns are:

ID# - calculator identification number/code.
"2" - "2"-disease occurrence: Y means it has the "2" disease, N means it doesn't.
CT - Construction type - a single S means soldered; SL means solderless.
CPU ID # - CPU Identification number/code - I added the "date code", which is a lot better than calculator's serial #.
1, 2, 3 - position reference for extra 8-pin DIP IC's, being 1 the IC closest to the LED display; ---- indicates no IC present.

ID#	"2"	CT	CPU ID #	1	2	3	OBS
31E	N	SL	1820-2105-B (7922YY)	----	----	1MA301	
31E	Y	S	31E 2438	00031	----	1MA15002	(1)
33E	Y	SL	1820-2105 (7822EX)	----	1MA10204	1MA10003	
34C	N	S	34C/B-2102 00034-69110	1LB902	1MA10014	1MA115	(1)
37E	Y	SL	1820-2122 (7819MO)	00031	no_label	1MA10008	(2)
38C	N	S	38C/B-2102 00038-69110	1LB903	1MA30006	----	(1)
38C	N	SL	1820-2162 (7944DY)	1LB903	1MA305	----	
38E	Y	SL	1820-2122-A (7850MC)	1MA107	1MA10013	1MA10005	
38E	Y	SL	1820-2122-A (7916CS)	1MA105	1MA113	1MA30003	

(1) - CPU ID in paper label; I tried to remove to see the actual chip code, but it would destroy the label.
(2) - the "no_label" means there is a chip and no identification on it.

If the table does not look O.K. for you (screen resolution or other reason) you may edit this post and copy/paste its contents so you can visualize it in any text editor.

If the code found beside CPU's ID number (right side, in parenthesis) is a date code and first two digits refer to the year, then it's easy to observe in this sample that calculators before 7916 (four units) show the "2"disease symptom, and the ones after 7922 (two units) do not. But this is not enough sample to conclude anything about it. One single unit after 7922 with the "2"disease and we start over.

Hope this helps a bit. And please, if someone else feels confident opening their Spices and checking, you can edit this one just to sample the table below and fill with new values, if you think it's well built. If you want to add your information your own way, please, feel free organizing it the best way you find. It will be useful as well.

Best regards

Luiz C. Vieira - Brazil

Edited: 29 June 2003, 9:35 p.m.

Re: Spices: Internal check for ID # and the "2" disease

*Message #2 Posted by **Ellis Easley** on 30 June 2003, 9:21 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Here's the numbers from my 34C's. I added the serial number prefix for the units. There are datecodes on the 8 pin IC's, too, but they are in a different format with 5 digits. I have one question: do all units with the "2" behavior also flash the minus sign and random commas while executing built-in functions? (enter -99.9 and press "X!" to keep the machine working for almost 30 seconds)

```
ID# "2" CT      CPU ID #              1       2       3       OBS    UNIT S/N PREFIX


34C  Y  SL  1820-2162 A (7906)    1LB5 002  1MA1 14  1MA1 0015           1934A
34C  N  S   1820-2162 (8047)      1LB9 02   1MA1 14  1MA1 15             2051S
```

> Quote:
>
> (2) - the "no_label" means there is a chip and no identification on it.

The chips with a very shiny black plastic package marked with mettalic-looking ink are sometimes very hard to read. I think this is why they started burning the markings in with a laser! Sometimes if you shine a flashlight from different angles, and change the angle you eye is looking at the chip, you can read the markings.

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Calculator stores in Germany/Austria?

*Message #1 Posted by **Eduardo** on 29 June 2003, 6:18 p.m.*

Hi,

I'm visiting Austria (Graz) next week, and Germany the week after (Frankfurt, Koblenz, maybe more). Is there any hope I can find better prices or more variety of (collectable) HP calculators during my trip? Flea markets, electronics stores or other sources? Any help/suggestions would be very welcome. Thanks!

Eduardo

Edited: 29 June 2003, 6:19 p.m.

Re: Calculator stores in Germany/Austria?

*Message #2 Posted by **Raymond Del Tondo** on 29 June 2003, 8:32 p.m.,*
in response to message #1 by Eduardo

Hi Eduardo,

my experience (for Germany) is that on flea markets, HP calcs are rare, and those office suppliers who actually had one or more of the more interesting calcs, wanted to sell them at the regular prices...

However, this way I got a NIB 14B a few years ago.

At least in Frankfurt should be some office suppliers, which you could try.

AFAIK the electronics shops here in Germany don't carry HP calcs at all.

Regards,

Raymond

BTW: Did your friend in Koblenz send you a mail?

Re: Calculator stores in Germany/Austria?

*Message #3 Posted by **Randy Smith** on 30 June 2003, 6:43 p.m.,*
in response to message #2 by Raymond Del Tondo

I was able to find an HP 22S at a flea market in Bitburg for 5 euros. It was dusty but it actually worked. I have been to literally hundreds of flea markets since I have been stationed in Germany and this is the only the 2nd HP calc I have seen. I did find 28S manuals in German at a flea market in Homburg Saar but alas no calc to go with them. So, I would have to agree with Raymond that HP calcs at flea markets are quite rare. I would go farther and say practically non-existant. Almost forgot, found a non-functional 32E in Kaiserslautern for 3 euros.

Re: Calculator stores in Germany/Austria?

*Message #4 Posted by **Eduardo** on 1 July 2003, 10:49 a.m.,*
in response to message #3 by Randy Smith

So, not much hope altogether...?

Thanks for your replies. I won't keep my hopes too high.

Eduardo

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Questions about the HP71B

*Message #1 Posted by **jose goncalves (Brasil)** on 29 June 2003, 11:41 a.m.*

I've got a couple of questions about the HP71B:

1) What is the charger model for this computer ? Can we use a charger when using no-rechargeable batteries ?

2) How to use the HP-IL port (single type) ? I've been through the Archives and the email I faund for someone that had the information aparently is no longer valid. Can I have the PDF file of instructions for this type of HP-IL device ?

Thanks

Jose

Re: Questions about the HP71B

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2003, 1:18 p.m.,*
in response to message #1 by jose goncalves (Brasil)

Hello, José;

About the HP71B, I asked a few questions to Doc. Mike Meyer a couple of days ago and I was told that the same AC adapter used by the topcats (HP9x), HPIL printer and tape driver, HP9114B and HP82143A (HP41 printer) can be used with it. I tested and it works fine.

I am using four AAA NiCads with mine and I was also told by Doc. Mike Meyer that the HP71B cannot charge batteries. The AC adapter works the same way that the AC adapter for the HP82240A/B: it feeds part of the power, but cannot charge batteries. Kind of "power support".

If you have the MoHPC CD pack, have a look at CD #2 (if I am not wrong) and you will find the book "Controlling the Word with the HPIL". There are many good information there. I read a few parts of it briefly, because I'm still learning hwo to deal with the HP7.

One thing I did so far was to connect the HP41 to the HP71B and execute ID in the HP41 (if I am not wrong, ID is an Extended I/O function, not a standard HPIL funciton; you should check, please) and I could read:

```
[HP71      ]
```

in the HP41 ALPHA register. They talked to each other!

As I'm getting acquainted to the HP71 I'm asking more questions, too.

Hope this helps for now,

Best regards.

Luiz C. Vieira

Oops! Books are in CD #3...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2003, 2:15 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hello, José;

I was wrrong (again): the book I mentioned is in CD #3, BOOKS directory, and the file name is CNTHPIL.PDF.

It's worth taking a look at it.

Best regards.

Luiz C. Vieira

Re: Questions about the HP71B

*Message #4 Posted by **Gordon Dyer** on 29 June 2003, 1:18 p.m.,*
in response to message #1 by jose goncalves (Brasil)

The ac charger model for the 71B with 110v ac input is 820590. The power into the 71B is 8v ac 3W and any psu which supplies this is ok.
It does not charge batteries internally and the ac input is seperate from the batteries, it can be used on the 8v ac input without batteries fitted. Use 4x AAA alkaline batteries only (1.5V) not NiCd.
You need to fit batteries to maintain the memory contents when the ac power is off.
When changing the batteries have the ac power switched on to ensure that the memory contents are retained, otherwise there is only about 30 seconds of memory retention time.

Re: Questions about the HP71B

*Message #5 Posted by **jose goncalves (Brasil)** on 29 June 2003, 3:02 p.m.,*
in response to message #4 by Gordon Dyer

Ok, thank you. I'll be looking for this mountain of information and try to make the 71B and the 41C to talk to each other and some more things.

Jose

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19BII keys

*Message #1 Posted by **Scuba Diver** on 29 June 2003, 11:31 a.m.*

Hello everyone!

I'm an MBA student and I wanted to get a backup 19BII so I've been looking on eBay. I've noticed the following differences between various 19BIIs:

1) Canadian/US models have a different label (on the inside above the alpha keyboard) than international models do. The international ones simply explain how to change the language of the calculator

2) Some keys are double-molded and some are painted..well, at least that's what I assume...some units have shiny keys and others have more of a matte finish (I assume this latter group have painted keys).

Can anyone confirm this? Are the calculators with the matte-finishe keys painted, and if so, do they really have a lower lifespan than double-molded keys? I know that the double-molded should theoretically last longer, but has anyone ever seen painted keys wear off?

I do prefer the double-molded keys (your finger seems to grip the key better), however the two that I've bought recently have painted keys and I don't feel like spending my spare time buying tons of them on eBay until I find one I like, so I think I might settle with what I have.

Insights would be greatly appreciated! Thanks! B.

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82163B

*Message #1 Posted by **Malcolm** on 29 June 2003, 4:45 a.m.*

I have a 82163B Video Interface that I would like to sell on ebay but I want to make sure that it will work in the USA. What I mean is - there is a tv output as well as a monitor output. Here in Australia we use pal and in USA is NTSC. Is this just for color or does it apply to Black and White as well. Was there a different version of the 82163 for USA.

Thanks Malcolm

Re: 82163B

*Message #2 Posted by **Chris(FLA)** on 29 June 2003, 10:16 p.m.,*
in response to message #1 by Malcolm

Malcolm,

NTSC and PAL are different with or without color. NTSC is 60Hz. and PAL is 50Hz.

My interface is a 82163A model for the USA.

In the manual is this note.

* One HP-IL Cable.
* One ac adaptor.
* One TV/monitor cable.
* One switch box(inside the U.S.A.) or one cable adaptor (outside the U.S.A.)

note:
This manual specifies the TV channel used by the HP 82163A, which is the version designed for operation in the U.S.A.

Chris

Re: 82163B

*Message #3 Posted by **Malcolm** on 29 June 2003, 11:42 p.m.,*
in response to message #2 by Chris(FLA)

Thanks Chris,

Would I be safe in assuming that the Monitor interface is independant. ie same for 82163A and 82163B.

Also here in Aus most older TV's came with NTSC and PAL inputs, was this the case in the USA as well.

Thanks Malcolm

Re: 82163B

*Message #4 Posted by **Chris(FLA)** on 30 June 2003, 6:29 p.m.,*
in response to message #3 by Malcolm

Would I be safe in assuming that the Monitor interface is independant. ie same for 82163A and 82163B.

The monitor interface is most likely before the RF(TV) output. So they would not be the same on both units. PAL is PAL either composite or RF.

NTSC is 30fps or 60 fields per second. PAL is 25fps or 50 fields per second.

Also here in Aus most older TV's came with NTSC and PAL inputs, was this the case in the USA as well.

No this was not the case with consumer TV's. Atleast I never came across any. The only NTSC/PAL "monitors"(not TVs) that I saw was when I worked in the broadcast/industrial video business. Mainly VERY expensive monitors in studio control rooms and editing suites. Even these were rare to say the least.

I think your "B" model is PAL only and will have very limited use in the USA.

I am not an expert concering HP's different models of this unit though. If anybody can contradict my conclusions on this please do.

I just thought of something when proofing this message Comodore made some NTSC/PAL "monitors". I remember being able to run some PAL programs on my Amiga A1000/A2000 computer. But that was a long long time ago in a far away land...

Chris

Re: 82163B

*Message #5 Posted by **Ellis Easley** on 3 July 2003, 10:37 a.m.,*
in response to message #4 by Chris(FLA)

> Quote:
>
> I think your "B" model is PAL only and will have very limited use in the USA.

I have a couple of computers with PAL output and I can view their output (in black and white) on NTSC monitors that have vertical hold and vertical size controls. The color subcarrier is different, so I can't see the color from my BBC Model B. But both NTSC and PAL use a horizontal frequency of about 15,750 Hz, so the hard part works!

Re: 82163B

*Message #6 Posted by **Chris(FLA)** on 4 July 2003, 7:25 a.m.,*
in response to message #5 by Ellis Easley

I have a couple of computers with PAL output and I can view their output (in black and white) on NTSC monitors that have vertical hold and vertical size controls. The color subcarrier is different, so I can't see the color from my BBC Model B. But both NTSC and PAL use a horizontal frequency of about 15,750 Hz, so the hard part works!

Thanks Ellis, Black & White would be fine as you/we know the video interfaces don't do color.

Malcom, there is some hope for being able to use your "B" unit in the U.S. They only slight problem is that the manufactures seem to be removing these controls from monitors. For what reasons I can't think of except cost maybe?

Chris

Re: 82163B

*Message #7 Posted by **Johnny Billquist** on 7 July 2003, 5:57 a.m.,*
in response to message #6 by Chris(FLA)

I wouldn't try to use a 82163B on an NTSC monitor. It is more than the color encoding that differs.

To make a long story short, this is the difference between 82163A and 82163B:

	82163A	82163B
Frequency	61.25 MHz	62.25 MHz
Lines	525	625
Update freq.	60 Hz	50 Hz

(I sure hope that became readable...)

Re: 82163B

*Message #8 Posted by **Ellis Easley** on 9 July 2003, 9:58 p.m.,*
in response to message #7 by Johnny Billquist

61.25 MHz would be within US TV channel 3 (I believe it is 60-66 MHz) and I know the video carrier is near one end of the channel and the audio carrier is 4.5 MHz above the video, which would be 65.75 if I am correct. So I think that frequency refers to the RF modulator output and not the video output. It is true that the vertical frequency is very different but monitors with vertical hold and size adjustments usually have a lot of range, and since the horizontal frequency is almost identical (about 15.75 kHz), that part is no problem.

But I thought the PAL version of the 82163 didn't include an RF modulator. Also, I understand the RF frequency commonly used in the UK, at least, for connecting things to a TV was in the vicinity of US UHF TV channel 33 (around 584 MHz : [(channel - 14) * 6] + 470 MHz) - I first learned this from a friend who ordered the Sinclair 1000 as a kit from England and then later, found the same to be the case with my BBC Model B. Whatever the exact frequency, a TV with adjustable fine tuning can display the black and white signal as long as the vertical is also adjustable. But 62.25 MHz would still be within US TV channel 3.

US TV channels are all 6 MHz wide and are separated into three bands: 2-6 (VHF low) starting at 54 MHz, 7-13 (VHF high) starting at 174 MHz, and 14-69 (UHF) starting at 470 MHz. There used to be a channel 1 but the frequency was given to amateur radio. Also, there used to be UHF channels 70-83, I think those frequencies are now used for cell phones.

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82163B

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HP-12C Platinum's CPU

*Message #1 Posted by **Valentin Albillo** on 29 June 2003, 2:41 a.m.*

Hi all:

There's been much speculation here re if HP's going to re-release 'Platinum' versions of other favorite RPN vintage calcs, such as the 15C, etc. Should that happen, I guess the CPU used would be the same as the one in the new HP-12C Platinum, in which case at least that important factor would be Ok, the only things that could then go wrong being the emulation of the old CPU if the ROM code is still available, or the rewriting of the whole ROM if the old code was lost (as in the HP-12CP), with the more than likely introduction of bugs, non-optimal algorithms (not Mr. Kahan's for sure), or even worse, lessened accuracy and unnecessary inefficiency, i.e: slowness.

As for the CPU itself, the HP-12CP CPU is a high-tech 8-bit beastie, which can work at voltages from 2.4 V to 5.5 V, at speeds of up to 1 Mhz, and which admits up to 30 Kb of ROM, 128 bytes SRAM for CPU working space, and 2 Kb SRAM for data. It features 8 I/O ports, LCD controller/driver capable of handling up to 480 dots or equivalent segments, built-in R-oscillator and 32.768 Khz crystal oscillator, 8-bit reloadable timer/counter, NMI controller, and many more goodies. In other words, if appropriately programmed, it can deliver. And as for programming, its 'SDK' (Software Developer's Kit) does include a translator which will accept programs written in 6502 assembler and translate them into its native CPU machine language as long as they are valid 6502 instructions, thus easing even more the task of HP programmers (or those subcontracted by HP, more likely).

Anyway, those of you more hardware-oriented than me will probably know better, but IMHO, it sounds good enough for the heart of a classic calculator, isn't it ? Specially since the 71B's CPU (and even the HP-85's for that matter) ran at 0.6-0.8 Mzh, and they were quite capable machines. I know their CPUs were of a very non-standard, proprietary design, optimized for BCD math with large CPU 'registers' and specialized opcodes, but even so ...

Best regards.

Edited: 29 June 2003, 3:12 a.m. after one or more responses were posted

I agree, mostly if...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2003, 2:59 a.m.,*
in response to message #1 by Valentin Albillo

... they actualy "emulate" them the right way, something better than the HP12cP: memory enhancement, original Voyagers' digits shape back ;^) and NO BUGS, please!

Based on specs you showed us (thanks, Valentin; where did you get these?), it is fairly able to hold any Voyager and more powerfull machines. I think a mix of the HP15C and the HP16C with at least 256 registers for matrices (16 × 16 elements) would be more than enough for me, but I know the HP16C's features are too specialized, as mentioned in some posts, and will probably be disregarded.

As for the others, digital designers now have the benefit of higly optimized O.S. and specialized software. I believe that a good design will allow very good results.

If they only could keep HP's layout... I am showing the HP71B to my students and other professionals that

work with me. When I mention it's about 16 Y.O. (at least my unit) and that it was designed when I was at the univerity, they express admiration. And it looks as a current design.

Time will tell, HP will show...

Best regards and thank you, Valentin; very good words, indeed. My turn to say: I enjoyed reading.

Luiz C. Vieira - Brazil

Re: I agree, mostly if...

*Message #3 Posted by **Chris Roccati** on 29 June 2003, 5:44 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Do you know that 256 16x16 matrices in the 7 bytes "voyager" floating would need nearly 512KBytes?

Now I'm curious... (edited)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2003, 11:35 a.m.,*
in response to message #3 by Chris Roccati

Hello, Chris;

you let me curious about it. I simply took 16 times 16 (256) times 7 (bytes per register) and thought it would be necessary 1782 bytes, as we have in one HP41 Quad memory module. I know a standard HP42S, 8KRAM, no registers (SIZE 000) can hold a 28 X 28 matrix, leaving 897 bytes free. I did not try to perform any matrix operation, just created it.

Would that 512K be necessary to perform operations?

Thank you.

Luiz C. Vieira - Brazil

Edited: 29 June 2003, 2:17 p.m.

Re: Now I'm curious... (edited)

*Message #5 Posted by **Chris Roccati** on 29 June 2003, 7:20 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I interpreted your statement as enough registers for 256 matrices of 16x16 elements. Now I see what you did really mean...

Re: I agree, mostly if...

*Message #6 Posted by **Erik Ehrling (Sweden)** on 29 June 2003, 2:37 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

> fairly able to hold any Voyager and more powerful machines.

The downside, at least from what I understand of the specs, is that it might be powerful enough to power a Voyager, but it certainly won't be powerful enough to power a high-end Pioneer; so either HP is also considering a more powerful architecture or we won't ever see a replacement for the more advanced Pioneeers...

Can anyone tell me one thing that I cannot understand - why doesn't HP use something more powerful - for example why not base a new calc on the StrongARM microcontroller (or similar)?

Best regards, Erik Ehrling (Sweden)

Re: I agree, mostly if...

*Message #7 Posted by **Meindert Kuipers** on 29 June 2003, 2:54 p.m.,*
in response to message #6 by Erik Ehrling (Sweden)

The current 8-bit microcontrollers are highly integrated and very very low on power, expecially at low frequencies. Very important as well is that the price of these 8-bitters is probably well below $5 in the quantities that HP is hoping to sell. I would choose an 8-bitter myself, even for a high-end calculator. There are 8051's running at 50 MHz that cost $3 in quantities. The Motorola HCx08 is in the same ballpark. A StrongArm would allow you to run a proper operating system (PalmOS, Windows, Linux) but we do not need that in a calculator, do we ....?

On the other hand, Texas is using a 32-bit 68000 derivative for its graphing calculators which is more powerful but requires larger batteries.

Meindert

Re: I agree, mostly if...

*Message #8 Posted by **David Ramsey** on 29 June 2003, 4:04 p.m.,*
in response to message #7 by Meindert Kuipers

You know something? I don't really care what processors any new HP calcs might use. Frankly, performance of even the oldest programmables is sufficient for the limited uses to which they were put (I've wondered why existing graphics calculators, even the 68000-powered T.I. monsters, are so damn slow, though...).

What I care about are the internal algorithms. The HP of old sweated blood making sure the internal numerical algorithms gave the best accuracy possible, handling difficult edge cases and using intelligent rounding and such. All HPs showed a great deal of "orthogonality"-- operations could be generalized. At its simplest this is illustrated by register arithmetic, but was fully realized in calcs like the 28S, in which "+" would do the right thing no matter what was on the stack (numbers, complex numbers, symbols, matrices, strings, etc.)

I think one of these calcs-- perhaps the 71 or 75-- was the first computer of any type to fully implement the IEEE floating point standard.

After reading about how HP has screwed up the relatively simple and well understood financial algorithms in the 12C Platinum, I'm nervous.

Re: I agree, mostly if...

*Message #9 Posted by **Erik Ehrling (Sweden)** on 30 June 2003, 11:40 a.m.,*
in response to message #8 by David Ramsey

> What I care about are the internal algorithms. The HP of old sweated blood making sure the internal numerical algorithms gave the best accuracy possible, handling difficult edge cases and using intelligent rounding and such.

I totally agree on a good algorithm on a low-performance CPU being preferable to a suboptimal

algorithm on a high-performance CPU, but must it necessarily be a forced choice? Can't we have a good algorithms on a high-performance CPU?

I can see two areas that would immediately benefit from good algorithms on a high-performance CPU: 1) Larger numerical problems (larger matrices, higher precision in numerical integration etc.) 2) Symbolics (yes, I am impressed by both Erable on the HP48 and Derive for DOS on the HP200LX but my feeling is that these pieces of software are pushing their respective platforms to their very extremes, I might be wrong but higher performance might actually be a requirement to do much more than these programs do)

Also, one interesting observation about for example the HP-42S is that it only provides restricted access to ML programming and therefore has almost 100% of its program base written in UserRPN. Such a calculator is therefore very suitable for a new CPU platform. (Much more than the HP48 for example, where a majority of the best software is written in ML).

Best regards, Erik Ehrling (Sweden)

Re: I agree, mostly if...

*Message #10 Posted by **David Ramsey** on 30 June 2003, 11:57 a.m.,*
in response to message #9 by Erik Ehrling (Sweden)

> Quote:
>
> I totally agree on a good algorithm on a low-performance CPU being preferable to a suboptimal algorithm on a high-performance CPU, but must it necessarily be a forced choice? Can't we have a good algorithms on a high-performance CPU?

Of course good algorithms on a high performance CPU are preferred!

But putting in a faster CPU is easy and cheap. Hiring people capable of doing numerical work of the calibre that was normal in older HP calcs is not.

SysRPL, UserRPL and good, old, plain RPN

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 30 June 2003, 12:33 p.m.,*
in response to message #9 by Erik Ehrling (Sweden)

Hello Erik, guys;

If you allow me to add a few words to your good words, let me also tell you that I liked them very much. Our point of view over some subjects matches in many aspects.

The "hidden" SysRPL/machine code, at least to the average user (*), allows good and bad consequences. As one of our contributors mentioned it well, when he needs some application that already exists as downloadable library, he simply uses it and does not care much about its source code. In fact, we do it when using internal resources: SIN, SQRT, SOLVE, etc. are internally coded and we use them as well, no further inspection.

In other hand, when those of us who want to go further and find "hidden" secrets claiming to be disclosed, then there's no such well locked secret that human mind cannot reveal. It becomes a matter of honor being able to use them and show how deep one can go into a highly dense O.S.

We, poor mortals, can only dare dreaming of having the chance to follow these guys. I'm one of these who dare dreaming of spare time to delve into RPL and Saturn assembly language secrets. When I believe I'll have a few hours to open the door and look carefully inside, some sort of "life call" rings the bell. The world is ours when we are younger, but when we are aged, there are always guys younger than us to claim its possession. Life cycle, no way out...

Oops! Off topic... keeping track... O.K.!

I believe in widely spread documentation. Maybe I'm wrong, but amongst the best calculators (equipments in general, any brand), the most successful are the best documented ones: TI58/59, HP41, HP71, HP48, TI8x series and others as well. Particularly the HP71 that followed the "open architecture" philosophy since its introduction. I remember it well, anyone I knew that was acquainted to HP "restricted architecture policy" was taken by surprise when knowing HP granted access to the HP71 internals documentation.

That's what I believe would help any portable computing device to be successful: flexible, powerful, user selectable O.S. and related algorithms, CPU with compatible, top performance and available, not restricted documentation.

If IBM PC® is not a good example, I cannot find another one.

Best regards.

Luiz C. Vieira - Brazil

(*)I know there are ways to view the source code, but most users do not even have the time to list SysRPL programs and try to understand it, mostly if they are on their way to master UserRPL.

Re: HP-12C Platinum's CPU - Should we call it "the donut"?

*Message #12 Posted by **Andrés C. Rodríguez (Argentina)** on 29 June 2003, 5:18 p.m.,*
in response to message #1 by Valentin Albillo

Just a suggestion, it is trying to DO (as a) NUT

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Old HP (and calculators) will never come back

*Message #1 Posted by **Renato** on 29 June 2003, 12:32 a.m.*

The 12C platinum is a (still) living proof of that.

In a 1972 advertisement about the hp-35 you can read:

> Quote:
>
> Many people know us as an instrument manufacturer: we make more than 2,000 products for measurement, test and analysis. Others know us as a computer company: more than 10,000 own our programmable calculators and computers. We prefer to think that our business is to serve measurement, analysis and computation needs . . . in science, industry, medicine and education.

Current HP does not "serve measurement, analysis and computation needs . . . in science, industry, medicine and education". Current HP is a consumer and corporate products company. Former HP was a company providing products for R&D teams, working at customer core-business projects. Current HP printers come with ink cartridges containing 1/3 ink of regular capacity.
IMO, Agilent is all that is still left of former HP. Just read the quote above another time, and I guess you´ll agree that technical calculators (opposed from consumer calculators) should be Agilent products.

Re: Old HP (and calculators) will never come back

*Message #2 Posted by **Wektor** on 29 June 2003, 1:02 a.m.,*
in response to message #1 by Renato

You're right 100% ... there won't be any "new" HP-41C/CV/CX, HP-42S, HP-71B, HP-15C, ... Perhaps they will introduce something like HP-49G+ or HP-49GII but old cals are gone forever.

Re: Old HP (and calculators) will never come back

*Message #3 Posted by **Paul Brogger** on 30 June 2003, 1:13 p.m.,*
in response to message #1 by Renato

We should gather all of our favorite quotes from the old H-P's manuals. I think someone else pointed out not-too-long-ago a quote that I recently found again in the inside front cover of the HP-34C manual (April, 1980 -- Rev. B):

"Each of our calculators is precision crafted and designed to solve the problems its owner can expect to encounter throughout a working lifetime."

Does *ANY* company make such claims these days? I believe I would today reflexively dismiss these words as meaningless marketing hype, in whatever context.

It's amazing that the old H-P could print that in black & white, and then could back it up with a rock-solid piece of equipment that is still operating perfectly, thank you very much indeed . . .

YUP, it lasts a lifetime, HP vs Agilent

*Message #4 Posted by **Norm** on 30 June 2003, 3:47 p.m.,*
in response to message #3 by Paul Brogger

YUP, it lasts a lifetime. A 34C is STILL a preferred tool for dealing with various minor math problems I encounter.

So how do we get these dim-witted mafia-goons called "HP" to release the last plundered remnants of the calculator division to the scientific minds who still exist over at Agilent????

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I BOUGHT A 12C - LOOKS LIKES A CRAP

*Message #1 Posted by **John Smith** on 28 June 2003, 9:15 p.m.*

I just bought a brand new HP-12C. It is made in China. It looks like a POS. LCD window background looks dark and a damn unbright. When calculator is turn on, LCD display is black for sure, but that damn thing is black on dark background. I'm pissed. I saw another old 12C made in USA. That one has white LCD window background, thus LCD display apprears black and crisp.

Can anyone confirm this whether Chines made batch of 12Cs are same POS like mine?

They are a POS

*Message #2 Posted by **Mike** on 28 June 2003, 10:11 p.m.,*
in response to message #1 by John Smith

but the display should look like the others. I don't see any problem with the display on my Chinese made 12Cs. Keys are crap though.

Not all are PsOS

*Message #3 Posted by **Patrick** on 28 June 2003, 11:26 p.m.,*
in response to message #2 by Mike

I bought a new one in March (serial #CN14801298) and it has all the appearances of being a fine machine. I use it routinely and it has performed flawlessly over its short life to date. The screen is clear and easy to read, the keys have a good feel to them, and the device has an overall solid feel to it. I have absolutely no complaints so far.

I will leave it to people like Luiz to weigh in on the qualify of their innards, as I have no independent knowledge in that respect.

Re: Not all are PsOS

*Message #4 Posted by **Nenad (Croatia)** on 29 June 2003, 3:57 a.m.,*
in response to message #3 by Patrick

I have the same experience as Patrick. My 12C (#CN 02002514) is a very nice machine and I did not notice any difference in behaviour of the keys compared with the ones of my 11C or the 15C.

Re: I bought a 12C - Looks like a crap

*Message #5 Posted by **Raymond Del Tondo** on 29 June 2003, 10:27 a.m.,*
in response to message #1 by John Smith

Hi,

I'd go for the older US, Brazil, or Singapore made units. I have an Indonesian unit, which still has three battery

cells. The display is a single tone darker than those of the earlier ones.

But the keyboard is really a mess. Not only they 'feel' cheaper, but the quality of the painting of the key legends is very low.

So if you have warranty, try to get your money back, unless you bought it for your collection;-)

Regards,

Raymond

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On undiscontinuing products

*Message #1 Posted by **Ernie Malaga** on 28 June 2003, 5:57 p.m.*

"Undiscontinuing," of course, is the opposite of "discontinuing." To us, this means reviving calculators that have been put to sleep and have ceased being made.

HP, like any other company in the world, is out there to make profits. In today's cut-throat market, however, brand-new calculators don't return much for their investment, which may be why HP chose to close APO three (?) years ago.

New products require lots of R&D, and the race for bigger and more, more, more is truly self-limiting. Unless you can hook up your HP-49G to an espresso maker (or a toilet, as one participant in this board wished he could), there isn't much you can add to the 49G.

HP, how about undiscontinuing old products? Some of your products of the past were huge successes, and would have potential buyers even today. You wouldn't have to spend a dime on R&D because everything has been done before. At most, you'll have to make slight changes to accomodate newer vesions of old components no longer being made.

Lots of forum members seem to like the HP-34C, the 15C, the 32SII, and the 42S. Just how much trouble would it be to bring them back -- unmodified?

Are you listening, HP?

-Ernie

Re: On undiscontinuing products

*Message #2 Posted by **John Smith** on 28 June 2003, 6:41 p.m.,*
in response to message #1 by Ernie Malaga

Ernie,

HP is precisely going to do that. They are bringing back the most popular brand with slight cosmetic change for better reasons by incorporating the improvements what found to be were deficient. They also indicated that they would increase the memory size as well. Heck, if they don't enhance the vintage products who cares?

Look at the pricing level at ebay.

HP 11C.....new price was $69.99.....ebay price $300.00

HP 15C.....$89.99.....$400.00

HP 41CV.....$239.00.....$350.00

HP 41CX..... ...$279.00.....$500.00

These are just a few example. My quoted new prices were based on a discount store like "Best Products" what I paid for. Best Products are out of business now.

It is a madness. How much people love these products. They are willing to pay any price.

HP must have noticed that. Since very little to no R&D cost involved to resuurect those madly loved products, why not make money by HP? Prices points would be much lower, as yet their ironclad guarantee will make customers nothing but happy.

Go HP go. Long live HP.

Re: On undiscontinuing products

*Message #3 Posted by **David Ramsey** on 28 June 2003, 8:49 p.m.,*
in response to message #2 by John Smith

> Quote:
>
> It is a madness. How much people love these products. They are willing to pay any price.

Guys, let's get real. Fanatics like us will pay any price. How many of these $300 HP-15s are sold on eBay in a year? A couple of dozen? Does this strike you as a population large enough to market to?

HP may well bring back new iterations of the classic calcs. But it won't be due to eBay prices.

Re: On undiscontinuing products

*Message #4 Posted by **John Smith** on 28 June 2003, 9:32 p.m.,*
in response to message #3 by David Ramsey

<<...HP may well bring back new iterations of the classic calcs. But it won't be due to eBay prices....>>

Amen. I expect them to sell HP-15C about $80, 11C maybe $50, 32SII maybe $70, and 42S maybe $100 etc. etc.....

If the pricing point is not in the affordable range of ordinary public, their comeback will be doomed to fail. I think they know that. They will try to keep or match their original price points.

I quoted ebay price earlier just to show the madness of lunatics. No students will be able to afford that prices. And without the student market, kiss the calculator business goodbye for ever. I think their (hp) marketing guys know that.

Re: On undiscontinuing products

*Message #5 Posted by **Eddie Mabillard** on 2 July 2003, 6:43 p.m.,*
in response to message #4 by John Smith

you are correct when you state that the market is small for calcs and hp will not make profit on calcs, but hp made a wrong decision in keeping calcs and not letting them to agilent, one thing hp should think, customer who are deceived by their policy, like I am, are lost customer for all their other products, I will never buy any more an hp product, I whish I could decide on big contract for millions of$, I'd be pleased to discard HP.

ERNIE is da man

*Message #6 Posted by **Norm** on 28 June 2003, 7:52 p.m.,*
in response to message #1 by Ernie Malaga

Ernie is da man.... Now I got somebody else who says says to un-discontinue the 34C, 15C, 41C, and others.

Imagine what a sweetie of an LED display U could make these days.... instead of wire-bonding all those teeny tiny little LED die together, U could make a strip thats just as wide as the whole dang display... and it could be way more efficient on the power draw also. And to heck with those chinsy LCD's for awhile, imagine how people would glom onto the new ones (yeah I think they'd go along with larger batteries.... esp if the thing can display all 8's for 3 days straight before you have to replace a pair of AA alkaline batteries.)

Hey Ernie, and anybody else: CONSIDER the philanthrophy angle. I BET YOU AN HP OWNER'S MANUAL that HP SPENDS WAY MORE on crack babies and digging latrines in 3rd world countries (charity to white-wash their sinister motives) than it costs to maintain operations of producing those unique earlier models (!) .

And even that statement just made, a TRUE statement, sort of presumes that resurrecting those models is a non-profit deal (what the critics say) in actuality it would probably create modest to medium profits, commensurate with how hard they can push them thru marketing (and face it... its entirely dependent on the young people and the publik skules .... you'd have to return to teaching math with paper & pencil as a foundation, and young people actually learning the math inside of their heads, rather than just nodding their head up and down as they look up briefly from the videogames they are playing on the 49G ....).

Yah, want a 49G with wireless roaming internet access and firewire access to the automatic microprocessor controlled toilet. That way I can flush it automatically when I am way far away clear across town.... makes as much sense as including A=pi*r^2 in a formula database, if U ask me.....

:o)

Re: On undiscontinuing products

*Message #7 Posted by **Erik Ehrling (Sweden)** on 29 June 2003, 2:33 a.m.,*
in response to message #1 by Ernie Malaga

> Lots of forum members seem to like the HP-34C, the 15C, the 32SII, and the 42S. Just how much trouble would it be to bring them back -- unmodified?

Personally I keep my fingers crossed; hoping that the 42S will be among the calculators HP put in production again.

Unmodified would be great, but if they added 32K RAM (as the original 42S supports 32K!) and a serial port it would be even greater...

Best regards, Erik Ehrling (Sweden)

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John Denver song immortalized

*Message #1 Posted by **Norm** on 28 June 2003, 3:28 p.m.*

the "HP-25C" John Denver song is now immortalized.

It is in the 'memories forum' for any who missed it. Until somebody sets up a virtual HP music jukebox that is .

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LEGACY CALCULATORS ARE COMING BACK

*Message #1 Posted by **John Smith** on 28 June 2003, 10:04 a.m.*

Ladies and Gentlemen,

Please click the link. Read the entire article word for word if you like. Otherwise, read the last line of the 5th paragraph.

My read from this is: HP 11C, 15C, 32SII, 41C series, 42S are definitely coming back, plus other models based on most requests they received from consumers.

Long live HP.

http://www.hp.com/calculators/news/index.html

Re: LEGACY CALCULATORS ARE COMING BACK

*Message #2 Posted by **James Stephens** on 28 June 2003, 11:06 a.m.,*
in response to message #1 by John Smith

And I just cheched in to the site to ask if anyone had heard any news on the new scientifics that are supposed to come out later this year.

Re: LEGACY CALCULATORS ARE COMING BACK

*Message #3 Posted by **Raymond Del Tondo** on 28 June 2003, 12:50 p.m.,*
in response to message #1 by John Smith

This HP article has been widely discussed months ago, and so is a lamer. Search the forum archives for more answers to your hopes (HP33S, HP-17BII+, 49G+. etc...) .

Raymond

BTW: If more pseudos like 'John Smith' are posting here, maybe I'll use the German equivalent in the future: Peter Mustermann...

Re: LEGACY CALCULATORS ARE COMING BACK

*Message #4 Posted by **John Smith** on 28 June 2003, 2:18 p.m.,*
in response to message #3 by Raymond Del Tondo

Raymond,

<<BTW: If more pseudos like 'John Smith' are posting here, maybe I'll use the German equivalent in the future: Peter Mustermann...>>

Can you perhaps elaborate on the above statement that you made? May be you can enlighten me and many

of us those who are less intelligent than you are. Sometimes very intelligent people may appear as idiots when they communicate in scriptic fashion.

would some of U intelligent people

*Message #5 Posted by **Norm** on 28 June 2003, 2:47 p.m.,*
in response to message #4 by John Smith

would some of U intelligent people tell the rest of
us boneheads whether or not the 32Sii will be sold again ?

Your link didn't work.

And if they will sell it again, why did they quit selling it?
Did they just need a little time to themselves to mess up the design, the cosmetics, and the feature-set ?

Re: would some of U intelligent people

*Message #6 Posted by **John Smith** on 28 June 2003, 3:09 p.m.,*
in response to message #5 by Norm

Given link on the message is not an active link. It is not just that link, this message window does not recognize any poster's link, period. So, just copy and paste that link to the address bar on your browser and hit return.

Read the article and then make comments.

Re: would some of U intelligent people

*Message #7 Posted by **Wayne Brown** on 29 June 2003, 12:23 a.m.,*
in response to message #6 by John Smith

> Quote:
>
> Given link on the message is not an active link. It is not just that link, this message window does not recognize any poster's link, period. So, just copy and paste that link to the address bar on your browser and hit return.

Well, I tried copying and pasting the link and got a "we're very sorry! The page you requested cannot be found" message from HP's web site. By the way, the link *can* be made active like this: http://www.hp.com/calculators/news/index.html as explained in the advanced formatting techniques link.

As for the possibility of bringing back the old models: No matter what HP says, I'll believe it when I see it. At this point I doubt HP even knows *how* to make good RPN calculators, and I don't trust them to tell the truth about it in any case. HP really doesn't exist any more; it's just another company run by a bunch of money-hungry sharks that are defiling the Hewlett-Packard name.

Edited: 29 June 2003, 1:04 a.m. after one or more responses were posted

Re: would some of U intelligent people

*Message #8 Posted by **John Smith** on 29 June 2003, 1:00 a.m.,*
in response to message #7 by Wayne Brown

I just tried to copy & paste, it worked. You can try again. From time to time website goes down. Hope that was the reason.

Secondly, I would like to thank you for letting me know about the advanced formatting technique. I'll use that from now on.

Regarding your comments, I have no opinion one way or the other. Your argument seems just as convincing as the contrary. No one on this board seems to like the new management team. They are bunch of business hawks as I found out from their resume. Even Carly was neither engineering/science major, nor business in her undergrad. She was a student of foreign history or something. Real passionate and engineering innovators were Mr. Hewlett and Mr. Packard. They built the core engineering team whom I had been closely touched with since 1979. They even had Nobel Laureatte quality engineers and scientists on their payroll at that time. I suspect they still have the strong engineering team, but they are constantly pressured to get the cheap products out of the door to compete with cheap companies like TI, Casio (for calculators), Dell, Gateway (for PCs), and Epson, Lexmark (for printers). For oscilloscopes they have only one competitor, Tektronix. This is the only exception to that the Tektronix makes highest quality products just like HP, thus both products are very expensive (due to uncompromised quality).

So, I don't know whether the old calculators are coming back or not. I wish they did. I sincerely hope, they keep their promise.

John

Edited: 29 June 2003, 1:38 p.m.

LEGACY CALCULATORS WON'T COME BACK

*Message #9 Posted by **Peter Mustermann** on 28 June 2003, 9:24 p.m.,*
in response to message #4 by John Smith

I think the author wanted to say that many people may find it more polite to post with their real name, and to read postings of people who don't hide behind their pseudonyms and spread unqualified phrases.

PM

Re: LEGACY CALCULATORS WON'T COME BACK

*Message #10 Posted by **John Smith** on 28 June 2003, 9:40 p.m.,*
in response to message #9 by Peter Mustermann

John Smith is my real time. Why the hell he got the idea of that was not my real name?

everybody stay polite

*Message #11 Posted by **Norm** on 29 June 2003, 1:56 a.m.,*
in response to message #10 by John Smith

everybody stay polite, I sense a war brewing in that last chat post. But we've always avoided wars on this chat board. Everybody is very thoughtful and accomodating.

After all, this is the HP Museum Chat Board, not a Wall Street chat board. If you want to try out that shiny new flamethrower you just bought at the gun shop, you guys should try some posting with the financial nutcases over at the Yahoo financial pages.

Re: everybody stay polite

*Message #12 Posted by **John Smith** on 29 June 2003, 6:25 p.m.,*
in response to message #11 by Norm

Norm,

Your response can be regarded as well advised for the board, but unnecessary because it should be well understood the civility and mutual respectfulness apriori by all posters. Any short of that will trigger anger.

I was angry at Raymond due to his disrespectful remarks quoted below:

<<BTW: If more pseudos like 'John Smith' are posting here, maybe I'll use the German equivalent in the future: Peter Mustermann...>>

I got inflammed by this kind of remarks. Whether 'John Smith' is a real name or assumed name for the board is irrelevant. Important thing should be the content. Personally, whether you are 'Norm' or 'Malcom X" I could care or less. But I deeply try to analyze and try to understand what are you trying to say. Is it your statement, analysis, thesis, monologue, or opinion regardless who you are? My response (if I have any) would be fully based on the content of your post. If I see any deviation from this I try to take corrective action immediately. If I let it go, or ignore those nonsense, it may become an accetable standard which I cannot accept. I'm an engineering faculty of a graduate school where I teach aerodynamics and advanced engineering mathematics mostly to doctoral students. I do not understand much anything deeper outside my field. My visit to this board almost rare to nil. Only time I visit here when I have problems with my 41CV and its accessories. Thus, I do not know most of the posters here except a few those who helped me in the past. In my view, they are highly professional, respectful, courteous, and most importantly, unselfish. They genuinely and generously tried to resolve my calculator's problem by providing wealth of hands-on experienced advice, lack of which I had no other recourse but trashing my equipments. So, I have nothing but good experince from this board.

Re: Legacy calculators won't come back

*Message #13 Posted by **Raymond Del Tondo** on 29 June 2003, 6:58 p.m.,*
in response to message #10 by John Smith

Hi John,

it wasn't my intention to offend you, so I hope you accept my excuses.

Regards,

Raymond

WordsWordsWords

*Message #14 Posted by **bill platt** on 28 June 2003, 3:10 p.m.,*
in response to message #1 by John Smith

We've heard it before-----don't put much faith in it. This page signed by MR. "Valdez" (I'm sure he is invented, along with the rest of the HP marketing strategy) has that disgusting neo-commie feel to it--like "we are now making huge successes on our 5 year plan.....etc" (as the children are starving and the proletariat

bosses (there's an oxymoron right there) are enjoying the weekend in their second homes.....).

The fact remains that 2003 is the WORST year ever. Let's see, in January, HP drops the only remaining RPN calculator in its line---with absolutely no explanations. I believe this is the first and only time that HP has ever NOT had an RPN machine in its product line. SO, 2003 is NOT the best year ever!

Perhaps if HP acknowledged that it has been hectic, strange, turbulent, or something, then we could believe. But I don't believe it till I see it.

And I think we are going to see, as NH says, $4.66 KINPO junk. Just look at what they have sent so far---a buggy, inept upgrade of the 12-C.

HP-Compaq is just a pinko-neo commie capitalist pig post structuralist corporate nightmare. Don't believe anything "they" say.

Norm, can you add to this?;-)

Edited: 28 June 2003, 3:23 p.m.

The $4.66 Feigenbaum calculator

*Message #15 Posted by **NH** on 28 June 2003, 3:32 p.m.,*
in response to message #14 by bill platt

Ha Ha, I love it . A non-RPN Kinpo calculator that sells for $4.66 it can be the "Feigenbaum Limited Edition".

Re: WordsWordsWords

*Message #16 Posted by **Frank Wales** on 29 June 2003, 12:39 p.m.,*
in response to message #14 by bill platt

> Quote:
>
> ...MR. "Valdez" (I'm sure he is invented...

Fred is quite real; he came to the London HPCC conference last September.

Re: WordsWordsWords

*Message #17 Posted by **bill platt** on 29 June 2003, 12:53 p.m.,*
in response to message #16 by Frank Wales

I stand corrected! And that is good news---at least there is in fact a real face and name behind the name and face.

I suppose I should apologize for my recalcitrant ranting--but it is too much fun!

So then, is Mr. Valdez a techical professional, or is he a pure marketing type? Or perhaps that question is unfairly stereotyping and should remain unanswered. Rather, did he come accross as being genuinely interested in development and marketing of high quality devices?

regards,

Bill

If they come back as crap...

*Message #18 Posted by **Mike** on 28 June 2003, 4:11 p.m.,*
in response to message #1 by John Smith

who cares. If they come back like the 12 came back, they might as well do nothing.

I'd like to have a new 15C but only if it is as good as the original.

Re: If they come back as crap...

*Message #19 Posted by **Daniel Diggelmann** on 28 June 2003, 5:55 p.m.,*
in response to message #18 by Mike

It looks to me as if HP had lost all knowledge and the calc developers were all gone. This business just doesn't work like most modern software projects. We call them banana software as it ripes at the customer's home...

Re: If they come back as crap...

*Message #20 Posted by **Mark** on 29 June 2003, 10:16 a.m.,*
in response to message #18 by Mike

Reminds me of the Stephen King novel "Pet Sematary." They are dead; you bury them in the special cemetery out in the woods, then they come back a few nights later, but changed, and not for the good. Like the old geezer in the book says, "Sometimes Dead is Better."

Don't expect the old HPs to come back; it ain't going to happen. I hate to say it but I think the calculator, as we knew it, is dead. It was a technology solution to a particular class of problems, and now even though those problems still exist, there are other more widely marketable technologies to solve them (though not as elegantly).

Hang on to your HP collection (if you can), because it's only going to get more rare, and we haven't seen the end of the high prices on eBay.

Re: If they come back as crap...

*Message #21 Posted by **Paul Brogger** on 30 June 2003, 1:33 p.m.,*
in response to message #18 by Mike

H-P won't satisfy all of us, nor all of the "needs" of any of us.

The 12CP is the best indication so far of how HP's will "come back". Very real, very imperfect, with real limitations, and not quite the build quality of The Old H-P. No surpise there.

But I think we could cut 'em some slack on the bugs. The three I've heard are in the final product are: slow TVM computation, a bug with jumps in large programs, and the color used on the faceplate. The last is no doubt a marketing thing, and the first two are very understandable. (I'd ask, did any of the beta testers discover either of those in the beta test stage? Didn't H-P address other problems that *were* brought to their attention during beta test?) Let's see what H-P does about the problems that remain in future versions. You may remember, even The Old H-P released calculators with bugs, and even whole product lines with questionable or even downright lame aspects of design. (Clamshell battery covers and early solderless Spices . . .)

I don't think I can expect resurrection of, for example, the 15c or 42s in their original forms. But add

programming memory (and I/O?), sell 'em even for something reasonable, and for my part I'll be grateful for a current source of purpose-built RPN devices.

Re: LEGACY CALCULATORS ARE COMING BACK

*Message #22 Posted by **Les Bell [Sydney]** on 28 June 2003, 8:15 p.m.,*
in response to message #1 by John Smith

You're dreaming. There is absolutely nothing in that page to suggest what you are proposing, and particularly no mention of specific scientific models (other than the revolting 30S).

HP no longer has the ability to manufacture the processors and other ASICs used in those early calculators. Just look at the 12CP - now based on an externally-sourced processor, with re-written software which provides less performance and more bugs. That's about all you can expect from any "re-released" line of scientific calculators from HP.

Best,

--- Les [http://www.lesbell.com.au]

HP calcs processors

*Message #23 Posted by **jose goncalves (Brasil)** on 29 June 2003, 12:36 p.m.,*
in response to message #22 by Les Bell [Sydney]

Let's talk about the "externally-sourced processor" in HP calculators. I understand for everything that I've been reading and because what I see in the calcs I open and in the pictures that this forum brings us, that many models of HP calculators run on "externally-sourced processors". It's very common that the processor comes with a very clear NEC mark on it. Is it correct ? If so, what other manufacturers have been providing HP with micro porcessors ?

Re: HP calcs processors

*Message #24 Posted by **Bill Wiese** on 29 June 2003, 9:42 p.m.,*
in response to message #23 by jose goncalves (Brasil)

The processors w/NEC markings in later HP calcs (Pioneers, 48, etc. IIRC) were not *designed* by NEC; they were simply *fabbed* by NEC. HP didn't likely have a fab line that was usable (tied up by higher-profit chips or only had power-hungry processes available).

Thus, they prob handed off a netlist to NEC and said "Can you do this for this price, quantity and delivery schedule?" and NEC said "Yup."

Lots of co's do ASIC production to customer specs, esp gate array based design. Customer designs (often at high level, using Verilog or VHDL) tests, synthesizes & simulates using parameters & libraries supplied by the ASIC vendor for that process. Once it's done (perhaps with some real-world simulation via FPGA emulation too) the chips are spun. NEC for example, may have little or no idea how a Saturn CPU runs. It doesn't care, either: as long as chips pass the test vectors all is well.

Bill Wiese San Jose, CA

Re: HP calcs processors

*Message #25 Posted by **Michael F. Coyle** on 29 June 2003, 11:14 p.m.,*
in response to message #24 by Bill Wiese

The early (1970's vintage) calcs used chips made by Mostek and AMI. They were all custom designs and layouts (no gate arrays, etc.).

- Michael

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MoHPC *The Museum of HP Calculators*

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Re: [OT] Message to Bruce Horrocks

*Message #1 Posted by **Jordi Hidalgo** on 28 June 2003, 6:42 a.m.*

Valentin,

Look at the signature at the end of his posts to c.s.hp48

Jordi

Re: [OT] Message to Bruce Horrocks

*Message #2 Posted by **Valentin Albillo** on 28 June 2003, 9:18 p.m.,*
in response to message #1 by Jordi Hidalgo

Thank you very much, Jordi, I did miss it completely ! :-)

Moltes gràcies and Best regards.

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Rubber Feet for Voyager

*Message #1 Posted by **Bill Weinman** on 27 June 2003, 8:12 p.m.*

Anyone know a source for rubber feet?

I just got a nice old 12C (2441A86197) but one of its feet is missing. The other feet are badly worn, so I will have to replace them all or it will wobble.

I would try to order them from HP but their web site is seriously dysfunctional.

Anyway, if you know a source of rubber feet, please let me know.

Thanks,

--Bill

Re: Rubber Feet for Voyager

*Message #2 Posted by **jose goncalves (Brasil)** on 27 June 2003, 10:18 p.m.,*
in response to message #1 by Bill Weinman

Well, you looking for rubber feet for Voyagers, right ? I have the same problem, but with my Spices. Their feet look like if they were corroded. The rubber is not desintegrating, but looks like if it rotten. I understand that the feet for Spices are not the same as for the Voyagers, but may be someone can find the way for all of them.

Let's have hope.

Jose

Rubber Feet

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2003, 11:37 p.m.,*
in response to message #2 by jose goncalves (Brasil)

Hi José, folks;

some months ago, Renato sent me a generous piece of hard, thick rubber. I tried to build some feet with it but I found it too thick. Anyway, that rubber was too good to be forgotten.

So I decided to cut two new feet and "slice" the thicky rubber so I could get four feet from two cuts. Care and patience are needed to slice the rubber with a small cutter. Because it was a hard-type rubber, it is not too difficult to cut. And if you get two slices with the same thickness (as close as possible), they will be too close to the original Spice rubber feet thickness.

I think that it will be too thick for a Voyager, but they can be used without troubles with Spices. Hey, Jose, when your other Woodstocks are ready to leave the International Hewlett-Packard Hospital, I'm adding

four of these so you can test them and tell me about it, O.K.? I also have a two-sided adhesive tape that I have been using without trouble. In order to keep it "in place" when the rubber feet surface is not so regular (after being cut), I use superglue to homogenize it. The tape adheres easily in this case.

Please, let me know when you send your "babes" for CICU (Calculator Intensive Care Unit) activities. BTW, is your HP41C doing fine? How did you like the HP22 internal handling?

Best regards.

Luiz C. Vieira - Brazil

Re: Rubber Feet

*Message #4 Posted by **Trent Moseley** on 27 June 2003, 11:58 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz-

You are so thoughtful and generous.

tm

My pleasure! Also... (edited, with image)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 28 June 2003, 1:50 a.m.,*
in response to message #4 by Trent Moseley

Hello, Trent;

I must admit your comments (and others as well) make me feel flattered and a bit embarrassed, if you understand me. I feel as if I do not deserve so much, because I also receive so much in here.

Thank you; the sort of comments like yours encourage me to go further.

I will prepare some images (scanned) to show how do I cut the rubber. May others be able to reproduce the procedure, too.

(Off-Topic)

You know, since I was eight I deal with plastic models for fun. I did not specialize myself because it's an expensive hobby if you want to specialize on it. Anyway, I got skills on dealing with plastic parts and when I need to, I rebuild and repair some of them, too. A couple of weeks ago I posted some images showing one Pioneer battery door I "carved" in a piece of plastic from a VHS tape case, the tape protective "shield". I still have the images and one of them I reproduced again right below.

http://www.logeng.com.br/images/pion_door_all_s.jpg

I'm mentioning this because I have an HP1100 Laserjet Printer I use to hardcopy everything I need, HP-calculators documents included, for sure. This printer is a bit old, more than 3 Y.O., and it counts about 11,500 pages already printed (three toners so far). As I am nosy and curious, I decided to service it and carefully removed everything I could to reach paper pulling parts and clean them. Unfortunately I broke the paper sensor, a moving plastic cam with a small and thin tab. I needed to disassemble even deeper parts to remove the cam. While carving it to insert extra tabs to reinforce the one that was broken, the axe also cracked. I glued it again and reinforced it with two plastic slices so I could go further. Shortening: after almost twenty hours I could finally test it again. It

took me extra two hours because I forgot two screws that hold paper sensor assy and I had to disassemble it all again twice. I was not patient enough to generate images (scanned) of the plastic cam after rebuilt because I had to assemble it back in place to see if it was working. I'm posting this extra, O.T. text, because sometimes when original replacement is not available, maybe we should try a custom refurbishment. You know, I finished printing the 303-page HP71 User's Manual... with the repaired cam (hey, Doc; I'm becamming an HP71 user!). If I did not do that, I'd have a stuck HP laser printer. Oh, yes, now it pulls one paper sheet at a time, thanks God!

Slicing thick rubber and cutting it to form a calculator feet is entertaining and useful. Sharing the experience is a personal achievement. Finding people like you who congratulates me for that is outstanding.

Thanks a lot.

Luiz C. Vieira - Brazil

Edited: 28 June 2003, 2:13 a.m.

Re: Rubber Feet for Voyager

*Message #6 Posted by **Renato** on 29 June 2003, 12:09 a.m.,*
in response to message #2 by jose goncalves (Brasil)

Jose, Luiz, You both will get adequate rubber sheet for manufacturing voyager, spice and coconut rubber feet. I got it right this time.
I also found a supplier of o-rings for card readers - plus some other itens. Luiz - expect some more surprises...

Renato

Re: Rubber Feet for Voyager

*Message #7 Posted by **David Smith** on 28 June 2003, 2:31 p.m.,*
in response to message #1 by Bill Weinman

Try EPDM roofing membrane... it is 1/16" thick... the same as HP41 feet. You can find it at Home Depot in the garden center as pond liner. Only thing is it comes by the foot in 12-15 foot widths... about $1 a square foot. I got a few square inch scrap piece and made some nice feet out of it, but they are all gone to nice homes now.

Re: Rubber Feet for Voyager

*Message #8 Posted by **jose goncalves (Brasil)** on 29 June 2003, 9:34 a.m.,*
in response to message #7 by David Smith

Well, thank you for your suggestions. Now I have some trial solution to invest my time on. I notice that the Spice feet seem to be slightly thicker than the Voyagers'. I'll let you know about the results.

Jose

Re: Rubber Feet for Voyager

*Message #9 Posted by **OJM** on 30 June 2003, 8:22 a.m.,*
in response to message #1 by Bill Weinman

I recall once seeing a posting to this forum suggesting that rubber cut from a bicycle inner tube would make very good material for Voyager calculator rubber feet.

Re: Rubber Feet for Voyager

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 30 June 2003, 9:20 a.m.,*
in response to message #9 by OJM

Hi, OJM;

I recall that this was suggested by Renato. Maybe someone else did it, but I remember him as pointing it out at least once.

I tested the proposed technique and the thickness is fine for Voyagers, but the tube material was not good and I found no way to keep it in place: the two-sided adhesive tape I use when settling rubber feet never kept the bicycle tube's I used in place. It seems the tube I used has some sort of phenolic component that melts the adhesive.

I believe some brands will fit fine.

Best regards.

Luiz C. Vieira - Brazil

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HP 12C Question

*Message #1 Posted by **Mike** on 27 June 2003, 6:26 p.m.*

I have an HP12C, Somehow I have hit a wrong button and can't fix my calculator. The problem: instead of having a decimel point after the first digit, I have a comma (e.g., it looks like this: 0,0000). And I can't it get back to "normal." Does anyone know what I can do to "reset" my calculator back to normal. Thank you.

Re: HP 12C Question

*Message #2 Posted by **Eduardo** on 27 June 2003, 6:47 p.m.,*
in response to message #1 by Mike

Press *and hold* the . button (decimal point) while the calculator is OFF.

Press ON

Let go of .

Eduardo

Do this.

*Message #3 Posted by **Mike** on 27 June 2003, 6:52 p.m.,*
in response to message #1 by Mike

Turn it on, while holding down the "." key. That toggles the seperator.

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New Calculator - 33S

*Message #1 Posted by **gifron** on 27 June 2003, 4:05 p.m.*

Anyone heard of an HP-33S? I emailed a company about a 32SII, and was told it was being replaced by the 33S, out in either September or November. Also, that the 19BII was being replaced by the "19BII." Obviously a typo, but a hint that it may be replaced by something.

Re: New Calculator - 33S

*Message #2 Posted by **Iqbal** on 27 June 2003, 5:52 p.m.,*
in response to message #1 by gifron

Yeah, I heard that too. Told me in September. Waiting with bated breath.

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KBD faceplate protection: bringing back an old issue.

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2003, 11:50 a.m.*

Hello, all;

some months ago there was a thread about keyboard faceplate protection against scratches. Many solutions were pointed out, and one of the suggestions was creating transparent, self-adhesive, rugged faceplates like the ones found in the HP41 and all clamshells. Well, now I see that the HP71 kbd faceplate also has the same type of protective cover, and the HP97 has none.

I tried to "cover" an old HP11C's faceplate and I did not achieve reasonable, acceptable results. And the worst part is that there is no way coming back: if I try to remove the self adherent plastic cover I used, I'll remove part of the surface printing. I'll have to keep it.

I wonder if that sort of rugged, transparent cover used in the HP41, clamshells and the HP71 (anyone else?) is available in some form, in small, large or custom sized pieces. I saw acetate sheets used as spare cover in custom spiral-bound documents that look a lot like the one used in these keyboards, but it is not self adherent. Adhesive to be used in these cases must also be specific for painted surfaces in a ways it will not react with ink and melt it or dissolve it or fade it out.

Is there any interest on this sort of subject yet? I know it is not exactly what collectors have in mind, mostly those interested on keeping collected pieces exactly the way they live production line, but those who use their calculators somehow (I included) would like being sure their faceplates will not be smeared or scratched.

Comments? Suggestions?

Luiz C. Vieira - Brazil

P.S. - After the first two days of switching it on and off, just to see it "breathing", I began reading the HP71B's documentation. a few days ago in my spare time. Anyway, I cannot help myself not looking at it sometimes, as if it I'm expecting it to vanish and I'd find out it's a mirage. And it looks better "in person" than in the photos. If you like Voyagers' design, the HP71B must be checked out. Thanksalot, Doc!

Re: KBD faceplate protection: bringing back an old issue.

*Message #2 Posted by **Massimo Gnerucci (Italy)** on 27 June 2003, 12:46 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

> Quote:
>
> I wonder if that sort of rugged, transparent cover used in the HP41, clamshells and the HP71 (anyone else?)

I do have them for the HP-48, I've seen the ones for the HP-75C/75D (not transparent, though).

Greetings,
Massimo

You mean...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2003, 3:41 p.m.,*
in response to message #2 by Massimo Gnerucci (Italy)

Hey, Massimo;

do you mean the standard, semi-gloss, rugged original HP overlayer? I have two of them (Thanks, I.M.), one with extended ALPHA characters and another "clear" one. They are fine, but I was thinking about the same product with sort of a contact glue. Is this sort of glue easily found? In this case, would it be easy to apply and settle the protective cover? I thought about a ready-to-apply glue in abig sheet of waxed papper so we could place the keyboard overlayer , remove it with the glue already atached to it and then apply the "glued" overlay to the

calculator's faceplate.

Is it too much imagination?

Thank you for your remind, Massimo. As these overlayers are not self adherent, I did not think of them.

Best regards.

Luiz C. Vieira - Brazil

Re: You mean...

*Message #4 Posted by **Ellis Easley** on 28 June 2003, 2:15 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

> Quote:
>
> I thought about a ready-to-apply glue in abig sheet of waxed papper

That does exist. That is how the adhesive on most self-adhesive products arrives at the factory. It is called "transfer adhesive". It comes on a roll stuck to a "release liner", like wax paper, or more like the plastic coated paper that self-adhesive items come with, protecting the adhesive. There is no substrate, just adhesive, stuck to the release liner. It comes in different thicknesses and strenghts ("high tack", "low tack"). It is difficult to handle except when it is stuck to the release liner, then it is like one sided sticky tape and you can apply it to whatever you want to make self-adhesive. Hopefully, it sticks better to your item than to the release liner. Then you cut the adhesive to size - preferably, you cut both your item and the adhesive with its release liner to size with a very sharp knife or die. The adhesive tends to ball up when you draw a knife across it and it can pull more adhesive from under your workpiece, where you want it to stay, so it is better to use a sharp knife and press it straight down through your material, the adhesive, and the release liner - that way you can cut the adhesive with a clean edge.

I just looked at the 3M website (www.3m.com) and searched for "transfer adhesive" which returned almost 3000 matches. The second one has the title "3M(TM) Adhesive Transfer Tapes with 100 Adhesive Data Page [PDF 30 KB]" and is at this address:

http://multimedia.mmm.com/mws/mediawebserver.dyn?hhhhhhR59twhBLihVLihhh3PPTdHHHH2-#xml=http://www3.3m.com/search/media?request=findPdfInfo&query=transfer+adhesive&k2docKey=http%3A%2F%2Fmultimedia.mmm.com%2Fmws%2Fmediawebserver.dyn%3FhhhhhhR59twhBLihVLihhh3PPTdHHHH2-%40usenglish.dmr

100 Adhesive seems to be a transfer adhesive used on a wide range of products.

The next article is the search results is titled " 4.13, image transfer media with wear coat 8604 ES and 8605 ES [PDF 27 KB]" and is at this address:

http://multimedia.mmm.com/mws/mediawebserver.dyn?cccccc4jvorcx2DcQ2DcccdEXO&CCCCa-#xml=http://www3.3m.com/search/media?request=findPdfInfo&query=transfer+adhesive&k2docKey=http%3A%2F%2Fmultimedia.mmm.com%2Fmws%2Fmediawebserver.dyn%3Fcccccc4jvorcx2DcQ2DcccdEXO%26CCCCa-%40usenglish.dmr

The products in the second article appear to be clear protective sheets that are self adhesive and designed to be printed on the adhesive side (??) so that the sheet can then be applied to a surface and the printing is protected by the outer layer. It is not clear to me whether they come with adhesive on them or if the adhesive must be added - or is assumed to be present on the other surface.

The article talks about laminating equipment. This suggests a possibility: in a stationery or office supplies store, you might find some clear, adhesive sheets used to laminate things (like photos, certificates, documents) so they will last longer with much handling, and still be readable. This might be a starting place - you would still need to figure out how to cut clean openings for the keys.

Re: KBD faceplate protection: bringing back an old issue.

*Message #5 Posted by **Gordon Dyer** on 28 June 2003, 7:41 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

The 71B is a lovely machine and because it can take keyboard overlays , like the 41, it would be easy to protect it. Blank overlays can be obtained, but I am sure it would be possible to scan a keyboard at high resolution and print onto some plastic sheet, like overhead transparency. The cutting is tricky and would need a custom punch made. Any volunteers with these skills?

HP41, HP71 and Clamshells faceplate have a permanent protective coat

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 28 June 2003, 9:27 a.m.,*
in response to message #5 by Gordon Dyer

Hello, Gordon;

nice reading your posts; as if I don't write like a newspaper reporter... I must be not so nosy!

You know, all clamshells (even my Singaporean HP19BII), the HP41 and the HP71 have a permanent, rugged overlayer already built over the keyboard faceplate. I could not idenfy for sure, but based on the photos I've seen the HP75 also has it.

I think these are the only HP calculators with this permanet keyboard faceplate protection. All others I saw do not have. Even the HP48, that accepts external overlayer like the HP41 and the HP71, does not have the permanent overlayer that is easily identified in the units mentioned obove.

I agree with you that a few molds woud be enough - one to all Voyagers, other to all Pioneers, another one to all HP48, another one to the HP49, all Classics could share the same overlayer, Woodstocks would need one only and Topcats, too. I counted seven of them, because the HP19C would need its own. I'm surely missing someone...

Well, if there is anyone who knows any specialized company that can cut the overlayer and provide an additional adhesive, that would be great. I'd buy a bunch, enough to use in mine and lots of spares for my... patients!

Best regards, Gordon!

Luiz C. Vieira - Brazil

Edited: 28 June 2003, 11:27 a.m.

Re: HP41, HP71 and Clamshells faceplate have a permanent protective coat

*Message #7 Posted by **Andrés C. Rodríguez (Argentina)** on 30 June 2003, 8:01 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

I am interested in kbd faceplate restoration and/or overlays for Woodstocks... Nothing to offer or suggest yet.

Re: HP41, HP71 and Clamshells faceplate have a permanent protective coat

*Message #8 Posted by **David Smith** on 1 July 2003, 6:36 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

The lettering for the HP41 faceplate is actually on a shhet just like a standard HP41 module removeable overlay that is stuck down with adhesive. If you are careful (and have your trusty UnDu) you can remove the overlay and transfer it to a different machine.

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Help--Hp Calculator

*Message #1 Posted by **AC** on 27 June 2003, 10:21 a.m.*

Hi everyone

Is there an HP non programable calculator thats really good? Preferably RPN and similar to the HP49g (NONE Programable). Have a teacher that wont allow programables, and, well, im just really used to RPN.

TY

[AC]

Re: Help--Hp Calculator

*Message #2 Posted by **Paul Brogger** on 27 June 2003, 11:21 a.m.,*
in response to message #1 by AC

Nope. RPN is a rare commodity these days, and you won't find a non-programmable *graphing* HP RPN calculator.

In fact, I think you'd have to go back to the low-end Spice LED models (31E, 33E) to get an RPN non-programmable calculator at all. (Not bad calculators to have, I must say -- I'm looking for one of either myself, but certainly they're not graphics-capable.)

Have you offered to excute a "CLEAR PGM" function at the start of each class? (As a way to make a programmable calculator "acceptable", that is.)

Does this instructor give any justification for ruling out intelligent application of automation to iterative and/or repetitive tasks in arriving at solutions?

Re: Help--Hp Calculator

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2003, 11:47 a.m.,*
in response to message #2 by Paul Brogger

Hi, Paul;

just a remind: for sure it's a typo, but the two non-programmable Spices are the HP31E and HP32E.

Best regards.

Luiz C. Vieira - Brazil

Re: Er, YEAH! That's what I MEANT to say . . .

*Message #4 Posted by **Paul Brogger** on 27 June 2003, 1:34 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

. . . and I had the MoHPC list of Spice models open next-door in a second browser . . .

Ooops!

Thanks for paying close attention, Luiz!

Re: Help--Hp Calculator

*Message #5 Posted by **Patrick** on 27 June 2003, 1:27 p.m.,*
in response to message #2 by Paul Brogger

Some school districts provide to teachers lists of the key sequences which clear various models of calculators. If you demonstrate the clear mechanism to your teacher in advance of an exam, s/he might be more accepting.

Suggest you also point him/her at this thread to see that even the "experts" agree that you have to go back over 20 years to find an RPN without programmability!

Re: Help--Hp Calculator

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2003, 3:34 p.m.,*
in response to message #1 by AC

He Patrick, AC, guys...

All "scientifc" HP calcualtors with LCD-display are programmable, even the "humble" HP10C. NO way out. Anyway, low-end financial are not, like the HP14B and HP10B. If I am not wrong, the HP10BII is alos non-programmable. THe fact is that these beauties do not have trigs and some math facilities.

I think Patrick's is the berst solution. His suggested approach may be of immense help. Why not to try?

As a teacher, I encourage students to use calculators the right way. Unfortunately, local students I deal with use Casio, HP6S and other low-end, not programmable, strictly school-use calculators. To be honest, they need to count more on their own than on the equipment. I show them how to compute final calcualtions and reason about the problem as a first step.

Success and good examinations.

Luiz C. Vieira - Brazil

Re: Help--Hp Calculator

*Message #7 Posted by **Richard Garner** on 27 June 2003, 4:13 p.m.,*
in response to message #1 by AC

One argument you might try to make is, that to program the calculator with the equations for entry of the variables, you have to know the equation and how to use it before programming it in. Although with the calculators having equation editors and solvers built in, that is starting to be a very weak argument than in the past.

Re: Help--Hp Calculator

*Message #8 Posted by **Peter Zechner** on 29 June 2003, 9:11 a.m.,*
in response to message #7 by Richard Garner

The simplest solution is...you just don't tell.

My son, now more than 20 years ago, had the same problem that teachers won't allow programmable calculators (forgetting that not the programmable thing but the non programmable does the damage on your thinking)

HP calculators are so rare, that most teachers don't know them! Erase or tape over the "program key" and everthing will be ok.

regards Peter

Re: Help--Hp Calculator

*Message #9 Posted by **AC** on 29 June 2003, 12:33 p.m.,*
in response to message #8 by Peter Zechner

Hi That would be nice, however, i have the 49g, and well, its a bit obvious with that one lol.

I think that the HP 17Bii or 19Bii would be nice, but those are way to expensive. Im willing to spend up to 100$, and alli care for now is an equation solver. What options do i have?

BTW, thanks to all that have helped!

[ac

Re: Help--Hp Calculator

*Message #10 Posted by **David Smith** on 27 June 2003, 4:19 p.m.,*
in response to message #1 by AC

You might also consider the HP35, 45, or 21. All nice LED, non programmable models. Also the HP91.

Re: Help--Hp Calculator

*Message #11 Posted by **AC** on 27 June 2003, 6:27 p.m.,*
in response to message #1 by AC

Tried everything, still has to be non programable. I see now that RPN probably isnt an option. But what i would still like a lot is an equation solver built in. and calc fit into this??(none programable+eq solver).

Doesnt have to contain trig functions, but better if it does.

Thanks

[AC]

Re: Help--Hp Calculator

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2003, 6:41 p.m.,*
in response to message #11 by AC

Hi, AC;

any equation solver means equation entry/edit. This way, an RPN/algebraic selectable with equiation solver plus trigs and some more is the HP19BII.

It's a clamshell like the HP28S and is not EXACTLY programmable, you can use the argument that it's a financial calculator with SOLVE and it has algebraic entry to allow equation to be entered/edited to be used by SOLVE.

Good luck. The HP19BII can still be found as almost new.

Luiz C. Vieira - Brazil

Edited: 27 June 2003, 6:42 p.m.

Seems that the 17BII is adequate

*Message #13 Posted by **Renato** on 29 June 2003, 12:02 a.m.,*
in response to message #11 by AC

Don´t you agree ?

If TRIGS are not a must, I agree...

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2003, 12:51 a.m.,*
in response to message #13 by Renato

Hi Renato, Ac, guys;

Mostly based in his last post, where AC mentioned TRIGS are not necessary, I agree with you: the HP17BII is less expensive, smaller and has almost everyhting the HP19BII has, and one of the exceptions is TRIGS.

Anyway, if you have the time and the need, AC, TRIGS can be programmed. Look at this article by W. Bruce McGuire II.

Best regards and good luck.

Luiz C. Vieira - Brazil

Re: If TRIGS are not a must, I agree...

*Message #15 Posted by **Karl Schneider** on 29 June 2003, 6:31 p.m.,*
in response to message #14 by Vieira, Luiz C. (Brazil)

None of the HP financial calc's with which I am familiar (I own the 12C, 10B, and 17Bii) have trigs -- maybe the 19B/ii?

Just curious: Is there any practical application of trigonometric functions for business/finance (excluding calculation of biorythms and constellation positions for making business decisions)?

Re: If TRIGS are not a must, I agree...

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 29 June 2003, 6:45 p.m.,*
in response to message #15 by Karl Schneider

Hi, Karl;

> Quote:
>
> None of the HP financial calc's with which I am familiar (I own the 12C, 10B, and

> 17Bii) have trigs -- maybe the 19B/ii?

Yes, the HP19BII not only has a complete TRIGS set with DEG/RAD selection (no GRAD angle mode), but also hyperbolics and inverses, polar<->rectangular conversions, nCk and nPk, e^x-1 and ln(1+x).

> Quote:
>
> Is there any practical application of trigonometric functions for business/finance?

This I cannot answer, but HP offered other SciFi calculators (Scientific & Financial, not Science Fiction :), being HP27 (woodstock) and HP27S (Pioneer), both with trigs and the like amongst financial resources. What for? I don't guess, but I'd like to know as well.

Best regards.

Luiz C. Vieira - Brazil

Edited: 29 June 2003, 6:58 p.m.

Re: Help--Hp Calculator

*Message #17 Posted by **bill platt** on 29 June 2003, 12:31 p.m.,*
in response to message #11 by AC

AC:

Hold on a minute---you say that your teacher will allow an "equation solver" but not programming? What on earth his he-she thinking? An equation solver IS PROGRAMMING! Actually, it is worse than programming---you have to understand what you are doing in a line interpreted program--but an equation solver--that allows abject abuse of the concept of learning the "fundamentals" of mathematics! Like, all the programming does is do the steps you already know how to do (and did once) to make the program, whereas a "solver" takes all the KNOWLEDGE and THOUGHT out of solving the problem!

I suppose that in fact, maths teaching and learning has fallen to horrible depths, if a math teacher can be making such erroneous reasoning as allowing a solver in a mathematics course.

Regrds,

Bill

Re: Help--Hp Calculator

*Message #18 Posted by **AC** on 30 June 2003, 1:02 p.m.,*
in response to message #17 by bill platt

Absolutely right. But, its a fact that most teachers (high school level), all though not all tend to have little or no knowledge about calculators, if it looks big and nice, its to good, but if its sort of puny, then its usable.

In this case, the teacher only knows about programing, that with it, other things can be done, but has most probably not even heard of equation solvers and stuff like that.

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configure of HP 12 C Platinum

*Message #1 Posted by **Luc** on 27 June 2003, 4:37 a.m.*

Please download from below link http://www.maubert.com/Docs%20upload/HP-12C%20PT.pdf

Re: configure of HP 12 C Platinum

*Message #2 Posted by **Bill Wiese** on 27 June 2003, 6:06 a.m.,*
in response to message #1 by Luc

Just curious, where is this document from? There is no real detailed information and nothing really new here.

The English writing style/grammar is poor, so this is not an HP document, though - was this from Kinpo???

Bill Wiese San Jose, CA

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Woodstock logo transplantation

*Message #1 Posted by **Juergen Rodenkirchen (GER)** on 27 June 2003, 1:39 a.m.*

Hi all!

I intend to take an HP-25 logo from a non-working unit and transplant it to a workig one. My plan to doing this is to detach the logo by using a hair dryer to "melt" the glue beneath the logo and then to carefully remove it with a razor blade or sharp knife or so. On the other machine, I thougt I can use double sided adhesive tape. Well, this is just my plan. But I wanted to ask the more experienced in here if there's any reason of concern of doing so or if there's an optional, better procedure ...

Best wishes, Juergen

Re: Woodstock logo transplantation

*Message #2 Posted by **David Smith** on 28 June 2003, 2:41 p.m.,*
in response to message #1 by Juergen Rodenkirchen (GER)

I have succesfully transplanted Woodstock, HP41, etc logos. First thing to do is get a corner of the logo lifted. Many logos will already have a loose corner where the person who installed it had touched the adhesive... almost always the right hand side. Otherwise use a razor blade/knife.

Next I take a strong piece of thread and wet it with a product called UnDu. It is just the solvent heptane (found in many rubber cement thinners... others are hexane). It causes adhesives to temporarily loose their stickiness. I also place a drop under the label corner. Then I use the thread like a cheese knife to slice under the label. Keep the tension on the thread towards the calculator and away from the label.

The label will probably curl. Place it on a piece of adhesive label peel-and-stick backing material. Fold the material over the label and smooth it down with the back of a spoon.

Many labels can be stuck back on directly. On others you can rejuvenate the stickiness by wiping them with 91% isopropyl alcohol. On others you will have to remove the old adhesive and stick them back down with a good spray glue like 3M Super77.

Re: Woodstock logo transplantation

*Message #3 Posted by **Juergen Rodenkirchen (GER)** on 28 June 2003, 5:30 p.m.,*
in response to message #2 by David Smith

David,

many thanks for your input! I appreciate your hints and will certainly follow them! Thanks again!

Best wishes, Juergen

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HP 28C undo

*Message #1 Posted by **Ted Hill** on 26 June 2003, 5:03 p.m.*

I have an HP 28C.

When I press the "undo", I get a message that says "UNDO DISABLED"

I don't see how to enable this. The manual describes how to use the UNDO, but doesn't say anything about how to enable/disable it.

Re: HP 28C undo

*Message #2 Posted by **Ernie Malaga** on 26 June 2003, 5:11 p.m.,*
in response to message #1 by Ted Hill

Ted:

Press the red shift key, then [MODE] (it's right next to the red key). Then press [NEXT]. You'll see the menu change. The fifth of the top keys is labeled +UND. If you press it, UNDO will be activated.

-Ernie

Re: HP 28C undo

*Message #3 Posted by **Ted Hill** on 26 June 2003, 5:21 p.m.,*
in response to message #2 by Ernie Malaga

Thank you so much.

Ted Hill

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HP 12C

*Message #1 Posted by **Marcy** on 26 June 2003, 4:37 p.m.*

I just found my HP 12 C again and can't find the instructions. Been a while since I used it and I've forgotten everything - can't even program it. Can anyone help?

Thanks,

Re: HP 12C

*Message #2 Posted by **Patrick** on 26 June 2003, 11:28 p.m.,*
in response to message #1 by Marcy

Read this

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I just found a 10C - woohoo!

*Message #1 Posted by **JimC** on 26 June 2003, 1:40 p.m.*

It's been a long time. After much seeking, I found a 10C (w/ manuals) in an advertisement in a local newspaper. (15 bux! woohoo! No box? - ooh bummer. wait, I don't care if there is a box....)

I can't quite see how it can compete with my beloved 41CX, but I can appreciate (obviously, since I read this group) the simple elegance which defined HP products. And a standard to which sadly, they no longer adhere.

Nonetheless, I'll give it a good home. My trusty 41 gets used every day at work. This little fella will get put to work, too.

Re: I just found a 10C - woohoo!

*Message #2 Posted by **Patrick** on 26 June 2003, 2:47 p.m.,*
in response to message #1 by JimC

Congrats, Jim!

I am a big fan of all of the Voyagers. I only completed my series not too long ago with the acquisition of a 10C. They are nice little machines, no doubt about it. I do like the fact that there is only a single shift key -- makes for a nicely uncluttered keyboard. Unfortunately, it also means the loss of a few functions, but that's life.

The 10C does have something of a tortured past, though. At introduction it already had the 11C and 15C to contend with as competition. The 15C, introduced two months earlier, cost $135 compared to the 10C's $80. Not sure what the 11C was priced at then (originally $135 but must have been reduced when the 15C was introduced). Probably only about $30 to go from 10C to 11C. Eventually, the little guy lost out to the 11C and was discontinued at the tender age of only 18 months.

Not too many of them around. Hang on to yours!

HP-10C/11C/15C relative memory sizes

*Message #3 Posted by **Valentin Albillo** on 27 June 2003, 7:11 a.m.,*
in response to message #2 by Patrick

Patrick posted:

"The 15C, introduced two months earlier, cost $135 compared to the 10C's $80. Not sure what the 11C was priced at then (originally $135 but must have been reduced when the 15C was introduced). Probably only about $30 to go from 10C to 11C. Eventually, the little guy lost out to the 11C and was discontinued at the tender age of only 18 months."

It's understandable at the time. Now, we look at the HP-10C with collector's eyes, knowing it's a very valuable item, the rarest and most scarce of Voyager series' calculators, and so it's become very desirable to the point that most of us would be more than eager to trade an "as new" HP-11C or even an HP-15C for

a similar HP-10C, but back then, when it was introduced, it was doomed from the start. You would look at it with buyer's eyes, and would see this data:

Model:	HP-15C	HP-11C	HP-10C
Max. steps:	448	210	70
Max. regs:	67	21	10
Price:	$135-$80	$135-$65	$80-$70

So it's easy to see that the HP-11C offered 300% the memory of the HP-10C for a very marginal increase in price (20% at most). Which is more, while the HP-15C offered more than 200% the memory of an HP-11C, the latter still had programming features and RAM enough to do very worthwhile programming, so it remained viable and sold very well, specially among the people who considered the extra HP-15C features (namely integrals, rootfinder, matrices and complex values) as too complicated and specialized for them.

On the other hand, the HP-10C has so little RAM and its programming capabilities are so abysmal that very little can be done with it. For instance, most HP-25 programs of any complexity simply won't fit at all, despite the HP-25 being a much older machine, and having just a maximum of 49 program steps. The reason is that it also had 8 permanently allocated storage registers, for a total of 15 registers worth of RAM, versus the 10 registers in the HP-10C, i.e: the HP-10C has 50% *less* RAM than even the HP-25 !!. No wonder it sold badly.

To be fair, the HP-10C would have enjoyed much greater success were it not for the existence of the HP-11C and HP-15C, because as a non-programmable calculator it really delivers. But next to an HP-11C, say, noone in his right mind would have purchased one if a mere $20 more would get you an HP-11C or an HP-15C, and that was obvious from the start.

HP should have done the right thing, releasing the HP-10C before the HP-11C, just as it did release the HP-11C prior to the HP-15C. That would have ensured tremendous sales for the HP-10C !! Instead, HP flopped big time with their marketing strategy for this model and poor little HP-10C was a total failure, undeservedly. It's only fair that now it has regained back the popularity it never enjoyed before, a little ugly duckling turned into a collector's swan ! .-)

Best regards.

Edited: 27 June 2003, 7:25 a.m.

Lucky guy!

Message #4 Posted by ***Vieira, Luiz C. (Brazil)*** *on 26 June 2003, 3:56 p.m.,*
in response to message #1 by JimC

Hey, JimC;

keep this babe utp and tunned, wilyah?

I have all Voyagers except the HP10C. To be honest, I'd not have much to do with one of these except scanning its guts and collecting data about it. I preffer the HP 11C for the HP10C. Of course, HP15C for any other.

Congratulations! It's always good news.

Luiz C. Vieira - Brazil

P.S. - I believe those guys who do not feel happy for others happiness and used to coplain for this sort of posts are no longer sniffing around here, so I am sure all posts in this thread will be of... "joy".

Re: Lucky guy!

*Message #5 Posted by **JimC** on 26 June 2003, 5:37 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi Luiz. Thanks for the words of encouragement!

To those who would be unhappy at my post:

My post is not meant to gloat, but rather to share the thrill after a long period of searching and to perhaps push others who are feeling frustrated - as I have been - in watching the Ebay prices go up and up...bidding and getting scooped. If I can't tell the people on this forum, who am I gonna tell? My wife? My kids? (yeah, right)

This is a unique group and I would not like to be thought of as one who is "rubbing someone's nose in it". That is not the spirit of this forum, and is not my personality type. That I'll leave to television.

If I have offended, please accept my apologies.

Re: Lucky guy!

*Message #6 Posted by **Trent Moseley** on 26 June 2003, 10:05 p.m.,*
in response to message #5 by JimC

I think it is wonderful! Some day perhaps,(I keep wishing), I can get my hands on a useable 34C.

tm

Oops! My fault, my fault...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 26 June 2003, 11:35 p.m.,*
in response to message #5 by JimC

Hey, Jim;

please, forgive me not being so clear about this fact in my post.

Some time ago, one particular thread, and a few others in less intensity, revealed this Mr. Hide side in at least one or two contributors that have found their way home. I am sure you were not reading these posts at that time and you are probably not aware of these facts, but others in here remember it well. :-|

I felt so mad about such insane behavior that I politely (as I always try to do) tried to retreat the contributor that gladly posted a message about his last victories. I know this gentle fellow is still with us, but the ferocious agressor seems never been back. qB^(

I'm sorry I didn't explain it too well, I intended others to remember those days and feel glad they are never comming back. I have a cousin that uses two great expressions for the worst moments :|

-'We'll be laughing at this in thirty years from now...' and
- 'What time cannot forget, it embeds'.

Your enthsiasm will never offend anyone in here. Forgive me if I made you feel like this.:^p

And I exagerated a bit when mentioning these facts, too... ;^)

Sorry, guys. My fault. <:^(

Luiz C. Vieira - Brazil

Edited: 26 June 2003, 11:42 p.m.

Re: Oops! My fault, Not at all

*Message #8 Posted by **JimC** on 27 June 2003, 9:38 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Hi Luis.

I DO recall the gentlemen of whom you speak and I do remember reading some of his posts. After reading my post, I did think that it sounded as though I was gloating.

I do not take offense at any thing you have posted. You are always first with the help, and first with the encouragement. I would say that your personality is one of the reasons this forum is as helpful and encouraging as it is. I always look forward to being here with others who understand why I like these "antiques".

No apologies necessary!

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HP 41G

*Message #1 Posted by **Guillermo Castarés** on 26 June 2003, 10:35 a.m.*

Could someone tell me if the "HP 41G" exists or not?

A potencial seller is offering one "HP 41G" but I never heard of it.

The only reference I found on the www is http://www.ohiopeps.org/calculators2.html.

Thanks in advance.

Guillemo

Re: HP 41G

*Message #2 Posted by **Raymond Del Tondo** on 26 June 2003, 12:05 p.m.,*
in response to message #1 by Guillermo Castarés

Hi,

I think he or she simply mixed up descriptions, as you can see for the HP-48.

Raymond

Re: HP 41G

*Message #3 Posted by **Michael** on 26 June 2003, 2:04 p.m.,*
in response to message #2 by Raymond Del Tondo

Obviously a "typo" and should read 41C, not 41G.

Re: HP 41G

*Message #4 Posted by **Chan Tran** on 26 June 2003, 8:45 p.m.,*
in response to message #3 by Michael

So we know that the seller doesn't know how to use the calculator. I wonder if it's good or bad.

Re: HP 41G

*Message #5 Posted by **Guillermo Castarés** on 27 June 2003, 9:36 a.m.,*
in response to message #4 by Chan Tran

Thank you all. You confirm what I thought.

But I send him this question:

Spanish: "Podrías revisar el modelo, ya que segun entiendo la HP 41G no existe. Gracias.".

Translation: "Could you check the model name, because as far as I know the model HP 41G does not exists. Thanks.".

And his answer was:

Spanish: "hola, revisado, nada para modificar, salu2".

Translation: "Hello, checked, nothing to update, regards."

Now I asking him for a photo...

HP 41C/CV to PC Interface Question

*Message #6 Posted by **John Smith** on 27 June 2003, 11:37 p.m.,*
in response to message #5 by Guillermo Castarés

Hello my 41C/CV/CX Gurus,

Recently this question is coming to my mind more often than before. I'm good at 41C programming. Back in 1983, I used my 41CV for writing engineering/scientific applications programs due to lack of PC's existence and inaccessibility of mainframes (turnaround time was half a day). Some of those programs are still in magnetic cards. Now I have 6 PCs, but I still love my CV, simply because PC has advantages and disadvantages, so does the CV. Solving a very complicated math with a fewer variables still outweigh the CV over any PC or mainfram even today.

Since I made my case, here is the question. Is there any interface available for 41CV that I can download my programs to PC? If there is, it will open a door for me. I can write new programs in PC domain (utilizing convenience of fullsize keyboard), edit it, and then upload it to CV. If program works, I can delete that from CV to free up memory while I can save the code in the PC hard drive.

You may wonder why am I so concerned when I have a card reader. My friends, I have a bad news. My card reader was spitting goo recently. I tried to fix it per instruction that available in this museum web site, but the card reader is giving malfunction message now. I guess I toasted it. I have either to buy another card reader or borrow one to read off these programs.

Hope, some of my learned friends here can rescue me by providing answer to my original question; or feel free to provide me practical solution perhaps exist today which I may not be aware of. I'll remain open minded to all of your suggestions,and I'll read all of your feedback. Thanks,

John

Edited: 27 June 2003, 11:57 p.m.

Re: HP 41C/CV to PC Interface Question

*Message #7 Posted by **John Smith** on 28 June 2003, 2:23 p.m.,*
in response to message #6 by John Smith

Luiz,

You are a frequent visitor to this board. Can you take a whack at it to my original post?

Why no one is reponding to my question, I would never know. Is it something I said?

Thanks,

John

Luiz, Luiz, Luiz, where the hell are you?

*Message #8 Posted by **John Smith** on 28 June 2003, 4:47 p.m.,*
in response to message #7 by John Smith

I don't know whether you intentionally ignoring me. If you are not, would you please try to respond to my question under the heading "HP 41C/CV to PC Interface Question" message?

John

Re: HP 41C/CV to PC Interface Question

*Message #9 Posted by **Ellis Easley** on 28 June 2003, 4:55 p.m.,*
in response to message #7 by John Smith

HPIL is the only interface made for the 41C, it requires an HPIL Module (82160A) that plugs into a 41 port, and there is also an HPIL card for the PC - HP used to make one (82973A) that you might be able to find on Ebay or in the Museum Classified ads, also Christoph Klug in Germany has designed his own PC HPIL interface board and you can buy one from him. Then you can run an HP41 emulator from Jean-Francois Garnier in France on the PC to write and run HP41 programs on the PC and move them between the PC and a real 41 via HPIL. Here is a link to an earlier thread where Christoph answered the same basic question:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv012.cgi?read=32106

Re: HP 41C/CV to PC Interface Question

*Message #10 Posted by **John Smith** on 28 June 2003, 7:54 p.m.,*
in response to message #9 by Ellis Easley

Ellis,

Thank you for your reply. I have read your response as well as all other Q&A through your link. Amazing how much effort went so early on just to do that what I'm looking for today. It appears to me that the solution is not that trivial as I would like it to be, nonetheless, there is a solution exists. But it may not be practical, due to discontinued product lines. Bits and pieces may be available through auction sites, but there is no guarantee of their working order.

I have not been kept up with the HP-IL side at all, thus this old question has surfaced as new by me, which is the clear evidence of my ignorance.

In conclusion, I see no solution to my problem with reasonable expense and effort. Despite this gloom ending to my expectation, I still hope, someone (hardware nut and 41C lover) will come up with USB cable type solution so that Windows XP can be interfaced with 41C.

Please, keep me in the loop, if it is not too much to ask. I think you, Luiz, and two other guys (I don't remember the names off hand) are most knowledgeable and visible on this board.

Thanks again,

John

Re: HP 41C/CV to PC Interface Question

*Message #11 Posted by **Ellis Easley** on 28 June 2003, 9:41 p.m.,*
in response to message #10 by John Smith

I don't think the HP41 HPIL module is that hard to find, and Christoph's board costs $150, I think - not cheap but not outrageous. You might try downloading the free version of the emulator and see how you like it, I understand it does just about everything except the HPIL communication. You could move some of your programs by hand just to try the system out.

You could also get the PPC (or maybe the HPCC?) CD-ROMs from Jake schwartz and look for an article about something called the "bender coupler" - it was an idea that used the beeper in the 41 as an output device. I think I've also seen articles about using the bar code wand, modified, as a general purpose input device (might have been the timer module). And if I'm not mistaken, you can print bar codes on your PC with the emulator, so you could develop your programs on the PC and print out bar codes to load them into the 41. Somebody with a working card reader and HPIL system could read your cards and put them on disk for you.

Also, I wanted to add to my earlier message that there are other PC programs besides the emulator that can be used to transfer information on HPIL with the PC HPIL card. There is the software that originally came with the 82973A card from HP and another product called LinkPlus, they make the PC look like an HPIL disk drive and printer to the 41 (or 71 or 75) - LinkPlus apparently does it much better than the HP software. But the emulator only costs $20 or $25 for the registered version that works with HPIL - I think that is a bargain! I've downloaded the trial version and I am trying to get an older PC set up to run it on - you need an ISA slot for the HPIL card - but I haven't actually used it yet.

Re: HP 41C/CV to PC Interface Question (edited)

*Message #12 Posted by **John Smith** on 28 June 2003, 10:55 p.m.,*
in response to message #11 by Ellis Easley

Ellis,

Thanks again. Since you have provided wealth of info on this, would it be too much to ask to review the summary that I laid out in terms of plan of actions?

Plan A: HP-IL Module (82160A), HP-IL PC Card (82973A), HP41 Emulator software (third party).

Plan B: HP-IL Module (82160A), HP-IL PC Board (Christoff Klug), HP41 Emulator software (Jean-Francois Garnier).

Plan C: HP-IL Module (82160A), HP-IL PC Card (82973A), LinkPlus hardware (third party),and driver program (HP).

Plan D: Bar code solution direction (which I'm not clear on the flow.....?)

Plan E: HP-IL Module (82160A), HP-IL Extended-I/O module (82183A), HP-IL RS232C (82164A) interface, and Tony Duell's lifutils for Linux.

Plan F: MLDL2000 (Meindert Kuipers). No details are known yet for other parts involved in this solution path. But this solution will lead to use USB cable connection (modern day solution) as per designer's promise.

Can you perhaps fill up the gaps for the accuracy on the hardware and software needed, if I have missed to capture from your response?

John

Edited: 29 June 2003, 8:26 p.m. after one or more responses were posted

Re: HP 41C/CV to PC Interface Question

*Message #13 Posted by **Chris(FLA)** on 28 June 2003, 11:46 p.m.,*
in response to message #12 by John Smith

Plan E: HP-IL Module (82160A), EXT-I/O module, IL-RS232C (82164A) interface.

With this setup I use Tony Duell's lifutils for Linux.

Works great with my 41 & 71.

Chris

Re: HP 41C/CV to PC Interface Question

*Message #14 Posted by **John Smith** on 29 June 2003, 12:17 a.m.,*
in response to message #13 by Chris(FLA)

Chris,

Now we have a good compilation of various choices. Thanks for you to stepped in. I hope, Ellis will be kind to fill up the Plan D, and add more choices if he has any left in his bag.

In the mean time, can you perhaps, provide me HP part number for the EXT-I/O Module?

Are EXT-I/O Module and HP-IL RS-232 (82164A) two separate parts?

John

Edited: 29 June 2003, 12:19 a.m.

Re: HP 41C/CV to PC Interface Question

*Message #15 Posted by **Johnny Billquist** on 29 June 2003, 6:30 p.m.,*
in response to message #14 by John Smith

Yes, the Extended I/O module is a separate product HP did, which adds a lot of control to the HP-IL which you don't have otherwise.

The Extended I/O is HP82183A.

Re: HP 41C/CV to PC Interface Question

*Message #16 Posted by **Meindert Kuipers** on 29 June 2003, 9:00 a.m.,*
in response to message #13 by Chris(FLA)

Plan F: use my MLDL2000.

Expansion to this will likely offer USB. This is not an end-user level solution, but those who like hardware and M-code programming will be able to come up with a working solution.

Just wait a few more weeks for all the gory details ;)

Meindert

Re: HP 41C/CV to PC Interface Question

*Message #17 Posted by **John Smith** on 30 June 2003, 1:42 a.m.,*
in response to message #16 by Meindert Kuipers

Meindert,

I'm intrigued by your solution. Would you be able to elaborate your solution ahead of two weeks that you are referring to? Let me pose some questions for you.

1) Do I NOT need HP-IL module 82160A any more?

2) I presume your device is connected to the PC by USB cable, right?

3) Then what kind of cable do I need to connect your device to 41CV?

4) Will there be another adapter from calculator to your device?

5) Or, maybe HP 82160A still needed, but also needs a HP-IL standard cable 82167B to connect your device?

6) Still perhaps a driver program is needed to run not only your device also to communicate with the 41CV, right?

Please respond at your earliest possible time. Thanks.

John

Re: HP 41C/CV to PC Interface Question

*Message #18 Posted by **Meindert Kuipers** on 30 June 2003, 5:53 a.m.,*
in response to message #17 by John Smith

I am busy trying to get my hardware to run and working on finalizing the specifications, that is why I asked you to wait just a few more weeks. Go and download the preliminary specs at www.kuipers.to/hp41 and follow some of the threads on this forum, Searching for my name and/or MLDL will probably get you enough useful threads.

Note that my hardware is not ready for production. I will NOT be able to offer a full working HP41 to USB solution. As my MLDL2000 is still in development there is not much specificics that I can give you. Not that I do not want to, but because I simply do not know, especially about the USB connection. Beware that I will not be able to supply a complete nicely wrapped product, but rather PCB's with programmed components. It is up to the user (you in this case) to somehow plug it into an HP41 (for example by using an old cardreader housing) and provide all the cables.

If you want a working solution now, go get Christoph Klug's nice piece of HP-IL hardware!

Meindert

Re: HP 41C/CV to PC Interface Question (edited)

*Message #19 Posted by **Ellis Easley** on 30 June 2003, 10:40 a.m.,*
in response to message #12 by John Smith

Plan A and Plan B are functionally identical. Jean-Francois's emulator and either Christoph's or HP's PC HPIL card. As Christoph points out in a later post, no HP41 Extended I/O module is needed. On Plan C, LinkPlus is a program that runs on the PC. It should work with either the HP PC HPIL card or Christoph's. The HP software I mentioned is an alternative to LinkPlus (with lesser features, I think) - this software came with the HP card and should be easy to find. Plan D is a one-way solution: use an emulator on your PC to develop HP41 programs and print them out as bar code on your PC's printer (I understand some HP41 emulators will do this but I'm not sure which ones, if any.) Then you can load the programs into your HP41 with the bar code wand (82153A).

Re: HP 41C/CV to PC Interface Question (edited)

*Message #20 Posted by **Dan M** on 30 June 2003, 12:03 p.m.,*
in response to message #12 by John Smith

John:

Here's another option....

HP-IL Module (82160A)
9114 Disk Drive
Leo Duran's User Code Tools
LIFUTIL or LIF software

Also, check out the MoHPC FTP Page

If you are linux-enabled, Tony Duell has written some excellent tools, as mentioned by Chris.

Edited: 30 June 2003, 12:11 p.m.

Plan D (modified wand)

*Message #21 Posted by **Tony Duell** on 30 June 2003, 4:51 p.m.,*
in response to message #12 by John Smith

As for Plan D : It's strictly one way (from the PC to the HP41), but you don't need an HPIL module in the HP41. What you need is an HP82153 wand. You crack open the wand module, and solder an opto-isolator chip inside (the wand remains fully functional, and can still read barcode). You then link the opto-isolator to a little interface circuit which connects to the PC. The PC sends out bytes that correspond to HP41 barcode, and the interface turns them into long and short pulses to the optoisolator. The HP41 + wand module then 'thinks' you're scanning barcode, and, for example, loads a program. The scheamtic of the interface, source and hex files for the microcontroller, details of modifying the wand, and linux-based driver software are hidden in my LIF Utilities for Linux distribution. The interface as given connects to a normal parallel printer port. Personally, if you have the choics between buying a wand and buying an HPIL set-up, go for HPIL -- it's a lot more versatile. But if you already have a wand, and don't mind doing some soldering, it's probably worth making the interface.

I'm sorry... I didn't mean to! I have no such knowledge... (edited)

*Message #22 Posted by **Vieira, Luiz C. (Brazil)** on 28 June 2003, 9:44 p.m.,*
in response to message #6 by John Smith

Hey, John;

I'm completely sorry... Actually, I did not read your posts till now. I'm doing something: I'm avoiding to go into themes I have low level of knowledge about.

There is one of our brainy contributors that posted good stuff about this subject a couple of weeks ago. I cannot remember his name, sorry, but it's not gonna be hard to find him. If I'm not wrong, he developed his own version for a daugtherboard that allows the HP41 to communicate directly with a PC.

I'm completely sorry, I'd really like to help. I wish I have the knowledge and the way to assist you doing this. I read the titles and did not even open the posts...

Can you forgive me?

Luiz C. Vieira - Brazil

P.S. - I mean the knowledge to connect the HP41 directly to a PC, as you mentioned in your first post; what I kow for sure is that it involves extra, and in some cases *too expensive*, hardware. I see Ellis has given good and necessary directions: the name of the man is Christoff Klug, as mentioned. Success!

Edited: 29 June 2003, 1:19 a.m.

HP41 - PC interfacing

*Message #23 Posted by **Christoph Klug** on 30 June 2003, 5:34 a.m.,*
in response to message #22 by Vieira, Luiz C. (Brazil)

Dear HP41 enthusiasts,

here I am :-)

Interfacing HP41 to PC is absolutely nice and powerful for today HP41 user !!!

Take the low priced IL-Module from ebay and the original HP82973 PC interface card or the 100% hardwarecompatible replacement solution from me. The price for this (150$) is absolutely fair, because you are not able to create a own hardware solution by yourself, including IL-terminal, IL-transformer and IL-chip, electronic components and a professional designed pcb. This project is only possible by the input of some HP41 enthusiasts from Germany, France, Great-Britain and USA...

You need not the EXT-I/O module, because typically ebay price for this is placed in in the range of 100$...200$.

For software take the absolute fantastic EMU41 from Jean-Francois Garnier (France) : Only this gives you maximal features including HP41CX emulator, plus the complete range of virtual plug in modules including advanced modules like CCD, PPC, Paname, EXT-IL, SkwidInk. Furthermore EMU41 includes advanced RAM-box features and real HP-IL support : You get some virtual IL devicels like printer and mass storage - and you are able to interface your real IL devices (for example a IL-plotter or the HP3468 multimeter)to EMU41. And your real HP41 ;-)

Working with EMU41 is identic to operating a real HP41, and installing the HP-IL/PC interface card to a PC motherboard with ISA slot is done in less minutes. Needed PC operating system is DOS or WIN98 or WIN2000/NT/XP....

Best wishes from Germany - Christoph Klug

Re: HP41 - PC interfacing...(edited)

*Message #24 Posted by **John Smith** on 30 June 2003, 1:59 p.m.,*
in response to message #23 by Christoph Klug

Hi Christoph,

Thank you for responding. I've been getting vote of confidence for your products as one of the reliable solution path.

I have a few questions for you. My understanding of hardware requirements for your solution path are:

1. HP-IL module (82160A) ...procurement source: ebay

2. HP-IL PC Board (Christoph Klug).direct purchase, US$150

Software requirement:

3. EMU41 (by JFG)..Procurement source: unknown; cost:US$?

4. Is my understanding correct? If yes, can you please provide answer to item 3? If my understanding is incorrect, could you please revise it?

5. Where does your board get installed? Is it an external device, or ISA card, or PCI card? Do you have any top level schematics on integration of 41CV, your device, and computer?

6. Will your device work with Pentium-4 PC?

7. Will EMU41 work with Windows-XP? Is GUI DOS? or Windows?

My sincere hope is that you would be kind to take time and answer my questions. Once I understand the top level loop and successfully identify all required parts, I'll start my procurement phase. Thanks,

John

Edited: 30 June 2003, 4:35 p.m.

Re: HP41 - PC interfacing

*Message #25 Posted by **Christoph Klug** on 1 July 2003, 5:00 a.m.,*
in response to message #24 by John Smith

Dear John, dear HP41 enthusiasts :

nice discussion about HP41-PC Interfacing. Some different solutions exist, and may be we get some more in future ? Now I want to give you more details about the "HP41-PC gateway & emulator" which is based on EMU41 from Jean-Francois Garnier :

PC-hardware : Unfortunately the former software solution Link Plus is limited to slow PCs like 286/16MHz machines. Software Trans41 is compatible to modern machines, also EMU41. I tested both software solutions with some different PC hardware from 286/16MHz up to fast 1GHZ Athlon machines. You need a motherboard with ISA slot, actual no solution for PCI or USB bus exist. Also today ISA is an industry standard for PC applications and some special and exotic ISA cards exist beside modern PCI systems. If you need an old ISA slot PC, may be you find one in the garage of your neighbour ?

PC-operating system : EMU41 (and Trans41) run with DOS, WIN95 and WIN98SE. For this installation is absolutely easy. For modern operating systems like WIN2000/XP/NT you need an additional address routing software tool (tested from Leo Duran). A text help file which describes installation procedure and first steps is available from me.

Needed equipment : You need your HP41 with HP82160 IL-Module. The non

exotic IL module you get from ebay. Price is placed in the range from 20$ up to 60$. Furthermore you need the HP82973 HP-IL/PC Interface Card – or the replacement unit from me. Price for the last is 150$ plus transfer costs. You also get some documentation and nice software tools. From Jean-France Garnier you get the personally signed full version of EMU41 for a fee of 20$. This includes HP-IL features. The basic EMU41 you download free from Jean-Francois Garnier´s webpage...

Human Machine Interface of EMU41 : Like the real HP41 also EMU41 includes a basic HMI : You get a DOS like screen display and use the PC keyboard. No mouse assistance. No photo realistic graphic design. But compatible to the great range of PCs.

HP41 – PC : EMU41 offers you some different solutions for transfer of data, programms and files between HP-41 handheld and PC : 1. HP-IL (bi-directional) working with virtual mass storage unit 2. HP9114 IL-Disk Drive (bi-directional) Only possible for old floppy drives/PCs like 286 3. HP82161 IL-Cass Drive (bi-directional) 4. Barcode plot with EMU41 and virtual SkwidInk module (only download to HP41) 5. Under development. Actual Jean-Francois Garnier works on it...

Some more information about EMU41 and HP41 software solutions you find on the web page of Jean-Francois Garnier http://membres.lycos.fr/jeffcalc

Best wishes from Germany – Christoph Klug

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Hp41 Program question

*Message #1 Posted by **Greg Atkins** on 26 June 2003, 9:42 a.m.*

I have a spiral program that has two codes to it that I don't know how to key in, and am not real sure what they are.

the codes are

1 E2

and

RCL IND 25 or RCL IND25

any ideas?

Re: Hp41 Program question

*Message #2 Posted by **Valentin Albillo** on 26 June 2003, 9:45 a.m.,*
in response to message #1 by Greg Atkins

1 E2

Try [EEX] [2]

RCL IND 25 or RCL IND25

Try [RCL][YELLOW KEY][2][5]

Best regards.

Re: Hp41 Program question

*Message #3 Posted by **Raymond Del Tondo** on 26 June 2003, 9:48 a.m.,*
in response to message #1 by Greg Atkins

Hi,

1 E2: press 1, then the EEX key, then 2

RCL IND 25: press RCL , then the yellow shift key, then 25

HTH,

Raymond

Re: Hp41 Program question

*Message #4 Posted by **db(martinez,california)** on 26 June 2003, 10:23 p.m.,*

in response to message #1 by Greg Atkins

Looks like your question got answered but:

Which spiral program is that? It's not Kirber's, or is it a modified version? I'm just curious because i used Kirber's years ago and did a lot of modifying myself. It was great as written but it did everything for everybody and at over 700 lines it was bulky enough for me to ask "what don't i need". I took out about 40 lines of program and 50 lines of subroutine that i didn't use and then put a few back in (A.K.A. peeing in it to improve the flavor). So DID someone write another spiral routine?

It's great to see someone using "aproriate technology". Theres too many surveyors now a days just getting everything loaded into a data collector by someone in the office and pushing the "next point" key.

Surveying nowadays...

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 26 June 2003, 11:52 p.m.,*
in response to message #4 by db(martinez,california)

Hi, D.B>;

I developed a lot of surveying programs for the HP41CV/CX at the time I was a student. I worked for a professional topographer and all programs he wanted I developed and listed. I have most of them still with me.

What I saw lately was non-topographers using very expensive GPS stations collecting data and sending these data on-line to their offices. They can do a complete survey in one day while it used to be necessary about a week to finish the same job. It's amazing in one side, but if you read again, you'll see the term "non-topographers" doing the job. The guys I saw only knew what was north, south, east and west. And their bank account number.

Too bad, too bad.

Luiz C. Vieira - Brazil

Re: Surveying nowadays...

*Message #6 Posted by **bill platt** on 27 June 2003, 2:32 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hi Luiz,

If that is the way surveying is today, then I daresay the maps produced would very likely be garbage. GPS is really not very accurate--certainly not if you are surveying a building plot--it can be of 10's of feet! Unless of course one uses a "differential" GPS system, which uses a fixed ground station system to compare the gps signals, and then send adjustments via UHF radio----but is this being done in the case you are suggesting?

By the way,I will attempt further repairs to my 41CV--but I am going to try to test it one more time, first,--and then get the right glue.....

Regards,

Bill Platt

Re: Surveying nowadays...

*Message #7 Posted by **Michael** on 27 June 2003, 3:13 p.m.,*
in response to message #6 by bill platt

Survey grade differential GPS equipment is easily capable of sub-centimeter accuracy, but even the cheap grade units can measure to within a meter and the really cheap handhelds can get to within 3 meters these days. RTK (real-time kinematic) units are very common with most surveyors today and the maps being made utilizing this technology are very accurate. However, vertical accuracy is only about +/- 2 centimeters with the more accurate units used by most surveyors, but this is usually close enough for most topography surveys, unless you are designing or redesigning a really flat parking lot or something similar.

Re: Surveying nowadays...

*Message #8 Posted by **bill platt** on 27 June 2003, 4:28 p.m.,*
in response to message #7 by Michael

So then this "survey grade" DGPS must be something entirely different from the USCG DGPS that was originally developed for use in harbor navigation (back when selective availability was active).

So, who is transmitting the DGPS differential signals? Are there permanent transmitters I was not aware of? Or is this a portable transmitter that the surveyor sets up somewhere?

Re: Surveying nowadays...

*Message #9 Posted by **db(martinez,california)** on 27 June 2003, 9:46 p.m.,*
in response to message #8 by bill platt

DGPS is usually done with a permanent reciever or sometimes a temporary reciever. Either are set over a point whose coordinates are known more preciseley than is necessary for anything in the staking or topoing to be done. The data at the known station is recorded just like the mobile units and is compaired in the post processing (or in the rtk sometimes now-a-days). This gives to your new points a precision, and hopefully an accuracy, not much less than that known point carries.

USGS first order brass discs are commonly used for this and back in the 80's when the mobile units cost a quarter of a million gollies, Trimble had one running night and day on a known point on the roof at the plant near San Jose California, as a combination test, advertisment, and proof of its robustness. Since almost no one could afford two they also gave away the data to their customers for use in post processing. It wasn't too much help to folks over 60 miles away and way less over a hundred but the price was right. Any large metropolotin area has the same service for a fee and equipment is so cheap now that almost no one even rents.

Local positioning uses local transmitters and there is a mixture for things like GPS on a large subdivision. The recievers will pick up from satalites and a local transmitter. There will be a couple of guys running around using rtk units and putting wood wherever it is usefull.

There will always be the need for people to do things the old fashioned way. I hope. It is getting to be that even heavy equioment is mounted with GPS recievers but that application has a limited use so far. To make money moving dirt you care as much about how as where and GPS doesn't do how.

I'll stick to small jobs if i can and do it with real tools (like a 41) as long as i can. The pay is

a little less but the work is more satisfying. It is also easier to work and get something done than to pretend with a bad terrain model and get blamed just because the computer jocky that made the mistake is in the office and made out of teflon. The saying "mistakes have been made, others will be blamed" comes to mind here.

Someone mentioned accuracy and had it right. Horizontally speaking; sub cm precision is common and sub cm accuracy is possible. As he said; the vertical is only about half that good so you have a spheroid (is that the shape?) about size of a pistachio and the truth is in there somewhere. (That was the single most funky description of residual i have ever heard.)

Anyway, Greg never answered my question: what spiral program is he using?

Re: Surveying nowadays...

*Message #10 Posted by **Chris(FLA)** on 28 June 2003, 12:28 a.m.,*
in response to message #9 by db(martinez,california)

I have a friend who works for the state. All they use is GPS, and lasers. He has an old 41 with a survey module but doesn't use it anymore. He then transfers the data into a CAD program and then they use a plotter to draw maps of land plots.

No he won't part with the 41, I already asked.

Chris

Re: Surveying nowadays...

*Message #11 Posted by **db(martinez,california)** on 28 June 2003, 2:00 a.m.,*
in response to message #10 by Chris(FLA)

Chris; That 41 shows people that he used to have to think for a living. It's image clairification.

One great thing about the hp survey pack; the vertical (parabolic) curve program is best stand alone vc routine there is. Many of the others could have been improved and the most important one on the rom is just badly written but that grades one is good to the last byte.

Re: Surveying nowadays...

*Message #12 Posted by **bill platt** on 29 June 2003, 12:48 p.m.,*
in response to message #9 by db(martinez,california)

Well, that is interesting. I guess the techno revolution proceeds unstoppable.

My use and understanding of GPS comes from a different place---marine navigation--where centimeter accuracy was never an issue, but being off a hundred yards in fog on a narrow fairway is.

So, the USCG (Coast Guard) not the USGS (though maybe they were involved too?) essentially got in a quarrel with the Dept of Defense early on regarding the "selective availability" which rendered GPS considerably less accurate than LORAN C (using TD's) and in fact unacceptably so in the aforementioned situations. Even Lobstermen found early on that their LORAN sets were far superior for briging them back to their pots in thick fog.

But I have not been out navigating in over five years (amazing how time goes by) and so have lost track of what is going on. For instance, I am pretty sure SA is turned off now?

Another interesting isssue which came up in the early nineties when I was using GPS was that of DATUM discrepancies. It was not unusual to find that your GPS would on average put you, say, 100 yards to the east of the chart, for some place overseas. So,it turned out that you had to adjust the chart datum to match the datum of the satellite constellation.

Another interesting thing was that the whole system was in fact only experiemtal, and the satellites were in fact primary for other missions. If you listened to WWV broadcasts, you would hear, "users of GPS are warned that the system is not yet fully operational...". I know that the plan was to go into the next phase by putting up birds whose primary mission would be GPS. I wonder how that process is going?

And then there is GLONASS. Our Magnavox GPS receiver in 1993 was capable of operating with GLONASS, but we never tried it. GLONASS has a web-site, but I don't really know what the status is---I don't hear about it anymore.

-regards and thanks for your post!

Bill Platt

Re: Surveying nowadays...

*Message #13 Posted by **Paul Brogger** on 30 June 2003, 2:26 p.m.,*
in response to message #9 by db(martinez,california)

" *. . . so you have a spheroid . . . about size of a pistachio and the truth is in there somewhere. (That was the single most funky description of residual i have ever heard.)*"

I thought that was a description of my brain! (Except for the "truth" part . . .)

;^)

That phrase has got to be one of the world's great quotations. Is it yours, db?

yes Paul...

*Message #14 Posted by **db(martinez,california)** on 30 June 2003, 8:55 p.m.,*
in response to message #13 by Paul Brogger

....and the sad thing is; that's the best short one i could come up with. I guess i could have specified that the nut was in the vertical position.

Pistachios

*Message #15 Posted by **Paul Brogger** on 1 July 2003, 10:00 a.m.,*
in response to message #14 by db(martinez,california)

Well, the context was certainly sufficient to suggest its orientation. But " *. . . a spheroid the size of a pistachio, and the truth is in there somewhere . . .* " Now that's one crystal clear turn of phrase! You're exhibiting a considerable gift for the translation of the abstract into the concrete. I applaud your effort!

Re: Surveying nowadays...

*Message #16 Posted by **David Smith** on 28 June 2003, 2:54 p.m.,*
in response to message #6 by bill platt

GPS can also work in a mode called "carrier phase" where you are bacically figuting out how many wavelengths of signal you are from each satellite. At GPS freqs this is less than a foot per cycle. How fine you slice the final wavelength up can be fairly amazing. Long term monironing can give you sub-millimeter accuracy over the width of the planet. You can watch continents drift in near real time.

You can also combine carrier phase operation with differential operation. A reference station is placed at a known location and a roving station takes readings relative to the reference. Real time kinematic measurments can be made to sub-centimeter accuracy.

And every 11 inches of GPS accuracy implies you have absolute time accuracy of 1 nanosecond.

Re: Surveying nowadays...

*Message #17 Posted by **Dave Shaffer** on 29 June 2003, 11:30 p.m.,*
in response to message #16 by David Smith

Actually, carrier phase monitoring doesn't work too well on a planet-wide basis. The baselines are then becoming comparable to the orbit size of the GPS, and you have problems defining the phase center of the GPS antenna system. On baselines up to hundreds of km, you can get accuracies at the few mm level in a few hours of measurement. (The limiting factor on radio and laser geodesy is the Earth's atmosphere - the atmosphere is the equivalent of about two meters thick at radio wevelengths, and the effective path length gets longer at lower elevations, in proportion to both the atmospheric pressure (easy to measure) and the precipitable water vapor (MUCH harder to measure!)

I used to (and still do to a small extent) support a NASA project using very long baseline radio interferometry (VLBI) to do geodesy. On the longest baselines (intercontinental), VLBI is superior to GPS. On the shorter baselines, VLBI is marginally better than GPS, but about 2 or 3 orders of magnitude more expensive for the equipment (hydrogen maser time standards at $250,000 a pop and million-dollar radio telescopes)! So, GPS has just about taken over on the shorter baselines. However, GPS makes its measurements within the (rotating) reference frame of the satellites. VLBI uses quasars billions of light years away for position reference - a stable system at the 10e-10 radian level. So, VLBI is still the ultimate standard for the global reference frame. NASA also uses laser ranging to satellites for geodesy, with comparable precision to GPS and VLBI, but still with the problem of a rotating reference frame.

All three techniques are now used to measure plate tectonics, and with the longest runs of data (back to the late 70s), the formal errors on the plate rates are at the few hundredths of a mm per year. (Typical plate motions are a few cm per year - or about the rate at which your fingernails grow.)

If you have a two-way radio link, you can get the cm-level precision of base-station GPS back into the field. You can plow a field or move the dirt to make a level parking lot with a real-time GPS unit in your (Caterpillar) tractor.

Re: Surveying nowadays...

*Message #18 Posted by **db(martinez,california)** on 30 June 2003, 1:20 a.m.,*

in response to message #17 by Dave Shaffer

That was fascinating Dave, both in content and the way you explained it. So much so that i saved it to read again.

Yes you can do most anything you might want to do in earthmoving using gps but: 1)the cost of making a terrain model still makes a cutoff point where many jobs are too small or too busy to warrent it. 2)The software knows to say raise or lower the tool on your cat but it doesn't know which way it wants to push the material or what to do with varying types(soil/mud/rock). It will eventually. Just as 95% of the art and science has gone out of "the art and science" of surveying, due to overcomputerization, i'm sure that someday all the thinking will go out of sculpting the earth.

I am also sure that automation will not get it done better or faster than experienced people could do it with the eye and hand and brain. Let me use surveyors as an example again because they are 10 or so years ahead in using the same technology. All that the field computers and data collectors which you see surveyors with now days have done is make it so people that can't do math can be surveyors. It is that way it is too much of the time now, both in my union and the non-union area. At least my union still gives classes in math, some of the old methods, and the theory behind what we are doing.

Please let me give one more observation. When i started surveying in 81 there would be a three man crew; one man calcing, one shooting and one pounding wood. Depending on variables like the correctness of the topo & plan and the number of gun setups plus the amount of control that needed to be done a good crew on a good day could get from 70 to 125 points in the ground. Now a two man crew, a gunner and a chainman, go out with a data collector full of coordinates that it took an office worker most of the day before to generate and check and on a good day they get between 70 and 125 points in the ground.....Unless something goes wrong with all the computer equipment or unless the office calculations got rotated or something. Then sometimes nothing gets done because all too often the people in the field are just what the employer was looking for: button pushers.

I am not a technophobe. I am just sick of technology for the sake of technology. I do think that one person gps surveying is the wave of the future. To tie this all into the forum.....too bad that the new hp won't be doing any of this, isn't it?

Re: Surveying nowadays...

*Message #19 Posted by **Michael G. Shackelford, PLS** on 1 July 2003, 2:27 p.m.,*
in response to message #18 by db(martinez,california)

HP "was" surveying in the 70s when I started. The HP3800 distance meter, then the HP3805 for longer range, then the HP3810A was the first "total station" that measured distances and angles accurately in one instrument. The HP3820 was the last of a great era of HP surveying instruments that I had the pleasure of using in the field. All the while, they were making great computers and calculators for surveyors and engineers like the HP-41 that I carried every day in the field and still have one on my desk as I write. Even used the 41s, 71s and 48s as data collectors with total station instruments at one time or another. But that was then and this is now and it is really is too bad that the "new" HP won't be doing any of this in the future. Thanks to those that explained GPS surveying better than I ever could have done.

Re: Surveying nowadays...

*Message #20 Posted by **David Smith** on 1 July 2003, 6:33 p.m.,*

in response to message #19 by Michael G. Shackelford, PLS

There are still a few die hard old timers out there. A local surveyor had his HP41CX with Sup-R-Rom stolen from his truck. It was like his dog died. It took me around a year to find him a new Sup-R-Rom... which he keeps under lock and key.

Re: Surveying nowadays...

*Message #21 Posted by **Michael G. Shackelford, PLS** on 2 July 2003, 1:51 p.m.,*
in response to message #20 by David Smith

I still have a Sup-r-Rom and a somewhat rare Tom's Rom for surveying along with their original manuals.

Re: Surveying nowadays...

*Message #22 Posted by **David Smith** on 2 July 2003, 5:55 p.m.,*
in response to message #21 by Michael G. Shackelford, PLS

Yes, I also have a TOMS ROM, but it has the name of a different company that had licensed it... I don't remember the name right now.

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HP 49G & printer

*Message #1 Posted by **unspellable** on 26 June 2003, 8:19 a.m.*

Did HP forget to include the ability to print with an 82440 printer in the 49G or am I just looking at the manual cross eyed?

Re: HP 49G & printer

*Message #2 Posted by **Chan Tran** on 26 June 2003, 9:25 a.m.,*
in response to message #1 by unspellable

Yes they did. There is no IR port on the 49.

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HP Think Jet Printer Cartridges

*Message #1 Posted by **Tracy Vermeyen** on 26 June 2003, 1:03 a.m.*

Does any one know if HP Think Jet Printer Cartridges are still available? If so, where can I find them and how much do the sell for?

BTW: I can get my hands on several very cheap if any one is interested in getting one. Most are RS-232, but a few HPIB are also available. I didn't see any HP-IL versions, but then again I'm not sure if there is such an animal.

Re: HP Think Jet Printer Cartridges

*Message #2 Posted by **kim** on 26 June 2003, 11:13 a.m.,*
in response to message #1 by Tracy Vermeyen

The 51604A is the waterfast 'pen' for ThinkJet

I don't knwo where you live but I have bought @ Staples and Depot in the US and Viking/Quill Mail order in Europe. The price should be around $15-17.

Hope that helps

Kim

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I must be going crazy

*Message #1 Posted by **bill platt** on 25 June 2003, 10:20 p.m.*

With all this talk about the 15-C and its superiority, I took a flyer and in a moment of indiscretion put in a bid on one---and I won! (oops---now what do I tell my wife---ANOTHER CALCULATOR!!!!!---boyoboy do i need a swiss bank account:-)

But you see, it is all about mental challenges----the fact that I am from Philadelphia, and that the inspiring mathematition Mitchell Feigenbaum is also from there makes me feel like "I can do that too!"

But really, I think it is Valentin's quiz posts---I just had to go get a 15-C so that I too can try them!

-Bill

Re: I must be going crazy

*Message #2 Posted by **Valentin Albillo** on 26 June 2003, 5:28 a.m.,*
in response to message #1 by bill platt

Hi, Bill:

Bill posted: *"With all this talk about the 15-C and its superiority, I took a flyer and in a moment of indiscretion put in a bid on one---and I won!"*

Congratulations ! You *did* the right thing, and at the prices they're commanding on eBay, it just shows all the more that you've really got what it takes :-) (i.e.: money and a forgiving wife ...)

"now what do I tell my wife---ANOTHER CALCULATOR !!!!!"

Nonononono .. that's not the right attitude. Try instead something like "Hey hon, guess what ? I've just made a smart investment that will get us both a tycoon-like retirement". Trust me, that's not a deceptive statement, the numbers of HP-15Cs can only decrease in time (dogs love to chew on them, you know) and yours will be worth a fortune 20 years from now.

"boyoboy do i need a swiss bank account:-)"

Indeed. IRS clerks won't be very happy in 2023, when they discover you sold that antique for a million bucks and told them nothing. A swiss account would be the right thing.

"But you see, it is all about mental challenges----the fact that I am from Philadelphia, and that the inspiring mathematition Mitchell Feigenbaum is also from there makes me feel like "I can do that too!"

That's a half-hearted attempt to rationalize after the fact. Face the truth: you did it because you felt like it, period.

"But really, I think it is Valentin's quiz posts---I just had to go get a 15-C so that I too can try them!

Me !? Gee, I knew from the start I would play scapegoat in this sad affair of yours ! So much for trying to enthuse people to love the 15C as much as I do ... sigh ...

Well, considering the fact that you've displayed bravery well above and beyond the call of duty in compromising your economic status (and your marriage) just to get a 15C, and considering that you seem to be fond of famous numeric constants, this is the best I can do for you:

http://membres.lycos.fr/albillo/DatafileVA006.pdf

Enjoy !

Best regards and welcome to the 15C club.

I guess I am not crazy

*Message #3 Posted by **bill platt** on 26 June 2003, 11:20 a.m.,*
in response to message #2 by Valentin Albillo

Valentin,

Thanks!

Regards,

Bill

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Tradeoffs: dynamic register/program allocation vs. Simply More Memory . . .

*Message #1 Posted by **Paul Brogger** on 25 June 2003, 5:54 p.m.*

I was playing with my 34c today, and got to thinking . . . (Here comes the scary part!)

I wonder how much ROM is devoted to dynamic allocation of a relative handful of memory locations between registers and programs, and how expensive was it to code and debug the relevant firmware?

Certainly at recent prices for memory and/or chip real estate, you'd think they'd Keep It Simply Simple and establish fixed amounts of program and register memory, as in my old 29C. (What, then, explains the HP-32S/SII?)

But was CMOS Continuous Memory *SO* expensive back in the 70's that the "shared" approach (with concomitant ROM space, program development, debugging, testing and documentation costs) was really a wise investment? It's probably a measure of how spoilt I've become, but it seems hard to believe . . .

Maybe someone could fire up the ol' Way-back Machine and clue us in on just how the internals of register vs. program memory management works in the Spice and low-end Pioneer programmables?

Re: Tradeoffs: dynamic register/program allocation vs. Simply More Memory . . .

*Message #2 Posted by **Trent Moseley** on 25 June 2003, 10:31 p.m.,*
in response to message #1 by Paul Brogger

It's a lovely thought. What is is is; what was was was. There is no way to change the past.

tm

Re: Tradeoffs: dynamic register/program allocation vs. Simply More Memory . . .

*Message #3 Posted by **Vieira, Luiz C.** on 26 June 2003, 3:49 a.m.,*
in response to message #1 by Paul Brogger

Hi, Paul;

I'm not delving into the specific subject of how is it done, but just to make a simple recall.

The HP34C and the HP38C/E are the first ones to show the movable partition. In both cases, program memory "request" determines the amount of memory available for storage registers. Except for the HP95C (I don't know how does it work), I think there are no other LED-display HP calculators wiht this movable partition. Both Texas TI58 and TI59 also have it.

The HP41 and all Voyagers show this, being the HP15C the only Voyager that allows user selection for the movable partition. The HP41 and the HP42 show the same control capacity, and I am not sure about the HP32S/SII.

The additional O.S. parts to allow the movalble partition to exists seem to be not so big as expected. The only thing that changes is that instead of checking for a fixed memory position or defining it, the system now

checks for a value stored somewhere else. The HP55 accepts [STO] and [RCL] from [0] to [9] and from [.][0] to [.][9]. The HP33C/E and the HP25/25C accept only [STO] and [RCL] from [0] to [7]. What happens if we key in [STO][8] in an HP25? The system is pre-programmed in such a way that [STO] 8 and [RCL] 8 are neither recorded in a program nor performed by keyboard direct operation. Does the O.s. perform a check or not? What is the diference of checking for [STO] 8 and [STO][CHS]? Both are not allowed in the HP33C/E or the HP25/25C and I don't know if they are both refused the same way. I don't dare guessing. If we take both TI58/59, any key is accepted after [STO] or [RCL], with a few exceptions. In their case, movable partition is user-defined by [OP] 17, no authomatic adjustment available, and [STO]/[RCL] are from 00 to 99 only.

Back to Spices, you can type in a program in the HP38E/C ot the HP34C thats uses any register, i.e., while typing in a program, storage register availability is not checked, of course. At the moment any register is accessed, a "go-no_go" is performed to see if it exists. I think that the movable partition "location" is stored and updated each time one register is turned into seven program steps/bytes. As programs NORMALY do not generate otehr programs, while a program is running the last value assumed for the movable partition is checked, and never updated, everytime a register "position" is called. This is not done in fixed-scheme memory calculators.

I think many considerations can be made, but what actualy happens on each system can only be actually "seen" if the O.S. is debuged. I think that the one with the most complex organization is the HP42S. It probably mannages mamory contents in a way closer to the HP28's way. The HP42S emulates the HP41 in a higher level processor, as we know. A better mamory mannagement is also needed to emulate all particular HP41 operation and data register. And the HP41 has an exclusive user-defined movalbe partition, like the HP15C. This has not been changed in the HP42S.

Comments? Corrections? All welcome.

Luiz C. Vieira - Brazil

Edited: 26 June 2003, 10:42 a.m. after one or more responses were posted

Re: Tradeoffs: dynamic register/program allocation vs. Simply More Memory . . .

*Message #4 Posted by **Valentin Albillo** on 26 June 2003, 5:54 a.m.,*
in response to message #3 by Vieira, Luiz C.

Very interesting post, Luiz, I've enjoyed reading it, but there's a point I would like to make. You say:

"I think that the one with the most complex organization is the HP42S. It probably mannages mamory contents in a way closer to the HP28's way."

Assuming you're not considering the HP28/28S/48/49 machines, I think the HP-15C has also quite a complex memory management to do, for it has to allocate and administer (quite scarce) memory for all these items:

- program memory (steps 001-448)
- dynamically allocated user storage registers (R02-R65)
- matrices (A-E)
- the parallel complex RPN stack (X,Y,Z,T and LAST X)
- scratch registers for SOLVE (5 registers)
- scratch registers for INTEGRATE (23 registers)

in all their diverse configurations of allocated/deallocated status and variable sizes. To that, you could also add the permanent real RPN stack (X,Y,Z,T,L) and permanent user storage registers (RI, R00, R01), which are available at all times.

Also, there's the fact that there are a number of 'hidden' data stored here and there which also need to be allocated and managed, such as the row and column exchanges done to an LU-decomposed matrix, which have to be remembered together with the actual element values in order to accurately compute in a future moment the inverse and/or determinant of the matrix, or to use it in a 'division' operation.

Finally, SOLVE can call INTEGRATE and INTEGRATE can call SOLVE (though no directly or indirectly recursive calls are allowed) and this has to be managed too, to make them share some of their allocated registers so that no more than 23 are used in that case, too.

The point is, of course, that all this seems complex enough to me. The 42S' management is much more complex, of course, but at least it doesn't have to deal with allocating memory for a parallel RPN stack ! :-)

You're right about the HP15C.

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 26 June 2003, 12:37 p.m.,*
in response to message #4 by Valentin Albillo

Hello, Valentin;

thank you for your comments. As always, yours are also thoughtful, precise and teasing ;^).

The fact that leads me to conclude the HP42S as having one of the most complex O.S. for an RPN calculator is because it has a different, floating memory organization. Based on some facts, I tell you it uses pointers to existing "objects" instead of available memory to all of them.

As it happens in RPL-structured machines, replicated objects in the HP42S do not use space. Let's take a simple example and start by clearing STACK and LASTX:

```
[CLST] [+]  [×: 0.0000    ]   @ this places 0.0000 in all stack
[MEM]       [6977 Bytes   ]
```

This is what's shown when the calculator is completely cleared. Now type in any floating point number and check memory.

```
123.456     [×: 123.456_ ]
[MEM]       [6963 Bytes  ]
```

See? Fourteen bytes are automatically allocated to hold the new entered data. Now fill the stack with it and check available memory again:

```
[ENTER]
[ENTER]
[ENTER]     [×: 123.4560 ]
[MEM]       [6963 Bytes  ]
```

Should we conclude that the stack occupies 14 bytes? The fact is that *no extra bytes are used to hold copies of the same data in all stack registers*. Now let's clear all stack and enter different numbers at a time and check available memory for each entered data:

```
[CLST] [MEM]      [6977 Bytes  ]
123  [MEM]        [6963 Bytes  ]
[ENTER] 123 [MEM] [6950 Bytes  ]
[ENTER] 123 [MEM] [6936 Bytes  ]
[ENTER] 123 [MEM] [6923 Bytes  ]
```

Each entry consumes as many bytes as needed to hold a new number. The O.S. does not check if I'm entering the same numbers, it only requests new bytes to hold it. Each stack entry uses, in fact, 13.5 bytes, and the half byte called my attention to Saturn architecture and RPL organization. Why not thinking the HP42 is an RPL calculator with a stack limited to four register? It would be easy to implement some new short routines in the existing RPL O.S. to emulate the HP41.

You can go any further by testing what happens when complex numbers are generated and how much memory they request to exist. Also when variables are created. I had done that a long time ago, when I bought my first HP42S (R.I.P., poor girl...), but I cannot find my notes. It's revealing. I also had a complete XROM map for it... all lost.

You see, the HP15C handles a small amount of memory and it does wonders with it. But it is somewhat easier when you know exactly where are all stack registers and their precise location, even if they grow in an exact number of five registers. Also, when computing SOLVE or INTEGRATE, I wonder if the 23 registers needed to accomplish the task are mapped in memory or not. I'm not sure if imaginary stack is created in the same portion of memory everytime it is activated, mostly because SOLVE and INTEGRATE do not use imaginary stack contents unless you explicitly use Re<>Im, and this technique is shown in the HP15C's Adv. Fcn. Hanbook. And one very convenient fact is that if complex mode is active, imaginary stack contents are cleared everytime a function is evaluated by SOLVE or INTEGRATE because both can only sample real data and the stack is filled with this sampled data before to evaluate function to be integrated or solved for. Well, in fact, if you set flag 8 or execute [f][I] or [f][Re<>Im] while computing SOLVE or INTEGRATE is different of activating complex mode before or after computing any of them. Where in memory will imaginary stack registers be created if they are created while running SOLVE or INTEGRATE procedure? In this case, is it possible to "pause" SOLVE or INTEGRATE computing and use complex numbers by direct keyboard operations? I'd like knowing it for sure and I did not test it.

There's more to talk about HP42S memory management and RPL memory "tricks", but I'll do that later, if needed.

Thanks, Valentin; I was not sure about when I'd post something about this.

Luiz C. Vieira - Brazil

Edited: 26 June 2003, 4:05 p.m.

Re: Tradeoffs: dynamic register/program allocation vs. Simply More Memory . . .

*Message #6 Posted by **Patrick** on 26 June 2003, 2:55 p.m.,*
in response to message #4 by Valentin Albillo

If memory serves(!), I seem to recall reading that some of the management information you refer to (LU stuff) is stored in the registers in non-standard format. The floating point format used in HP registers does not use all of the possible legal bit patterns. Some of these otherwise "illegal" bit patterns are used to denote special information, such as the fact that a register contains a matrix descriptor, or that a matrix is in LU form.

I believe I read this in the HP-15C Advanced Functions Handbook. I'll try to track it down...

Memory allocation: 34/41/15/42/32

*Message #7 Posted by **Karl Schneider** on 26 June 2003, 11:26 p.m.,*
in response to message #1 by Paul Brogger

Paul --

The amount of ROM code devoted to memory management in these units is a question to which I don't know the answer. It must have been a "necessary evil" for HP to address this issue in order to provide flexible products at reasonable manufacturing cost. There's certainly a lot of documentation about it in the old manuals! The RAM probably was comparitively more expensive back in the day. No pure-RPN HP calculator model through the '80s had more than 7 kB, for various reasons, I suppose.

Here are some comparisons between memory management between the RPN units 34C, 15C, 41CV, 42S, and 32Sii. I own and use all of them.

The 34C (and successor 11C) will automatically partition memory between numbered registers and programs. There are 70 bytes (instructions) of permament program memory, and 20 seven-byte convertible numbered storage registers labeled 0-9 and .0-.9. As more instructions are programmed, registers are converted without prompting, one at a time as necessary, to program storage. As programmed instructions are deleted, the memory is returned to data registers.

The 41C/CV/CX allows the user to manually select the number of numbered seven-byte data registers available for use (up to 63 for the C; 319 for the CV/CX) ; the remaining memory is available for programmed instructions. Any data storage (temporary or otherwise) needed by programs or functions will utilize the data registers. Micro-coded routines (e.g., Romberg integration on the Advantage module) will use the highest-numbered registers; RPN programs on the modules will tend to use specific lowest-numbered registers.

The 15C and 42S allow manual partitioning in a more sophisticated fashion. The user specifies how many numbered data registers to allocate (between 2 and 66 seven-byte registers on the 15C; many more eight-byte registers or 16-byte registers for complex values on the 42S); the remaining space is "pooled" and automatically allocated as necessary for all other purposes -- programs, matrices, imaginary/complex numbers, integration, root-finding, etc. This way, space for numbered registers is separate from the space needed for other applications.

The 32Sii has simple managment of its meager 390 bytes or so of memory: There is no "allocation command"; all memory is in a free pool for real-valued variables, programs, equations, and scratch registers for Romberg integration and root-finding (SOLVE). Eight bytes is allocated for a variable only if it contains a non-zero value(!)

The thing I've wondered about in the 34C is the memory requirements for SOLVE and INTEGRATE. For Romberg integration, the 15C requires 23 "free" registers; the 41C Advantage requires 32 available numbered data registers. The 34C, by contrast, requires no extra "scratch" space for these same advanced functions. I've also noticed that the 34C is slower to integrate than the 15C, although the 34C is a little faster interactively. Maybe this non-requirement causes the 34C to perform redundant calculations.

Re: Memory allocation: 34/41/15/42/32

*Message #8 Posted by **Valentin Albillo** on 27 June 2003, 4:39 a.m.,*
in response to message #7 by Karl Schneider

Karl posted:

"The thing I've wondered about in the 34C is the memory requirements for SOLVE and INTEGRATE. For Romberg integration, the 15C requires 23 "free" registers; the 41C Advantage requires 32 available numbered data registers. The 34C, by contrast, requires no extra "scratch" space for these same advanced functions. I've also noticed that the 34C is slower to integrate than the 15C, although the 34C is a little faster interactively. Maybe this non-requirement causes the 34C to perform redundant calculations"

Wrong. The HP-15C's SOLVE and INTEGRATE algorithms were lifted straight out of the 34C's existing code, and in their turn, were used for the 41C's Advantage ROM and later for the 71B's Math ROM

(improved to account for recursivity, i.e: an INTEGRATEd function can call INTEGRATE itself, and so on up to 5 levels deep).

This means that the 34C's INTEGRATE code *does* use the scratch 'registers' you mention, but they are *permanently allocated exclusively* for SOLVE/INTEGRATE, and thus *never* available to the user for conversion to regular storage registers or program steps.

This is, of course, highly inefficient and was corrected immediately in the next model to implement that functionality, i.e.: the HP-15C, where said registers are only allocated for SOLVE/INTEGRATE if and when needed. Had the 34C memory management code implemented this feature, users would have enjoyed 23 additional registers (i.e: up to 20+1+23 = 44 storage registers) or 161 additional program steps (i.e.: up to 70+7*20+161 = 371 program steps). What a pity ! :-(

(BTW, you *can* actually 'navigate' and see the contents of the 34C's SOLVE/INTEGRATE registers by using some 'black-box' techniques, so to say ! A complete memory map for the 34C was published a looooong time ago in either PPC or Australian PPC Technical Notes (or both) but can't remember or check it now.

Best regards,

Re: Memory allocation: 34/41/15/42/32

*Message #9 Posted by **Karl Schneider** on 28 June 2003, 4:57 a.m.,*
in response to message #8 by Valentin Albillo

Valentin, Johnny --

Jeez, a fella just can't slip a sloppy statement or factual error past these keen-eyed and knowledgeable Forum participants! :-)

I stated imprecisely, "The 34C, by contrast, requires no extra "scratch" space for these same advanced functions."

What I really *meant* was, "The 34C does not require the user to reserve any 'scratch' space for these same advanced functions." That would have been a correct statement, but would have (ahem) required more thought and time to write.

I actually had assumed that the processor had some "scratch" registers available, but wasn't aware that 23 were used, as in the 15C. Valentin states that it was "a pity" that the 23 dedicated registers weren't made available to the user for data and program storage, but to do so without potentially (ahem) "consternating" the user would have required a method of explicit memory allocation -- something the 15/41/42 have, and the 34 doesn't.

This was the essence of Paul's query -- how much microcode is dedicated to memory management on the 34C, when it might have been simpler just to provide more user memory and fix the respective partition sizes?

As for the number of registers used by the Advantage module for INTEG (32) and SOLVE (13), I stand corrected -- by Johnny -- in that the highest available (unused) *program* registers, not numbered registers, are employed. This actually makes sense, if one thinks about it. (Serves me right for relying on my memory, and not consulting the Advantage manual.)

Re: Memory allocation: 34/41/15/42/32

*Message #10 Posted by **Johnny Billquist** on 27 June 2003, 6:05 a.m.,*

in response to message #7 by Karl Schneider

The HP-41 have more tricks in the memory allocation than mentioned so far. Apart from program/register allocation, it also allocates memory for the assigned keys for the user keyboard, memory for alarms (if you have the time module) and some advantage functions.

Anyhow, these things are allocated from the program part of memory, so user assigned keys will reduce the number of registers available for programs. The same for alarms.

If you call the SOLVE function in the Advantage pac, it will not use numbered registers, but unused program registers. 13 of them, to be exact.

The root finder uses 23 numbered registers. But some of thos registers must be set up before calling the function, it's somewhat understandable that they use normal registers.

INTEG also uses program registers. 32 of them.

SOLVE can call INTEG and vice versa, but they are not allowed to recurse.

DIFEQ uses eight numbered registers.

The complex number functions use five registers.

The vector calculator uses four registers.

Coordinate transformation uses 17 numbered registers.

Curve fitting uses 18 numbered registers.

TVM uses 10 numbered registers.

So, in short:

All programs that use numbered registers will use low numbered registers (starting from R00).

SOLVE and INTEG don't use any numbered registers at all, but program memory.

Thanks to ALL!

*Message #11 Posted by **Paul Brogger** on 27 June 2003, 1:40 p.m.,*
in response to message #10 by Johnny Billquist

Internal details like these are exactly what I was looking for.

Thanks to all for taking the time to share!

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Module codes

*Message #1 Posted by **Matthias** on 25 June 2003, 5:17 p.m.*

Hi again.. perhaps someone can help me once again.. I do want to get clother infos about the HP-41 module codes. Many of the modules do have a code as 8250xX-Xxx, but can you help me to disassemble this code?

82500A 4k modules produced by HP for companies? 82500B 8k modules produced by HP for companies? 82508 ? 825009 ?

-Axx produced in America? -Bxx produced in Brasil? -Sxx produced in Singapore?

Did I forget something that can be interesting for other people?

Thanks to all, Matthias Matthias

Re: Module codes

*Message #2 Posted by **Raymond Del Tondo** on 25 June 2003, 8:29 p.m.,*
in response to message #1 by Matthias

Hi,

Pquadrat should know. At least he showed me some of those modules, including the Buderus ones, I think ;-)

Raymond

BTW: Since you bought a W&W surveying module some time ago, have you tried the software ? It was much work...

Re: Module codes

*Message #3 Posted by **Ellis Easley** on 28 June 2003, 7:13 p.m.,*
in response to message #1 by Matthias

In my 1986 HP catalog, under the heading "HP-41, HP-71, and HP-75 Custom ROM Modules", I find for the HP-41: 82508A/B and 82509A/B, "Provides 4K or 8K bytes of memory with each module, or nearly 21,000 program lines with up to 4 8K byte modules." Also for the HP-71: HP82491A/B through HP82494A/B, "Provides 16K, 32K, 48K, or 64K bytes of program storage in a plug-in module. May be used in quantities of one to four for a maximum capacity of 256K ROM. (Minimum order: 100 modules.)" And for the HP-75: HP82726A/B through HP82729A/B, "Provides 8K, 16K, 24K, or 32K bytes of program storage in a plug-in module. May be used in quantities of one to three for a maximum capacity of 96K ROM. (Minimum order: 100 modules.)"

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Re: Paranoid: Here is a scary auction

*Message #1 Posted by **David Smith** on 25 June 2003, 4:07 p.m.*

For what its worth, I have done business with three or four Ebay people in South Africa without any problem. If they are scum and jack your card you are probably safe... most major cards these days have a 0 dollar fraud limit (not the legally required $50 max).

Re: Paranoid: Here is a scary auction

*Message #2 Posted by **David Smith** on 25 June 2003, 4:08 p.m.,*
in response to message #1 by David Smith

By the way, when those resistors fry expect to find three or four dead transistors on the same circuit board... been there, done that... three or four times before.

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HP-41CV KEYBOARD

*Message #1 Posted by **Jon** on 25 June 2003, 2:51 p.m.*

I have an HP -41CV just like new but the "R down" needs a very hard pressing to work. I have tried to clean it with isopropilic alcohol but it doesn´t solve anything. I have used bristles impregnated in alcohol as described in this forum. Must I drop alcohol in the hole?. Is there any alternative method?.

Thaks in advance

Jon

Re: HP-41CV KEYBOARD

*Message #2 Posted by **David Smith** on 25 June 2003, 3:58 p.m.,*
in response to message #1 by Jon

Yes, it really helps to place a drop of alcohol in the hole, wet the wire brush with more alcohol, and scratch around in the hole. It can help to press and release the key while scratching around. On really stubborn keys, you may need to repeat the proceedure two or three times.

Re: HP-41CV KEYBOARD

*Message #3 Posted by **Trent Moseley** on 25 June 2003, 4:29 p.m.,*
in response to message #2 by David Smith

One of the keys on my 15C (1982 vintage) has the same problem. Is this 41CV procedure ok for mine as well?

tm

Re: HP-41CV KEYBOARD

*Message #4 Posted by **David Smith** on 26 June 2003, 5:24 p.m.,*
in response to message #3 by Trent Moseley

Yes, it works fine on every keyboard I have seen that has the access hole under each key (Woodstock, Spice, Voyager series included). Some Woodstock keyboards do not have the hole. On these you can very carefully drill one by hand... avoid the circuitry etches.

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Not so Big difference...

*Message #1 Posted by **Ernie Malaga** on 25 June 2003, 10:52 a.m.*

I don't see a big difference at all. Even the most trustworthy companies can hire unethical employees. It may happen at the restaurant, with a sleazeball waiter, or at the well-established electronics mail-order store, with a low-life customer service representative. The problem is that you don't know who stole your credit card information when unknown charges start appearing in your monthly statement.

Mike, you asked for opinions, and I gave you mine. If you disagree with it, just say so -- but there's no reason to patronize.

-Ernie

Re: Not so Big difference...

*Message #2 Posted by **bill platt** on 25 June 2003, 11:29 a.m.,*
in response to message #1 by Ernie Malaga

A waiter in a popular local restaurant was caught stealing credit card information about 1 month ago. Needless to say, word spread around town, and the restaurant is now on the edge of bankruptcy

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Re: Paranoid: Here is a scary auction

*Message #1 Posted by **Johnny Bjoern Rasmussen** on 25 June 2003, 10:37 a.m.*

> Anyone here know this seller?

Well - I can help you a tiny bit, as part of the e-mail adress, "Kalle" that is, is as common in the scandinavian countries, as eg. "Jack" or "Joe" in the USA. From my guess though, it appears most offen in Sweden, where from what I remember Donald Duck is called "Calle Anka".

If he really are a person named Kalle living in South Africa, my guess is that he should be easy to locate if you call the country's national telephone service.

Regards from Denmark!

Johnny "42S" Bjoern Rasmussen

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HP-65 helped discovering the Feigenbaum number

*Message #1 Posted by **Juergen (CH)** on 25 June 2003, 8:00 a.m.*

28 years ago, an HP-65 helped Mitchell Jay Feigenbaum in discovering the Feigenbaum number 4.669..., a universal number in the theory of Chaos.

I've found this fact on several web pages (see below). Here is an interesting excerpt:

> Quote:
>
> ---
>
> You might wonder why he (Feigenbaum) would use a small calculator when he had access to some of the largest computers in the world, computers that could produce thousands, even tens of thousands, of numbers in a few minutes.
>
> The reason, he said, is that he liked to play with numbers. Even when he was young he liked to play with numbers, see how they came about, how they changed under various circumstances. It gave him a feel for what was going on. Having thousands of numbers handed to him on a sheet of paper that came from a computer wasn't the same; it didn't appeal to him. And indeed it was this "playing" that allowed him to make the breakthrough that he eventually made. It helped him understand what was going on. With large computers he probably would have missed it.
>
> ---

See also:

http://www-gap.dcs.st-and.ac.uk/~history/Mathematicians/Feigenbaum.html

http://www.upscale.utoronto.ca/PVB/Harrison/Chaos/Chaos.html

http://spanky.triumf.ca/www/fractint/bif_type.html

http://zebu.uoregon.edu/~js/21st_century_science/readings/Parker_Chap6.html

http://cnls.lanl.gov/~nbt/Book/node44.html

Regards, Juergen

Re: HP-65 helped discovering the Feigenbaum number

*Message #2 Posted by **Mike (Stgt)** on 25 June 2003, 11:48 a.m.,*
in response to message #1 by Juergen (CH)

Nice finding.

Thanx.....Mike

that's enough already

*Message #3 Posted by **Carly** on 25 June 2003, 3:18 p.m.,*
in response to message #2 by Mike (Stgt)

That's Enough Already with the mathematical hogwash and the mythical past of HP calculators!!

There was no HP-65. There is only Kinpo calculators !! Just buy one of our HP personal computers. Buy one of our HP cameras. And an HP vacuum cleaner.

Just give us all your money . Give it here, right now. I've got blow-molded trash in exchange. To heck with Floozenbam and HP-65. That's all baloney anyway. 4.99 yeah right. That's what my kinpo calculators cost the corporation wholesale. Have an HP-49G, see if you can come up with some other famous number instead.

Carly Fiorina

COOOL

*Message #4 Posted by **Norm** on 25 June 2003, 3:22 p.m.,*
in response to message #1 by Juergen (CH)

That is very, very interesting. I don't quite understand it yet. It's gonna take a couple of extra reads. Something about the population of rabbits or the orbit of the earth around 2 suns, is a chaotic system.

And that there is some constant kind of like PI that kind of tells U what will happen next.

I'm gonna have to read it twice before I understand the chaos theory number.

Can't somebody kick that Carly Fiorina woman off the chat board? I sure am tired of her.

:o)

- Norm

Prejudiced PIG!!!

*Message #5 Posted by **Carly** on 25 June 2003, 3:58 p.m.,*
in response to message #4 by Norm

Why are YOU BAD MOUTHING a Brilliant CEO such as myself.

I have implemented sooo many new ideas and products. I have increased the synergy of HP greatly. I have brought Hp into the 21st century. Hp made great strides with the millinium bug and other software issues on my watch.

I have merged Hp with Compaq!!! ME, ME, ME!!!

Soooo, I have done it ALL! I am why Hp is SO GREAT. That is why I got such a nice stock option package for this merger. However since times and the economy have been tough, I DID TAKE a 50% pay cut. And I am sure this helped pay for the second jet I had to acquire when I first became a CEO. I need two jets, so that I do not have to share my jet with some of the other jerks on my board. Also I had the forsight to realize that this might be a good perk for any other company that would merge with Hp, but would be to cheap to supply their CEO with a corporate Jet.

As you can readily discern, I am WAY OUT ahead of you, ALL of YOU!! Often, I laugh so hard at your pathetic pleas for better tools. You engineers have always made me SICK!!! BAH-HAA-HAA-HAA-HAAA!!!! Beg, plead, whine, it makes no difference. Oh, I'm sorry, it does. It makes me laugh harder!

Away with you!!

BWAAH-HAAA-HAAA-HAAA!!

Sincerely and Respectfully Yours,

Carly Fiorina

(this was posted in jest, I can't imagine Carly would even waste a moment in reading this post or any of our complaints, Ron Ross)

Re: Prejudiced PIG!!!

*Message #6 Posted by **Ernie Malaga** on 25 June 2003, 4:13 p.m.,*
in response to message #5 by Carly

Carly,

It's a bloody shame that your mother didn't abort you.

'Nuff said. 8^)

-Ernie

Mama did !

*Message #7 Posted by **Mitchell Feigenbaum** on 26 June 2003, 1:26 a.m.,*
in response to message #6 by Ernie Malaga

Mama did abort her !

But then somebody heard a crying sound coming out
of the dumpster ...

now we are stuck with her

:o(

Re: Prejudiced PIG!!!

*Message #8 Posted by **Chris(FLA)** on 26 June 2003, 9:56 a.m.,*
in response to message #5 by Carly

I have merged Hp with Compaq!!! ME, ME, ME!!! Soooo, I have done it ALL! I am why Hp is SO GREAT. That is why I got such a nice stock option package for this merger.

Ask my father about his pre-merger HP stock and post HP merger stock.

Not a happy person :(

Chris

HP stock ripoff and your old man

*Message #9 Posted by **NH** on 26 June 2003, 10:29 a.m.,*

in response to message #8 by Chris(FLA)

one thing U can take 2 the bank ...
If your old man lost his butt on HP stock,
Carly planned it that way.

These MBA boardroom types, they balance
their books on Joe Truckdriver's back .

So Carly gets a scheme and a dream... she says, hey
I will make HP shares go to zero, and Compaq shares
to go infinity. So she transfers her bank balance
onto the new boat, which is the Compaq shares...
all the little hard-working decent people still hold HP shares.

So the lower HP goes, the harder the little people
cling to them, they won't sell, because they are
decent people. Carly cackles loudly, getting richer
and richer, at the expense of the little people.

That's why their is precious little reason for Joe
Truckdriver to invest in stocks anymore, its all a swindle
and unless his cousin is a Wall Street Tycoon, he doesn't know
whether it will go up or down.

The difference between Mr. Feigenbaum and Carly

*Message #10 Posted by **Juergen (CH)** on 25 June 2003, 5:04 p.m.,*
in response to message #1 by Juergen (CH)

I just wanted to point out that *clever* people (like Mr. Feigenbaum) using the *right* tools (HP-65) can do amazing things.

But I'm also aware that *Carly-minded* people using the *wrong* tools (HP-12C Platinum) can make big mistakes.

My advice: forget Carly, enjoy the story about the discovery of the Feigenbaum number. It's worth it!

ABSOLUTELY RIGHT, JUERGEN

*Message #11 Posted by **Norm** on 26 June 2003, 1:31 a.m.,*
in response to message #10 by Juergen (CH)

I really appreciate Juergen that you brought this to our attention. I am sure it needs to be placed into the HP Museum "articles" section.

Think you could do this ? Its little more than cut & paste, and the title you already used couldn't be better (citing the HP model number and the topic).

Your post was deep enough that U dont want it to fade away like my John Denver songwriting.

YES ISN'T AMAZING THAT THE SMALL, CLEAN NUMBER-CRUNCHING
RED-BRICK CALCULATOR ALLOWED THE MATHEMATICIAN TO FIGURE
SOMETHING OUT.

THATS EXACTLY HOW I FEEL ABOUT MY 34C. I NEED TO RUN

SOME FORMULA AND LEARN HOW IT GOES? THE 34C IS SUPERIOR TO ANY OTHER TOOL, (plus a mechanical pencil and some graph paper) AND HP HAS NO BUSINESS TRYING TO TAKE TOOLS LIKE THAT AWAY FROM THE COMMUNITY OF INTELLIGENT PEOPLE.

Even an HP-49G is too bloated and complex to just casually work with the numbers, IMHO.

Thanks again!

Museum Article

*Message #12 Posted by **Juergen (CH)** on 26 June 2003, 9:19 a.m.,*
in response to message #11 by Norm

Norm,

if time allows I will prepare an article. If you don't mind I will come back to you to review my "swiss cheese" writing.

In the mean time, keep your 34C's running and delve into Chaos Theory, it's really interesting.

Regards, Juergen

Re: ABSOLUTELY RIGHT, JUERGEN

*Message #13 Posted by **bill platt** on 26 June 2003, 10:55 a.m.,*
in response to message #11 by Norm

Norm,

Your songs don't fade away----they live on in the hearts and minds (and ears) of all of us :-}

Bill

I still need song links ..

*Message #14 Posted by **Norm** on 26 June 2003, 10:42 p.m.,*
in response to message #13 by bill platt

I still need song links ... where U click on the link and the song will play.

For Paul Simon "Kodachrome"

John Denver "Take me home country roads"

AC/DC "Highway to Hell"

AC/DC "Money Talks"

See the problem is, I can't write lyrics for AC/DC if people don't know how the melody goes. If you can see where I am headed, Carly's VP would be the lead singer for "Highway to Hell".

EVERYBODY knows the melody for John Denver, thats why that one worked pretty well.

Re: The difference between Mr. Feigenbaum and Carly

*Message #15 Posted by **Mike (Stgt)** on 26 June 2003, 5:10 a.m.,*

in response to message #10 by Juergen (CH)

That reminds me the Olympus ad: "If you won't become a top photographer with this camera - it's not our fault."

So it's _not_ the HP-65 (or HP-41) that I am not as well known as Feigenbaum <G>. But it's nice to see that others use those calculators in a similar way.

Ciao.....Mike

I'm still trying to figure out the Feigenbaum number ...

*Message #16 Posted by **Norm** on 27 June 2003, 3:11 a.m.,*
in response to message #10 by Juergen (CH)

I haven't forgotten about this Feigenbaum number.

So far, when I read up on it, its just kind of perplexing..... I can almos understand what the number IS, but its the logical conclusion that concerns me. I mean, how the heck can a single number constant ($4.66, the wholesale price of a Kinpo calculator) be the SAME constant for a bunch of bunnies in the forest, or for a planet in a multi-star orbit.

I haven't forgotten about this and am still reading it and still trying to figure it out.

Re: I'm still trying to figure out the Feigenbaum number ...

*Message #17 Posted by **Valentin Albillo** on 27 June 2003, 5:15 a.m.,*
in response to message #16 by Norm

Norm wrote:

"I mean, how the heck can a single number constant ($4.66, the wholesale price of a Kinpo calculator) be the SAME constant for a bunch of bunnies in the forest, or for a planet in a multi-star orbit."

That's why it's called a *universal constant*. The same happens with Pi, e, and all other universal constants out there, they keep appearing all the time, in all variety of situations, completely unrelated. For instance,

- what's the ratio of a circle's circumference to its diameter on a flat plane surface ? Pi
- if you drop a needle on a lined sheet of paper, what is the probability of the needle crossing one of the lines on the page ? 2/Pi
- what's the limit of the sum of the infinite series 1 -1/3 +1/5 -1/7 +1/9 -1/11 + ... ? Pi/4
- what is the probability of choosing two integer numbers that have no common prime factors? 6/Pi^2

and so on. The same applies to 'e' (=2.71828+), and many other famous constants.

Best regards.

Edited: 27 June 2003, 8:42 a.m.

yeah but what if nobody told the bunny rabbits

*Message #18 Posted by **Norm** on 27 June 2003, 12:12 p.m.,*
in response to message #17 by Valentin Albillo

yeah, although those are geometrical and mathematical problems. BTW I did not know about the mathematical series for finding PI. That is quite interesting.

When the feigenbaum number is applied to biological systems its kind of perplexing.

I mean, if nobody told the bunny rabbits that their number is 4.66 , then how would they know when its time to quit having more bunnies ?

Same with the high school dance, if the guys dont KNOW that their number is 4.66 then how will they know to quit asking the ladies for a dance ?

Hmmmmmmmmmm.....

Let's whisper 4.66 into Carly Fiorina's ear. Maybe she will not procreate, and we wont have a whole new generation of monstrous little rich lawyer weasels, figuring out how to wreck corporations of their very own ....

Imagine Carly outside the factory gates, with her kid, giving him wisdom of life ..... the great giant assembly buildings, all the cars in the parking lot, the trucks filled with boxed products .....

"someday, son, all of this will be yours to destroy ..."

Are there any mathematicians ... Feigenbaum number

*Message #19 Posted by **Norm** on 28 June 2003, 1:48 a.m.,*
in response to message #18 by Norm

Hello,

I am very intrigued by the topic of the Feigenbaum number (and to a lesser extent, that it was figured out on an HP-65, rather than 100 years earlier by some old ancient looking dude wearing a wig.

I am looking at all the links, but I get some very clear questions where I dont' understand and require clarification.

Does anybody want to chat at length about this topic? Obviously, only if you know exactly what the deal is, and you are willing to take time to explain it to me. My questions will be pointed and you'd have to answer them ...

Re: I'm still trying to figure out the Feigenbaum number ...

*Message #20 Posted by **Trent Moseley** on 28 June 2003, 6:08 p.m.,*
in response to message #17 by Valentin Albillo

Valentin-

Please give us a few examples for 'e'.

tm

[OT]: Examples for 'e'

*Message #21 Posted by **Valentin Albillo** on 28 June 2003, 10:46 p.m.,*
in response to message #20 by Trent Moseley

Trent Moseley posted:

"Valentin - Please give us a few examples for 'e'"

With pleasure. Let's see:

- what's the limit of the sum of the infinite series 1 + 1/1 + 1/2 + 1/2/3 + 1/2/3/4 + 1/2/3/4/5 + ... ? e
- you put $1 into a bank account at 100%, compound interest. If the interest is accrued at the end of the year, you'll have $2. If it's accrued every six months, at the end of the year you'll have $2.25. How many dollars will you get if it's accrued continuously ? $e
- each of two people is given a shuffled deck of playing cards. They then expose simultaneously their first cards. If they do not match, they go on with their second cards, and so forth. What's the probability of finishing both decks without a single match ? 1/e
- if numbers in the interval (0,1) are selected at random, what's the expected number of selections until the sum of all chosen numbers exceeds 1 ? e
- with each purchase, a certain shop gives away a badge with the picture of a playing card on it. You want to collect the entire set of 52 badges. If you make exactly 52 different purchases, what fraction of the set of 52 badges would you expect to have accumulated ? 1-1/e
- such natural entities as the inner structure of a Nautilus' shell, the arms of galaxies, the way a fern leaf curls, and many others are examples of logarithmic spirals. The logarithmic spiral's equation becomes in polar coordinates r = e^aT, where r is the distance of a point on the spiral from its center, T is the angle through which the spiral has grown to that point, and a is a fixed quantity for a given spiral that describes how tightly that spiral winds itself at each turn.
- the shape of the curve described by a hanging chain is called a 'catenary'. The resulting equation for the catenary curve is y = (e^x + e^(–x))/2
- the familiar trigonometric functions sine and cosine are actually derived from e:

  sin(x)=(e^(ix)-e^(-ix))/2i, cos(x)=(e^(ix)+e^(-ix))/2
- are e and pi related in any way ? yes, e^(i*pi) = -1
- the number e is also to be seen in music (J.S. Bach's equally-tempered scale), art (Escher's drawings), biology, chemistry (anything related with continuous growth), radioactive decay, etc, etc.

Best regards.

Re: [OT]: Examples for 'e'

*Message #22 Posted by **Patrick** on 28 June 2003, 11:18 p.m.,*
in response to message #21 by Valentin Albillo

Very, very nice, Valentin. When you see all of these examples in one place, it really hits

home how special is this strange number less than three.

I noticed you carefully omitted the one where you press [1][e^x] on your calculator, for in that case you don't actually get *e*, but a mere approximation to that magical number!

I will add one other from the even more magical realm of calculus...

What functions are the only ones to have *themselves* as derivatives (i.e., the value of the function is the same as the slope of the tangent line to the graph at that point)? *(any constant) * e^x*

Re: [OT]: Examples for 'e'

*Message #23 Posted by **Trent Moseley** on 29 June 2003, 4:00 p.m.,*
in response to message #21 by Valentin Albillo

Thank You!

tm

Re: Isn't Ms. Fiorina more a Symptom than a Cause?

*Message #24 Posted by **Paul Brogger** on 27 June 2003, 1:03 p.m.,*
in response to message #10 by Juergen (CH)

The rabidly anti-Carly sentiment here seems to have no bounds -- neither in extent nor in editorial decency.

Isn't her position as much as a figurehead as it is as a real leader? Aren't her actions and attitudes more *reflections* of an unfortunate change in corporate values than the prime motivators behind that change?

Correct me if I'm ignorant, but she serves at the behest of a board of directors, right? And don't (the larger) shareholders have a say in who runs the company and how it's run? And doesn't the prevailing business climate in the good ol' USofA influence what is perceived as wisdom and what appears foolish?

I don't remember hearing that Carly Fiorina took the company over at gunpoint, and that the board of directors were being held hostage, and that dissenting shareholders were summarily executed.

But then, I admit, I haven't heard much of anything substantial about the attendant controversies -- just a lot of what sounds like irrational, sour-grapes misogynist rant.

I suppose I am ignorant. Among other things, maybe I'll have to read her book . . .

don't forget to read

*Message #25 Posted by **Norm** on 27 June 2003, 2:13 p.m.,*
in response to message #24 by Paul Brogger

Your right, I'm wrong. She probably didn't say "someday all of this will be yours to destroy". You'll have to tell me what she did say.

Dont forget to read Hillary Clinton's book. I hear its already 50% off , you could probabl find at at the same store that has Carly's book.

Re: don't forget to read

*Message #26 Posted by **Paul Brogger** on 27 June 2003, 6:40 p.m.,*
in response to message #25 by Norm

I didn't realize that Hillary Clinton offered insights into Hewlett-Packard's management in *her* book, too. Thanks for the tip. I'll have to be sure & check it out. (Along with David Packard's *The HP Way*, which is already on reserve.)

By the way, I did reserve *Perfect Enough* at the local library, and I am *really* ignorant -- it's actually a biographical treatment by a Pulitzer Prize winner, George Anders -- not "Carly's book" at all . . .

FWIW

what does

*Message #27 Posted by **Norm** on 27 June 2003, 8:24 p.m.,*
in response to message #26 by Paul Brogger

what does FWIW mean ?

FWIW

*Message #28 Posted by **Michael F. Coyle** on 27 June 2003, 10:52 p.m.,*
in response to message #27 by Norm

FWIW = For What It's Worth

The real game here is to try to figure out what the acronyms mean from context alone, without cheating (i.e. looking them up).

- Michael

FWIW

*Message #29 Posted by **Ellis Easley** on 28 June 2003, 2:46 p.m.,*
in response to message #27 by Norm

Norm, can you write a rant to sing to the tune of "For What It's Worth" (by the Buffalo Springfield, I think)? The only good line I've thought of so far is "Algebraic strikes deep ... Into your life it will creep" then "It starts when you're always afraid - step out of line, the man comes, gonna take your HP34C away!" As you can see, I've only changed two words - you should be able to do a lot better.

Re: FWIW

*Message #30 Posted by **Ellis Easley** on 28 June 2003, 6:04 p.m.,*
in response to message #29 by Ellis Easley

I found a website with the lyrics and the chords plus lyrics for "For What It's Worth" and other Buffalo Springfield songs:

http://www.geocities.com/SunsetStrip/8385/Buffalo/home.html

It would be nice if there were MIDI files to play some version of the music, but I don't think the fans or artists would like that very much - and I think you would need a place to host them, just like pictures.

Re: Isn't Ms. Fiorina more a Symptom than a Cause?

*Message #31 Posted by **Chris(FLA)** on 28 June 2003, 12:10 a.m.,*
in response to message #24 by Paul Brogger

Isn't her position as much as a figurehead as it is as a real leader? Aren't her actions and attitudes more reflections of an unfortunate change in corporate values than the prime motivators behind that change?

Correct me if I'm ignorant, but she serves at the behest of a board of directors, right? And don't (the larger) shareholders have a say in who runs the company and how it's run? And doesn't the prevailing business climate in the good ol' USofA influence what is perceived as wisdom and what appears foolish?

What about Mr. Hewlett's son who opposed the HP/Compaq merger?

There was also someone(can't remember the name) on the board who said they should make custom PCs(like Dell) and Carly herself said no. The person left in discust shortly after.

How is HP's PC business doing now?

Chris

carly is not above a bad pun

*Message #32 Posted by **db(martinez,california)** on 28 June 2003, 2:24 a.m.,*
in response to message #31 by Chris(FLA)

Palo Alto and the rest of the silicon valley (along with San Francisco & Oakland) are suburbs of Martinez but we do keep up with the goings on among the great unwashed. The "Compaq Center for the Preforming Arts" in San Jose reciently changed it's name to the "H.P. Pavilion". No kidding.

Re: Isn't Ms. Fiorina more a Symptom than a Cause?

*Message #33 Posted by **Paul Brogger** on 30 June 2003, 11:22 a.m.,*
in response to message #31 by Chris(FLA)

(This is, admittedly, very O.T.)

Apparently these folks didn't have enough of the corporation lined up behind their arguments in order to prevail. There were disagreements, and in each case, one side "won" and one side "lost".

The point of my post was that we tend to focus on the figurehead, or the most readily-recognized participant in an issue (the proverbial "tip of the iceberg") and ignore the larger forces at work which put that person in place, and which *keep* him/her there.

That, coupled with the vehemence of the anti-Carly rhetoric and the effortless transitions to Hillary Clinton -- a person entirely unrelated to the discussion (except perhaps because she's an intelligent woman who's achieved some measure of power and notoriety, and who is looking for more) make the "Carly" focus very suspect as an avenue of productive discourse . . .

So, yeah, mourn the passing of quality in HP calculators (one small product line of a large, complex company). It may indeed be, however, that a reasonable case can be made that HP as a whole was in need of change. Conversely, there may be a thousand reasons why the company's new directions may be seen as "wrong". But to focus on one individual is (I suspect) to miss many of the actual

causes, perceptions, and values that contribute to any controversial situation.

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MLDL2000 update

*Message #1 Posted by **Meindert Kuipers** on 25 June 2003, 6:36 a.m.*

Just a quick update from my side about the MLDL2000. I was hoping to have some real good news this week, but I have made a terrible mistake in soldering the wiring for the SRAM/FLASH protoboard and that will cost me at least two nights to redo that work and get a new breadboard proto up and running.

What I am doing now is testing a setup with SRAM and verifying two things:

1. WROM functionality

2. Operation of the 3-cycle memory access to SRAM: write L8 word, read packed U2 word, modify U2 word, and writeback U2 word. The last part is really critical for the intended operation of the MLDL.

Above steps are potentially functional before or during the weekend, unless is simply does not work. Simulations however have shown excellent behaviour of the MLDL in this respect and has helped me to correct some other mistakes in the VHDL code.

If the above is working I will start on the I/O interface, critical for programming the FLASH memory (this cannot be done from the HP41). Most effort will be in the software on the PC. For those interested, the I/O interface is implemented using a not very expensive (around EUR 60) USB to parallel interface print. This actually means that the MLDL2000 will offer an optional USB interface! This is done with the USB V1.2 plus product, see www.braintechnology.de. It comes with drivers and an API and I have to make some software (using Delphi in my case) to be able to interface with the memory devices on the MLDL2000.

In the meantime, I have been working on the specifications, including definition of the I/O interface. A new version of this should be online in a week or two with renewed pictures of my developmnet environment and museum at www.kuipers.to/hp41

When the I/O interface is settled and verified, I will be ready to start working on the PCB and get some real hardware out. There will most certainly be a beta-test program but some details will have to be sorted out. I am targeting to have beta-units out around mid-september (conference time remember) but that timing is challenging.

A usual, I will let you all know when further developments are taking place! Do not hesitate to contact me for any questions. I have received many warming encouragements, and it appears that I have put some other fanatics to work on hardware projects as well.

Meindert

Re: MLDL2000 update

*Message #2 Posted by **jeff** on 25 June 2003, 1:33 p.m.,*
in response to message #1 by Meindert Kuipers

Excellent work Meindert! I look forward to your next update. Jeff

Re: MLDL2000 update

*Message #3 Posted by **Gordon Dyer** on 25 June 2003, 5:42 p.m.,*
in response to message #1 by Meindert Kuipers

Great work! keep it going.
I am waiting to see the finished product on your web site...

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Oil Paintings Oil

*Message #1 Posted by **tianyu** on 25 June 2003, 5:01 a.m.*

 oil paintings, landscape, portrait, for sale, photo, abstract, flower, animal, animals. oil paintings technique oil paintings reproduction original oil paintings discount oil paintings oil paintings landscape oil paintings wholesale oil paintings for sale portrait oil paintings artist oil paintings abstract oil paintings art of oil paintings still life oil paintings oil on canvas paintings clean oil paintings China oil paintings Chinese oil paintings

Edited: 25 June 2003, 11:32 a.m. after one or more responses were posted

Marketing Redux - One Scenario

*Message #2 Posted by **Bob** on 25 June 2003, 8:41 a.m.,*
in response to message #1 by tianyu

Do you paint pictures on HP calculators ? I can see a great opportunity here.

"...Please paint a portrait of Einstein surrounded by flowers, on my HP41C. Wait, don't let it drip into the keys...NO!, not that way. Keep it off the ----- display. Yes, I know that the "5" key is soft. Hey, that looks more like Elvis than Albert. Now, pull that battery door out of your pocket. You know it's not yours ! It's all sticky! How long until it dries ?...6 - 8 days ?!? AARRRgggggghh."

And some of you insisted that the calculator was dead and that the PDA would rule ! How short sighted. There is always room for another innovation to breathe new life into a mature market.

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it's simple: hands off...

*Message #1 Posted by **Hans Brueggemann [GER]** on 25 June 2003, 4:28 a.m.*

...and have some fun on a (admittedly absolutely off topic but still slightly related) journey to africa.

http://www.ladsoflagos.com

cheers, hans

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Re: Paranoid: Here is a scary auction

*Message #1 Posted by **Ernie Malaga** on 25 June 2003, 1:04 a.m.*

Mike:

> Quote:
>
> What do you think? Anyone here know this seller?

Imagine the following scenario. You see a guy having dinner at a fancy restaurant. When the waiter brings the check, the customer pays with a credit card. The waiter takes it away and brings it back for signature. The guy promptly shreds the carbon paper to a million pieces.

What he doesn't know is that the waiter may have copied the credit card number, date of expiration, and even the 3-digit security code from the back.

It's happened many times before, and will keep on happening. No credit card purchase is 100% safe, whether done in person, on the phone, or via the internet.

Now, I would be _especially_ suspicious about any such purchase if the seller is in Africa. Justified or not justified, Africa has gained a bad reputation, as you mentioned. It's always the good guy who pays for the sins of the bad one. Maybe the whole thing is as legitimate as it can be, but the problem is that you can't be certain.

Offer to pay with an international money order instead. If this is rejected, it is almost certain that it's a scam.

-Ernie

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12c won´t die , or will it ?

*Message #1 Posted by **Renato** on 24 June 2003, 9:51 p.m.*

The Museum page on the 12C says:

> Quote:
>
> **HP-12C**
> The calculator that wouldn't die. The HP-12C is HP's longest and best selling calculator. Though it has been followed by many newer models, with both more and less features this model continues to sell well. In fact an EduCALC catalog says of the HP 17BII (in bold type): "It's 15 times faster than the HP 12C, and displays more than 4 times as much information." And of the HP 19BII: "It's 15 times faster than the HP 12C, and displays more than 9 times as much information." In addition, both newer calculators can print via infrared to compact printers, have more memory, general purpose solvers, menus etc.

The 17BII and the 19BII did not kill it. Maybe a 12c platinum, with special "features" will .... Problem is that it may kill itself right after that. Then there will be no more RPN HPs. Great plan for producing only kinpo calculators, isn´t it ?

12Cp and New Coke

*Message #2 Posted by **Ellis Easley** on 28 June 2003, 9:14 p.m.,*
in response to message #1 by Renato

That sounds like a theory I've heard explaining the "New Coke" introduction some years ago. It was well known that the formula for Coca-Cola was carefully guarded and sacred - they would never change it. Then suddenly, they replaced Coke - with New Coke. But everybody who liked Coke said New Coke was too sweet and flat - in fact, it tasted like Pepsi! (I used to think I preferred Pepsi, then one day I was in a public place where they were asking people to take "The Pepsi Challenge" - a Pepsi advertising campaign - I took the challenge and the better-tasting drink I chose was Coke! Since then I know the difference.) So, Coca-Cola withdrew New Coke and "re-introduced" Coke Classic, which is all you can get today. It tastes pretty much like the original Coke.

Now for the explanation (as I was told, and which makes sense to me): all of Coke's competitors used sugar (sucrose) and corn syrup (glucose) for sweeteners but the Coke formula required only sucrose. The United States keeps the price of sugar at twice the world price to protect domestic sugar growers (I don't understand it but I know it's true - I've also heard it has something to do with the politics of the Cuban blockade - some time ago it was being debated in Congress, one Representative in favor of the high price held up sugar packets and pointed out that restaurants still give sugar away, so how can it be too expensive?) so if Coke continued to require all sugar, it would be at a cost disadvantage to its competitors, since they used corn syrup because it is cheaper. So Coke needed to find a way to change the formula and they decided to kill two birds with one stone - first they changed Coke to taste like Pepsi, provoking a lot of discussion about how bad New Coke (and Pepsi) taste (at least to people who were accustomed to Coke). Then after a suitable period, they acknowledged their "mistake" and "re-introduced" - not Coke - but Coke Classic, which sounds like the same thing but is a

new trademark, which at least morally releases the Coca-Cola Company from their pledge never to change the formula of Coke! So now they can use sugar or corn sweetenener, like their competitors.

There is one Dr. Pepper plant in Texas that is famous because they still use only sugar in their product and people say it tastes better. I think the Coke served in restaurants - mixed from Coca-Cola syrup and carbonated water - tastes better than what comes in cans or bottles - but I've never done a side-by-side comparison.

Now there is a debate about "high fructose corn syrup", which is used in a lot of prepared foods and drinks and which some people say is not healthy. Fructose was popular in the 1970's or 1980's as a healthier substitute for sugar because it was supposed to be sweeter - so you would use less - and it was metabolized differently. That fad faded away, as immortalized in a brief comment by Kramer on Seinfeld. Now recently I have read that when the body metabolizes sucrose, it breaks it down into glucose and fructose. The glucose is used by the body and the fructose just passes through. So since corn syrup used to be described as just glucose, high fructose corn syrup sounds like it would be about the same as sucrose - except without the necessity of the body breaking it down into the two components - maybe that step produces some side benefit or consumes some other substance that needs consuming.

I think I have strayed from the point - unless it is that maybe HP moved away from RPN to set themselves up to sell generic, outsourced calculators. If this is the case, the process started a long time before Carly What's-her-name was put in charge.

Re: 12Cp and New Coke

*Message #3 Posted by **bill platt** on 28 June 2003, 9:35 p.m.,*
in response to message #2 by Ellis Easley

Quote:

"I think I have strayed from the point - unless it is that maybe HP moved away from RPN to set themselves up to sell generic, outsourced calculators. If this is the case, the process started a long time before Carly What's-her-name was put in charge. "

In my life of using HP calculators, I have had "that sinking feeling" 4 times:

1st, when I lost my 11c in 1996 2nd, when I went to buy a replacement, and although I found the excellent 32sii, saw a bunch of ALGEBRAIC calculators (1996) 3rd, when I went to get a new 32sii in 2000 or so and saw the 6s and 30s (this was a MUCH bigger sinking feeling than the previous two) 4th, when I had a premonition this past winter and realized I probably aught to buy a back-up 32sii in case the last "sinking feeling" was true, which it already was!.....

So HERE I AM! ranting with all the rest of us Displaced RPN Users, or in techonymn "DIRPNU"

Re: 12Cp and New Coke

*Message #4 Posted by **Ernie Malaga** on 28 June 2003, 10:15 p.m.,*
in response to message #2 by Ellis Easley

> Quote:
>
> all of Coke's competitors used sugar (sucrose) and corn syrup (glucose) for sweeteners but the Coke formula required only sucrose

I read once that the formula of the _original_ Coca-Cola (as in "manufactured in the Roaring '20s") contained cocaine, thus the name "coca" and "coke."

That would explain that beverage's addictiveness.

Was that true? Is it still? Or is this just a defamation rumor started by Pepsi-Cola?

-Ernie

Re: 12Cp and New Coke

*Message #5 Posted by **Karl Schneider** on 29 June 2003, 12:54 a.m.,*
in response to message #4 by Ernie Malaga

Ernie --

True about "Coca" referring to cocaine in the original formulation of Coca-Cola, which actually dates back to the late 19th Century. The US Food and Drug Administration (or its predecessor) put a stop to that a long time ago.

Ellis Easley was right about sugar versus high-fructose corn syrup in the modern formulations. The pre-1985 formulation (before New Coke) didn't have the heavy "syrupy" feel. At self-serve soft-drink fountains, I usually mix "sugared" with "diet" 50/50 to lighten it up.

As for the 12C Platinum, I haven't handled one yet, but but from what I've read here, it appears like a "New Coke" regressive product. I'll never buy one; I have a 1993 Singapore-made original.

Re: 12Cp and New Coke

*Message #6 Posted by **Wayne Brown** on 29 June 2003, 1:00 a.m.,*
in response to message #4 by Ernie Malaga

It's true. At the time Coca-Cola was introduced in the late 1800's it was believed by many people that cocaine had beneficial effects, and some doctors recommended that people take a little cocaine daily to improve their health. So in a sense Coke was an early "health food." There hasn't been any cocaine in Coke for a long time now, of course.

Re: 12Cp and New Coke

*Message #7 Posted by **Ellis Easley** on 30 June 2003, 11:05 a.m.,*
in response to message #4 by Ernie Malaga

As Karl and Wayne said, the original Coca-Cola had a significant amount of cocaine in it - I think it also came in tiny bottles - much smaller than the 8 oz bottles that you find in an old coke machine occasionally. But even today (and this might be an urban legend), Coca-Cola contains some extracts of coca leaves, but no cocaine (unless just a very small trace amount). Since it is a trade secret, I guess nobody else knows!

Re: CokeLore

*Message #8 Posted by **Paul Brogger** on 30 June 2003, 12:28 p.m.,*
in response to message #2 by Ellis Easley

Interested researchers might want to look at "CokeLore".

It seems to be a believable treatment of various aspects of Coca-Cola fact & fiction . . .

Re: 12c won´t die , or will it ?

*Message #9 Posted by **Patrick** on 28 June 2003, 11:42 p.m.,*
in response to message #1 by Renato

I keep hearing supposition that HP will only be producing the lamentable Kinpo-grade calculators here on. This leads me to wondering, who is the manufacturer of the HP-12CP?

Additional information - Aurora FN1000

*Message #10 Posted by **Renato** on 28 June 2003, 11:59 p.m.,*
in response to message #1 by Renato

More information concerning HP-12C future.
I had a Aurora FN-1000 financial calculator in my hands today. It is being promoted here in Brasil as a HP-12C replacement, by another manufacturer.
It seems to posses all functions from a HP-12c, plus some more - i saw some indecifrable functions on the keyboard.
I programmed a short x-reg increment loop and - wow - it is much (i mean MUCH) faster than the 12c.
Well I could not justify spending $60 just for benchmarking it... Maybe in a couple of days I´ll find a rationalization for that ;-)

Renato

Re: Additional information - Aurora FN1000

*Message #11 Posted by **db(martinez,california)** on 29 June 2003, 2:20 a.m.,*
in response to message #10 by Renato

Someone had said that Mal Wart carries the Aurora brand so I bit the bullet and walked into one. They really do have a human greeter, I got smiled and waved at. Too much. I couldn't find any at the one I checked out. Aurora is carried at Kinkos coppies but not the fn1000.

How were the keys on the one that you used? Please let us know if you figure out the extra functions. Even though i don't need a financial calc enough to have one shipped in from S.A., to me it is very hopefull news that one company has brought out a new rpn. If hp keeps on pretending maybe they will bring out a scientific and start selling it here.

Maybe the next dominant technical culture will be china, and the most discerning market - Brazil.

Re: Additional information - Aurora FN1000

*Message #12 Posted by **jose goncalves (Brasil)** on 29 June 2003, 9:51 a.m.,*
in response to message #11 by db(martinez,california)

Aurora calculators are quite easy to find in certain little "chinese" stores here in Sao Paulo, but not the FN1000. These are sold in very few small places only.

I had one in my hands the other week and I agrre with Renato on his remarks. I would like to add that the general appearance of the FN1000 is rather poor. Even if the color scheme is not so strange as the HP12CPt, the overall looks is no good. It's too "shiny", you know ? The cover will not shut completely (it's a "clamshell" model).

But the manual is very interesting. Even in a very quick glance, you can notice something the size of the original HP12C manual. Not so well printed, but very different from the printed pages that try to emulate a manual in other Chinese models we are exposed to (including the HP9s and 9G).

The other point that I noticed is about the display. Large digits LCD, much easier to read than the new Chinese HP ((series).

May be if we allow Aurora enough time ...

Jose

Re: Re: Coke

*Message #13 Posted by **unspellable** on 30 June 2003, 10:45 a.m.,*
in response to message #12 by jose goncalves (Brasil)

The two principal flavors in Coca Cola are cola from the cola nut as in the various cola drinks, and unique to Coca Cola, an extract from the coca leaf. Thus Coca Cola is a double flavored beverage and is different from other colas in more than just a varient cola recipe. originally a small amount of cocaine came with the coca extract. Then the amount of cocaine was reduced, and later eliminated. Today, the entire legal coca leaf import goes to a plant in Saint Louis where the cocaine is extracted for the Pharmaceutical trade. The pulp is then shipped to Coca Cola where the flavor is extracted.

The much vaunted sacred recipe has been changed any number of times over the years. One of the older recipes has found its way into public knowledge.

Old Coke with sugar does have a slightly different flavor than New Coke with corn sweetner.

Also disguised by the hooraw was the disappearance of the glass bottle and a price hike. The glass bottle was the cheapest way to buy the stuff, even if you threw the bottles away and lost the deposit.

hey un-spell-ab-le

*Message #14 Posted by **db(martinez,california)** on 1 July 2003, 12:54 a.m.,*
in response to message #13 by unspellable

There is one other leagal, or semi legal through a loophole, coca leaf import. There is a tiny company in (i think) California that is licensed by some part of the federal government but is prohibited by the state government to import bagged, individually plastic wrapped, and boxed coca leaf tea from Bolivia. As i remember, they import Windsor brand but the biggest brand down there is Hansa.

Besides selling !DRUGS!, Hansa is also Volkswagen of Bolivia. 10 or 15 million people in that part of the world who live at over 12,000 feet above sea level stubbornly continue to drink !THAT DRUG! The president of the country's mother drinks it. This must piss off the American D.E.A. to no end. The tea is about 1000 times too weak to get high on but it does help aleviate the negative affects of altitude. I have chewed it at 22,000 ft and i can swear it works; i only felt as miserable as i would have at 19,000 ft. It is also an effective remidy for a tummy ache.

How does this relate to HP? Hansa is a big company, there must be someone with a 12c.

Re: hey un-spell-ab-le

*Message #15 Posted by **unspellable** on 1 July 2003, 10:07 a.m.,*
in response to message #14 by db(martinez,california)

So what isn't illegal in The People's Demokratik Republik of Kalifornia?

As it happens, at one time I lived in Bolivia, in Santa Cruz down in the flat part. To my regret, I Never got to the high part. But you could buy coca leaves in the market.

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Help needed: HP-12c Display

*Message #1 Posted by **Renato** on 24 June 2003, 9:33 p.m.*

I got this Malaysia unit with a bad CPU. Exchanged the main PCB with another one, and transfered the display. Now I have a dislexic 12c - seems to work, but the display is garbage. I think I need advice on how to align the display on the PCB - or maybe I should send it to the International HP hospital at Araguari, MG Brazil...

Re: Help needed: HP-12c Display

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 24 June 2003, 10:21 p.m.,*
in response to message #1 by Renato

Hi, Renato;

I cannot see the display, but maybe they are not compatible. Can you generate an image with it so we can check what sort of garbage you see?

Earlier Voyagers had an LCD with many conections on top and a few on bottom. Newer HP12C have an LCD with equaly distributed connections. It´s easy to see and I believe you checked first.

Another cause, and most likely to be, is dirty polymers. I had once to almost scrap an old set of polymers because they simply had an isolating "coat" that refused to leave with alcohol. You could also check if the mainboard connections for the LCD are not dirty (isolated).

Anyway, if you think it´s needed, be welcome, my pleasure. You know the address...

Success (to us all), my friend.

Luiz C. Vieira - Brazil

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help with 12c serial#

*Message #1 Posted by **hugh** on 24 June 2003, 8:03 p.m.*

ive managed to acquire a 12c and am trying to figure out its generation. looking at the number keys closely, they dont look printed, they look like the old-style made of two colors type. but maybe i can't see.

made in singapore #3408S00230

am i right in thinking they got worse after singapore? any help appreciated.

Re: help with 12c serial#

*Message #2 Posted by **Randy Sloyer** on 24 June 2003, 9:34 p.m.,*
in response to message #1 by hugh

Produced the 8th week of 1994. It should be the better double molded keys; AFAIK, they didn't start with printed keys until production moved to Malaysia.

Re: help with 12c serial#

*Message #3 Posted by **Trent Moseley** on 24 June 2003, 11:37 p.m.,*
in response to message #2 by Randy Sloyer

Randy,

Please explain all about 'double molded keys' vis-a-vis the printed ones on the 12C. So I guess my 1997 Malaysia baby didn't get the good stuff.

Also I do notice that compared to my 1982 15C and my 1988 16C the blue lables on the bottom of the keys are hard to discern.

tm

Re: help with 12c serial#

*Message #4 Posted by **hugh** on 25 June 2003, 8:32 a.m.,*
in response to message #2 by Randy Sloyer

thanks for the info! is there a way to decode the serial number?

Re: help with 12c serial#

*Message #5 Posted by **r. d. bärtschiger.** on 25 June 2003, 3:22 p.m.,*
in response to message #4 by hugh

In general add 60 to the first two digits to get the year of production. The next two digits are the week of productiuon. Not always exact but should be close.

rdb.

Re: help with 12c serial#

*Message #6 Posted by **Trent Moseley** on 24 June 2003, 11:12 p.m.,*
in response to message #1 by hugh

Mine works fine. Bought it new in September '97; serial# MY 72002125.

tm

Re: help with 12c serial#

*Message #7 Posted by **Scuba Diver** on 25 June 2003, 11:22 a.m.,*
in response to message #6 by Trent Moseley

I have a 1994 Singapore 12C and it looks like the keys are painted, not double-molded; the keys aren't shiny, they have the same matte finish as those currently produced in China.

Did they use painted keys in the past?

B.

Re: help with 12c serial#

*Message #8 Posted by **Mike Sebastian (Texas)** on 25 June 2003, 10:39 p.m.,*
in response to message #7 by Scuba Diver

Yes, HP has sometimes used painted keys in the past. Actually, they used repainted keys. For whatever reason, HP would paint new legends over the ones double-injection molded into the keys. I've seen it on several different 12Cs and a 16C. On the 16C, it looked like some of the keys had been painted over twice, starting out as 11C or 15C keys, then painted to become 12C keys, and finally painted again to become 16C keys.

Check out Variations section, and scroll down to 10C Series Variations:
http://www.hpmuseum.org/collect.htm#variations

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HP71B battery door for DB(Martinez)

*Message #1 Posted by **Art Litka(FLA)** on 24 June 2003, 6:37 p.m.*

Dennis, I was able to get you a 71B battery door and will ship soon! Please confirm address and update me on your email.

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Custom module

*Message #1 Posted by **Matthias** on 24 June 2003, 2:52 p.m.*

I got a custom module I do not know. It's a ZEPROM and CAT2 gives me NCSPOROM. Does anybody of you know this module?

Matthias

Congrats!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 24 June 2003, 4:07 p.m.,*
in response to message #1 by Matthias

Hi;

This is A MODULE. People in here will be euphoric! As long as many of them (us) are literaly hunting one of these, you simply "got" one... Lucky you!

Many guys will help you using it. Don't worry about it for now: you already have it. I'd like to help, but I can only share my enthusiasm.

Congrats and try to keep it, unless you're not gonna use it.

Luiz C. Vieira - Brazil

Re: Congrats!

*Message #3 Posted by **Matthias** on 24 June 2003, 6:19 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz

Can you please contact me directly by my email. I would like to get some clother infos to that module..

Matthias

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HP34C "2" disease, flashing, voltages, schematic - long

*Message #1 Posted by **Ellis Easley** on 24 June 2003, 5:01 a.m.*

(*)Note: I edited this message to correct an error. When I measured the output current of the constant current supply, I connected the milliameter between pin 10 and pin 6, not pin 10 and pin 4. 6/24/2003 3:00 pm
(**)Corrected another error - output voltages measured relative to pin 6 and not pin 4. 6/24/2003 6:40 pm

Now that I have an earlier 34C working, I see what the "2" disease is! I would describe the condition this way: whenever you press the "2" key when there is someplace for a 2 to go in the display, or there is a 2 in the display and you press any key, the minus sign and possibly various commas flash momentarily. If you type ten digits other than 2, filling the display, then pressing "2" doesn't cause flashing. If you type a number in scientific notation without any 2's in the mantissa, you can make the flashing start and stop by shifting a 2 through the exponent; in this case the flashing commas are limited to the exponent digits. My newer unit doesn't do this "2" flashing at all.

The other flashing my older unit does is to flash random commas and the minus sign during execution of built-in functions. Calculating the gamma function (! of non-integers) of negative numbers with large magnitude seems to take the longest. My newer unit is completely dark while executing a built-in function. You can make the calculator work longer with the Integrate function, but then both units flash random digits when the user function subroutine is being evaluated.

I measured the power supply outputs and current drain with no load (power supply module on the bench) and in circuit (calculator assembled). I made the no load measurements with two different input voltages to see the effect of the voltage and current regulation circuits in the power supply module.

First, I connected two NiCads in series to the power supply module, (-) to pin 6 and (+) to pin 4 (see the netlist below to see how I numbered the pins). Both pin 7 (the standby supply that powers the 8 pin IC closest to the power supply module) and pin 8 (which supplies power to the other two 8 pin ICs and the 40 pin IC) measured 7.12V relative to pin 6 (**). Pin 10 of the power supply module, which goes to pin 8 of the 40 pin IC and which is driven by a constant current circuit in the power supply module, measured 4.62V and when connected to pin 6 (*) through a milliameter, it sourced 39 mA. The current drain from the battery with no load was 8 mA and when the constant current supply was loaded, the current drain was 106 mA and the voltage on pins 7 and 8 increased to 7.46V.

Next, I added another NiCad, increasing the input voltage from 2.58V to 3.88V. The no load current drain increased to 9 mA. The voltage on pins 7 and 8 was 7.14V. The voltage on pin 10 was 5.22V. Connecting a milliameter between pin 10 and pin 6 (*), I measured 38 mA, the voltage on pins 7 and 8 increased to 7.28V and the battery current drain increased to 76 mA. So the no load output voltages on pins 7 and 8 and the current sourced by pin 10 change very little with a 50% increase in input voltage.

The constant current supply is similar to the one in the Classic recharger. It works by maintaining a voltage drop equal to the emitter-base junction voltage of a silicon transistor (~.6V) across a 16 ohm resistor: (0.6V)/(16 ohms)=(0.0375A) or ~38 mA. The circuit in the Classic recharger (which provides the current that recharges the battery) uses a 13 ohm resistor and provides ~50 mA.

Next, I assembled the calculator and measured the voltages that are accessible that way. I couldn't get to the pins connected to the constant current supply because of the molded plastic frame but I could measure the two voltage supplies. With power supplied by two NiCads, the voltage on pin 8 of the 8 pin IC closest to the power supply

module measured 6.82V and the voltage on pin 8 of the other two 8 pin ICs measured 6.52V, both relative to pin 7 of the 8 pin ICs (which are connected to the negative terminal of the battery).

I also measured the voltages on the other pins of the 8 pin chips with the calculator idle and running a program. Pin 6, which goes to the unknown jumper on the power supply module and to pin 14 of the 40 pin chip, measure 5.33V either way. If the unknown jumper were installed, it would connect the pins to ground. Pin 5 measures 0.65V idle and 0.88V running. Pins 4 and 3 measure 0.86V either way. Pin 2 measures 0.86V idle and 1.35-1.41V running. Pin 1 measures 0.04V idle and 0.3-0.5V running. All were measured with a digital voltmeter with respect to the battery negative terminal (pin 7 of the 8 pin IC's). I'll have to fire up one of my many scopes and see if some of those "quiet" lines have low duty-cycle signal activity on them.

Other than the power supply, the schematic is just connections between the pins of the IC's, LED and keyboard that can be communicated better as a netlist. I've typed that up and include it here:

```
;HP34C Main Circuit Assembly (solderless version) netlist-


;component reference designators and pin numbering
IC1=8 pin chip with standby power (closest to the power supply module)
IC2=second 8 pin chip
IC3=third 8 pin chip
IC4=40 pin chip
PS=power supply module with the flex cable solder pads on its PCB numbered from left
   to right as viewed from the rear. Note: pin 1 only goes to the recharger connector,
   it doesn't go to the main circuit assembly. The pads where the flex cable contacts
   the main circuit assembly flex circuit are PS.2 - PS.10.
LED=LED display with pins numbered from left to right as viewed in normal use
PRSW=Program-Run switch, pin 1=common, pin 2=closed on Run
OOSW=On-Off switch, pin 1=common, pin 2=closed first when switched to "On",
     pin 3=closed second when switched to "On"
KBR=keyboard rows numbered in standard keycode format
KBC=keyboard columns numbered in standard keycode format for rows 3-7,
    offset by -1 for rows 1-2
AC=AC connection from battery contact assembly to power supply module (return is bat-)
   (doesn't go to main circuit assembly)


;memory chip connections
v+standby = PS.7,IC1.8
v+ = PS.8,IC2.8,IC3.8,IC4.12,PRSW.1
bat- = PS.6,IC1.7,IC2.7,IC3.7,IC4.13,LED.22; LED.22 is minus sign cathode, anode of ???
                                              diode with cathode on LED.1 (goes to psin)
mem6 = PS.5,IC1.6,IC2.6,IC3.6,IC4.14; memory bus, ??? jumper connects to bat- if present
mem5 = IC1.5,IC2.5,IC3.5,IC4.15; memory bus
mem4 = IC1.4,IC2.4,IC3.4,IC4.16; memory bus
mem3 = IC1.3,IC2.3,IC3.3,IC4.17; memory bus
mem2 = IC1.2,IC2.2,IC3.2,IC4.18; memory bus
mem1 = IC1.1,IC2.1,IC3.1,IC4.19; memory bus


;control signals
run = PRSW.2,IC4.20; Program:open,Run:switch connects to v+
radix = PS.9,IC4.9; comma:open,period:jumper on power supply module connects to v+


;another power supply module output
iled = PS.10,IC4.8; 38 mA constant current supply - for LEDs?


;LED anodes
antr = LED.21,IC4.3; top right digit segment
ant = LED.20,IC4.2; top digit segment
antl = LED.19,IC4.1; top left digit segment
anm = LED.18,IC4.4; middle digit segment
anb = LED.17.IC4.5; bottom digit segment
anbl = LED.6,IC4.36; bottom left digit segment
ancom = LED.5,IC4.40; comma
anbr = LED.4,IC4.39; bottom right digit segment
anper = LED.3,IC4.38; period
anms = LED.2,IC4.37; minus sign anode (cathode is on LED.22, goes to bat-)


;LED cathodes, keyboard rows(numbered in standard keycode format)
ca1 = LED.16,IC4.21,KBR.7; digit 1 (leftmost), keyboard row 7
```

```
ca2 = LED.15,IC4.23,KBR.6; digit 2, keyboard row 6
ca3 = LED.14,IC4.26,KBR.5; digit 3, keyboard row 5
ca4 = LED.13,IC4.28,KBR.4; digit 4, keyboard row 4
ca5 = LED.12,IC4.29,KBR.3; digit 5, keyboard row 3
ca6 = LED.11,IC4.30,KBR.2; digit 6, keyboard row 2
ca7 = LED.10,IC4.32,KBR.1; digit 7, keyboard row 1
ca8 = LED.9,IC4.33; digit 8
ca9 = LED.8,IC4.34; digit 9
ca10 = LED.7,IC4.35; digit 10 (rightmost)


;keyboard columns(numbered in standard keycode format rows 3-7, offset by -1 rows 1-2)
kc0 = IC4.31,KBC.0; "A","X<>Y"(column 1)
kc1 = IC4.27,KBC.1; "B","GTO"(column 2),"ENTER","-","+","*","/"(column 1)
kc2 = IC4.25,KBC.2; "GSB","STO"(column 3),"CHS","7","4","1","0"(column 2)
kc3 = IC4.24,KBC.3; "f","RCL"(column 4),"EEX","8","5","2","."(column 3)
kc4 = IC4.22,KBC.4; "g","h"(column 5),"CLX","9","6","3","R/S"(column 4)


;power switch
psin = OOSW.1,PS.4,LED.1; + input to PS, LED.1 is cathode of ??? diode
                          with anode on LED.22 (connected to bat-)
bat+ = OOSW.2,PS.3; makes first when switch turned "On"
chrg = OOSW.3,PS.2; makes second when switch turned "On",
                    to short out 8.2 ohm current limit resistor on power supply module


;AC adapter (doesn't go to main circuit assembly - goes only to power supply module)
acsource = AC.1,PS.1
```

Now all that's left is a schematic of the power supply module. I will attempt to write a description of the circuits on the power supply module with enough details to draw the schematic.

HP34C Power Supply Module circuit description-

The battery negative terminal and the AC adapter share a common return connection on pin 6 of the power supply module; this is also the return for the main circuit assembly. The other side of the AC adapter is connected to pin 1, which isn't connected to the main circuit assembly. Pin 1 goes to the anode of a rectifier diode whose cathode goes to pin 2. Pin 2 goes to an 8.2 ohm, 1 watt resistor which goes to pin 3. Pin 3 goes to the battery positive terminal. This completes the circuit which charges the battery when the unit is turned off.

Pin 4 is the input to the switching power supply and is connected to the common terminal of the On-Off switch. The switch has two other terminals: one makes contact with the common terminal first when the switch is turned to "On" and it is connected to pin 3, the battery positive terminal. The other switch terminal makes contact with the common terminal second when the switch is turned to "On" and it is connected to pin 2; its purpose is to short out the 8.2 ohm battery charging current limiting resistor when the unit is on. This completes the description of how power from the battery and the recharger is connected to the power supply input.

Pin 5 only goes to a pad which can be connected by a jumper (not installed) to pin 6, the battery negative terminal. On the main circuit assembly, pin 5 is connected to pin 6 of the 8 pin IC's and pin 14 of the 40 pin IC. The purpose of the jumper option is unknown. Pin 7 provides standby power to pin 8 of the 8 pin IC closest to the power supply module. The voltage on pin 7 is supplied by two sources: first, it is connected to the battery positive terminal to provide memory backup when the unit is off - through a diode (anode to the battery positive terminal, cathode to pin 7) on my older unit, or through a 10K resistor on my newer unit. To support this, there is a 22 mf capacitor from the battery positive terminal (cap + lead) to the battery negative terminal to provide backup power while changing the battery. The second source of power for pin 7 is a voltage regulated output of the switching power supply which also provides power to pin 8 for the other chips on the main circuit assembly. Both pins are connected to the supply through separate diodes (anodes to the voltage regulated supply, cathodes to pins 7 and 8). When the unit is on, the voltages on pins 7 and 8 are approximately +7V. Pin 9 only goes to a pad which can be connected by a jumper to pin 8. On the main circuit assembly, pin 9 goes to pin 9 of the 40 pin chip. When the jumper is installed, the calculator uses period as the radix mark; when it is not installed, comma is used. Pin 10 is connected to a constant current supply which sources approximately 38 mA and is powered by the switching power supply. On the main circuit assembly, this supply goes to pin 8 of the 40 pin chip. I believe this current source is used to drive the LED segments. This completes the description of the terminals of the power supply module. What remains

to be discussed is the switching power converter, the regulated voltage supply and the regulated current supply.

The power converter transformer is wired as an autotransformer with a primary winding and two secondary windings connected in series with the primary winding. An additional independent winding provides feedback for the oscillator that drives the primary winding. The power supply input (from pin 4) is connected to the top of the primary winding (= the bottom of the secondary windings) and the bottom of the primary winding is connected to the collector of an NPN transistor with its emitter connected to the battery negative terminal (pin 6). The base of the transistor is biased on by a 680 ohm resistor from the power supply input. One end of the feedback winding is connected to the battery negative terminal and the other end is connected to the base of the NPN transistor through a series network of a 2000 pf capacitor and a 47 ohm resistor. The end of the higher secondary winding in series with the primary winding, with a voltage equal to the power supply input voltage (the battery positive terminal voltage) plus the sum of the voltages across the two windings, is connected to a rectifier diode anode. A 22 mf capacitor (33 mf on my newer unit) is connected from the diode cathode (cap + lead) to the battery negative terminal. This capacitor positive lead is connected to the anodes of the two diodes that supply the regulated +7V to pins 7 and 8 and also to the cathode of a zener diode. The anode of the zener is connected to a 1 mf capacitor (+ lead) with its other lead connected to the battery negative terminal. The anode of the zener is also connected to a 1K resistor which goes to the base of a smaller NPN transistor with its emitter connected to the battery negative terminal. The collector of this transistor is connected to the base of the oscillator transistor. When the output voltage of the supply rises high enough to cause the zener diode to conduct, the smaller transistor turns on and shunts some bias current (provided by the 680 ohm resistor) away from the base of the oscillator transistor, reducing the amplitude of the oscillation and the output voltage. This completes the description of the switching power converter and the voltage regulated supply.

The remaining tap of the transformer - the junction of the two windings in series with the primary winding - is connected to the anode of a rectifier diode. A 22 mf capacitor is connected between the cathode of the diode (cap + lead) and the battery negative terminal. This provides a supply of something less than 7V for a constant current source. The diode cathode and the cap + lead are connected to a 16 ohm resistor which goes to the emitter of a PNP transistor with its collector connected to pin 10, the current regulated output. The base of the transistor is connected through a 2.2K resistor to the battery negative terminal; this biases the transistor on. A smaller PNP transistor has its base connected to the other transistor's emitter, its emitter connected to the other end of the 16 ohm resistor, and its collector connected to the other transistor's base. When the voltage across the 16 ohm resistor exceeds approximately 0.6V, current flows through the smaller transistor's emitter-base junction and it turns on, shunting current away from the larger transistor's base and reducing its collector and emitter current. Since 0.6V divided by 16 ohms = .0375 amps, the circuit reaches equilibrium with about 38 mA flowing out of the larger transistor's collector towards the battery negative terminal.

Edited: 24 June 2003, 7:44 p.m. after one or more responses were posted

I dont like "2 disease" either

*Message #2 Posted by **Norm** on 24 June 2003, 1:44 p.m.,*
in response to message #1 by Ellis Easley

I dont like "2 disease" either, but, there doesn't seem to be any cure.

Our latest best guess is that there are 2 kinds of software code, so the problem is in the 8-pin memory chip that holds the firmware then.

That might allow one or two "miracle cures" however the supply of donor patients is inherently low.

Re: I dont like "2 disease" either

*Message #3 Posted by **David Smith** on 24 June 2003, 4:59 p.m.,*
in response to message #2 by Norm

The problem could also be in the 40 pin chip. There was a Keynotes description on the HP65 display system that talked about how the display was formatted by various byte codes in a particular internal register. Certain illegal operations left weird values in the register and could cause funny displays. If the 34C display circuit is similar, then a design bug might be a likely cause of the symptoms.

Re: I dont like "2 disease" either

*Message #4 Posted by **Ellis Easley** on 24 June 2003, 5:54 p.m.,*
in response to message #3 by David Smith

They definitely changed something because my (slightly) newer, soldered 34C doesn't have the "disease". There are differences in the chips. Do you think there would be a difference between "1820-2162 A" (in my 1934A unit) and "1820-2162" (in my 2051S unit)? These are the 40 pin chips, both made by AMI, packaged in Korea, with datecodes 7906 and 8047 respectively. I've never noticed revision letters on HP part numbers (and these seem to be progressing in the wrong direction!) I would think that for custom chips especially HP would assign a new part number, even if there is no change in fit or function, if only to keep things straight with the vendor - look at all the apparently equivalent ACT chip P/N's for the Woodstocks. Another chip difference is in the 8 pin chip with the backup power supply. In the older unit it is marked "1LB5 002", in the newer unit "1LB9 02". I would have assumed this chip was primarily RAM but I realize it could also contain ROM. The other two chips have almost the same part numbers in both units but vary slightly in the leading zeros in the suffix - the older unit has "1MA1 14" and "1MA1 0015", the newer one has "1MA1 14" and "1MA1 15". Looking at all these 8 pin DIP part numbers, it looks like they dropped leading zeros sometimes to fit in the significant digits - I know chip vendors will only put so many digits on custom parts for your purposes, since they need room for their own tracking numbers.

HP-33E "2 disease"

*Message #5 Posted by **Jon** on 25 June 2003, 2:46 p.m.,*
in response to message #4 by Ellis Easley

I had an HP-33E without the disease. Years ago I had to repair battery contacts and replace flex connector for wires. It was my first time so I made several soldering tests (I didn´t know which was + or - wire). Once I made it work it had the "2 disease".

I don´t know the reason but it is something I damaged

aahhhhhhhh HAH! "2 disease" is damage ...

*Message #6 Posted by **Norm** on 26 June 2003, 1:36 a.m.,*
in response to message #5 by Jon

Hi Jon, This is valuable data. It says perhaps ESD into the large 40 pin chip could cause "2 disease".

When Luiz finally swaps firmware chips (the 8-pin chip that holds the program) it will be an important piece of data.

If swapping the firmware does NOT change the problem, then the real problem is damage in the 40-pin chip that runs the display.

We can't forget how ancient these chips are, I mean, fer cryin' out loud, late 1970's. They didn't have a clue how to protect something from static damage. If we can prove that "2 disease" is a static-induced problem, then we will have to do all our work grounded out with alligator clips, everything on tinfoil, even the solder iron and the roll of solder grounded out, and stuff

aluminum foil into your socks and attach alligator clips

(then U get up in a hurry to answer the phone and wow, what a circus!)

ALSO PLZ NOTE that I am suspicious that just running a solderless spice calculator with a dirty connection might be enough to induce "2 disease". IF YOUR SPICE CALCULATOR gets the least bit unreliable, and its solderless, STOP using it because it might damage it if used with loose connections.

There is a LOT of spice calculators afflicted with these problems, and that cuts down the pool of available units.

So we need to resolve what is the real story.

One isolated, confirmed case, so far...

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 26 June 2003, 3:09 a.m.,*
in response to message #6 by Norm

Hi Norm, guys;

maybe I'm wrong, but that would be such a tremendous coincidence that amongst the so many MOS transistors in an average complex digital chip, we have all and all the same set being burnt in certain circumstances and most of all, it does not alter anything but a selectable blinking dots/commas/minus_sign when a highly selected digit, in this case "2" and no other one else, is present in the display and another digit is entered or an operation is performed.

I have seen cases when digital I.C.'s loose part of its operating capability or become completely "off" when submitted to unacceptable operating environment. MOS are likely to suffer more damage because of its own nature. But it's still hard for me to accept that such a highly selected lost of operating characteristic with no other perfomance degradation, not a single keyboard freeze or the like, is simply a hardware problem instead of a firmware problem. I'd actualy like to know how many Spices with this behavior work like this since the day they were 'born'. I have no doubts about Jon's experience, I am sure it happened, I'm not questioning this fact, I just cannot understand such a highly "specialized" hardware problem.

If we consider that part of the existing HW is actualy too sensitive and when fails causes this exact behavior, then it's a matter of time to expect that all Spices that have been serviced to be like this, and there's nothing we can do about it except to feel lucky enough that our calculators never need service.

Analog IC's may show this sort of "partial" performance degradation, and they may run for a long time with internal componentes partialy burnt. Digital IC's are likely to show random "problems".

I have a stuck HP38C that locks the display to 0.00 everytime it comes to life. Sometimes it shows Pr Error when I switch it off and on again. I am waitng for a chance to test another power supply board on it, and I have one HP33C that does nothing. This HP38C is a soldered unit and I am thinking seriously about removing all of its chips and swap one by one with another HP38C so I can see what happens. The other HP38C has no problem with "2" digit.

I know and understand Norm's concerns. I accept the fact that he does not like this behavior

and I do not disagree with him. But to be honest, for as long as [STO][ENTER] returns [-8.8.8.8.8.8.8.8.8.] instead of [Error 9] to the display, I'm confident using any Spice. And I don't care much having a "2" disease calculator: I have three Spices like this.

My thoughts.

Luiz C. Vieira - Brazil

Edited: 26 June 2003, 3:17 a.m.

Luiz, I used to design CMOS chips

*Message #8 Posted by **Norm** on 26 June 2003, 10:34 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz, I used to design CMOS chips, and it is possible for the weakest link in the chain to consistently snap.

They may have used a certain transistor to cause the blanking, and maybe that transistor gets fried from ESD. Maybe the last logic gate is hooked to a very large power transistor that runs the LED's. I'm not saying it DOES, I'm saying that it COULD be that way.

While I would be happy if it is just firmware (maye I can swap a chip and make it work properly?) you cannot presume it is firmware until you have run a comparison. A swap between 2 units would offer some proof. Otherwise nobody knows and you can't fairly say that it is the firmware.

Re: Luiz, I used to design CMOS chips (edited)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 26 June 2003, 12:51 p.m.,*
in response to message #8 by Norm

Hello, Norm;

> Quote:
>
> They may have used a certain transistor to cause the blanking, and maybe that transistor gets fried from ESD. Maybe the last logic gate is hooked to a very large power transistor that runs the LED's. I'm not saying it DOES, I'm saying that it COULD be that way.

In this case, would the blank be selective or fail in any case the gate is activated?

Taht's what I mean. I did not design CMOS chips, but I also designed actual MOS-based circuits, and taking care of ESD 20 years ago was a matter of protection level and costs. Today, MOS protection is achieved inside chips.

Spices come from a time where MOS protection was achieved outside chips, and we cannot see much of this protection in the circuit board. In fact, there is nothing but chjips and power supply board.

I just wonder of the fact this "disease" is so selective. If blanking is the issue, and should it occur in many circumstances and not in only one, I'd fairly agree with you. I also strongly agree with the fact that Jon's experience is extremely revealing and adds lots of new information. When I read his post I thought exactly what you wrote,

but I was not completely sure if this defective condition woudl be selective as well.

(additional part)

UNLESS there are additional gate and MOS transistor just to blank this particular blinking in new units and they are easily burnt, what would cause exactly this behavior and nothing else. Then we have a disease that allows a firmware problem if "blanking" hardware fails (Wow! Where did I gat this?)

(finish additional part)

So, my friend, I was just enhancing what I see against what you see. I agree with you, maybe I'm having my own doubts and I should consider them in another perspective. Do you understand this? In Brazil we have the expression "Devil's Lawyer" meaning the guy that's always trying to find "reasonable doubts"... The pri..y scumbag that never allows others to agree with anything. I'm feeling as if I'm playing this rule right now... :-(

Best regards, my friend.

Luiz C. Vieira - Brazil

Edited: 26 June 2003, 4:04 p.m.

Re: Luiz, I used to design CMOS chips (edited)

*Message #10 Posted by **Jon** on 26 June 2003, 5:13 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Hello everybody:

I don´t understand anything about electronics but I have repaired the battery contacts of several spices and I can say that when I repair a calculator that nobody has opened they normally don´t have the "2 disease". When I see that the calculator has been serviced by unexperienced people (it´s easy to see it) they always have that problem (four calculators, 100% of my experience, in that condition of different models 37E, 34C, 33E and 32E). Has anybody similar experience?

Cheers

Jon

A few questions:

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 26 June 2003, 5:25 p.m.,*
in response to message #10 by Jon

Hi, Jon;

once again, thak you for your valuable contribution. May I ask you a few questions?

1 - except for your own Spice, that became sick after being serviced, did you check if any other one became sick as well?

2 - are these serviced units solderless or soldered type?

3 - Did you observe if they have a different number (quantity) of 8-pin DIP IC's?

We are trying to track down the possible origin of this "2" disease, as you have read, and I see one thing and Norm sees other thing. We're lucky because this is never going to interfere in our long lasting friendship... will it, Norm?

That's the biggest advantage of having different views of the same problem when brainy, reasonable and thoughtful guys are involved: everyone learns a bit more. If it not for Norm, this "2" disease was never an issue in here. Thanks to him we're involved in this "crusade".

Best regards and thanks again, Jon.

Luiz C. Vieira - Brazil

Re: A few questions:

*Message #12 Posted by **Jon** on 27 June 2003, 11:57 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

Luiz:

1) I have that experience just with my own calculator 2) All of them where solderless 3) The 34C had three chips, 33E and 37E had two and I am not sure about the 32E.

I think I took notes of the identification number of some of them.

Make me know if you need them

Cheers

Jon

If you can, please...

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 27 June 2003, 3:44 p.m.,*
in response to message #12 by Jon

Hey, Jim; thank you.

I would like to compare the ones you noted with the ones I have. If others who own Spices can also post their ID # and add the fact they have the "2"disease or not, maybe we can find a "common place".

Our crusade starts now... Come you all!

Luiz C. Vieira - Brazil

Here you have the id numbers

*Message #14 Posted by **Jon** on 28 June 2003, 10:59 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

Hello Luiz:

These are the identification numbers of the chips. As you know there are three holes and I have represented as 1) the place closest to the display, then 2) and 3).

With “2disease” calculators

HP-33E (my own one, in the beginning it was ok) 1) empty 2) 80212 3) 79384

HP-37E 1) empty 2) 80012 3) 790228 (may be 79228)

HP-34C 1) 79364 2) 79334 3) 79324

I can’t find any note of the 32E

I have notes also of two calcs that hadn’t this problem (they had never been serviced).

HP-38C 1) 81221 2) 81212 3) empty

HP-33C 1) 81261 2) empty 3) empty

And I can’t find more notes

Cheers

Jon

Thank you, Jon! ... and Hey, Norm!

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 28 June 2003, 11:33 a.m.,*
in response to message #14 by Jon

Hi, Jon;

first of all, forgive me using another name instead of yours in my last post; I thought I should ask for excuses and not to edit it.

Second: I can take the numbers of at least eight Spices, some with the "2" disease, others without. I'm posting later because I'll first collect all data then I'll put it all together.

Our crusade is going fine...

Hey, Norm; can you add some ID # too? Let's put all we can at once!

Best regards.

Luiz C. Vieira - Brazil

Hello Luiz,

*Message #16 Posted by **Norm** on 2 July 2003, 5:27 p.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

Hello Luiz,

I am glad you are still trying to understand "2 disease".

I believe it is still the #1 predator and destroyer of the limited population of spice calculators.

I have a single SPICE calculator that has "2 disease". Unfortunately it is fully assembled. Please do not think me lazy if I dont take it apart right now to get numbers, but its a big job to take apart and not right now. I will take it apart after it has a rubber keypad ready for it.

It's serial number is 2051S37556 .

Thank you Luiz for sending the black rubber key pad. I have already taken it to an industrial rubber supplier, though they could not source it exactly. I notice that the smell does not match to rubber. Rubber is stinky, the HP item is not. I think it would be good to get an exact match.

Now I am going to mail it to a company in Minnessota and see if they can match it.

GOOD NEWS.... I do know how to PUNCH HOLES into these materials. U go to the dentist and you beg him for a "dental dam punch". They use rubber sheets that they stick over the tooth while they work on it. The dental dam punch will punch a little hole in the rubber, and its about the right size. Oh, the dental dam material? Not bad, but its too sticky (no white powder) and it stinks too much.

I hope to have more information in another couple weeks. Im not taking the 34C apart yet, because although I am in good pursuit of the answer, I still dont have replacement black rubber key cushions. - Norm

You're welcome.

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 2 July 2003, 11:56 p.m.,*
in response to message #16 by Norm

Hey, Norm;

thank you confirming the rubber pad is already with you. As you mentioned about the smell (I never noticed, but you're right: it smells almost nothing) and

you're suspicious it's not a rubber, what about a blend of different, raw material? There are some sort of mixed material fairly used today, maybe there is something that resembles it.

Another fact: there is another type of *actual* rubber pad used in soldered-type spices. It's thin and has thicker caps molded under each key. I thought about sending this one too, but it is different of the one you needed, that is used in the solderless Spices.

About the "2" disease, you're right: I should reason about all aspects, and the fact that an extra "blanking" circuit was added later and this extra MOS is easily burnt out is an issue, of course. I was observing something that I'm not sure if is a valid fact; if you have the means to check if it is true, I'd be glad. The LED's blanking time after a digit-entry key is pressed in a "2"-disease immune unit is larger than the time observed in a "2"-disease "infected" unit in the same circumstances, i.e., infected units' display blinks faster when digits are entered (did I write it correctly?). If this is considered electronically, I can see two possible causes: there is an extra circuit to ensure the extended "delay", or it is augmented by SW or frimware.

I was beginning to think the "2"-disease was no longer an issue because only Ellis Easley continued the thread I asked for IC's ID #. I know that opening Spices is not a "piece o'cake" operation; and I am sure many interested users are waiting till the chance the calculator needs to be opened so they can check for serial numbers. Then I thought about asking for another request: would Spice owners check for construction type, serial # (first four digits and origin identifier), "2" disease occurrence and, if applicable, any other "misoperation"? 'That would be a starting point, at least to "count" as many "2"-disease occurrences as possible. This way, there's no further need to open the calculator and we can track if after an specific "datecode" for each Spice type (and manufacturing location) the "2"-disease appeared. And Norm, not finding your name in related threads seems to let them meaningless, if you understand me. You announced the "2"-disease, I just suggested the name. And everybody here knows you are a LED/34C addicted :)

I think that's all for now. And Norm, the keypad is a gift, remember? If you send it back to me I'll be p... off! B^(

Best regards, my friend.

Luiz (Brazil)

Edited: 3 July 2003, 12:43 a.m.

under the microscope

*Message #18 Posted by **Norm** on 3 July 2003, 4:18 a.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

by the way , Luiz, the black rubber keypad piece is interesting under the microscope. I have just a 7 to 30 power stereozoom microscope. Very nice for modest but detailed inspection needs.

The white dust is very significant. There are a LOT of little white flecks, and they are embedded quite well into the black material.

The rubber material has "talcum powder" on it. This so its not too sticky. But the talcum powder comes off very easy, and there isn't as much of it. Under the microscope, the flakes look about the same.

It's just that the talcum powder is deeply embedded in the genuine material. I think this is so that it remains slippery.

I am sure we will find the match still. And get some bulk material, so we can punch holes in them with the dental-dam-punch.

brief comment (and brief post)

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 3 July 2003, 6:51 a.m.,*
in response to message #18 by Norm

Hi, Norm;

just passed through my mind: would this talcum powder be a sort of solid lubricating so the rubber will resist friction activity and rests longer? Voyagers' ordinary rubber pad gets rough easily, maybe this is the key.

Just a brief thought. Maybe other sort of material with embeeded solid lubricating would fit fine.

Luiz (Brazil)

2051S 34C

*Message #20 Posted by **Ellis Easley** on 3 July 2003, 10:18 a.m.,*

in response to message #16 by Norm

My 2051S unit is soldered, has no "2" behavior, under the keyboard it has the rubber sheet with the disks molded in for each key. The rubber under the decimal point key has been cut through by the key.

cut thru at the decimal point

*Message #21 Posted by **Norm** on 3 July 2003, 1:01 p.m.,*
in response to message #20 by Ellis Easley

This key-pad layer sounds like the orange-yellow one.

It's made of cellular foam, with molded-in high-spots at each key.

There are at least 2 types shipped with spice calculators, the orange-yellow one, and the one of black rubbery material.

I was immediately concerned that the cellular foam material hasn't got enough strength at the point-contact, where the pressure is too high. Your statement makes this concern more genuine.

The orange-yellow will be great on day #1 when U open the box, but after that, it will 'go away' where its needed, at the point of contact where the pressure is high.

Therefore, obviously, the black rubbery material is stronger and a better selection.

Disappointing if they switched to the orange-yellow material last. This shows a continuum of bad engineering decisions with our almighty 1970's HP Gods (solderless circuit boards, "2 disease", orange-yellow key-cushion material that is destined to fail, etc etc).

Re: cut thru at the decimal point

*Message #22 Posted by **Ellis Easley** on 3 July 2003, 2:16 p.m.,*
in response to message #21 by Norm

No, mine has the dense black rubbery material. I think its original owner just used a lot of fractional numbers! But I think the differences between my 2051S unit and yours are interesting: mine has no "2" behavior and yours does; mine has the rubber pad and yours

doesn't. Is yours a soldered unit? Mine is. If yours is not a soldered unit, has no rubber pad and has the "2" behavior due to different firmware and not chip degradation, then why do these two units have the same S/N prefix? We know the YYMM datecode is not exact but rather should reflect a revision level. How can these two units be so different? Is it possible a previous owner swapped insides with another unit? (I'll allow that possibility on my unit, I can't vouch for it before I got it!) Of course, it could be that the insides were swapped by HP, during repair. All I can say about mine is that the datecodes on the chips are in line with the datecode in the S/N prefix (8047, 80282,8033? ,80182), at least it would appear none of those chips were made after the 51st week of 1980.

you lost me totally, ESD precautions for SPICE

*Message #23 Posted by **Norm** on 3 July 2003, 6:26 p.m.,*
in response to message #22 by Ellis Easley

you lost me totally, but I think I will take a moment and reply anyway, in order to maintain the flow of information.

I know there is a quest to determine which date codes have "2 disease" and which date codes don't etc etc and I am not objecting because you never know what you will learn. You might learn something interesting.

as to me, I dont have date codes available (no open units right now, said units having 2 disease).

Personally I think it is an irreversible symptom caused by some sort of ESD damage when we service them. I believe there is an extra-frail portion of the integrated circuit and it pops and the display doesn't mute properly after that.

It's not just "I think this" but also that other people report that they had a healthy unit which showed "2 disease" after they had serviced it.

THE WAY TO FIND OUT IS TO HAVE A HEALTHY UNIT, AND A DISEASED

UNIT, and just swap chips and see which chip is responsible. I think this would be the best test right now.

WHERE THIS WILL GO IS THAT WE MUST USE EXTREME ESD PRECAUTIONS WHEN SERVICING A SPICE CALCULATOR. You would use aluminum foil underneath the service area, grounded out to an earth ground. YOU would be grounded out by stuffing aluminum foil in your socks, and connecting with alligator clips. YOUR SOLDER IRON must be grounded out, to the tip, and checked with an ohm-meter. ONLY THEN would you dare to open up a SPICE unit, else it will get "2 disease".

What I just described is an example of "hard grounding" where the metal is just fractions of an ohm. Some of that soft blue-plastic or pink-plastic anti-ESD bag material is also an option..... it is common to use meg-ohm resistors in the drain paths for ESD precautions. BUT IF IT WAS my calculator and my money (and it is, next time I open one) then I would favor the hard grounding thru aluminum foil.

And don't be doing all this if some dude with a ham radio antenna is going to key up and pump 20 watts into your workspace. You want to create a truly electrically neutral environment. The aluminum foil would be plentiful, the ground wires would be trustworthy and short. And it would all go to an earth ground, such as your building ground which presumably drives into a stake outside.

the rubber key cushion for SPICE

*Message #24 Posted by **Norm** on 3 July 2003, 6:33 p.m.,*
in response to message #23 by Norm

There are really 2 big problems when dealing with SPICE calculators, IMHO. These problems are worth dealing with, because these are the coolest of the classic HP calculators IMHO (i know, i know, everybody else likes 41C, yeah yeah, fine, keeps demand down on the

ones I like).

Problems with spice:

1. The risk of "2 disease" especially if triggered by a loose connection in the solderless units. Also, the need to have successful anti-ESD precautions when opening it, so that the calculator can be worked on without inducing "2 disease"

2. The calculators need a rubber key cushion inside, but many of them either have none, OR, they have got an orange/yellow foam cushion that isn't going to be as good as a more durable material.

Even the black rubber ones, I measured at .012" thick and this isn't very much material. Tentatively .022" thick would make for a gentler and quieter keypad.

WELL, typical Neoprene rubber isn't a good substitute (like a tire innertube). It's stinky, and the talcum powder isn't bonded permanently like the real HP material. The real HP material has the dry lubricant embedded in real deep, as seen under the microscope.

Somebody said go to Home Repot and buy pond-liner. Well, bad news, the only stuff I saw was black PVC material, which really isn't very similar at all. And worse than that, I had to buy 10' x 10' in a box that included a ceramic frog with a spout in his mouth, and an electric water pump.

HERE'S THE LATEST UPDATE: I am approaching a company that routinely makes cut rubber parts, I am asking them to find a genuine match to the material, AND, I am even considering purchasing of tooling so that they could stamp me a few hundred and be done with it.

Don't rule this out, guys, a few hundred bucks and you can have whatever rubber HP parts your heart desires. You don't have to sit there hand-crafting rubber feet that look crummy when you are done. Pay the money and get the real

thing. And after a year or 2, make the tooling money back by selling these parts to those who need them on the HP Museum.

- Norm

Re: Here you have the id numbers

*Message #25 Posted by **David Smith** on 28 June 2003, 2:44 p.m.,*
in response to message #14 by Jon

The numbers that you gave are manufacturing date codes. The chip numbers should be something like ILA010, ILN123, etc.

Re: Here you have the id numbers

*Message #26 Posted by **Jon** on 29 June 2003, 2:39 p.m.,*
in response to message #25 by David Smith

Oh!. I took those numbers just to avoid mistakes when placing the ICs again after repairing the contacts. So it is a worthless information.

I will take the correct identification in the future. Thanks

Jon

Re: One isolated, confirmed case, so far...

*Message #27 Posted by **David Smith** on 26 June 2003, 5:29 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

I would not recommend unsoldering the chips to try them in a different Spice machine. I have attempted several cross-species Spice transplants and some will work and others will not... even among swaps between the same species. I think that some firmware revisions may not be compatible with some CPU revisions. Also the Spice CPU chips are definitely not as cross-compatible as the Woodstock ACT chips.

support the war against "2 disease"

*Message #28 Posted by **Norm** on 26 June 2003, 10:45 p.m.,*
in response to message #27 by David Smith

Only you can help fight the war against "2 disease".

Across the country, precious spice calculators are being damaged and maimed by this terrible ailment, and so far, there is no cure.

But if you will pick up that telephone, and give generously, the doctors may yet be able to find a cure to "2 disease".

Give generously. The spice calculator you save, might be your own.

Re: support the war against "2 disease" Plus Calculator Commercials

*Message #29 Posted by **Michael F. Coyle** on 27 June 2003, 10:25 p.m.,*
in response to message #28 by Norm

> Quote:
>
> Only you can help fight the war against "2 disease".
>
> Across the country, precious spice calculators are being damaged and maimed by this terrible ailment, and so far, there is no cure.

Great. All we need now is Sally Struthers to do the commercial...

"This neglected calculator is sitting in an attic...won't you help? For only pennies a day you can give it the batteries and health care it needs to become a useful, productive member of society. Twice a year you'll get your very own printout from your calculator. Adopt either an HP or a TI. Please help save a poor hungry calculator today!"

And on a slightly more serious note...

Back in the 1970's Rockwell ran a radio ad for their calculators. It was done by the "Dick and Bert" team who did many hilarious commercials at the time. The commercial was based on a (sung) jingle, which to the best of my recollection went something like:

"Rockwell Calculators / They really can't be beat / They've got big green numbers / And little rubber feet."

Does anyone else remember this commercial? And has any other calculator been the subject of a radio or TV ad?

- Michael

big green numbers and little rubber feet

*Message #30 Posted by **Norm** on 28 June 2003, 1:30 a.m.,*
in response to message #29 by Michael F. Coyle

yeah there was a song, like a happy-go-lucky little radio jingle.

kind of like some college guys singing their campus fight song ...

"its got big green numbers ... and little rubber feet"

See, I think they knew more about making calculators THEN than they know about it now.

What's happening presently, is the people at the company don't use their own product. So what do they care if the little rubber feet stick to the desk, or not. What do they care if the display has big clear numbers or not. They dont use it so they don't care.

I was out changing the oil on my 8 horsepower Bearcat chipper. Now, the thing is, the Briggs & Stratton engine doesn't quite mate to the mount nicely, and w/o some extra plumbing (a horizontal 4" long pipe stub) you wouldn't be able to drain the oil out of the engine without it clearing the engine mount.

So from the factory, these bozo's put the 4" pipe stub, with a REDUCER pipe so it has almost no flow, and then they put a cap on the end.

So..... go ahead and try removing the cap.... the whole pipe turns instead !!!! useless. They don't even use their own product, thats what I am getting at. The only cure was to go on down to the hydraulic pipe shop and buy fancy hydraulic fittings to redo the job PROPERLY with aftermarket fittings. This is the total antithesis of mass production, and the dumb part is, these lunacies are multiplying daily.

People should use their own products, thats why they realized that it should have little rubber feet, and a big display easy to read. Presently, our CEO MBA types would think that insane. I know, I have met these people personally. They are out of their skulls. They dont think it matters whether the product is useful or not. They only think in terms of satisfying a certain amount of product to the market at a certain price.

They count on Joe Six Pack to buy it w/o realizing its junk, and then he gets to put up with it until he chucks it out (because it DIDNT have little rubber feet, or because you can't change the oil w/o repiping the pipe stub, etc etc)

the answer here is to REFUSE to buy product that is not correctly designed, and the trouble is there is so much affluence and way too much production in our culture, that people don't refuse, they buy it anyway even if its junk. So stop doing that, its a bad habit.

Re: big green numbers and little rubber feet

*Message #31 Posted by **Ted** on 28 June 2003, 10:18 a.m.,*
in response to message #30 by Norm

Dear Norm, I always read your tirades with tremendous pleasure, because I generally agree with you all the time. The problem is, that it is much worse than even you portray it. I thought it was mostly me, but the business world seems to be populated by idiots on all levels- and it is getting worse each year. There is a saying here in Holland for it: "you have to be light enough enough to float" i.e.: if you know too much, you'll never get to the top. My neighbor is a management expert, and earns tons coaching companies about restructuring, etc. One day he proudly showed me a powerpoint presentation of one of his classes. "We make products for the clients" Happy faces...."Our goal is to make good products" people hard at work. He gets paid $ 1,500 a day to teach this stuff, can you believe it? It was unbeleivebly depressing. Companies don't make products for customers anymore, their only goal is to make their stocks go up before the year's bookkeeping closes, and then worry about the next year. The HP's we all love are icons not only of their kind, but represent the very best of human effort to be productive, be the best and improve/ add to the world around us. It sounds a bit too lofty, perhaps. But that is my personal opinion, for what it's worth.

yeah i see what U are saying, Ted,

*Message #32 Posted by **Norm** on 28 June 2003, 2:55 p.m.,*
in response to message #31 by Ted

yeah, i see what U are saying, Ted.

They bring in some consultant, who is kind of like a teacher from kindergarten. Pulls up a powerpoint spread sheet on some digital projector, and a bunch of dumb color slides, and says 'we have to meet the demographics of our marketplace'
we need bright smiley faces and happy people

and its just so much horse manure. Yeah I do know what U are saying. I was saying they don't use their own products (they don't) so they don't care if it works. U are saying they do it all with microsoft color slides and a projector.

Yeah it is totally depressing, because they are idiots and also because they have all the money. I just say 'these are not the people who could build and fly a rocket to the moon'.

Enjoyed your comment 'you have to be light enough to float'. Don't think the original Mr. Hewlett and Mr. Packard would agree with that, not in the least. They wanted intelligent technical people at the top. JAPAN has a societal culture that prizes engineering, and their companies have technically competent people near the top.....that's why they do all the innovating now (imagine Carly with a business model that revolved around building 6' flat screen TV's for the world market... requiring massive vision, planning, and world-class technologies and clean rooms, etc etc hah! She just wants to sell junk PC's like any other bunch of MBA idiots in town are doing.

We should export our MBA's with their powerpoint slides and their happy smiley faces and their 'market demographics' to Japan so that they would become infected with the disease, reduce their economy to 3rd world, so that we would no longer have a trade deficit with Japan.

Re: yeah i see what U are saying, Ted,

*Message #33 Posted by **Ellis Easley** on 28 June 2003, 3:08 p.m.,*
in response to message #32 by Norm

Norm, are you aware that Japan's economy has been in recession for ten years? I that the fault of American MBA's?

Re: yeah i see what U are saying, Ted,

*Message #34 Posted by **Ted** on 28 June 2003, 3:17 p.m.,*
in response to message #32 by Norm

Better English translation of that Dutch phrase: 'the 'light' people get to the top' i.e. if you are really good, they get scared of you, and don't allow you a position of any importance. The airheads get to high positions. HP was just the opposite thank god!

light people to the top

*Message #35 Posted by **Ellis Easley** on 28 June 2003, 3:35 p.m.,*
in response to message #34 by Ted

In English there is a saying, "Cream rises to the top." Now, cream does that because the fat content makes it less dense, but the meaning of the old saying is that just as cream is better (more valuable, more nutritious in the old sense), "better" (more capable) people rise to positions of authority. Nowadays, skim milk is better for you!

I understand that in Japan they say, "The nail that sticks up is hammered down." This saying is supposed to encourage people to conform - the last thing one is supposed to do is stand out! But of course, even in Japan, somebody ends up in charge. BTW, I thought in Japan they built houses, at least, without nails?!!!

It's my deal, Carly!

*Message #36 Posted by **Ellis Easley** on 28 June 2003, 3:11 p.m.,*
in response to message #30 by Norm

Am I the only person not surprised to hear that Norm has a Fargo-syle wood chipper? Just kidding, Norm, I envy you - I'm trying to get along with a little electric chipper-shreddder - emphasis on the "shredder".

Bearcat chipper

*Message #37 Posted by **Norm** on 28 June 2003, 8:01 p.m.,*
in response to message #36 by Ellis Easley

Are U telling me that U are running sticks and branches thru your office paper shredder ? Better quit or it wont last very long.

Definitely recommend something with an 8 horsepower motor, its enough for backyard work. Its painful how much it cost. Like $1600 and then add on the 'double V-belt option' so that U got 2 belts not one so the belt wont burn, there goes another $150 and then add on sales tax.

I mean what, I can't drive this thing on the freeway but it costs more than a decent used car.

It helps a little if U buy it in a no-sales-tax state.

I'd say just bite the bullet and get one. As long as you have a significant source of branches to grind up, then you wont ever have to buy beauty bark again. I dare say the output looks prettier than beauty bark. That's because its a golden brown color with white flecks, whereas beauty bark is like coffee grounds. You get some of your money back by not buying beauty bark anymore.

Re: Bearcat chipper - an additional use

*Message #38 Posted by **Dave Shaffer** on 29 June 2003, 10:54 p.m.,*
in response to message #37 by Norm

Is the chipper an acceptable alternative for calculator "fixing" to the railroad tracks? (Calculator in, plastic mulch out)

Re: Bearcat chipper - repair method

*Message #39 Posted by **Norm** on 30 June 2003, 2:04 a.m.,*
in response to message #38 by Dave Shaffer

Hello Dave Shaffer, I have never tried repairing a calculator with my 8 horsepower Bearcat Chipper.

However, I think this is an outstanding idea, and I would be very agreeable to trying out repairing calculators in this way.

I would like for HP to send me 30 to 40 of the HP-49G. I will personally repair each one using the Bearcat Chipper. At the outlet, I should be able to get beautiful calculator mulch. This mulch could be used to decorate around mailbox posts, along walkways, and next to the streetlamp posts.

I would think the mixture of tinfoil, bits of fiberglass, calculator buttons, and chunks of plastic would add exceptional beauty to any landscaping program.

ONE THING THOUGH.... be sure to install the finer sized chipper screen .... don't want any big chunks getting thru (like the entire corner of a 49G could be unsightly).

I have also heard that the mafia uses chippers to 'repair' people, such as those who owed money and could not pay it back.

- Norm

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Creative "DOA Guarantee" definition

*Message #1 Posted by **Mike** on 23 June 2003, 2:50 p.m.*

Would you think your calculator was "DOA" if it turned on but "nothing worked" or that it "wouldn't program" or that you bought a 29C that had the fried chip syndrome?

There is currently a seller that is selling calculators with his "DOA guarantee". I won't mention his name and there are many that have a "DOA guarantee" so this is no real clue, to his identity.

I asked him about his DOA guarantee because I was interested in one of his items. Another buyer of one of his calculators contacted me (about repairing the calculator he got from this seller) and told me the seller refused to honor a dead calculator as DOA because it still slightly worked.

So, I asked him. He said his definition of DOA is: "Dead as a doornail" If it even slightly works, he says it's not DOA. He says, "that is to be expected with vintage calculators." So, if you buy a 29C that has fried chips, it's not DOA, if a light comes on, to this seller.

The point of the post is to let you know how to ask the right questiion.

Just be sure to **ask all "DOA guarantee" sellers**...

"Does the DOA guarantee includes partially working, barely working or near dead calculators." Ask them to be specific.

By the way, a "DOA guarantee" that excludes **ANY** calculator funtional failures is pretty worthless. So be careful!

Edited: 24 June 2003, 1:35 p.m.

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Success!!!

*Message #1 Posted by **Paul Pickett** on 23 June 2003, 2:26 p.m.*

Hi everyone. I wrote awhile back about how to fix my HP 41C and a lot of you posted helpful comments. I wanted you to know that my 41C now looks nearly brand new and I have a card reader that works again! The card reader was s little fidgety to fix and at one point I lost a piece on the floor for half an hour but it's great now!

Thank you for your help! Thank you for this forum!

I also have to say that after playing with some "modern" calculators before deciding to fix this one that they don't make em like they used to.

Congrats!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 23 June 2003, 5:50 p.m.,*
in response to message #1 by Paul Pickett

Hey, Paul;

always good news, indeed!

Thank you for sharing this news with us. I'm glad "it" (the HP41C) made it!

Best regards.

Luiz C. Vieira - Brazil

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It's VINYL, you MORON!

*Message #1 Posted by **David Ramsey** on 23 June 2003, 1:22 a.m.*

Sorry.

But if I read one more eBay description touting those cheap little vinyl slipcovers that come with the 10C-16C calculators as "soft leather cases", I'm going to scream.

That pretty much ensures I'm gonna scream, doesn't it?

Are these people total idiots?

Re: It's VINYL, you MORON!

*Message #2 Posted by **Fred Lusk** on 23 June 2003, 1:31 a.m.,*
in response to message #1 by David Ramsey

David…

Didn't you know that vinyl is simply the hide of a plastic animal?

Fred

Re: It's VINYL, you MORON!

*Message #3 Posted by **Les Bell [Sydney]** on 23 June 2003, 2:45 a.m.,*
in response to message #2 by Fred Lusk

I've often wondered - the plains of North America must have been something to see before the white man came, what with those vast roaming herds of Nauga grazing everywhere.

But once people needed something to cover their calculators, and someone discovered that the dried and tanned skin of the Nauga was ideal, their days were numbered. . . .

Best,

--- Les [http://www.lesbell.com.au]

aint it funny that you used to get a nice case.....

*Message #4 Posted by **Norm** on 23 June 2003, 3:57 a.m.,*
in response to message #3 by Les Bell [Sydney]

aint it funny that on the OLDER HP calculators, U got a nice genuinely FURRY case with a ZIPPER on it.

Then came the 32S and U get a plastic vinyl heat-molded piece of flat-material garbage, with no zipper,

and I recall quite clearly, it was so sticky and badly dimensioned a fit, U couldn't get the calculator into it anyway.

So those MBA's pretended they were giving U a case, a cheap chinsy case with no fur and no zipper, but really there was no case at all.

If HP wasn't run by Carly-freaks, they'd make big furry-cases that were softer and furrier than ever before, with zipper and an HP Logo proudly displayed. But instead they give us cheap worthless Kinpo garbage in a $9 Wal Mart retail-rack package, without so much as an "Enter" button.

Re: aint it funny that you used to get a nice case.....

*Message #5 Posted by **Les Bell [Sydney]** on 23 June 2003, 4:55 a.m.,*
in response to message #4 by Norm

Of course, in the days of the *real* HP calcs, like the 65, we used to get a *real* leather wallet for the calculator, with a little pouch for a plastic case of program cards on the front and a belt loop on the back.

When I say *real* leather, I mean, made from the skin of dead cows, and not dead Naugas, like later cheap stuff such as the . . .oh . . . I dunno . . HP-34C and downmarket stuff like that.

--- Les [http://www.lesbell.com.au]
(Running very, very fast!)

Re: aint it funny that you used to get a nice case.....

*Message #6 Posted by **Paul Brogger** on 23 June 2003, 10:34 a.m.,*
in response to message #4 by Norm

The pioneers came with two types of case -- the padded, stitched, faux leather minimalist case is at least usable and useful.

The pure, solid, heat-welded vinyl beast is indeed so tight & sticky as to be utterly useless. It is indeed astounding that a committee of HP's best & brightest (at the time) could offer such a pointless add-on in place of a genuine case.

By the way, I remember in college attaching the middle of a shoestring to the bottom of my HP-21 case, and tying it around my right leg gunslinger-style, to keep the thing from flapping all over as I walked. I thought it a practical solution, but I suppose it was an example of geekus extremus.

Re: aint it funny that you used to get a nice case.....

*Message #7 Posted by **Dave Shaffer** on 23 June 2003, 2:29 p.m.,*
in response to message #6 by Paul Brogger

Paul,

Where did you go to school? On some campuses I've visited and/or inhabited (Carnegie Tech, MIT, Caltech), your "gunslinger" solution would have been widely emulated. I also remember the guys with the 20-inch slide rules (and cases) attached to their belts. They looked like leftovers from the Three Musketeers!

Buffalo wings

*Message #8 Posted by **Patrick** on 23 June 2003, 12:39 p.m.,*
in response to message #3 by Les Bell [Sydney]

Not to mention Buffalo wings. When I was a kid the skies were *black* with Buffalo!

Re: It's LEATHERETTE, you MORON!

*Message #9 Posted by **Mark** on 23 June 2003, 7:01 a.m.,*
in response to message #1 by David Ramsey

Us marketing types would not stoop to calling this Leather (because it's not and we could get sued by our lawyer buddies for false advertising) nor would we call it "vinyl" because "vinyl" does not 'sell.' No, it's "Leatherette." Fine, Corinthian Leatherette. (you say the word "Corinthian" with heavily rolled R's.

Speaking of furry cases, I have a Woodstock case that's in perfect condition except it has some goopy stuff on the surface that I can't get off. I think it may be from sitting too long on a shelf that was treated with furniture oil. Anyone have any idea how to clean goop off "leatherette?" Without damaging the fine Corinthian surface details?

Re: It's VINYL, you MORON!

*Message #10 Posted by **Wayne Brown** on 23 June 2003, 7:27 a.m.,*
in response to message #1 by David Ramsey

These must be the same people who advertise plastic-laminated wood slide rules on eBay as "antique ivory."

Re: It's VINYL, you MORON!

*Message #11 Posted by **Patrick** on 23 June 2003, 12:41 p.m.,*
in response to message #1 by David Ramsey

The saving grace is that there are just as many buyers who know exactly what the seller is talking about. They'll get vinyl and say "Yep, leatherette, just as advertized."

Don't you just love the way the world all just sort of ... works?

Re: It's VINYL, you MORON!

*Message #12 Posted by **David Smith** on 23 June 2003, 5:28 p.m.,*
in response to message #1 by David Ramsey

Well, it might just possibly be real genuine leather. HP did make some real leather cases for the 15C series and the woodstocks.

Re: It's VINYL, you MORON!

*Message #13 Posted by **Trent Moseley** on 23 June 2003, 11:32 p.m.,*
in response to message #12 by David Smith

No way. I have the original 25C and 67 carrying cases with belt loops. The cases are soft brown plastic on the outside and fur lined inside. Very nice to feel. However they are not made of leather. For some of my Voyagers I bought nice leather cases from EduCalc which have the HP logo.

tm

Re: It's VINYL, you MORON!

*Message #14 Posted by **Ellis Easley** on 24 June 2003, 3:57 a.m.,*
in response to message #13 by Trent Moseley

Those leather Voyager covers, and also "Clamshell" (HP28C/S,HP19B) covers, had HP part numbers in the EduCalc catalog.

Re: It's VINYL, you MORON!

*Message #15 Posted by **David Smith** on 24 June 2003, 5:00 p.m.,*
in response to message #13 by Trent Moseley

I have an HP29C that has a genuine leather case. Brown, furry lining, HP logo. Nice leather smell. Definitely not no stinkin' plastic.

My HP15C case is in real, black LEATHER

*Message #16 Posted by **Emmanuel Verbeeck** on 24 June 2003, 4:46 a.m.,*
in response to message #1 by David Ramsey

I bough it in 1987 in Belgium and I have it in front of me. Its is definitely leather, altough of medium quality. Maybe it was specific to Europe, or Belgium ? By the way, still using the original batteries!

Re: My HP15C case is in real, black LEATHER

*Message #17 Posted by **Yos Feit** on 24 June 2003, 11:31 a.m.,*
in response to message #16 by Emmanuel Verbeeck

I bought a real leather case for my 15c from Educalc. It has a felt lining and a small HP logo embossed near one of the corners. Educalc also sold similar leather cases for other models.

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Online Tracking of Calculator Prices - User input needed

*Message #1 Posted by **Mike** on 22 June 2003, 10:12 p.m.*

Ok, I have added a new page that some of you might find useful. It is an online database that allows anyone to track current eBay prices. The database is searchable by calculator, auction number and condition. I can add other search criteria.

Now, this will only be as good as the data that is entered. However, anyone can enter data. So, hopefully, it will fill up quickly.

The site is at: Online Calculator Price Tracking

If you have any suggestions for making this better, let me know. One thing that I plan is to have a search bring back the High, Low, and Average prices (I think I'll do this). I think that would be preferable to just a list of all calculators. But for now, I'm just listing everything returned by a search.

Edited: 22 June 2003, 11:30 p.m.

Re: Online Tracking of Calculator Prices - User input needed

*Message #2 Posted by **hugh** on 23 June 2003, 6:41 a.m.,*
in response to message #1 by Mike

could it somehow automatically collect the final sale prices for units matching certain key strings?

No, not exactly

*Message #3 Posted by **Mike** on 23 June 2003, 9:36 a.m.,*
in response to message #2 by hugh

It can't do that automatically. That would require a program to be continually running on my server. I can't do that.

Another option would be to manually run a program to gather that information. But then, I'd have to write a program to search for every know HP calculator and that too would be very time consuming.

So, I believe the easiest way is for people to enter the data manually. A simple eBay search or even when people happen to be looking at an auction, is the easiest way to gather the data.

I have two browsers open. One on by page and one on the auction page. I just toggle between them and transfer the info. Fairly easy. I'll be doing that as I get time.

Others can help too.

About the site

*Message #4 Posted by **Mike** on 23 June 2003, 11:38 a.m.,*

in response to message #1 by Mike

This site is meant really to document **current prices vs declared condition**. There is a comment section for the poster to post additional comments like, "includes case and manual" or "obvious dents" or "Not working".

But this is not meant to be just for slamming a seller. **I DO think it is fair** to put incorrect, misleading or false claims by sellers, just as it is fair to list good points.

I had one buyer contact me and say his **"guaranteed not DOA"** was not honored for a DOA calculator, because the seller said, "that is to be expected of 25 year old calculators". That is simply nonsense. This kind of statements are false advertizing but I leave those claims to others to add, if they like. I won't post hearsay claims.

Keep in mind though that this is really mean just to document calculator prices, with a little discretion for notation of flaws or such. These kind of input can help explain the variance in calculator prices and is important information.

Re: Online Tracking of Calculator Prices - User input needed

*Message #5 Posted by **Holger Weihe** on 23 June 2003, 4:00 p.m.,*
in response to message #1 by Mike

Hello Mike,

please have a look at http://www.hpmuseum.org. I have tracked ebay auctions of hp-calculators for nearly a year now. I could give you the data for inclusion in your database if you see the possibility to integrate them. It's an excel-file with over 1000 auctions.

The data doesn't exactly fit in your categories. I did not note the auction number, but the date. Since i didn't buy all these calcs, I also could not verify the advertised quality. I just rated the calculators in 3 categories from what I saw in the description (A: Optical and Technical OK, B: Technical OK with optical problems, C: defect).

So I could only give you: date, model, price, quality (A-C). If that is useful for you, send me an email. By the way: I only covered ebay.de.

Holger

Thanks

*Message #6 Posted by **Mike** on 23 June 2003, 4:55 p.m.,*
in response to message #5 by Holger Weihe

I plan to just track auctions for 3 months. That's about as long as they stay on eBay. I don't find that anything older than that is of much use.

And of course, anyone can simply use the eBay search facility but then they have to find all the ways to search to find calculators.

Entering the data and keeping it updated is too much of a chore to do on a regular basis. That's why I made the site as "User input data" which can be spread out over many users. The program can automatically display only the last 30 days data. So, it "could" be update all the time :-)

Thanks, Mike

How about this for a feature

*Message #7 Posted by **Mike** on 24 June 2003, 5:59 p.m.,*
in response to message #1 by Mike

I've been thinking of ways to make this a better tool. **How about his feature?**

I can put a "**public/private**" checkbox, on the form. I can also have an "**open/closed**" checkbox, on the form.

You can enter your calculator price data. It could be for "open" auction or a "closed" auction. You can check "public/private" and "open" or "closed" depending on the item.

I would also have the ability to "**update**" your entry. You could edit or delete your entries. Your "**comments**" could be the points that make that item of interest to you. You could change that after the auction closed and before it is made public. That way there is an incentive to add items to the database.

Any search would bring up all "public" items and your own "private" information.

This way, you could see the items you are tracking for current auctions, and get a historical perspective of prices on the same form. No one else could see which auctions you are tracking, via a search.

What do you think? Any value in this?

I'm just bored and looking for creative programming tasks :-)

Edited: 24 June 2003, 6:04 p.m.

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a financial scenario using a 17/19BII

*Message #1 Posted by **Justin** on 22 June 2003, 6:45 p.m.*

Hi there.

I came up with a scenario that I'm not sure how to solve with my 17BII:-

John is retiring in 20 years. He wants to be able to withdraw **the inflation adjusted equivalent of $50,000 a year** for 10 years after retirement. How much does he need to deposit annually up until retirement for his needs to be met, if he can get 8% on his money and inflation is assumed to be 3.5%?

To tackle this I worked out the inflation adjusted payment for each of the ten years after retirement, but as the cash flow isn't a normal annuity (equal payments for each period) I don't know how to work out what the savings schedule should be because I can't figure out the lump sum that gets John his payments while still taking advantage of interest over the 10 years.

Any gurus out there know the way to solve one of these using a 17BII?

****

EDIT:

Actually, I think I've got it....

I would do a CFLO list of the ten payments and use the NPV at an I of 8% for the lump sum target amount.

Can someone confirm this is correct?

Thanks in advance!

Edited: 22 June 2003, 7:14 p.m.

Re: a financial scenario using a 17/19BII

*Message #2 Posted by **Stephan (Germany)** on 23 June 2003, 5:14 a.m.,*
in response to message #1 by Justin

Dear Justin,

before trying to solve the actual problem, I'd like to know if you assume the yield of 8 % as constant over the whole 30 years. It might be reasonable to set the yield rate to 8 % for the saving period (until retirement), but a lower rate should be considered for the time after, e.g. 5 % as John will shift his investment from long term high-yield type to short term safe havens.

In general, if inflation rate is set to a constant figure, you could do all calculations in "today's value" by just considering the real interest rate (after deduction of constant inflation). First step would be to calculate the demand for ten years at the beginning of retirement. Second to calculate the annual saving rate from today until

retirement. Meaning two separate calculations.

Please clearify boundary conditions. Then this problem can be solved either with a financial calc or by geometric series on any calc.

Best regards,

Stephan

Re: a financial scenario using a 17/19BII

*Message #3 Posted by **Justin** on 23 June 2003, 11:05 p.m.,*
in response to message #2 by Stephan (Germany)

Stephan:

Yes, the decreased return is more realistic.

I was more trying to get my thinking around the calculations.

Below, Werner has provided a great working example elaborating the scenario.

I'm going through it now to make sure I fully understand it.

Re: a financial scenario using a 17/19BII

*Message #4 Posted by **Werner Huysegoms** on 23 June 2003, 6:01 a.m.,*
in response to message #1 by Justin

```
I did this once before (albeit a bit differently), so here goes:
0. Data
-------
 . capital build-up during 20 years, with an annual payment adapted to inflation (PMT,
negative).
 . capital depletion over 10 years, again with an annual payment (now received) that is
adapted to inflation (pmt, positive)
 . basically, we'll pay PMT*E^i for i=1..20, then we'll receive pmt*E^j for j=1..10
 . E = 1.035 (inflation), B = 1.08 (intrest rate)
 . we assume payments to be made at the end of each period



1. Depleting the built-up sum
-----------------------------


The first sum to be received will be pmt*E, the second pmt*E^2 and so on.
Call pv the built-up sum, then at the age of retirement the following equation holds:


    0 = pv + pmt*E/B + pmt*E^2/B^2 + ... + pmt*E^n/B^n
or
    0 = pv + pmt/C + pmt/C^2 + ... pmt/C^n


This is the normal TVM equation with 1+i/100 = C = B/E


now we know pmt = $50,000 in today's money.  Adjusted for inflation,
that becomes:


  50,000 * 1.035^20 = $ 99,489.44


with n = 10
   pmt = 99,489.44
  p/yr = 1
```

```
  i%yr = [(1.08)/(1.035)-1)]*100 = 4,347826
    fv = 0
 payments at END of period


this gives a pv of $ -793,155.34, and the first pmt will be $ 99,489.44 * 1.035,
because it will be made a year after retirement.



2. Building up the sum
----------------------


    0 = FV + PMT*E*B^(N-1) + PMT*E^2*B^(N-2) + ... + PMT*E^(N-1)*B + PMT*E^N


after division by B^N, where C = B/E:


    0 = FV/B^N + PMT/C + PMT/C^2 + ... PMT/C^N


or  0 = (FV/C^N)/E^N + ..


of course, FV = -pv


again, solve with:


    n = 20
 p/yr = 1
 i%yr = 4,347826 (no change!)
   pv = 0 (don't forget!)
   fv = 793,155.34 / (1.035)^20 =  $ 398,612.82


PMT =  -12,910.09 $, first PMT will be * 1.035


an overview of the cash flows and capital build-up and depletion:
(CAP[i] := CAP[i-1]*1.08 - PMT[i])


YEAR    PMT             CAP


 1      -13361,94        13361,94
 2      -13829,61        28260,50
 3      -14313,64        44834,99
 4      -14814,62        63236,41
 5      -15333,13        83628,45
 6      -15869,79       106188,52
 7      -16425,24       131108,84
 8      -17000,12       158597,67
 9      -17595,12       188880,61
10      -18210,95       222202,01
11      -18848,34       258826,50
12      -19508,03       299040,65
13      -20190,81       343154,71
14      -20897,49       391504,58
15      -21628,90       444453,84
16      -22385,91       502396,06
17      -23169,42       565757,16
18      -23980,35       634998,08
19      -24819,66       710617,59
20      -25688,35       793155,34
21      102971,57       753636,20
22      106575,58       707351,51
23      110305,72       653633,91
24      114166,42       591758,20
25      118162,25       520936,60
26      122297,93       440313,60
27      126578,36       348960,34
28      131008,60       245868,57
29      135593,90       129944,15
30      140339,69       0,00
```

Re: a financial scenario using a 17/19BII

*Message #5 Posted by **Justin** on 23 June 2003, 11:03 p.m.,*
in response to message #4 by Werner Huysegoms

Werner:-

Thanks for your brilliantly detailed answer.

I am going through it, and may have some questions later if that's OK with you.

Once again, thanks!

****

EDIT:-

Werner:

Am I right in assuming that if you didn't want to adapt the payments in for inflation but instead keep them the same throughout the build up period to give a lump sum of 793,155.34 that that annual figure would be a payment of -17,332.20?

Thanks in advance

Edited: 24 June 2003, 2:20 a.m.

Re: a financial scenario using a 17/19BII

*Message #6 Posted by **Werner Huysegoms** on 24 June 2003, 3:41 a.m.,*
in response to message #5 by Justin

Yes, that's 'conventional' TVM. Werner

Re: a financial scenario using a 17/19BII

*Message #7 Posted by **Justin** on 24 June 2003, 6:08 a.m.,*
in response to message #6 by Werner Huysegoms

Thanks Werner!

Your explanation has lifted a cloud of confusion.

Much obliged.

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10B

*Message #1 Posted by **Stan(Sg)** on 22 June 2003, 4:47 p.m.*

I came across HP 10Bs on closeout today at Walmart. The blister packs were quite dusty and priced at $20 each. There were two types. One with yellow shift functions and the other with dark green (hard to read) colored shift functions. Any thoughts on these algebraic models? Are they worth $20? What did they retail for when they were produced?

Re: 10B

*Message #2 Posted by **Patrick** on 22 June 2003, 5:21 p.m.,*
in response to message #1 by Stan(Sg)

I bought one on eBay for $21.50 and thought I had gotten a reasonable deal. Add shipping costs and I'd say $20 is quite reasonable, if you're in the market for one.

I only bought one to have an example in my collection. I doubt that I'll ever use it.

Re: 10B

*Message #3 Posted by **jose goncalves** on 22 June 2003, 9:03 p.m.,*
in response to message #2 by Patrick

I spent the weekend playing with the HP10B from my collection, just to remember its features. It`s low end and algebraic, I know, but it`s quite impressive anyway. It`s from that distant time when HP knew how to do it.

Re: 10B

*Message #4 Posted by **Randy Sloyer** on 22 June 2003, 9:00 p.m.,*
in response to message #1 by Stan(Sg)

Buy a yellow shift key model for your collection while you can. Buy some more if you have the desire for resale, the price wanders a bit on eBay, but I have seen them go for $30+ New In The Package. Anything HP of good quality is only going up in value, even if it is algebraic.

Re: 10B

*Message #5 Posted by **Holger** on 23 June 2003, 7:12 a.m.,*
in response to message #1 by Stan(Sg)

I have a 10B for daily use. It's nothing out of the ordinary except for the excellent manufacturing quality. 20$ seems reasonable or even cheap. When I bought mine 10 years ago, I paid about 50$.

Re: 10B

*Message #6 Posted by **db(martinez,california)** on 23 June 2003, 9:31 a.m.,*

in response to message #1 by Stan(Sg)

Remember one thing that you get free of charge with every 10b: a spare battery compartment door for your 17b, 32sii or 42s

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Norm and guys: about Spices, "2" disease and...

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 21 June 2003, 10:32 p.m.*

Hey Norm, guys;

a few days ago I mentioned I'd be with two Spices in hands for some "transplantation" experiences. It happens that my brother and I have both an HP38E each. I asked him to bring his unit when comming for the regular weekend's "family meeting" and what I wanted to do. Guess what: he brought it!

He is a lawyer and he seldom uses it, but likes it because of its design. He does not like RPN and cannot understand how come a calculator does not have an [=] key! In fact he knows how to use it, but he prefers an HP14B he has and does not give up on the HP38E anyway! I'm trying to take it but he resists doing business...

His HP38E is a "sandwich" type like mine, but... both of ours have the same behavior: the "2" disease. I was almost sure his HP38E was not "infected".

What good would it be exchanging chips so far? Anyway, I'm just pointint out two situations, one of them is just to remember.

I had two HP31E in hands, one solderless and the other with soldered chips. The solderless one did not have the "2" disease and the soldered one did, opposingly to what is expected. Also I had the chance to test two HP38C, also different in costruction, and both showed the same behavior: no blinking 2's while inputing data.

I am posting this because I do not think solderless Spices are the only ones to show the blinking "2" behavior. I called it the "2" disease for fun, I don't take it as a disease.

If you want to test and verify what I call a strange behavior, find a "revision E" 82104A (HP41's card reader)and plug it in your HP41 as usual. To check if your card reader is one of this type, execute [CAT] 2 and wait till the display shows

```
 [CRD RDR 1x ]
```

where x is the revision. If x is equal to G or superior, this will not happen. If it is anything below E or also if it is F, I cannot say it's true. Well, it's a good time for testing, right?

Now execute any function that asks for three digits, like:

```
[SIZE] _ _ _
[GTO][.] _ _ _
[DEL] _ _ _
[LIST] _ _ _ (if you have a printer)
```

Type only two of the three expected digits and press [<-] two times to remove them. Let's say you did this:

```
[XEQ] [ALPHA] SIZE [ALPHA] [2][3] [<-][<-]
```

You'll see:

```
[2       SIZE]
```

To remove this weirdness from the display you should press any key EXCEPT [<-].

Weird, isn't it? I consider this a bug because the system freezes; it does not crash because there's no need to remove batteries so the calculator resumes normal operation and none of the operations involved is programmable. This is a firmware "disease" that was corrected later.

Well, I think that's all for now. I'd be thanked if someone knows any inforamtion about reader versions with this firmware problem and can share with us all

Best regards.

Luiz C. Vieria - Brazil

Edited: 21 June 2003, 10:41 p.m.

Do the experiment later ... a possible explanation of "2 disease"

*Message #2 Posted by **Norm** on 22 June 2003, 1:42 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi Luiz,
Well, we can't do the experiment until later... but we can
still do it. Wait until it is easy to swap the firmware
chips between two calculators, see if the problem is in the firmware.

Luiz wrote:
> The solderless one did not have the "2" disease and
the soldered one did, opposingly to what is expected.

That is really wild information. I would not have expected that. There is STILL an explanation (maybe) . Maybe HP was very, very disorganized in the way they produced these machines. We idolize them, naturally, BUT maybe they were a bunch of screw-ups. That is, maybe they would accidentally keep re-releasing an old version of the firmware, and so every once in awhile a bunch of the "2 disease" firmware chips was released, OR, maybe they programmed a million of them, and now and then they found a boxful in the warehouse, and they would put them into service.

So what I'm speculating is that engineering knew about the problem and they fixed it, BUT, production periodically would build the earlier revision, and engineering gave up on production building the right itme. It's possible... very very possible that they were that disorganized. The absolute opposite of "ISO9000" if you know what that is nowadays.

I AM GRATEFUL for this updated information about "2 disease" and I think we still need to prove, once and for all, whether "2 disease" is something in the firmware chip.

Thanks Luiz, - Norm

Card Reader bug

*Message #3 Posted by **Massimo Gnerucci** on 22 June 2003, 5:31 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

> Quote:
>
> If x is equal to G or superior, this will not happen. If it is anything below E or also if it is F, I cannot say it's true. Well, it's a good time for testing, right?

Confirmed: this bug is present in rev. 1E and not in revv. 1F and 1G.

My CRs are from these revisions only, cannot test for earlier or later units.

Well done Luiz!
Massimo

Re: Card Reader bug

*Message #4 Posted by **Chris(FLA)** on 22 June 2003, 10:30 a.m.,*
in response to message #3 by Massimo Gnerucci

I have 2 card readers.

The "CAT 2" only shows "CARD READER" how do you find the version number?

The units are 2024S & 2007A

They don't have the bug so I guess they are later versions.

Chris

Re: Card Reader bug

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 22 June 2003, 10:58 a.m.,*
in response to message #4 by Chris(FLA)

Hi, Chris;

their serial number suggest they are very earlier units, dated 1980. As they do not have revision id. and based ontheir serial #, they probably have the first firmware. I remember I saw an 82104A that showed this header after [CAT] 2. I know it because its owner asked me to see what was going on with it: no card pulling. I opened it and saw gum in the middle of the card pulling gear. I was not aware about that at that time (80's) and I told him I was not able to repair. Anyawy I tested it and clearly remember seeing [CARD READER] instead of [CARD RDR 1x } in the display. My card reader's serial # is 2712Sxxxxx and its firmware is a G-revision. Also, my 82143A (printer) shows [-PRINTER-] after [CAT] 2 is executed, no revision ID, and its serail # is 2141Sxxxxx. As far as I know and have used, I identified no bug in regular use. The HPIL printer functions' header is [PRINTER 2x] and the 82242A IR printer module for the HP41 has [PRINTER 3x] as header.

Is there any other information about modifications and upgrades in HP41's peripheral devices and extensions? I know some ROM had updated versions, and the only application ROM (programs instead of functions) I know that was updated and had a remark in teh HP Key Notes was teh Financial Decisions Pack. At least one of the programs was modified in [FINANCE 1C] and the modification was present in [FINANCE 1D]. I also read that MATH ROM had some radical upgrades with XROM number modification. This is something I don't understand why... Well. now it's history, we can only track and identify.

Best regards.

Luzi C. Vieira - Brazil

Edited: 22 June 2003, 4:52 p.m.

Re: Card Reader bug

*Message #6 Posted by **james (UK)** on 22 June 2003, 12:58 p.m.,*
in response to message #4 by Chris(FLA)

Interesting! I also have an early unit (serial 2025A) which shows CARD READER when CAT 2 is run but it does have the bug - wierd.

Re: Card Reader bug(update)

*Message #7 Posted by **Chris(FLA)** on 23 June 2003, 3:57 p.m.,*
in response to message #4 by Chris(FLA)

Ok, I tried this test again and my 41CX unit with the 2024S CARD READER does exhibit this bug. I must have done something wrong the first time I tried it.

But my 41C with the 2007A CARD READER doesn't exhibit the bug.

I tried the test a few times too. Maybe it depends on what unit the reader is connected to, seeing as SIZE is a 41 function and not a card reader function(shrug)?

Chris

Re: Card Reader bug(update)

*Message #8 Posted by **james (UK)** on 23 June 2003, 5:21 p.m.,*
in response to message #7 by Chris(FLA)

Just had another go with my 2025A serial card reader - I get the bug on all my 41s (2 fullnut CVs serials 2120S and2147S and a halfnut CX serial 2819S)

I guess...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 23 June 2003, 5:53 p.m.,*
in response to message #7 by Chris(FLA)

... that this firmware version "tries to answer" or wrongly answers a system call when this sequence happens, so the system crashes.

Just a guess that would justify the calculator (as a system) behavior. Any attachment/device may interfere in the whole process, I think.

Best regards.

Luiz C. Vieira - Brazil

Edited: 23 June 2003, 5:54 p.m.

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Wierd HP-87 Problem

*Message #1 Posted by **Mike** on 21 June 2003, 10:28 p.m.*

I have an HP-87 that has a sweep problem. I've looked around for obvious damage and have also looked for horizontal sweep adjustments. Can find neither.

Anyone have a schematic for the HP-87?

Problem: Each line starts about 2" from the left border with the cursor shown in the first photo.

http://www.msdsite.com/hpcalcs/hp87/sweep0x.jpg

Then as characters are typed, the letters are shown reversed and move from the cursor position toward the left border. After 4 characters, the charcters are displayed left to right, from the border. These characters overwrite the first 4 characters. The 2nd photo shows the result. I typed "Sweep problem".

I have used the down arrow, after the 4th character, to show what the screen is doing.

http://www.msdsite.com/hpcalcs/hp87/sweep1x.jpg

Here is the way it looks, if I don't use the down arrow after 4 characters.

http://www.msdsite.com/hpcalcs/hp87/sweep2x.jpg

It really looks like the horizontal sweep starting position is moved way to the left. Typing a whole line ends too far from where it should on the right.

I can just poke around till I find the problem but a schematic would help locate this problem.

Anyone ever see this before?

Edited: 21 June 2003, 10:40 p.m.

Re: Wierd HP-87 Problem

*Message #2 Posted by **Ellis Easley** on 23 June 2003, 5:36 p.m.,*
in response to message #1 by Mike

Is there a horizontal hold control, maybe just an internal one? It is usually a coil with an adjustable slug, on any monitors and TV's I've seen. Sometimes it's called "horizontal phase" and that's a clue why it can cause this. In the vertical sweep circuit, the vertical sync triggers a new vertical scan but the horizontal is a phase locked loop and the control adjusts the phase relationship between the sync pulse and the horizontal oscillator. It looks like your horizontal sweep is starting too late for the video.

Re: Wierd HP-87 Problem

*Message #3 Posted by **Tony Duell (UK)** on 23 June 2003, 6:37 p.m.,*

in response to message #2 by Ellis Easley

First rule of electronic repair (Well, almost) : Adjustments do not tweak themselves, so a fault is almost never sured by making an adjustment! In other words, tweaking the horizontal phase control might improve matters _for the moment_, but it's masking the problem, rather than fixing it, and it'll come back. In any case, I am not conviced this is a horizontal phase problem. It might be, but it might also be due to the beam taking too long to fly back, and thus some of the video is displayed during the flyback. I am trying to remember what causes this -- IIRC a deffective capacitor in the horizontal output stage is one possiblity. This assumes the 87 uses a conventional design, of course.

I was thinking cap too

*Message #4 Posted by **Mike** on 23 June 2003, 7:49 p.m.,*
in response to message #3 by Tony Duell (UK)

I have a schematic for the HP-85 and it might be similar. I looked around for something that looked smoked and couldn't find anything.

I guess I will try changing some likely caps, based on the 85 design. Not in any big hurry though. I'll report back when I find the problem.

Mike

Re: I was thinking cap too

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 23 June 2003, 11:50 p.m.,*
in response to message #4 by Mike

Hi;

I have already seen this sort of horizontal sweep (or "shifting") when using old-fashion SVGA monitors and changing O.S. graphics resolution. In many cases it was necessary to re-adjust horizontal "position" and sometimes horizontal "length". As the HP87 has everything built together, I believe there is a part of the circuit where the both image signal and horizontal scan share the same active circuits.

I just want to figure out the capacitor suspicion. What you mean is that part of the signal is getting mixed with horizontal scan signal or there is a DC component "shifting" initial position? If so, chances are that you may have a voltage/current divider with bad component, too. If there is any sort of current or voltage source used as a reference, even a failling resistor or diode may cause it.

I do not have the HP87 circuit; is there anything wrong in my analysis? I tried to consider not a general purpose monitor, but an specific design, as HP designers used to do.

Please, let me know if I'm too off-target.

Luiz C. Viera - Brazil

Edited: 23 June 2003, 11:57 p.m.

Re: I was thinking cap too

*Message #6 Posted by **Tony Duell (UK)** on 24 June 2003, 6:54 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

I don;t know much about the 87 (I will have to dig one out and investigate), but I have the

HP85 schematics (from the MoHPC CD-ROMs, of course!). The monitor design is _very_ conventional. It's just like every other single-frequency monitor I've worked on. The video chip outputs a vertical sync pulse, a horizontal sync pulse, and video information. These are kept sepearate (there's no reason to combine them into a composite signal and then separate them out again), so actually, there is no common stage that handles both video and hsync. The horizontal output stage of the 85 is just like that in a TV or simple monochrome monitor, and presumably can be debugged and repaired the same way.

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HP 41CX "restoration"

*Message #1 Posted by **B. Turner** on 21 June 2003, 12:15 p.m.*

6/21/03

looking for someone to restore my HP 41CX in quick turnaround time. it has sticky keys, cracked display window (lcd ok) and missing rubber feet. found someone on the net awhile back but can no longer locate them. any suggestions? my unit works but i would like to get it fixed as i use it daily in my work. prices for decent used 41's are ridiculous or would simply purchase. any help would be greatly appreciated.

b. turner

Re: HP 41CX "restoration"

*Message #2 Posted by **Jon** on 21 June 2003, 5:17 p.m.,*
in response to message #1 by B. Turner

Is a fullnut or halfnut?

Re: HP 41CX "restoration"

*Message #3 Posted by **HP Calc Fan** on 21 June 2003, 5:36 p.m.,*
in response to message #1 by B. Turner

Here is the website: Great Stuff ! at Great Prices..! click here to see website

Re: HP 41CX "restoration"

*Message #4 Posted by **Vassilis Prevelakis** on 21 June 2003, 6:31 p.m.,*
in response to message #1 by B. Turner

If the calculator is a "fullnut" then all you need to do is get an HP41C from eBay and swap the circuitboard. Its a quite straightforward operation and can be done in about an hour.

HP41Cs (or even CVs) can be found on eBay at reasonable prices if you take your time.

**vp

Halfnut and Fullnut cases interchange

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 22 June 2003, 12:39 a.m.,*
in response to message #4 by Vassilis Prevelakis

Hi;

to identify which one is yours, look at the image below:

This is an original MoHPC image.

I successfuly exchanged the case from both fullnut and halfnut with each other. If you cannot find a compatible case, it's possible to exchange but will take a lot more than one hour and will need some service.

The keyboard on each calculator must be removed, what means cutting plastic rivets out and settling the keyboard back in the other case somehow. If you are using a fullnut case and a halfnut circuit, some plastic rivets must be completely removed because the halfnut keyboard does not have all holes existing in the fullnut's keyboard. The opposite situation does not require this operation.

Look at the image below:

http://www.logeng.com.br/images/hn_fn_front_compare.jpg

The board shown in the left is a halfnut's board, and the one in the right is a fullnut's. The black holes in the fullnut's image indicate which rivets must be removed in a fullnut's case when "receiving" a halfnut's board.

Hope this helps.

Luiz C. Vieira - Brazil

Edited: 22 June 2003, 12:40 a.m.

Re: Halfnut and Fullnut cases interchange

*Message #6 Posted by **Jon** on 22 June 2003, 12:01 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Luiz.

How do you fix the keyboard again?. What can be used to replace the plastic rivets?

Cheers

Jon

Re: Halfnut and Fullnut cases interchange

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 22 June 2003, 2:55 p.m.,*
in response to message #6 by Jon

Hi, Jon;

the fact is that I cut only the necessary out of the original rivets. I do not remove the "mushroom" completely, I cut around them. Then I use existing plastic slices (or styrene) and melt some of them back (not all) to settle the keyboard. What I use to melt the plastic is something that works for me: a 220Vac soldering iron (35 to 40 watts) connected to a 110Vac outlet. It heats the plastic enough so it melts but it's not hot enough to burn the plastic. You can also use a rectifying diode (my first experiences) in series with the soldering iron so it will take only half of the AC wave, and in this

case you'll have about the same effect as connecting it to 110Vac. I gave up the diode because in one time its terminals touched each other and I did not see it, so one small plastic burnt out and I inadvertently smell the fumes. Believe me, not a good experience.

After this partial settling, I use a silicon-based glue in the remaining rivets. What makes me sad is that this technique gives good results, but is not 100% perfect. I'm sad to say that in at least two cases I did not get the best results. I reassembled some keyboards in Pioneers, Voyagers, Woodstocks, HP41 and two HP48. Spices have an extra advantage: no melted rivets at all. I also don't know what is the HP49 made of...

The HP41 is a particular case. I have a fullnut HP41C that has no refurbished rivets, the keyboard is solely maintained by the four case screws. I thought about the HP41 and it's a particular case: the keyboard is completely "pressed" by both cases. The two big screws (close to the LCD) lock the keyboard in place because of the BATT/IO assembly, and the two small screws must press the mainboard to the keyboard. The four screws lock both half cases together and the result is that the keyboard remains steady even if all rivets are loose.

I'd like to know what others are doing.

Best regards.

Luiz C. Vieira - Brazil

Edited: 22 June 2003, 4:58 p.m.

Another aid on reassembling keyboards

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 22 June 2003, 6:20 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Hi Jon, guys;

I also remember (have no clue about who, when, how) someone mentioned one kind of glue that is sort of sealing, rubbered material when "dried". It seems to be perfect, but I have never used it and have no idea of what sort of stuff it is.

Maybe the one who posted about it will read this and add the identification.

Sorry!

Luiz C. Vieira - Brazil

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Truth in advertising...

*Message #1 Posted by **jimc** on 21 June 2003, 10:37 a.m.*

I thought the byline in this ebay ad was pretty humourous...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3031183041&category=11713

Re: Truth in advertising...

*Message #2 Posted by **Bill Smith** on 21 June 2003, 11:40 a.m.,*
in response to message #1 by jimc

when i saw your post, i thought you meant this one...

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3031160398&category=11713

the Ebay definitions are humorous, but pretty much on the mark.

Re: Truth in advertising...

*Message #3 Posted by **Scuba Diver** on 21 June 2003, 7:18 p.m.,*
in response to message #2 by Bill Smith

Wow is one word...

However most of the words I use to describe the 30S are 4-letters long, not 3! :)

B.

How about this: $425 32sii

*Message #4 Posted by **John** on 21 June 2003, 7:53 p.m.,*
in response to message #1 by jimc

And he says the **List** price is $380. "List" price is that which is set by manufacturer.

List is $59.00

32sii for $425.00 (think he'll get any bidders?)

Not only is that a good deal but $25 to ship it.

Edited: 21 June 2003, 8:08 p.m.

Re: How about this: $425 32sii

*Message #5 Posted by **Patrick** on 21 June 2003, 8:22 p.m.,*
in response to message #4 by John

Actually, I think there are about even odds that there will be a bid. There are relatively few 32SII's available these days and it may not be obvious to a newbie eBayer that this price is out of whack with recent history.

There are always 10 or more on eBay < $250

*Message #6 Posted by **John** on 21 June 2003, 8:40 p.m.,*
in response to message #5 by Patrick

There are more than 10 on eBay at any point in time; all far below that.

There have only been 4 in the past 30 days that sold for over $250 and they were bought by newbies.

$400 is insane for these

There is a guy right now in Canada that is selling them for only a little over $200, and he is doing that on eBay with buy-it-now.

I doubt he will get a bid, unless he bids himself.

Edited: 21 June 2003, 8:41 p.m.

Re: How about this: $425 32sii

*Message #7 Posted by **Art Litka(FLA)** on 21 June 2003, 10:08 p.m.,*
in response to message #5 by Patrick

I recently purchased a used HP32SII from a local dealer for $99 + tax. It works well and is in good shape and I'm happy with it for my collection. I've been dealing with this fellow for over 25 years and would be happy to share his address and phone# with anyone interested.

Re: How about this: $425 32sii

*Message #8 Posted by **Randy Sloyer** on 22 June 2003, 7:00 a.m.,*
in response to message #4 by John

Actually, he wants $40 for shipping due to required insurance of $15.

It's people like this that give eBay a black eye. Just check this sellers feedback - the negative one - was an item he offered for sale with a BIN of $10. The shipping was $110. This is fee advoidance and is not permitted by eBay, but here it is for all to see. Just one more thing to watch out for.

Fee Avoidance (bids $36, shipping $265)

*Message #9 Posted by **John** on 22 June 2003, 10:20 a.m.,*
in response to message #8 by Randy Sloyer

I think you are right on. Check out all the stuff he is selling. His shipping fees seem to reflect the cost of the item.

Other auctions:

- 3029467816 Phone (bid $10, shipping $110)
- 3029189170 Phone (bid $10, shipping $110)
- 2734785968 Drive (bid $10, shipping $25)

- 3419378571 Modem (bid $6, shipping $20)

$36 in bids and $265 in shipping

There are more... (each could be easily shipped for much less than $10

Something that will be bought for $1 (because no one needs these) has a shipping fee of $10-15 (can be shipped for $3). Other items that are a tiny more valuable cost $20 to ship (but can still be shipped $3-4).

He will probably inform the seller that he has to pay $10-$15 insurance too. Insurance on any item of this value costs only $2 or less.

His shipping fees make no sense and do seem to reflect the cost of the item. I suspect this is a new account. He probably sold under a different account till his negatives got too high. I wonder if he will be reported? Send him an email and and ask a simple question (like why are your shippting so high) and see what kind of reply you get.

Edited: 22 June 2003, 10:39 a.m.

Great comedians of our time

*Message #10 Posted by **james (UK)** on 22 June 2003, 1:10 p.m.,*
in response to message #9 by John

I liked the explanation for the high shipping on one of the auctions though - the mercenary gran strikes!

> Quote:
>
> This item has been packed and will be shipped by my grandmother. It took her a full day to do the packaging. She already charged me $110 for S&H. So please take into account the high S&H costs and then bid accordingly. There is No Reserve on this item and the bidding starts at $1. Your $1 bid might win you this auction. However, your total cost would be $111. Think of it like this: you are purchasing a phone for $111 & free shipping. If you already bid on this item by accident, feel free to retract your bid. Have a great day!

Must be some packing if it took a whole day!

"Like NEW" but has a dent

*Message #11 Posted by **Mike** on 23 June 2003, 12:16 a.m.,*
in response to message #1 by jimc

How about this. It is advertized as "Like New" but in the description it says there is a dent.

Do you think "Like New" should included dented calculators?

HP 15C (with dent)

Re: "Like NEW" but has a dent

*Message #12 Posted by **David Ramsey** on 23 June 2003, 5:11 p.m.,*
in response to message #11 by Mike

Aw, at least he notes that the case is vinyl!

Re: "Like NEW" but has a dent

*Message #13 Posted by **Raymond Del Tondo** on 23 June 2003, 8:09 p.m.,*
in response to message #11 by Mike

Hi Mike,

of course not. Maybe 'near mint w/small dent' would be more suitable.

Regards,

Raymond

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Dealing problem ...

*Message #1 Posted by **Matthias Wehrli** on 21 June 2003, 8:40 a.m.*

About 4 month ago I made a deal with a german HP collector. He wanted me to sell some HP magazines and a port replicator. Cause I had to wait for a very long time for my items he told me, he would send me the items for free (no shipping rate). Ok, that's fine, but.... When I got the "parcel" I was deeply scared, cause he put the magazines and the port replicator in a blank (not even air feeded) envelope. The envelope was teared open by the sorting maschine of the postal service and the port replicator was missing...

A picture can be seen on my webside: http://www.hp-collection.org/envelope.jpg

I told the seller the problem and went also to my post office. They told me, that the seller didn't packed the items savely and that they will not pay anything. I also think, that this is not the right packing material for these items. What do you think? So far so good... The seller told me, that it's not his problem, but the post office problem, cause they delivered me this indured envelope directly in my mailbox without my signature.. I say, that the envelope was damaged before and that this would not make the thing unmade... I told the seller 2-3 possibilities to solve this problem: 1. to solve the problem directly with the swiss post (I gave him the telfefon and faxnuumber but he didn't contacted the office) 2. paying me back the money. (I also sent a item once before like this and it also didn't arrived. I payd back the money, cause it was my fault to send the item like that.)

So, until this problem, the seller seemed to be gentle (but very slow!). All I can do is to warn you, doing such deals with that seller (W.K. from Germany). Please do not care about all the others german sellers. I know some of them and they are very gentle and trustfull..

Matthias

I have good luck with German sellers... but...

*Message #2 Posted by **Mike** on 21 June 2003, 8:53 p.m.,*
in response to message #1 by Matthias Wehrli

Only 21 positives and he doesn't sell much. So, he probably doesn't care what people think.

You can tell a lot about the attitude of the seller.

Edited: 21 June 2003, 9:00 p.m.

Re: Dealing problem ...

*Message #3 Posted by **Frank B. (Germany)** on 22 June 2003, 6:19 p.m.,*
in response to message #1 by Matthias Wehrli

I think it would be interesting to do a little bit of statistics for ebay selling/buying. Up to now I bought/sold about 140 pieces via Ebay (about 80% of these related to HP-calculators). Bought calculators from the US and from Australia without any problems. Only with one deal I had major problems (seller located in Austria).

The first time I sent him cash in a letter. After a few weeks he told me that no letter arrived. Ok, my fault.

Could have sent it via registered or insured mail, or could have made a bank transfer. So, for the second try I used registered mail. This time at least the envelope arrived, but the seller told me that it was empty. No money in it. So, what should I do? The german postal service refused any responsibility, because the envelope made it's way to Austria. And the seller didn't seem to be very motivated to deal with the Austrian postal service. This way I spent 150 Euros for nothing.

I have no reason to blame the seller for all this, because he seemed to be a honest guy. The thing I've learned is that I'll never ever send money via mail. Even if I have to pay 20 Euros fee for a bank transfer this will be cheaper than loosing all the money once or twice.

What experiences do other sellers/buyers have? What's the percentage of deals went wrong?

Frank.

Edited: 22 June 2003, 6:25 p.m.

Re: Dealing problem ...

*Message #4 Posted by **Mark** on 23 June 2003, 7:03 a.m.,*
in response to message #3 by Frank B. (Germany)

How about BidPay.com? I would never send cash through the mail. I think postal clerks can smell it.

Re: Dealing problem ...

*Message #5 Posted by **Ellis Easley** on 23 June 2003, 6:16 p.m.,*
in response to message #4 by Mark

> Quote:
>
> I think postal clerks can smell it.

Maybe that's why I was advised to wrap cash in foil for mailing! I thought it was for X-rays or holding up to the light. I used the foil from a chocolate bar (both - or all three - times) only because it was thinner, but maybe the smell fooled the clerks!

I was only completely cheated once on Ebay, and the final bid was US$1 - with shipping, handling and insurance US$5. I had trouble with some other deals but received some adjustment. Best was from a brand-new, serious seller who was more concerned about feedback than profit, he refunded all my expenses and let me keep a TI calculator with a broken battery door. My feedback is 95 but my total is more than twice as high because I bought many items of test equipment from one surplus dealer.

I don't think I ever bought anything on Ebay from a European seller except some BBC Computer books from England. I bought other things from people in Europe who listed, or answered my listing, in the Museum Classified ads, and had no problem.

Re: Dealing problem ...

*Message #6 Posted by **Matthias** on 24 June 2003, 10:41 a.m.,*
in response to message #5 by Ellis Easley

You didn't read my posting exactly.. Not the money was stolen, but the envelope with the items (the port replicator) was damaged... Have a look at my picture...

Re: Dealing problem ...

*Message #7 Posted by **Ellis Easley** on 24 June 2003, 5:10 p.m.,*
in response to message #6 by Matthias

Yes, my response seems to follow a sub-thread about sending cash! But after looking at your picture, I remember that this a major complaint I have against Ebay - sellers who don't pack things correctly. I get a lot of spam email about education for selling on Ebay - I never read any of it - but I wonder if they talk about packing items for shipment and its impact on customer satisfaction? I have had two cases of serious damage - both through the US Postal Service. One package never came to me, the seller told me it was returned to him badly smashed and he just refunded my money, so I don't know if packing had anything to do with that case. But the other item was packed very poorly, an oscilloscope that was wrapped in a plastic garbage bag and put in a diaper box (very thin cardboard) with a very small amount of foam peanuts - no attempt to surround the item with peanuts. Then the box was wrapped in brown paper. The package showed only a small tear about 4" long in the brown paper, but inside I found that some kind of narrow blade had punctured the cardboard box and two layers of sheet metal on the back panel of the oscilloscope! Maybe it was a miracle, but the only electrical damage was to the small "trace rotation" pot. I kept the unit rather than try to make a claim with the post office, which sounded like a lot of work for a small return. Also, I don't blame the post office - I blame the seller! But the only thing he was willing to do was to help with the post office claim.

I think part of the problem is that we are spoiled by having very good shipping companies. I have had very little trouble out of a large number of shipments, including packages that were wrapped extremely poorly but arrived with no damage. Even retail mail order businesses pack things in a way I would consider to be insufficient. They put a boxed item in a large box, free to move around with very little, or no, padding. They are trusting the manufacturer's display box - and the shipping company! (usually the US Postal Service) And usually, nothing goes wrong, but once in a while something does go wrong and I think all packages should be wrapped with the assumption that something will go wrong. With retail items that can be easily replaced, I can understand why a business would take advantage of the excellent performance of the post office and other shipping companies, and save some money on packing materials. But for hard-to-find or irreplacable items, I think it is inexcusable to use sloppy packaging.

I think one other factor is that on Ebay, a seller has frequently bought the item for very little cost at a flea market, or found it in an attic, so he puts a small value on the item. Sometimes the fact that at least two people were willing to pay him hundreds of dollars for the item doesn't alter his valuation!

Re: Dealing problem ...

*Message #8 Posted by **bill platt** on 25 June 2003, 10:30 a.m.,*
in response to message #7 by Ellis Easley

QUOTE:

"I think part of the problem is that we are spoiled by having very good shipping companies..."

I think the "very good" ones only applies to the parcel business--UPS, FedEx, and usually the USPS is good but not as good.

When it comes to bigger stuff (using common carrier freight), or international, the game really changes.

I once had two canoes shipped from the US to Canada. They arrived crushed. The loading

instuctions were clear about top-loading only---but the morons that actually loaded those trucks didn't care. I absolutely do not understand how those big freight companies stay in business (Yellow, Old Dominion, etc). They charge almost nothing for shipping (like $90 for the canoes!) and then everything gets damaged. I claimed against them for $1050 and got the money. But the first boat that came, I did not have my claim filed within 7 days and so they refused to pay!

Yes, the shipper should make an effort to pack stuff correctly, but really it is the carrier's responsibility to flag an item that is improperly packaged---in the end it is the carrier who pays for the damage!

regards,

Bill

Re: Dealing problem ...

*Message #9 Posted by **james (UK)** on 24 June 2003, 12:29 p.m.,*
in response to message #3 by Frank B. (Germany)

Most of my ebay deals have been with the US (1 Malyasia, 1 Canada and 2 UK) and all have been fine.

I haven't had any European deals because most European sellers don't seem to take PayPal and as the banks in the UK want at least $35 for making a bank transfer shipping stuff across the Atlantic becomes the better option.

Despite seeing a lot of unfavourable comments about the US Postal Service I have never had any problems with delivery.

Re: Dealing problem ...

*Message #10 Posted by **Mike (Stgt)** on 23 June 2003, 9:52 a.m.,*
in response to message #1 by Matthias Wehrli

Up to now only one fraud in about 20 deals. It was with a bunch in Ulm. All others: no problem, worldwide!

Ciao.....Mike

Re: Dealing problem ...

*Message #11 Posted by **Vassilis Prevelakis** on 25 June 2003, 9:09 a.m.,*
in response to message #1 by Matthias Wehrli

Whenever you are dealing with people you do not know, there is always the possibility of misunderstandings.

I'll give you three examples:

a) I ordered a serial card for the HP-85. The eBay auction showed the card with its box which looked in a very good condition. Well the seller shipped the card in that box (without additional packaging). The card arrived intact, but the box was a mess. Since I wanted the card, I didn't mind, but if I wanted the box, I'd have been furious.

b) I ordered an HP 41 card reader. It never arrived. I contacted the seller and he said that he had sent it, but could not provide any proof. In the end I gave him a negative rating. Some time later I checked and found that he had added a comment after the negative rating to the effect that the problem was resolved (!!!). Needless to

say I never bought anything from that loser, but I did note that others did buy stuff from him and gave him +ve feedback.

c) I purchased an HP 9915B computer and the seller gave me the impression that he did not actually want to sell me that machine (he sent it to the wrong address - he refused to email me the UPS tracking number - he was slow in responding to my email, to allow UPS time to give up and return it to the shipper - when the item was returned to him, he claimed it was my fault and wanted additional money to send it again, etc.). I persisted and in the end I did get the 9915B, although it arrived dead (PSU prob).

The big problem is that these items are rare, so these transactions are not typical. Getting a refund when a rare manual is lost in the post is little consolation. E.g. the 9915B closing price was $10; for this price I was prepared to spend a lot of time to make sure I got the item.

So, to avoid disappointments, its better to deal with people you know and trust. It is often also cheaper, as you can bypass eBay altogether.

It is also important to prepare 1-2 paragraphs with instructions regarding the shipment (your address, packaging instructions, mandatory insurance, tracking numbers, etc.). You have these instructions in a file so you don't have to think about it, you just attach it at the end of your email. E.g.

> Quote:
>
> NOTE: Packages MUST be sent to me with some kind of tracking number (e.g. delivery confirmation for USPS Priority Mail, with some other shipping methods, such as UPS ground, it is included in the price). Please include this in the shipping cost. The tracking number MUST be emailed to me after the package is dispatched. If a package is sent without a tracking number, and is "lost in the post", then I will post negative feedback and demand full refund.

Make sure that the seller understands that these instructions are part of the deal, so that if there is a problem later, you can go back and point to your original email.

**vp

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41CY

*Message #1 Posted by **Holger** on 21 June 2003, 5:04 a.m.*

A 41CY without handbooks but with printer just went over the counter for 969 Euro
http://cgi.ebay.de/ws/eBayISAPI.dll?ViewItem&category=9972&item=2539285844

I guess before long we have to put our hp's into a bank deposit..

Re: 41CY

*Message #2 Posted by **Matthias** on 21 June 2003, 7:05 a.m.,*
in response to message #1 by Holger

I saw and bidded on this auction too.. a very high price for a "not mint" CY.. I told to the seller before and got a very gentle impression of him.. He will be happy for that much money, cause I told him to sell it on ebay.. he wanted to sell it private and his highest bid from me was $500.... My last bought CY is mint and full working for much less money...

Matthias

Re: 41CY

*Message #3 Posted by **John Smith** on 21 June 2003, 11:57 a.m.,*
in response to message #2 by Matthias

What is 41CY? I'm dying to know. How is it different than 41CV or CX?

Re: 41CY

*Message #4 Posted by **Holger** on 21 June 2003, 1:26 p.m.,*
in response to message #3 by John Smith

The CY is not from HP, it's a 'CX on steroids'. Some firm whose name I forgot made them. They were supposed to be twice as fast as a genuine CX and had a 'rambox' which's purpose I don't know. There are some rumours that the configuration was not very stable. They are very rare. Matthias has some info on his website. http://www.hp-collection.org/Rechner/hp-41cy.htm

Re: 41CY

*Message #5 Posted by **Raymond Del Tondo** on 21 June 2003, 5:02 p.m.,*
in response to message #4 by Holger

Forget the rumours about stability, since we're not talking about the 49G;-)

Seriously, the CY worked very well. At least the units I worked with.

The RAMBox can be seen as module simulator, or simply as additional RAM. 64K is much space

for HP-41 programs...

Raymond

Re: 41CY

*Message #6 Posted by **Johnny Billquist** on 23 June 2003, 7:38 a.m.,*
in response to message #5 by Raymond Del Tondo

I'd like to know how this 64K memory worked. The CPU cannot use it in a "normal" manner. Normally addressed memory is read-only in the 41 architecture. The full address range is 64K, but the "OS" itself take a big part of that range, and modules just about can fill up the rest. I don't see how you could have an additional 64K in there. RAM is addressed as a device. But the full address range is only 1024 registers unless my memory fails me. That's 7K. And almost all of it is used if you have a CX and two X-MEM modules.

What's left (that I can see) is that you have a module that have 64K as offline storage. Usable in a similar way as X-MEM or as HP-IL mass storage.

Perhaps someone else can fill me in here?

Re: 41CY

*Message #7 Posted by **Raymond Del Tondo** on 23 June 2003, 8:05 p.m.,*
in response to message #6 by Johnny Billquist

Hello,

the RAMBox of a CY is divided into 2 32K banks. You can programmatically switch them by the W&W RAMBox OS's commands PG<>, PG01, PG10 .

As said in earlier posts, the RAMBox part simulates ROM pages in the HP-41.

For the CPU it looks like ROM, but with suitable software, like David assembler, or RAMBox OS's data functions, you can simply modify it, and use it like a RAM disk.

Regards,

Raymond

Re: 41CY

*Message #8 Posted by **james (UK)** on 21 June 2003, 3:27 p.m.,*
in response to message #3 by John Smith

See the following re 41CY

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv013.cgi?read=35317

re rambox

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv006.cgi?read=9731

41s rock!

Re: 41CY

*Message #9 Posted by **Holger** on 21 June 2003, 1:13 p.m.,*
in response to message #2 by Matthias

I lost interest when the bid went above 400 EUR. Probably the last chance to snatch one, however..

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HP55

*Message #1 Posted by **Howard** on 20 June 2003, 6:37 p.m.*

I recently purchased a HP55 off Ebay. The advertisement said it works fine but it doesn't. Before I try to get my money back I'd like some advice in case I'm doing something wrong or else it is a simple problem to fix. I don't have the manual but MOHPC site says to Press GTO 00 then move switch to programme and then press the sequence of keys. I do this and the line (with 1 exception) reads "01. -15" for every entry. The exception is that if I press GTO 1, 2 or 3. What is going on??

Re: HP55

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 June 2003, 7:07 p.m.,*
in response to message #1 by Howard

Hi;

I have an HP55 and if I switch it to ON and set mode switch to PRGM and press nothing else I see [00.]. What do you see in yours if you do the same?

The [01 -15] display indicates you pressed [GTO] [1] [5], or GTO 15.

For the records: which keys did you press? Can you list them?

Thenk you.

Luiz C. Vieira - Brazil

Re: HP55

*Message #3 Posted by **Howard** on 20 June 2003, 7:17 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Switch on 00 Press "g" -15 press any key except GTO 1, 2 or 3 gives the same result.

Re: HP55

*Message #4 Posted by **David Ramsey** on 20 June 2003, 7:45 p.m.,*
in response to message #1 by Howard

The HP-55 has 50 programming steps, numbered 00-49.

With the program switch set to "Run", pressing GTO xx where xx is a two digit number between 00 and 49 will set the program counter to that number.

If you press GTO 23, then move the switch to PRGM, the display will read:

23. -00

The "-" is the 55's shorthand way of representing "go to". Thus, when there's no program in the calculator, every step is "GTO 00", represented as "-00".

All GTO addresses must be two digits. If you try to enter an illegal line number, i.e. GTO 56, the GTO will be ignored and the two digits will be entered by themselves. In this case "5" and "6" would be entered as separate steps.

Try this:

1. Turn calc off, then on.

2. Move switch to PRGM.

3. Press these keys: ENTER, 2, /, 5, 2, 8, 0, X, R/S

4. Move the switch back to RUN. Press GTO 00.

5. Enter "23" and press "R/S". The display should flicker and show "60720".

I suspect your calc works fine. Have you used any of the older keystroke programmable HPs before?

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To Ellis, D.Ramsey, D. Smith: HP97 card reader flat flex cable - old thread

*Message #1 Posted by **Renato** on 20 June 2003, 5:23 p.m.*

There was a thread a few weeks ago about replacing HP97 card reader flex cable. Ellis wrote:

> Quote:
>
> HP97 card reader flat flex cable
> Posted by Ellis Easley on 5 June 2003, 8:49 a.m., in response to Replacement cable, posted by Renato on 3 June 2003, 1:27 a.m.
> Renato,
> See if they have a cable with 13 conductors, 0.1" between conductors, at least 2.75 inches long - with both stripped areas on the same side of the cable.

I finally went to the store. They had two 13 conductors cable
a- Made by Ensung, L=20cm, 1mm between conductors
b- Made by Dong Ho, L=14cm, 1.25 mm between conductors.
None of them seem to fit. I understand HP97 uses 2.5 mm between wires. Maybe a 26 wires with 1.25 mm between conductors will fit ? What is the cable width ?

Re: To Ellis, D.Ramsey, D. Smith: HP97 card reader flat flex cable - old thread

*Message #2 Posted by **David Ramsey** on 20 June 2003, 7:52 p.m.,*
in response to message #1 by Renato

The cable is 35mm wide, 7cm long, and the conductor spacing is 2.5mm. There's 1.25mm of extra space on each side.

Re: To Ellis, D.Ramsey, D. Smith: HP97 card reader flat flex cable - old thread

*Message #3 Posted by **Renato** on 20 June 2003, 11:46 p.m.,*
in response to message #2 by David Ramsey

Ok, thank you.

If any of you could scan a 1:1 image of the cable, I could use it when I go to the store again. I´ll look for cables that match dimensions, and could be electrically compatible.

Renato

Re: To Ellis, D.Ramsey, D. Smith: HP97 card reader flat flex cable - old thread

*Message #4 Posted by **David Ramsey** on 21 June 2003, 1:41 a.m.,*
in response to message #3 by Renato

Here's the cable:

http://neko.com/~dramsey/hpcable.jpg

It's not being shown 1:1 here; you might have to grab the image directly from my server. Or you could use the measurements I supplied previously...

Re: To Ellis, D.Ramsey, D. Smith: HP97 card reader flat flex cable - old thread

*Message #5 Posted by **David Smith** on 21 June 2003, 2:31 p.m.,*
in response to message #2 by David Ramsey

I think the spacing between conductors is actually 0.10 inches or 2.54mm (some cables are 2.50mm spacing... the difeerence adds up over more conductors). There is a posibility that a fine pitch cable (1mm or less) might work (much like the zebra strip connectors in the HP41) by sharing several conductors with one connecotr pin. Shannon's sampling therom says you the spacing needs to be finer than twice as dense as the normal cable for this to work.

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HP-45 Charge

*Message #1 Posted by **David E** on 20 June 2003, 2:26 p.m.*

I have the ac cord and a battery I bought off of ebay that works with the hP-45, 67, etc (battery is 8 months old, and will charge in the hp-67). The battery will not charge however in the hp45 (I have tried it in 2 of my hp45's)....Am I doing something wrong?

Re: HP-45 Charge

*Message #2 Posted by **Erik Wahlin** on 20 June 2003, 3:16 p.m.,*
in response to message #1 by David E

If you mean that the battery works in the HP-67 but not the 45, it may be that the gold plated copper tab at the three pin socket is not short circuiting two of the pins. That must occur before the calc can run on the battery. Does the calculator operate on the ac adapter alone?

Re: HP-45 Charge

*Message #3 Posted by **David E** on 20 June 2003, 3:32 p.m.,*
in response to message #2 by Erik Wahlin

Yes it operates on the ac alone...so do you think I just need to clean the gold plated copper tab? Is that the copper backing?

Thanks

Re: HP-45 Charge

*Message #4 Posted by **David E** on 20 June 2003, 3:39 p.m.,*
in response to message #3 by David E

The contacts are touching after I take the charger cord out, but the battery itself isn't even warm after charging for a few hours....

Re: HP-45 Charge

*Message #5 Posted by **David E** on 20 June 2003, 4:02 p.m.,*
in response to message #4 by David E

I am retarded. The contact was not reaching battery contact....ggh....lol, this took me 2.5 hours to figure out..

Retarded, Huh.....

*Message #6 Posted by **Michael Meyer** on 20 June 2003, 10:53 p.m.,*
in response to message #5 by David E

Get in line.

Actually, much of fixing calculators is the process of looking carefully for a flaw that can be seen with the naked eye.... I'd say more than half that I've fixed have had some basic flaw that could be seen. IMHO, MOST things I fix are a matter of a simple connection, etc.

Michael

P.S. You're talking to a guy who's HP-67 worked for a year with two capacitors soldered in backwards....

Re: Retarded, Huh.....

*Message #7 Posted by **David Smith** on 21 June 2003, 2:33 p.m.,*
in response to message #6 by Michael Meyer

Are you sure the caps were installed on the circuit board backwards? You could have installed the circuit board around the capacitors backwards.

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Opinions on P41CX -The HP-41CX Emulator for Palm

*Message #1 Posted by **gene** on 20 June 2003, 12:14 p.m.*

http://www.palmgear.com/software/showsoftware.cfm?prodID=40123

What does everyone think of this HP-41CX emulator running on the palm? Comes with almost every ROM module you can think of, for only $10.

Re: Opinions on P41CX -The HP-41CX Emulator for Palm

*Message #2 Posted by **Daniel Diggelmann** on 20 June 2003, 1:35 p.m.,*
in response to message #1 by gene

Hi Gene,

I bought P41CX just when it came out 1 month ago. I think it's a great emulator and I use it everyday. The price is right and I'm looking forward to new modules and enhancements.

Happy programming Daniel

Re: Opinions on P41CX -The HP-41CX Emulator for Palm

*Message #3 Posted by **Eduardo** on 25 June 2003, 2:40 p.m.,*
in response to message #2 by Daniel Diggelmann

I bought P41CV right before the appearance of P41CX so I paid only $7 *and* got a free upgrade (to 41CX). The author is great, and he e-mailed me the new proggy as soon as it was released ;)

Eduardo

PS: Yes, I *totally* love it, and the price couldn't be more right... I was toying with the idea of buying MathUPro (for $35, I think) until I came across this killer app.

Emulators generally

*Message #4 Posted by **bill platt** on 20 June 2003, 3:01 p.m.,*
in response to message #1 by gene

This is the sort of software/hardware future I have been following, too---I think that ultimately there is the possibility of a decent calculator, if and when the hardware improves as far as interface (buttons) goes.

The Tungsten C is a start in the right direction (but $500!).

I am curious about other emulators, too---HrastProgrammer has a number of them (I am not sure if for palm yet)--and there are others--and even a bunch emulating the 48 series.

Did HP give their rights to the 48 to the public domain? Is the 41 so old that it is automatically public?

Re: Opinions on P41CX -The HP-41CX Emulator for Palm

*Message #5 Posted by **hugo (belgium)** on 21 June 2003, 5:37 p.m.,*
in response to message #1 by gene

Great emulator! I use it now for almost a month as standard calculator on my Sony Clié (T615), for the moment being as unregistered version. All functions are there as well as 2 X-Memory modules and the Advantage module. Only the printer emulator does make mistakes (not a right printout). What i find absolutely well made is the P41CX Memo Compiler, which enables me to download HP41 programs, put them in a memo on the Clié and then directly transfer it to the P41CX. Well done!

regards, Hugo

Tell me more about the memo compiler...

*Message #6 Posted by **Gene** on 21 June 2003, 9:22 p.m.,*
in response to message #5 by hugo (belgium)

I have a clie...tell me more about how you do this. Where do you get the programs, what format do you download them in? Give me the 1, 2, 3's of the process. :-)

Re: Tell me more about the memo compiler...

*Message #7 Posted by **hugo (Belgium)** on 23 June 2003, 3:18 a.m.,*
in response to message #6 by Gene

1) you need the memo compiler (P41CXKC12.zip) from the site where can also download the P41CX. After synchronising this compiler to your Clié you are able to use memo's to write and compile programs for P41CX. 2) i use Microsoft Outlook to synchronise memo's between my Clié and my computer; i assume you could also use other programs like the Palm desktop, but the procedure would be comparable; 3) as an example, let's take the program for the calculation of Reynolds numbers from the Chemical Engineering Solution Book which you can find in the HP41C Sofware library on the MoHPC. Open this page on MoHPC and select the prgram with the cursor; copy to the clipboard; open Outlook, create a new memo and paste it in there. Do not forget to add the following as the first line of the memo: #P41CX LOAD otherwise the compiler will not recognize this memo as a HP41 program to compile. 4) synchronise this memo to the Clié 5) on the clie start the application P41CXKX (the compiler), it will indicate "Loading P41CX program from memo pad... OK" 6) In the menu of this application, choose "Go" "Compile", you will see then the program scrolling as the compiler loads it. 7) start P41CX, start program mode "PRGM" and select the menu of P41CX by clicking the button for menus on your Clie (the one below the Home icon) 8) choose "Edit" "Load" and the P41CX will load the program in its memory (you can follow it on the display)

This way, all programs you can find in the MoHPC program library are "easily" downloaded to your P41CX!

hope this explanation can help you

Hugo

Re: Opinions on P41CX -The HP-41CX Emulator for Palm

*Message #8 Posted by **Werner Huysegoms** on 23 June 2003, 10:00 a.m.,*
in response to message #1 by gene

I have it. I use it, it's a dream come true, at a *very* reasonable price. Werner

Re: The HP-41CX Emulator for Palm(nsim)

*Message #9 Posted by **Chris(FLA)** on 23 June 2003, 4:08 p.m.,*
in response to message #8 by Werner Huysegoms

*I have it. I use it, it's a dream come true, at a *very* reasonable price.*

Actually the emulator is free under the GPL.

It was ported from Eric L. Smith's nsim emulator for Linux.

The cost is for the addons that Charles Lee added.

Chris

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HP-41 CX

*Message #1 Posted by **Jon** on 20 June 2003, 12:04 p.m.*

Hello:

I have bought a HP-41CX halfnut with faulty working "user key". Sometimes it works sometimes not. Don´t worry, I knew it and I got a very good price (good seller). May be somebody knows if it can be fixed anyway. I have also a 41CV halfnut. Could I use it´s keyboard for the 41CX?. If it is possible, can I change the "HEWLETT PACKARD 41CX" logo from the original to the CV`s keyboard?

Thank´s in advance

Jon

Re: HP-41 CX

*Message #2 Posted by **Massimo Gnerucci** on 20 June 2003, 1:15 p.m.,*
in response to message #1 by Jon

You could also use SF 27 / CF 27 to get in and out of user mode... :)
Massimo

Re: HP-41 CX

*Message #3 Posted by **Jon** on 20 June 2003, 2:39 p.m.,*
in response to message #1 by Jon

Oh God!

I didn´t realize there is another thread for the 41 keyboard repair. Anyway may somebody has an special solution for the user key.

Thanks to Massimo for the alternative. It is a good idea if can´t repair the contact

Re: HP-41 CX

*Message #4 Posted by **David Smith** on 20 June 2003, 4:55 p.m.,*
in response to message #3 by Jon

See the threads on HP keyboard repair. The user key is just another key on the keyboard. Its' contact is easily cleanable using the "wire brush" technique.

Thats probably it

*Message #5 Posted by **db(martinez,california)** on 21 June 2003, 1:10 a.m.,*
in response to message #4 by David Smith

David has a good first idea. It may just be me but i have had more dirty on/user/prgm/alpha keys than any other and they can be cleaned out. Be gentle.

SOLVED !!!!!

*Message #6 Posted by **Jon** on 21 June 2003, 10:11 a.m.,*
in response to message #5 by db(martinez,california)

The problem was the plastic foil under the batteries. After cleaning the key several times with isopropilic alcohol I didn´t get any result until I forgot placing that foil. It seems this element produced any bad contact. So I made the hole for the contacts 1 mm wider and now everything works. YAHOO!!! (and I have the cleanest user key of the world).

This is the first time I open a halfnut. Although it works fantastic it seems it has been serviced. There are two diodes and a capacitor soldered one over the other on one side. I see also red wire connecting two points. Has anybody a photograph of one of these calcs opened. In the main page I have only found a fullnut inner photographs.

Jon

Re: SOLVED !!!!!

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 21 June 2003, 11:47 a.m.,*
in response to message #6 by Jon

Hi;

I posted a photo a few days days ago showing an opened (dismanteled) halfnut and these components are present in at least eight halfnuts I have already opened (two CX and six CV). You may also notice that earlier halfnuts have a post-production cut in the cooper trail where the red wire is soldered, while the newer units have this trail already separated in the PCB layout.

I've been served by a provider that does not care a damm dot for its customers, so the page I was using was removed and created again and all my pictures are gone. I'm lucky I have all of them, so I'll have to upload them all back.

If you want, I can e-mail you the image so you can check if yours is the same type.

Best regards.

Luiz C. Vieria - Brazil

My e-space is back, thanks Lord!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 21 June 2003, 11:55 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Hi;

look at the picture below:

http://www.logeng.com.br/images/hn_mainboard_back_view.jpg

The extra black&red wires in the top of the image were added to test the unit with an external battery pack, they do not exist in regualr units. I don't know how long will it

survive again, so if you like it, copy it to your HD...

Regards.

Luiz C. Vieira - Brazil

Edited: 21 June 2003, 12:00 p.m.

Re: My e-space is back, thanks Lord!

*Message #9 Posted by **Massimo Gnerucci (Italy)** on 21 June 2003, 12:45 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Luiz,
would you be so kind to reload the picture about the comma/dot jumper on the spice series? I wasn't fast enough and couldn't see it...

Thanks a lot,
Massimo

At your request, my friend

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 21 June 2003, 1:25 p.m.,*
in response to message #9 by Massimo Gnerucci (Italy)

Hi, Massimo;

long time, no "read"...

Here it is:

http://www.logeng.com.br/images/comma_jumper.jpg

I'm organizing the images so I'll keep them in one directory in my working HD. If (when?) it happens again I'll quickly put them back. I'll "collecting" them around because I have four computer connected to each other (my own home net) and there are at least 3 hard-disks where some images are stored...

Thank you and best regards.

Luiz C. Vieira - Brazil

Edited: 21 June 2003, 1:27 p.m.

Re: At your request, my friend

*Message #11 Posted by **Massimo Gnerucci** on 21 June 2003, 2:03 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Thank you very much, Luiz!
Now I've stored it on one of my PCs too... it will hardly get lost again ;-)

Greetings,
Massimo

Re: SOLVED !!!!!

*Message #12 Posted by **David Smith** on 21 June 2003, 2:36 p.m.,*
in response to message #6 by Jon

The diodes and caps and wires are standard construction for the halfnuts.

BTW, when opening a halfnut be very careful of the speaker wires. They just LOVE to break off the circuit board.

What a design

*Message #13 Posted by **Jon** on 21 June 2003, 5:16 p.m.,*
in response to message #12 by David Smith

Thank you.

I see it hasn´t been modified. It´s no the best design I have seen from HP.

Jon

re; david's speaker wire

*Message #14 Posted by **db(martinez,california)** on 22 June 2003, 1:36 a.m.,*
in response to message #12 by David Smith

I never met an hp41 speaker wire i could not do without. The only time i ever used the noise function on purpose was to set up my 41 with the ppc rom to be a piano. I handed it to a friend who plays keyboard. He hit all the keys once and proceeded to play "Mary Had a Little Lamb". OK, it wasn't Mussorgsky's "Pictures at an Exhibition" but i was impressed.

Re: Thats probably it

*Message #15 Posted by **Ellis Easley** on 23 June 2003, 9:25 p.m.,*
in response to message #5 by db(martinez,california)

Maybe that's because when we first go to the machine, we turn it on and whatever bits are on our fingertips fall off and into the gaps around the On/User switch.

That makes sense Ellis

*Message #16 Posted by **db(martinez,california)** on 23 June 2003, 11:59 p.m.,*
in response to message #15 by Ellis Easley

It has gotten no worse since i started to keep the calc in a baggie. With that tidbit it makes even more sense.

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What, nobody likes Paul Simon ?

*Message #1 Posted by **NH** on 20 June 2003, 8:39 a.m.*

to the tune of Paul Simon "Kodachrome"

** ** ** ** ** ** **

(roll,roll,roll, THUNK) (sound of quarter being put into jukebox)

Selection "34-C"

Record comes up, "THUD" needle hits record....

(a few scratches & pops)

.....

When I think of all the crap I learned in high school....

its a wonder I can think at all,

it werent for my trusty red LED calculator,

math class wouldn't have done me no good at all.

RED LED""s, give me them bright red digits

give me them 7 bright segments,

make me think every calculation is a sunny day,

oh yeah,

I got an HP 34C

I love to do caaalculations

but Carly gonna take my 34C away.

(chorus)

Carly don't take my 34C

Carly don't take my 34C

Carly don't take my 34C away

Carly she took my 34C

Carly she took my 34C

Carly she took my 34C away .....

Hey Norm

*Message #2 Posted by **bill platt** on 20 June 2003, 8:55 a.m.,*
in response to message #1 by NH

We liked your song---and Glynn's song---

we were just laughing too hard to type straight!

Encore!!

*Message #3 Posted by **james (UK)** on 20 June 2003, 11:31 a.m.,*
in response to message #1 by NH

Excellent - as Bill said took a while to recover from the fits of laughter. Rock on!

25C ... John Denver ... Take me Home Country Roads

*Message #4 Posted by **Norm** on 20 June 2003, 5:38 p.m.,*
in response to message #3 by james (UK)

Sung to the tune of "Take me Home Country Roads".

** ** ** ** ** ** **

(roll,roll,roll, THUNK) (sound of quarter being put into jukebox)

Selection "25-C"
Record comes up, "THUD" needle hits record....

(a few scratches & pops)

.....

..... Almost Heaven, nineteen seventy-six,
Hewlett Packard Calculators, Model 25C .....
Things they worked then, they worked properly,
Had an owner's manual, and they'd sell accessories.

(Chorus)

Hewlett Packard, take me home,
to designs, that were strong .....
TWENTY FIVE CCCCCCCC, sensible people
Dont say Kinpo, Hewlett Packard .

All my memories, it did impress your friends,
and if you got a nice one, it will impress 'em yet again.
A dark backdrop, red LED's bright as the sky,
Misty smell of new stuff, a teardrop in my eye .

(Chorus)
Hewlett Packard, take me back,
to designs, that were strong .....
TWENTY FIVE CCCCCCCC, no pulldown menuuuus
Take me back, Hewlett Packard .

I smell some MBA's now, they're like tent caterpillars,
chawin' up our dreams and our money like green leaves,
Driving down the road I get a feeling
like I want to run them over nowwwwwww (over nowww.....)

(Chorus)
Hewlett Packard, take me back,
to designs, that were strong .....
TWENTY FIVE CCCCCCCC, small and heavyyyy
Take me back, Hewlett Packard .

()&)^&)&)&)*&)(*&*&^&^%(^%(
&*)*&^*&^(*&(*** GLUNK ***
needle returns to side, record drops back out of view....

The jukebox, full of sound, fun, and intrigue, falls silent... until next time.

Re: 25C ... John Denver ... Take me Home Country Roads

*Message #5 Posted by **Trent Moseley** on 20 June 2003, 10:45 p.m.,*
in response to message #4 by Norm

Norm-

You bring tears to my ears! My first HP in 1978.

tm

Another smash hit .....

*Message #6 Posted by **james (UK)** on 21 June 2003, 7:47 a.m.,*
in response to message #4 by Norm

...for Red and the Leds! Super, Norm, absolutely wonderful.

thank you, thank you, no applause, just send money :o)

*Message #7 Posted by **Norm** on 21 June 2003, 12:59 p.m.,*
in response to message #6 by james (UK)

thank you, thank you, everybody thank you.....
at this rate we need a new section, "HP jukebox hits" .

Does anybody have links that make a song play on the internet ?

I would want link addresses to

paul simon "kodachrome"
John Denver "Take me home country roads"

and 2 more

AC/DC Highway to Hell
AC/DC Money talks (listen to the money)

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HP42S Face Plate

*Message #1 Posted by **Brendon Hutton** on 20 June 2003, 6:51 a.m.*

Hi Everyone,

I am sure that I am asking the impossible here, but if I never ask, I will never know...

I have an HP42S that I ADORE and the face plate - the metal plate with all the mathematical features - is in serious need of a replacement. I am hoping that there may be someone out there that can help me to source such a precious piece... Can someone help me?

I am also not too sure if I can upgrade the firmware... is this possible? I bought the unit in 1988 and I am sure that it does not have the latest version available.

I hope that there is someone out there which may have a source that I can contact.

Thanks for reading this request.

Rgds, Brendon Hutton.

P.S. Thanks to this place, I managed to purchase an new HP42S also. I have two now and just want to upgrade/facelift my older one...:o)

Re: HP42S Face Plate

*Message #2 Posted by **Randy Sloyer** on 20 June 2003, 6:40 p.m.,*
in response to message #1 by Brendon Hutton

A new 42S faceplate requires the destruction of a new 42S... see where this is going?

The only way to get a replacement bezel in any condition is to remove it from another calculator. At the end of the exercise, you've expended hours, probably put a few wrinkles in the replacement plate and wished you had never tried it. The double sided sticky tape that HP used is absolutely tenacious. IMO, while it can be done, it just is not worth the effort.

The ROM in a 42S cannot be changed without swapping out the entire logic board, it is contained on the cpu chip. The bugs are not serious enough to make it necessary. The known list can be found here http://www.finseth.com/~fin/hpdata/hp42s.html There are a few differences in the menus when using solver, but again, not enough to make a difference in actual use. Purely academic for my 2 cents worth.

Just do what most of us other 42S zealots do - buy several. No, that can't be used as night-lights on the bedside table like the LED machines, but every room in the house still needs one.

Re: HP42S Face Plate

*Message #3 Posted by **Trent Moseley** on 20 June 2003, 11:03 p.m.,*
in response to message #2 by Randy Sloyer

This Forum is so unusual that even an outsider looking in by chance would have to precieve that something very extraordinary is going on here.

tm

Re: HP42S Face Plate

*Message #4 Posted by **Brendon Hutton** on 20 June 2003, 11:20 p.m.,*
in response to message #2 by Randy Sloyer

Randy, Luiz,

Thank you again for your insight. This has sure helped me in clearing up this question that I had - you have been most helpful.

Sincere and Kind Reagrds, Brendon Hutton

I support!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 20 June 2003, 7:21 p.m.,*
in response to message #1 by Brendon Hutton

Hi;

If it is worth considering, I second Randy in each word.

Good luck.

Luiz C. Vieira - Brazil

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12C or 12C Platinum...that is the question

*Message #1 Posted by **Joe** on 20 June 2003, 12:06 a.m.*

I have been the proud user of the original HP-12C for years. Its functionality is exactly what i need, the RPN method works perfectly with my prodigious mind (hence my prodigy.net e-mail address), and its craftsmanship is bar-none (e.g., the fully raised keys, with the exception of the on/off key, which is not as raised so as to limit inadvertent shut-down).

My competitive (i.e., an understatement) roommate recently purchased the 12C platinum. There are definitely more functions and increased memory, but is it a "better" instrument?

Personally, i would assume the "improvements" are rather insignificant, and in some ways, the original 12C may remain the better of the two (e.g., in craftsmanship). For instance, look at the 10B versus the 10Bii. The latter may have a few more functions, but it is surely not "better" than the former. The keys don't even feel as nice.

Does anyone have any input re this quite interesting dilemma?

H-P...H-P...H-P!!!

Re: 12C or 12C Platinum...that is the question

*Message #2 Posted by **Michael F. Coyle** on 20 June 2003, 12:35 a.m.,*
in response to message #1 by Joe

Hi Joe,

Look at this forum for the last couple of months, specifically the 12C vs 12CP posts. It shouldn't be hard to collect all of the problems that the 12CP can't do (due to bugs), or where the 12CP is slower. Then just demonstrate to your roommate why newer isn't necessarily better.

It's kind of sad that this is even possible.

- Michael

Re: 12C or 12C Platinum...that is the question

*Message #3 Posted by **Gene** on 20 June 2003, 7:22 a.m.,*
in response to message #1 by Joe

More functions? An X^2 key is more functions? (well, yes, ONE more function!). Otherwise, no additional functions other than a fairly unusable ALG mode.

Personally, the extra programming memory, particularly now that bugs have been exposed in the GTO statements, does not offset the terrible color choice or much slower speed to solve for i in annuity problems. Go with the original 12c! My opinion.

Re: 12C or 12C Platinum...that is the question

*Message #4 Posted by **Don Nguyen** on 21 June 2003, 11:39 p.m.,*
in response to message #1 by Joe

100% agree! I recently bought a 12C Platinum. I feel the same way. I feel like wormanship is terrible. The g and f key are not stand firm and the Enter key when you press it and release it has a little noise that really bother me. Even now after use it for a while I start to like my 12C Platinum. But I wouldn't recommend for anybody. A little note here: the i function in TVM takes a long time in some problems to get a result. I mean a long long time.

Best Regards.

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eBay item linked to Museum image.

*Message #1 Posted by **James M. Prange** on 19 June 2003, 6:34 p.m.*

At: http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3031437048&category=11713: "Condition is Very good; comes with original manual. Has no battery cover or batteries. No guarantee it is in working condition." Perhaps you could provide eBayers with a more appropriate picture of what a 28S in this condition really looks like?

Regards,
James

Re: eBay item linked to Museum image.

*Message #2 Posted by **Dave Shaffer** on 19 June 2003, 6:47 p.m.,*
in response to message #1 by James M. Prange

I think we should all send Dave some photos of the most beat-up calculators we can find (perhaps with scatalogical scratchings on them), so he can substitute them (like was done a few weeks ago) on a moment's notice for the Museum pics!

Needed: tit-for-tat images

*Message #3 Posted by **Paul Brogger** on 19 June 2003, 7:35 p.m.,*
in response to message #1 by James M. Prange

I've got a 28s-in-a-basket. I'll take out the battery cover and get a picture of the pile of parts . . .

Re: Needed: tit-for-tat images

*Message #4 Posted by **qyuu** on 19 June 2003, 10:54 p.m.,*
in response to message #3 by Paul Brogger

Sorry I was the one who linked to the picture

I apologize I didn't realize it would cause such a problem

So my apologies to everyone for the problems it caused/causing

Re: Needed: tit-for-tat images

*Message #5 Posted by **qyuu** on 19 June 2003, 11:31 p.m.,*
in response to message #4 by qyuu

I have been politely informed that I should ask permission to use an image. I understand that.

I acknowledge my mistake for not considering that beforehand.

My original intention was to show only what the calculator looks like because my digitals have not been coming out great.

I have promptly removed the listing with that picture.

My apology again to the people I offended

Re: Needed: tit-for-tat images

*Message #6 Posted by **Dave Hicks** on 19 June 2003, 11:39 p.m.,*
in response to message #4 by qyuu

Thanks for ending the original auction.

There are several issues here including IP theft and bandwidth theft but I prefer to concentrate on your potential buyers. They most likely know what an HP-28 looks like and what it does. For those that don't a link to a site like this one can be provided.

However, what your customers really want to know is what **yours** looks like and they want any information you have about cosmetic or functional problems. A description of "very good" with a picture of one that is mint is potentially confusing and worse than no picture at all.

Some of your other auctions use your own pictures. Some of them use my text. Please credit me when you do that like:

The description used in this auction is from The Museum of HP Calculators (www.hpmuseum.org).

Offered: tit-for-tat image

*Message #7 Posted by **Paul Brogger** on 20 June 2003, 7:41 p.m.,*
in response to message #3 by Paul Brogger

It's a little late, but if it's ever needed again, how 'bout this?

(Next: practice using the imaging software to re-size the pictures!)

Re: Offered: tit-for-tat image

*Message #8 Posted by **Fred Lusk** on 20 June 2003, 7:50 p.m.,*
in response to message #7 by Paul Brogger

Paul…

I recall a phrase from thermodynamics: "maximum randomness and minimum energy."

Fred

Re: Offered: tit-for-tat image

*Message #9 Posted by **Dave Shaffer** on 20 June 2003, 11:56 p.m.,*
in response to message #7 by Paul Brogger

I didn't realize Heathkit had offered a version of this calc!?!?!

I don't ever want to get Paul mad at me. (nt)

*Message #10 Posted by **db(martinez,california)** on 21 June 2003, 1:01 a.m.,*
in response to message #7 by Paul Brogger

Thanks!

*Message #11 Posted by **Dave Hicks** on 23 June 2003, 2:18 p.m.,*
in response to message #7 by Paul Brogger

Got it for future use. Thanks Paul!

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Hey Luiz ... electrolytic spice caps

*Message #1 Posted by **Norm** on 19 June 2003, 1:15 p.m.*

Hey Luiz,

In your "jumper" picture for spice, there are two electrolytic capacitors (like in a 34C power supply board).

Have you ever taken time to replace those ? It seems to me that electrolytics dry out.

Would you agree that changing them to dipped-tantalum capacitors might be wise ? Then they do not degrade with time .

They had some oddball value, 22 uF and 10V or so. It was a little hard to find, so I was going to order some tantalums probably 22uF and 16V soon. Then I can change them if I work on such a calculator in future.

What do you think ?

Re: Hey Luiz ... electrolytic spice caps

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 19 June 2003, 1:54 p.m.,*
in response to message #1 by Norm

Hello, Norm;

thank you for your question... Hey, you're the "analog guy"... I'd probably ask *you* about electrolytic caps 8^).

I'd replace them, you bet. Did you read Ellis' post about electrolytic aluminun/tantalum capacitors? It's a "must read", believe me, I recomend. If I am not wrong, Ellis once mentioned that he worked with components technology, as his posts are full of technological information. The way you, Norm, most like to read and post, as well.

There is one thing that scares me about electrolytic tantalum capacitors: if they are overloaded (excessive voltage), their BANG! is too noisy... One other thing: at least where I live, a small 150,000 inhabitants citty where RPN and HP are fairly "unknown", tantalum capacitors are rare. Only a few dealers "have heard about them". I must search in some electronic junk I have at home to find replacements. Oh, yes, in time: I'm lucky having a capacitance metter and sometimes some "capacitor codes" are way beyond my understanding. Any clues?

Best regards, Norm.

Luiz C, Vieira - Brazil

Edited: 19 June 2003, 1:56 p.m.

Someday I'll send you some

*Message #3 Posted by **Norm** on 19 June 2003, 9:23 p.m.,*

in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I was thinking of ordering a bag of 100 tantalum caps.

Since you need some, I will do that, eventually.

Then i will send 2 dozen your way.

Not sure when, sometimes these things take awhile.

I need more than one item, for placing my order with the parts distributor.

- Norm

caps in 34C power supply module

*Message #4 Posted by **Ellis Easley** on 23 June 2003, 8:23 p.m.,*
in response to message #3 by Norm

Here's one paragraph from my 34C report:

> Quote:
>
> I traced out a schematic of the solderless unit including the power supply and compared the two units. I noticed two differences in the power supplies: The newer unit has a 10K resistor instead of a diode to provide the standby power from the battery - I imagine that keeps the memory alive with a lower battery voltage - also, the capacitor that holds some charge for the standby power when the battery is out is 22 mf in the older unit and 33 mf in the newer one.

The 33 mf cap is black, has a rectangular cross section, the only markings are "336" and a red dot to indicate the positive lead. I am inferring this means 33 mf, don't know what the voltage rating is. The fact that it is rectangular might mean that it is a tantalum cap - wet slug vs. rolled aluminum foil, so it can use the rectangular shape for higher density. I think space, especially height above the PCB, is very limited on the power supply module. But for what it's worth, my newer unit seems to have no trouble remembering when I take the battery out for considerably longer than the time required to put in a new one (I'm using one battery pack between both calculators). The other two electrolytic caps are 22 mf in the newer calculator.

> Quote:
>
> If I am not wrong, Ellis once mentioned that he worked with components technology, as his posts are full of technological information.

Luiz is overstating my experience, I started as an electronics hobbyist and have worked as a technician, manufacturing engineer, diagnostic software engineer, and even spent a little time as a design engineer, and now I'm back to being a hobbyist. I try to share the things I've learned when they might shed some light on issues that arise here in the Forum.

Re: caps in 34C power supply module

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 23 June 2003, 11:31 p.m.,*

in response to message #4 by Ellis Easley

Hi;

> Quote:
>
> I try to share the things I've learned when they might shed some light on issues that arise here in the Forum.

For this and much more, I (and I believe others, too) am humbly thanked, Ellis. Your shared knowledge, along with other contributors', helped me many times.

Let's face it: this forum RULES!

Luiz C. Vieira - Brazil

Re: caps in 34C power supply module

*Message #6 Posted by **Ellis Easley** on 24 June 2003, 4:09 a.m.,*
in response to message #4 by Ellis Easley

I've just finished going over my 34C schematic (you'll see what I mean!) and I realize I was mistaken about the location of the 33 mf cap in my newer calculator. It's not across the battery but rather it is the filter cap for the voltage regulated supply. But both of my units remember their settings (no PR ERROR, anyway) a lot longer than it takes to change the battery.

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HP-41 Bar Code Reader

*Message #1 Posted by **Chris Catotti (Florida)** on 19 June 2003, 6:59 a.m.*

Has anyone ever seen a bar code reader with software besides:

- WAND 1F -

How about the HP-IL Module?

-PRINTER 2E

-MASS ST 1H

--

-CTL FNS

Re: HP-41 Bar Code Reader

*Message #2 Posted by **Donald Leonard** on 20 June 2003, 3:39 a.m.,*
in response to message #1 by Chris Catotti (Florida)

My HP documentation indicates that the first released series of Wands had the 1E Rom. The 1F and beyond could read the 'Sequenced Data Bar Codes' (footnote pg 10, 'Creating Your Own Bar Code'). Don

Re: HP-41 Bar Code Reader

*Message #3 Posted by **Chan Tran** on 20 June 2003, 7:37 a.m.,*
in response to message #2 by Donald Leonard

Hi Don, What is the Sequenced Data Barcode? I have never heard of it.

Sequenced data barcode

*Message #4 Posted by **Tony Duell (UK)** on 21 June 2003, 4:11 p.m.,*
in response to message #3 by Chan Tran

It's a special format of data barcode (numeric barcode, alpha replace barcode, alpha append barcode) which includes a sequence number in each row). With normal numeric (say) data barcode, the wand doesn't know what order you're scanning the rows, so WNDDTX could end up putting the numbers in the wrong registers. With sequenced data barcode, the HP41 will complain if you read them out of order

Re: HP-41 Bar Code Reader

*Message #5 Posted by **Tony Duell (UK)** on 21 June 2003, 4:08 p.m.,*
in response to message #1 by Chris Catotti (Florida)

I have 2 HP41 wands. One is a WAND 1F, the other a WAND 1E. The 1E version has 2 major differences. Firstly,, it can't read the sequenced data barcodes (types 9, 10, 11). Secondly, it has problesm withnumeric data barcode over a certain length (which is not sufficient for 10 digits + 2 exponent digits + all the separators, etc). That's why my sdatabar program has a -E flag which attempts to generate readable barcode for the 1E wand, even if this means losing the least significant digit.

Re: HP-41 Bar Code Reader

*Message #6 Posted by **Mike (Stgt)** on 23 June 2003, 10:18 a.m.,*
in response to message #1 by Chris Catotti (Florida)

Yep! -MASS ST 1C (AFAIK from a pre-production HP-IL module). About the Wand 1E others told you already. For more see at http://ourworld.compuserve.com/homepages/nutem/romim.htm (that's nearly <G> all I know at the moment)

Ciao.....Mike

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Bad Technology Week.....

*Message #1 Posted by **Michael Meyer** on 19 June 2003, 12:37 a.m.*

I'm just writing to share my misery. Normally, things start working when I just look at them.... Not this week.

Saturday I bought an HP 5550C scanner for the automatic document feeder (ADF). My 6250C was just too painfully slow and intermittent.

The 5550C didn't work. Or it would work and quit. Sort of. I spent 5 days looking for upgrades. I tried to download the upgraded software, but my computer was down due to a change necessitating a new cable modem. The place was closed after 2 on Saturday. Then, the USB ver. 2 PCMCIA card I bought for my Compaq (HP) notebook was defective. It took me all day to figure out. I erased a USB backup drive just trying to access it. I exchanged the card on Sunday. The drive worked.

So, I worked on the scanner all weekend with a dial-up connection. And Monday. And Tuesday. And until 10pm tonight. New drivers for my USB ports. Nothing. New system ROM upgrade. Nothing. New drivers for sound, video, and even the Intel processor. Nothing. I looked for answers everywhere. Intel site. Microsoft site. HP site. Compaq site. Nothing.

My kid's computers wouldn't boot. Even my HP-71B decided to do a memory reset. Sitting down to write this, my computer froze. Then wouldn't boot. Finally got it running.

At last: I figured out that after installing the HP software and configuring the hardware and ports, the software must be "repaired" using Windows' "Install Programs" routine... immediately after installing the software.

A zillion re-boots. Finally, the scanner works. It'll scan 50 pages in just a few minutes. It still won't scan at 200dpi... it comes across looking like an old TV with the horizontal hold off. 201 dpi works. 199 dpi works. Just not 200. And if I change from USB 2 to USB 1 ports, I have to reboot repeatedly, reinstall the software, then run the "repair" utility. And reboot. Too bad HP doesn't document this anywhere. (I can't be the only one with this experience.) Oh, and there's no way to save the custom settings. HP's scant documentation says you can from the "preview" screen. Except there's no button to do it. Welcome to the world of unpaid beta testing!

I hope the Museum site doesn't go down from me posting this.

I wonder if my aura is malfunctioning?

Michael

Re: Bad Technology Week.....

*Message #2 Posted by **David Ramsey** on 19 June 2003, 12:58 a.m.,*
in response to message #1 by Michael Meyer

Let me be the first to say...

Get a Mac!

(I know. That wasn't helpful.)

Re: Bad Technology Week.....

*Message #3 Posted by **Dave Shaffer** on 19 June 2003, 2:11 a.m.,*
in response to message #1 by Michael Meyer

"I wonder if my aura is malfunctioning?"

I think Bill Gates gets most of the credit. I, too, have had similar experiences with USB equipment - Windows seems to forget it exists from boot to boot. Sometimes, you can get away with just trying to reinstall the driver via the control panel/my computer - rather than actually having to insert the relevant CD. Sometimes, just a reboot will do. It seems to depend on whether you power up your peripheral BEFORE or AFTER you boot!?!? ! (let alone when you plug in the USB connection!)

I am sometimes amazed at how easy Windows software loads, but other times, I wish for the good old DOS days, when you knew exactly what you had loaded onto your machine!

Re: Bad Technology Week.....

*Message #4 Posted by **Ernie Malaga** on 19 June 2003, 9:36 a.m.,*
in response to message #3 by Dave Shaffer

> Quote:
>
> but other times, I wish for the good old DOS days, when you knew exactly what you had loaded onto your machine!

And have to fiddle with that bane of DOS users, CONFIG.SYS? Only geeks ever understood it. And remember the 640 KB RAM limitation, which had to be defeated using special software.

-Ernie

"No one will ever need more than 640 KB." -- Bill Gates

Re: Bad Technology Week.....

*Message #5 Posted by **Dave Shaffer** on 19 June 2003, 2:17 p.m.,*
in response to message #4 by Ernie Malaga

Aren't we all geeks here?

CONFIG.SYS and I usually get along. The main thing is to never lose the one that worked, and build on it when necessary. Same for AUTOEXEC.BAT. My latest Sony Pentium IV has some roots from a twenty-year old PC/AT (that I still have!).

This is all even more fun when you have a quadruple boot (DOS, Win95, Win98, linux) machine.

Builds character!

Re: Bad Technology Week.....

*Message #6 Posted by **Ernie Malaga** on 19 June 2003, 4:19 p.m.,*
in response to message #5 by Dave Shaffer

> Quote:
>
> Aren't we all geeks here?

Geeks specialize, same as professionals. Although you're a geek (specialized in computing), you may not be able to tell the difference between a journal and a journal receiver in AS/400 terminology -- for example. I can. But I cannot open CONFIG.SYS with a text editor and understand any of it.

Different folks!

> Quote:
>
> This is all even more fun when you have a quadruple boot (DOS, Win95, Win98, linux) machine.
>
> Builds character!

Sorry. It only builds ulcers.

-Ernie

Re: Bad Technology Week.....

*Message #7 Posted by **Wayne Brown** on 20 June 2003, 8:08 a.m.,*
in response to message #4 by Ernie Malaga

I'd prefer CONFIG.SYS to the Windows Registry any day! That's one of the reasons I like Linux (and Unix) so much: Configuration files always should be plain text that can be edited with a simple text editor -- and they should *not* be updated automatically by the system! I don't want anything in my config files that I didn't put there myself.

Re: Bad Technology Week.....

*Message #8 Posted by **Les Bell [Sydney]** on 19 June 2003, 2:17 a.m.,*
in response to message #1 by Michael Meyer

Michael, when you say "USB 2", do you mean the USB 2 that used to be USB 1.1, or the USB2 that used to be USB 2?

See http://slashdot.org/articles/03/06/18/2025210.shtml?tid= if you're not confused yet.

FWIW, I bought an HP2200c scanner to stick on the shelf behind my desk; the Windows software that came with it insisted on treating me like a clueless idiot - no way to manually specify resolution, colours etc, just vague and woolly descriptions of what the user might be trying to do. But recently, I installed Red Hat 9 on my Thinkpad, and out of curiosity, tried the scanning software it installed - marvellous! I once again have full control of resolution, colour depth, colour balance, etc., the way my older scanner used to let me do.

Best,

--- Les [http://www.lesbell.com.au]

Re: Bad Technology Week.....

*Message #9 Posted by **Michael Meyer** on 19 June 2003, 2:44 a.m.,*
in response to message #8 by Les Bell [Sydney]

Thanks! I'll look for the software. (If I can get online again....<grin>)

Michael

Re: Bad Technology Week.....

*Message #10 Posted by **Thomas** on 19 June 2003, 6:48 a.m.,*
in response to message #1 by Michael Meyer

Hello,

maybe you work on bad weather and a big flash with his electrostac field maka a confusion in your eletronic brain??

And there helps no Mac.....

Thomas

Re: Bad Technology Week.....

*Message #11 Posted by **Ernie Malaga** on 19 June 2003, 9:31 a.m.,*
in response to message #1 by Michael Meyer

> Quote:
>
> I wonder if my aura is malfunctioning?

Nope. But you may want to consider getting yourself a Macintosh. The _only_ times I have experienced problems comparable to yours is when using a Wintel machine. By far, the worst experience I've had is with a Gateway 2000 PC, about 8 years ago, trying to install OS/2. The PC died and stayed dead for a week. I had to reformat the C: drive 3 times.

Yes, Macintosh is more expensive. Yes, there are fewer software selections to choose from. But it works. And don't compare CPU clocks directly, because that won't give you an accurate comparison. For example, my nephew has a 2.4 GHz PC he's very proud of. My 350 MHz G4 Macintosh runs rings around it.

No kidding.

-Ernie (Mac Addict)

Re: Bad Technology Week.....

*Message #12 Posted by **Thomas** on 19 June 2003, 11:07 a.m.,*
in response to message #11 by Ernie Malaga

Ohhhh ohhhhh someone feels kicked in the brain. But I don't know why. I want to pike Dave....

By the way I have a iMac and love the machine, because less trouble, good design and and and...

Nice Weekend Thomas

Re: Bad Technology Week.....

*Message #13 Posted by **bill platt** on 19 June 2003, 12:17 p.m.,*
in response to message #12 by Thomas

Thomas,

whaddya mean, nice weekend!? We still have a day and a half to go, here! ;-}

Bill

Re: Bad Technology Week.....

*Message #14 Posted by **Ernie Malaga** on 19 June 2003, 4:22 p.m.,*
in response to message #13 by bill platt

> Quote:
>
> whaddya mean, nice weekend!? We still have a day and a half to go, here!

Thomas must live in a different time zone. 8^)

-Ernie

My Aura is Boring Alas

*Message #15 Posted by **Michael Meyer** on 19 June 2003, 7:21 p.m.,*
in response to message #14 by Ernie Malaga

Well,

Nothing broke when I touched it today. In fact, nicely, everything seems to work great. Even my other hardware works better with all the upgrades I did before figuring out how to get the scanner to work.

Whew! I can pick up the calculators again!

By the way:

I consider myself a nerd. A nice nerd. I always think of geeks as the nerd's nerd. Or something.

I'm going to go have a nice weekend. Oops. Still have Friday.

Michael

Re: Bad Technology Week.....

*Message #16 Posted by **Thomas** on 20 June 2003, 1:08 a.m.,*
in response to message #13 by bill platt

We I Germany (but not whole Germany) have on Thursday a free day - yeah. And so much people take on friday a holyday. So it's a four-days-weekend. That's great.

Poor people have to work - like me, but only a half day.

Maybe some other katholic countrys make this day free - for going into the church and pray good

(or sleep a little bit longer and relax)....

Greetings Thomas

But now I can wish all (european) a nice weekend....

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Just a few Thoughts on Times Past

*Message #1 Posted by **Trent Moseley** on 18 June 2003, 11:23 p.m.*

I was watching TV's "History Channel" about our first space shuttle in 1981. That was before the HP-15C! And then I remember in HP's Key-Notes a photo showing the Astronauts on board with an HP-67.

tm

Re: Just a few Thoughts on Times Past

*Message #2 Posted by **Randy Sloyer** on 18 June 2003, 11:47 p.m.,*
in response to message #1 by Trent Moseley

IIRC, the first on-board nav computer contained a whopping 4k of plated wire memory so the HP was a pretty powerful backup!

Re: Just a few Thoughts on Times Past

*Message #3 Posted by **gene** on 19 June 2003, 12:03 a.m.,*
in response to message #1 by Trent Moseley

FYI, the shuttle astronauts did not use the HP-67, but the HP-41c.

first launch of the shuttle was 34C days ...

*Message #4 Posted by **Norm** on 19 June 2003, 2:55 a.m.,*
in response to message #3 by gene

when they launched the shuttle, that's when the HP-34C was a hot new item .... where's the exit door, I'm tired of this Bill Gates nightmare called "the future"

I wanna go back to the good old days ...

Re: Just a few Thoughts on Times Past

*Message #5 Posted by **Larry Corrado, USA (WI)** on 19 June 2003, 7:54 a.m.,*
in response to message #4 by Norm

"I wanna go back to the good old days ..." I know exactly what Norm means. Too often I feel exactly that same way.

The Michael Meyer post a bit higher in this Forum reinforces this notion.

Larry

Re: Just a few Thoughts on Times Past

*Message #6 Posted by **Andrés C. Rodríguez (Argentina)** on 19 June 2003, 8:04 a.m.,*
in response to message #1 by Trent Moseley

I think that the HP65 (or maybe -67) was used in the Apollo-Soyuz rendezvous.

Re: Just a few Thoughts on Times Past

*Message #7 Posted by **Trent Moseley** on 19 June 2003, 3:16 p.m.,*
in response to message #6 by Andrés C. Rodríguez (Argentina)

Whatever. How would you like THAT ONE in your collection!

tm

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Repairing HP-41 keyboards

*Message #1 Posted by **Michael** on 18 June 2003, 7:30 p.m.*

The divide key does not work on my HP-41CX. All other keys seem to work properly. Is there an easy fix for this?

Will the keypad from any other 41C or 41CV work or does it have to be a 41CX for all functions to work properly?

Thanks for your replies,

Michael mcshack1@attbi.com

Re: Repairing HP-41 keyboards

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 8:15 p.m.,*
in response to message #1 by Michael

Hi;

the worst part is actualy cleaning the contacts. Under each key there's a small metal cap that bends everytime you press a key and it "snaps". This way, the inner top of the cap touches the surface of the keyboard. It happens that the cap's border are already touching one of the poles of the key contact, and when it is forced down (key pressed) it touches the other pole and closes the key contact.

The most common problem is related to dust. If dust gets inside the cap, it will be between the cap and the mid contact. I did not find the time to draw it, but I hope my description helps.

The good news is that there is a small hole exactly aligned with the middle of each cap. If you open the calculator and locate the hole under the key with bad contact you'll have a chance to clean it. I use a few brush bristles soaked with some sort of cleaning liquid (isopropyl alchool) and tied together as a bundle. I carefully insert them inside the (mentioned) hole, then I rotate the bristles and remove them. I repeat this operation about three to four times. If it does not recover the key's contacts, maybe you have another sort of problem.

About keypad compatibility: there are two basic types of HP41 if we consider their inner parts. Look at the image below (MoHPC original image)

The left LCD refers to the first series, called fullnut. Their keypad is fully compatible with each other.

The right LCD reffers to the halfnut series, newer ones. They have everything built in one single board: LCD, chipset, keyboard... Like an all-on-board computer mainboard. In this case, there's a need to remove and resolder parts if you want to use a "sane" keyboard with bad chipset: you need to remove the bad chipset and resolder another. The worst of this all is taht the "chipest" for the HP41CV and the HP41CX are not exactly

compatible. They are electrically compatible, but there is only one chip that is identical: the processor itself.

Have you checked which HP41 is (are) yours?

I hope this helps for now. If not, let us know.

Success.

Luzi C. Vieira - Brazil

Edited: 18 June 2003, 8:18 p.m.

Re: Repairing HP-41 keyboards

*Message #3 Posted by **Michael** on 18 June 2003, 8:51 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks for the quick reply. This unit is the half-nut version with rounded corners in the display. I think that you may have right and left reversed in your message? I had heard that breaks usually took out an entire row of keys, this is only the divide key that is affected, so I am hoping that this is good news and that the key needs to be cleaned as you describe. It sounds like the keyboard exchange idea is probably out, but maybe not necessary anyway? Thanks!

Re: Repairing HP-41 keyboards

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 11:45 p.m.,*
in response to message #3 by Michael

That's the third time I write the same message (I lost the first two and I cannot even understand what happened). I'll shorten it this time.

As you have a halfnut, try cleaning the key's contact. Look at the image below.

http://www.logeng.com.br/images/hn_mainboard_back_view.jpg

You'd need to remove the chip in the middle and both the LCD and the hybrid chip (top of the image) an place them in the "donated" keyboard. I think it's worth trying to clena the key's contacts first. And you're 100% correct: I wrote the message without looking at the image, so I actualy reversed left and right references; thank you.

Best regards.

Luiz C. Vieira - Brazil

Cleaning HP keyboards

*Message #5 Posted by **Randy Sloyer** on 19 June 2003, 12:14 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

In my experience, a single key that does not function has about a 99% chance of being restored through cleaning if:

1. The key has the same amount of travel as all others. 2. The key has the proper "snap" - that is the metal dome that forms the moving part of the switch has not fatigued.

While Luiz is technically correct, the last thing (in my opinion) you want to do is to take keyboard

assembly apart as shown in his photos. He is a brave man with several 41's to spare. I would consider it only when every method of cleaning has failed and you know the switch is beyond help without drastic measures. If it is that bad, you'll probably also need a replacement dome from another unit.

Here is (sorry Luiz, I stole your great photo) an image of where you can measure with an ohmmeter to check the operation on the divide key. I purposely point you up to the X key for the one contact so you do not interfere with the divide key center contact. Contact resistance of a good key is less than 1 ohm. If you have really sharp, pointy probes, do not stick them directy into the plated through holes for fear of damage to the dome in the X key. The hole to the left is the common point for the four keys of the bottom row (div,0,.,r/s) and has no dome above.

http://mywebpages.comcast.net/etron/images/divide_key.JPG

I just finished cleaning a CX that had 3 dead keys. It was so full of eraser dust that it was a wonder that any of the keys worked at all. You can start by using canned air with a extension tube and direct the blast directly into the key contact hole after doing a good surface dusting. You'll be amazed at the dust bunnies that have grown inside your machine.

Good luck, post again if you have any questions.

Edited: 19 June 2003, 12:22 a.m.

Be my guest!

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 19 June 2003, 12:41 a.m.,*
in response to message #5 by Randy Sloyer

Hi, Randy;

I'm flattered for the fact these pictures are of any use for you. Use them as well, for as long as HP does not invite our bosses to close our sites with their images...

You know, I wrote the message three times mentioning how hard it would be exchanging keyboards in a halfnut and that, based on this fact and in the somewhat simple cleaning procedure, cleaning should be performed as many times as needed. Your post is a lot better than mine, thank you.

The halfnut you see in the image (scanned) is the one that recognizes only the first 64 registers. After SIZE 000 it reads [.END. REG 63]. If I use external memory modules, after a SIZE 000 the calculator goes nuts and shows the weirdest registers quantities I've ever seen in HP41: [.END. REG 92], [.END. REG 101], [.END. REG 05]. Each time you press [PRGM] you see a different amount of available registers. After a few [PRGM] press, the caculator goes completely crazy and orders [MEMORY LOST]. If you let it without memory modules, everything goes fine. I had an original HP41C fullnut case and I built this halfnut there. Now I have a custom HP41C halfnut... too bad it's fake.

That's the reson I played brave and removed the keyboard, I was trying to find the problem at the other side of the mainboard. The best chance to scan a halfnut's guts and generate a few images, right? I'm glad you found this one usefull, I intend them to be.

Best regards and thank you.

Luiz C. Vieira - Brazil

Keyboard disassembly

*Message #7 Posted by **Mike** on 19 June 2003, 9:26 a.m.,*
in response to message #5 by Randy Sloyer

I agree, if you take the keyboard apart, you might (likely will) have loose keys when you get it back together.

I have some photos here that show this disassembly.

41 Keyboard disassembled

Re: Repairing HP-41 keyboards

*Message #8 Posted by **Michael Meyer** on 19 June 2003, 12:40 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Oh no! The technology failure is spreading!

Maybe Theodore Kazinski wasn't completely wrong. (Bad, sick joke).

To better tech days,

Michael

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HP-34C missing led

*Message #1 Posted by **Jon** on 18 June 2003, 5:47 p.m.*

I have a HP-34C with a missing led all along the display. It´s not a problem of bad contacts. I am afraid is the cathode chip with one circuit failing. Does anybody knows if this chip can be repaired with a transistor?. Can I use any chip from other spice calculator? I have spare parts from a 33E.

Thanks

Jon

Re: HP-34C missing led

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 6:03 p.m.,*
in response to message #1 by Jon

Hi, Jon;

it's a common symptom and it is usually observed in the "solderless" spices, the ones I name "sandwich" assy.

I have an HP38C that sometimes comes to "life" with a missing segment in all digits. I currently twist it slightly and gently and it comes back to normal operation. When it first occurred I disassembled it and cleaned all of the surface contacts. It worked fine for more than a month. Then it came with the same missing segment and I instinctively twisted it (gently). It worked fine again.

I'm almost sure it's not an internal chip problem, maybe it's a cracked trail or a bad contact inside the LED module.

If you want to try a gentle twist before opening, go ahead. Otherwise, you should open and check for the type 34C you have. If it's a soldered type, you may also have a cold solder, what is somehow easy to repair.

Hope you have success. Let us know if you need extra advice.

Luiz C. Vieira - Brazil

Luiz is right ... dont give up on that 34C

*Message #3 Posted by **Norm** on 19 June 2003, 3:00 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Jon -- dont give up on that 34C yet.

Luiz is right ....

Rather than presume the semiconductor IC is damaged, it may be that your unit is solderless, AND, one of the solderless connections has become open.

Is the 34C fairly HEAVY? That's one way to conclude it is solderless.

It would be good news for you, because if the chip is blown no, you cannot replace it with one from a 33E . But the bad news is, you need to know EXACTLY what you are doing to get inside of a 34C and succeed in making restorations.

If you are technically inclined then proceed. However you seriously consider boxing it up and sending it to Luiz . He is the best for working with the solderless SPICE calculators and I bet he would like some well-paying evening work. He'd probably quote you a price that would work.

Re: Luiz is right ... dont give up on that 34C

*Message #4 Posted by **Jon** on 19 June 2003, 11:48 a.m.,*
in response to message #3 by Norm

Thanks everybody. I am quite busy these days. As soon as I have time I will "play " with it. If I have success I will post it in the forum.

Thanks again

Jon

OK, but be wary of pitfalls ...

*Message #5 Posted by **Norm** on 19 June 2003, 1:01 p.m.,*
in response to message #4 by Jon

Well, good luck with the 34C Jon.

There are many pitfalls, starting from when you try to open the plastic case halves (it will seem they cannot be separated, and it is very easy to damage the plastic).

After that comes risk of ESD damage to these chips, which are very ancient and not design to be rugged at all. In a nutshell, if you have the wrong pair of socks on, you may fry the chips, and then you are truly stuck.

There are some articles here in HP Museum that will help you with knowledge about servicing the unit correctly. To take a line from the antique radio crowd "any service work should be done carefully and correctly, for the item is an irreplaceable heirloom, and you are not likely to be its final owner."

- Norm

One question, Jon:

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 19 June 2003, 12:26 p.m.,*
in response to message #1 by Jon

Hi, Jon;

I read your post again and I see something I did not notice in the first time (I think I read it in a hurry, sorry). It seems you're sure about something when you mention *"It´s not a problem of bad contacts."*. Is there any additiional information about it that you believe would help diagnosing the problem?

Please, let us know. Thanks.

Luiz C. Vieir - Brazil

Re: One question, Jon:

*Message #7 Posted by **Jon** on 20 June 2003, 11:54 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Luiz:

I have opened it. I have the experience with other spices that a missing led is just a problem of bad connection of the display contacts. If you press it the problem comes and goes and is easy to fix. But not this calculator. I though it could be a chip problem because it is described something similar for the HP-67 and I have read the HP-97 service manual where I can see the circuit (spice design is not so different). If somebody is interested I can post the information related to the HP-67 that I found somewhere in internet

With the information you gave me I will investigate further.

Cheers

Jon

Re: One question, Jon:

*Message #8 Posted by **David Smith** on 20 June 2003, 5:07 p.m.,*
in response to message #7 by Jon

If your machine is a "compression" machine where the chips, etc are not soldered then you can just pull out the LED module. Test it by connecting a 400-1000 ohm resistor to a 3 volat battery pack. Fumble around a while with the leads on various pins and in various polarities. You will soon see a pattern of where the LEDs segments start to light up. The LED segments and digits are arranged in matrix (segments on the rows of the matrix, digits in the columns). Typical failute modes are a missing digit (bad column connection), a missing segment in all digits (bad row connection), or a single segment bad (bad LED segment).

If you can get the offending segment(s) to light, the problem is in the big chip or (more likely) the connection from the big chip to the LED module. Connections between the big chip and the keyboard etches can be hard to get right.

The LED module can be replaced from any other spice machine. The big CPU chip will have to come from another machine of the same type. You may also have to replace the ROM chips from the other machine. Some CPU chips are not compatible with all ROMs.

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12C and its financial algorithms

*Message #1 Posted by **Eduardo** on 18 June 2003, 2:49 p.m.*

I found a very interesting article by a UC Berkeley math & engineering professor (W. Kahan) about calculation roundoff errors and poor processor architectures. What's interesting is that he compares HP with TI financial calcs, and he was actually involved in the coding of the *original* 12C's algorithms. I'm posting this as a follow-up on the controversy about the 12C Platinum's "solving for i". Dr. Kahan's article (pp. 14-19) discusses this issue quite in depth (for the original 12C). You can be quite sure the 12C Platinum does not use his beautiful ideas or it would be *at least* as fast as the 12C. I wouldn't be surprised if HP simply "lost" the original coding ideas used for the 12C and tried to reinvent the wheel (and if you read the article, you'll see reinventing *this* wheel isn't quite as simple as it initially appears). The article, called "Mathematics Written in Sand", is linked to from Dr. Kahan's web page at:

http://www.cs.berkeley.edu/~wkahan/

The direct URL is:

http://www.cs.berkeley.edu/~wkahan/MathSand.pdf

Eduardo

Re: 12C and its financial algorithms

*Message #2 Posted by **Luc Chanh Truong (Viet nam)** on 18 June 2003, 9:15 p.m.,*
in response to message #1 by Eduardo

Thank you alot, Eduardo, for your information. It's very interesting.

Re: 12C and its financial algorithms

*Message #3 Posted by **Tony** on 19 June 2003, 2:55 a.m.,*
in response to message #1 by Eduardo

Yep, that's a great article. The 12CP is really a very interesting machine. Every day I see a new bug!<G>. Today I tried n=1 i=-.001 PV=100 PMT=0 and solved for FV=-99.999 which is correct. But i=-.0009 gives FV=100.0009. Yes, plus 100.0009! The answer should be -99.9991. I cannot imagine the coding that would do this magic. The old 12C does this correctly, so it is not something copied over. yesterday I noticed the 12CP does try and cheat when solving for i - but it only goes ahead and does it if the solution is exact. Today's one only happens if i is between -.001 and 0.

Re: 12C and its financial algorithms

*Message #4 Posted by **eel** on 28 June 2003, 10:14 a.m.,*
in response to message #3 by Tony

>FV=-99.999 which is correct. But i=-.0009 gives FV=100.0009

I tried this on my 17BII, and the answer I got is FV=100.009!

Re: 12C and its financial algorithms

*Message #5 Posted by **tony** on 29 June 2003, 2:47 p.m.,*
in response to message #4 by eel

here the 17bii is fine, n=1,i=-.0009,pv=100,pmt=0 gives fv=-99.9991.

Re: 12C and its financial algorithms

*Message #6 Posted by **Tony** on 19 June 2003, 3:52 a.m.,*
in response to message #1 by Eduardo

On page 15 of Prof kaplan's "Maths in the Sand" is a "Penny for your Thoughts" example with n=31,516,000 i=3.170979198 E-7 PV=0 PMT=-.01 END: solve for FV=331,667.0067. The 12CP resolves for i in 280 seconds giving i=3.107401823 E-7. That's within about E-4%. The 12C gives 3.197401823 -7 which is 1% out, but it only takes a few seconds. All is not lost on the 12CP though - i did a 250 (the limit, due to a bug) line i-solve program that never seems to take longer than 40 seconds - so the 12CP runs the prog well - and for the above case it resolves the i exactly!! Probably a fluke, but shows what the 12CP can do.

Re: 12C and its financial algorithms

*Message #7 Posted by **Tony** on 19 June 2003, 3:57 a.m.,*
in response to message #6 by Tony

whoops the 12CP gives 3.170982000 E-7 in 280 seconds - a pretty good answer in the end. Only 2.8E-13 too high or about E-4 %

Edited: 19 June 2003, 4:00 a.m.

Re: 12C and its financial algorithms

*Message #8 Posted by **hugh** on 19 June 2003, 4:48 p.m.,*
in response to message #6 by Tony

280 seconds! wait! whats's this. here comes the hp9g, cover flapping in the wind...

"I'll save you rpn mortals from evil tvm errors..."

"finding FV is easy with my 24 digit precision. don't panic kids, i'll just use the textbook formula fv=-amt*((1+i)^n-1)/i" 60*60*24*365->N .1/N->I .01*((1+I)^N-1)/I = 31,667.0067

"ah! that was easy, now to solve for I in only 5 seconds.. just whisk together a quick solver..."

INPUT L,H,E; E=10^(-E) X=L GOSUB PROG 9; A=Y Lbl 1: IF (ABS(H-L) < E*ABS(H)) THEN { GOTO 2; } X=H GOSUB PROG 9; B=Y C=H-B*(H-L)/(B-A) L=H A=B H=C GOTO 1; Lbl 2: X=C END

"and the solve-for subroutine..."

Y=((1+X)^31536000-1)*.01/X Y=Y-331667.0067 END

"put in L=1e-30, H=1e-7, E=8 and presto!"

x=3.1709792e-9 which is correct.

Gee, thanks 9g, i'll never doubt you again.

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HP Forum Archive 13

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copying hp 85 tape to another tape

*Message #1 Posted by **NORM** on 18 June 2003, 11:19 a.m.*

i have alot of hp 85 tapes that run instrument tests and calibrations using the hpib bus. i was able to copy the program files by loading the program to the hp85, then putting in a blank tape then doing a store"prog.name" for each program on the tape. however, when it came time to store data type files i could not do it. in this case the data file is called "macro1" i would like to store it but am not sure how to do it. obviously the programs will not run on the newly copied tape without this data file. if anyone out there can help i would greatly appreciate it. thank you in advance, norm

Re: copying hp 85 tape to another tape

*Message #2 Posted by **jr (italy)** on 18 June 2003, 4:51 p.m.,*
in response to message #1 by NORM

Norm,

Is the "new" tape formatted?? I know silly question.

jr

Re: copying hp 85 tape to another tape

*Message #3 Posted by **Vassilis Prevelakis** on 18 June 2003, 9:08 p.m.,*
in response to message #1 by NORM

If you can go via a disk drive, life will be far easier since you can copy everything onto the floppy and then back onto the new tape.

The reason why you are having trouble with the data file is because the HP-85's LOAD and STORE commands are designed to deal with program files, not data, binary, graphic, etc files.

If you know the type and structure of the data file you can write a small basic program to read it in memory and then (after you change tapes) write it back onto tape.

I am amazed, however, that HP did not provide some sort of backup facility for base configuration HP85s. If anybody has another solution, I'd be delighted to hear it.

**vp

Re: copying hp 85 tape to another tape

*Message #4 Posted by **Ellis Easley** on 18 June 2003, 10:59 p.m.,*
in response to message #3 by Vassilis Prevelakis

Was that one of the reasons for adding the extended memory and RAMDisk code to the "B" versions?

Re: copying hp 85 tape to another tape

*Message #5 Posted by **Vassilis Prevelakis** on 19 June 2003, 7:50 a.m.,*
in response to message #4 by Ellis Easley

```
Ellis Easley wrote:
> Was that one of the reasons for adding the extended memory and RAMDisk code to the
"B" versions?
```

Good idea. I didn't think of the RAMDisk (probably because all my 85's are A models). But, you are right the RAMdisk can be used to hold the contents of the tape during the transfer. However, as the tape can store about 200K, if you do not have any HP82908A or HP82909A memory modules, you may have to do the transfer in multiple steps.

I am not sure what the RAMdisk syntax looks like (you can find about it in the HP85B manual on the MoHPC disks), but to copy stuff from tape to disk you have to do the following.

```
COPY ":T" TO ":D700"
```

Assuming your disk drive's address is 700. Now place a new tape into drive and initialize it using

```
ERASETAPE
```

and, finally copy files to the new tape

```
COPY ":D700" TO ":T"
```

**vp

HP 86/87 BACKUP

*Message #6 Posted by **Vassilis Prevelakis** on 19 June 2003, 8:37 a.m.,*
in response to message #5 by Vassilis Prevelakis

A bit off topic but note that if you have an HP86 or 87 with a single disk drive, you can still make backup of disks using the BACKUP utility from the HP87 demo disk.

The demo disk is at http://www.series80.org/Programs/DEMO87/index.html

Instructions on transfering these files to HP 87 disks http://www.series80.org/Programs

Note that for BACKUP to work you need to have at least the following files from the demo disk:

```
r            BPGM   256      1    768  r.BIN
BACKUP       PROG   256      2   1024  BACKUP.BIN
 backup      PROG   256     29   7936  _backup.BIN
UTIL/1       BPGM   256     12   3584  UTIL_1.BIN
ASKIOB       BPGM   256      5   1792  ASKIOB.BIN
```

**vp

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HP Marketing Strategy

*Message #1 Posted by **Bob** on 18 June 2003, 9:32 a.m.*

I don't know if anybody from HP checks these messages out, but I would like to open a discussion on how to best market the HP calculator line. (a future one, anyway)

I have read the discussions on PDA vs. PC vs. Handheld Calculators and I understand the premise that the calculator is not a strong future contender. Some say they are just commodity items. I just disagree. Just look at TI. They are selling a large number of calculators, especially through the educational market. Some of these are about in the same cost range as the HP's

How would you market, advertise, and sell calculators ? Who is your target consumer, how do you reach them, etc ?

I think that there is a market out there but it has not been reached yet. It does not just consist of us retro-minded folks who bought our first HP in the early '80's.

What are your thoughts ?

Re: HP Marketing Strategy -- Digital Cameras

*Message #2 Posted by **Paul Brogger** on 18 June 2003, 11:39 a.m.,*
in response to message #1 by Bob

It's a good question, especially in light of my recent experience with an HP digital camera.

We found a "Photosmart 812" (4MP) on sale at Circuit City and it looked right, so we bought it. I then picked up a copy of "Digital Photo" (or whatever) to compare what I just paid with prices from the mail-order houses. (I know that's a bit backward, but I don't always exhibit patient buyer behavior!)

Amazingly, I found: no articles reviewing HP cameras (not surprising in a single-issue sample), NO HP advertising (a bit puzzling), and not a *single* mail-order outfit offering HP's (!!??!!??) They've got whole sections devoted to Nikon, Olympus, Pentax, you name it -- NONE of them offer (or, at least, advertised) HP's. Even in a single-issue sample, that seems bizarre. (The only mention of an HP camera that I could find is a single-line entry in a product comparison table.)

I'm going to buy a few more magazines, but that made me wonder whether & how HP plans to play in the Digital Camera marketplace . . .

(Not that I'm disappointed in our purchase -- the camera seems fine, given the tiny bit that I've found time to use it so far.)

Re: HP Marketing Strategy -- Digital Cameras

*Message #3 Posted by **Thomas** on 18 June 2003, 11:45 a.m.,*
in response to message #2 by Paul Brogger

I think they only sell cameras as additional product for theis photo-style inkjet-printers (i.e. like canon or epson). So the orders do - so its a "have to" product if you want to sell printers. In Germany sometimes you can buy a bundle of printer and camera. But the cameras are not build or developed by hp. I think its a kodak or so.

Regards Thomas

Re: HP Marketing Strategy -- Digital Cameras

*Message #4 Posted by **Andreas** on 19 June 2003, 8:14 a.m.,*
in response to message #3 by Thomas

The HP912 (which I bought when I still worked at HP) is a Pentax camera but with some HP electronics inside. The same camera was sold by Pentax as the EL-2000. I expect their current models are also produced in a similar arrangement. The first generation of "HP" cameras where made by Minolta as far as I recall - HP wasn't at all involved in either design or manufacturing.

Re: HP Marketing Strategy -- Digital Cameras

*Message #5 Posted by **Dave Shaffer** on 18 June 2003, 2:32 p.m.,*
in response to message #2 by Paul Brogger

I think there might be some snobbery in play. The camera magazine(s) have been around for a long time, and the Nikons, Olympuses, Pentaxes, etc. of the world have been their bread and butter from the beginning. They can't be bothered with these new upstarts!

Check, instead, the newspaper ads of the Circuit City/Best Buy places. They have a lot of HP and Kodak (not previously known for high-end cameras, either!) digital cameras, at just about the best price/pixel. (I have an HP 318 and am quite happy with it - to the extent that a few megapixels suffice. I was taking real film pictures a week ago (with my ancient, but still very good Pentax ME) and pointed out to my digital friends that I was using my 20 Megapixel camera!)

Somehow ($$$$$ usually work!), HP and Kodak have convinced the retailers to feature their digital camera products.

I suspect HP will have to use a similar strategy (incentives to the retail outlets - and perhaps, rebates to the customers) to get new calculators in front of the populace. Especially, to displace (or at least match) the prominence that the TI 8x series gets.

O.T. - resolution

*Message #6 Posted by **Ellis Easley** on 18 June 2003, 3:44 p.m.,*
in response to message #5 by Dave Shaffer

I read that the original North American Television Standards Committee (NTSC), in the 1920's or 1930's, went to the movie industry for advice on what kind of resolution television should have - just as in recent years, the Motion Picture Experts Group (MPEG) has developed standards for digital television. After the electronics experts explained to the film experts the relationship between picture resolution and signal bandwidth, the movie people said television needed 100 MHz for an acceptable picture. Since this was more bandwidth than the entire usable radio spectrum at that time, the electronics experts did their own research on human vision to find a practical bandwidth. They learned a lot about how the eye sees including color perception - information that was used years later for the compatible color TV system - and came up with the 4.5 MHz signal (in a 6 MHz channel) that has served pretty well until today.

Re: HP Marketing Strategy -- Digital Cameras

*Message #7 Posted by **Paul Brogger** on 18 June 2003, 5:19 p.m.,*
in response to message #5 by Dave Shaffer

Right -- I had no trouble finding online prices for the model in question. (In fact, the Circuit City sale price was better than the best online quote!?!?)

For whatever reason, the magazine advertisers just don't quote HP's.

My "market research" consisted of posting a question on this forum a while ago: "What features do I look for in a digital camera for use in eBay sales?" (The answer from several folks: at least 2MP, a macro mode, a USB connection, and an LCD screen for instant review.)

A few folks went on to praise their HP cameras, so the rest was easy -- especially when we saw the sale price on the model in question. (My wife was suspicious of an HP recommendation coming from this forum, but then Oprah praised an HP camera, too, and so then it was O.K!)

When you want a camera...

*Message #8 Posted by **Mike** on 18 June 2003, 3:58 p.m.,*
in response to message #2 by Paul Brogger

you go to a camera manufacturer, don't you. HP is not a camera manufacturer. They make specialized equipment. They are not a consumer electronics manufacturer, for the most part. Even their PDAs aren't mainstream.

Nikon's, Canon's, etc bread and butter is cameras. It makes sense that they would get the majority of attention. You can bet one thing for sure, if HP had a superior camera than these others, it would be covered.

I own a Nikon digital.

Re: When you want a camera...

*Message #9 Posted by **Paul Brogger** on 18 June 2003, 4:58 p.m.,*
in response to message #8 by Mike

The HP 812 (and others, I suspect) has a Pentax lens, and prominently advertises this fact. It looks as if the HP folks outsourced the part(s) requiring specialized expertise in order to make a relatively high quality CONSUMER electronics product.

No, it's not pro-grade, but it appears to be a good, simple-to-use camera.

Re: When you want a camera...

*Message #10 Posted by **Bob** on 18 June 2003, 8:08 p.m.,*
in response to message #8 by Mike

My brother in law bought a "name brand" digital camera with 3or 4 MP. My lower end HP 2.1 digital looks just as good, cost 1/7th the cost, and I don't worry about it being dropped, scratched, etc

Re: When you want a camera...

*Message #11 Posted by **Thomas** on 19 June 2003, 6:23 a.m.,*
in response to message #8 by Mike

I own a Canon Ixus. This is a simple use camera too. This is that what I want, if I use a digital camera. Canon allows you to connect their cameras direct to the printer without PC. And HP follows that idea. Not all photoamateurs own a PC. And they don't have to.

And it's easy to use - that's it.

Thomas

The future of calculators is dead

*Message #12 Posted by **Mike** on 18 June 2003, 2:47 p.m.,*
in response to message #1 by Bob

With the advent of the PDA, the fate of calculator market is sealed.

PDAs will eventually be the preferred consumer electronic device. It will be your music source, radio source, cell phone, camera and calculator.

For someone who has a PDA, there is NO NEED for a calculator.

Calculators will have a life, only as long as PDAs are costly. But PDA prices are dropping rapidly. Soon, everyone will have one. Think not?

Well, I've been to Japan recently. Japan is years ahead of the U.S. in terms of consumer electronics. You know the new rage picture phones? They have had them for years in Japan.

Everyone over the age of 10 has a cell phone. Eventually, the U.S. will catch up. People are finding that phones don't have to be tiny devices. They are currently putting them in PDAs and PDAs are a great platform for calculators.

I currently carry a Siemens SX56 Cell Phone PDA and that is my working calculator as well. And I'm an HP collector. Imagine what non-collectors will prefer.

The only calculators that will exist in the future are desktops and **very cheap handhelds**. Cheap being defined as below, say $20. Think HP can put out a quality (that we expect) calculator for under $20? Think again.

You know, I can actually recall people saying,

"The CD will never catch on" and **"FM will never replace AM"** and I've heard that people actually used to say, **"TV will never replace the radio."** How many vinyl records have you purchased recently?

Now, for some chit-chat. I have said for years that I should have been a calculator designer. There is always something else that I would put in any calculator that has come along. Or, that there is a different way I would have done this or that.

All that is needed for anyone to fullfil that destiny is to have a programmable box, suitable for a calculator. Well guess what? **A PDA is that box.**

With PDAs the best calculators that have ever been conceived can and will be designed. It is a neverending quest for the perfect calculator **and the box doesn't have to change.**

Think about it. A box not much larger than the size of a 15C, that holds GigaBytes of program, RAM and storage, is currently available. It comes in color, plays your music, calls your friends, takes photos and holds any variety of calculator that you like.

We may like the nice HP buttons, the functionality, the reputation, the RPN the, the, the. But these are irrelevant concerns for the future consumers of the world.

The business model for producing consumer electronics is not governed by a few serious collectors. It is governed by consumers.

Edited: 18 June 2003, 3:13 p.m.

Re: The future of calculators is dead

*Message #13 Posted by **Bob** on 18 June 2003, 3:54 p.m.,*
in response to message #12 by Mike

I also use a PDA and cell phone with built-in calculators. It is not a replacement for a good calculator. No one I know uses those calcs for more than 2+2 math, due to the poor user interface. I work in R&D engineering, and everyone still uses a handheld calc (in addition to PDA's) around here. (I do use a stylish belt clip and leather case, like my 41CV)

I don't think that you have to produce a $5 calculator to compete. After all, all cars don't cost the same as a Hyundai or Kia, all watches don't cost the same as a Timex, etc) Even TI sells a range of calculators at varying prices. I also remember when folks were saying that the (mini-van, SUV, etc) would soon be the only car on the road. That didn't come true either. Many people don't like a compromise, do-it-all part-way device. I believe that there is still a market out there. I am not sure how big, but it is there.

If you produced a good calc at a little more than there price, say, +$5-10, and gave people what they WANT, you could even take market share from the $5 crowd. (even with RPN) Throw in some PDA-like features and you might make another gain. Of course all of the die-hard HP fans would buy one (or more). The bottom line is they haven't figured out the proper marketing for this product in the last two decades. That was way before the PDA came to the public's eye.

My point is, if TI and others can make a decent calc for <$10 (as well as $100+), you should be able to use the same shell, display, and processor, and add good keys and RPN for $5-$10 more.

I for one, do not use my PDA for calculating since I hate the stylus, display, and the calculator programs stink. (Besides, THEY can cost $10-$20 as well.) You'd be surprised how often folks ask to borrow my HP48GX in meetings (by PDA-toting colleagues), so I don't think the need has gone away.

That is calculator collector thinking

*Message #14 Posted by **Mike** on 18 June 2003, 4:04 p.m.,*
in response to message #13 by Bob

I too am a practicing engineer. Have been for 28 years. I remember people saying, "electronic calculators won't replace the slide rule. They are too slow and you make mistakes." I even remember my first experience with calculators. I did calculations 2 or 3 times just to prove to myself that it was correct.

You are looking at this from a collector point of view, not a consumer electronics manufacturer point of view. People will use, what they are trained to use.

Like I said, I too am an EE and I rarely, if ever use a calculator at work. And there is NOTHING that you can do on a 48 that can't be programmed (eventually) into a PDA.

I didn't say the calculator would be outmoded today. I said the future.

Paul is right, Mike is wrong, Bob is right

*Message #15 Posted by **Norm** on 18 June 2003, 4:14 p.m.,*
in response to message #12 by Mike

because:

HP selling calculators is what Peter Lynch called "di-worsification". (the mutual fund manager from the 1980's who did very well with Fidelity Magellan). Many companies in their decline become obsessed with "diversifying". Lynch said they should keep doing what they did originally, and what the management calls "diversify" Lynch calls "diworsify" and he said when a company diworsifies then run for the exits (as an investor).

HP IS CLEARLY DIWORSIFYING. They say screw calculators and their owners (and other things that made the company great) and now they will sell HP Cameras, HP Toasters, HP Vacuum Cleaners, etc. Lynch says it is to "diworsify" because they aren't any good out of their core area, and they need to stick with their core area. In other words, NIKON OLYMPUS AND PENTAX WILL KICK HP'S BUTT. And I would never buy an HP camera (or anything else diworsified) just out of spite for their mistreating the engineering calculator line.

= = = = > > > >

Mike says everybody will just get a PDA and talk on their calculator/cellphone/PDA/car-wash/popup toaster/microwave oven that they tote around with them. That's EXACTLY what I don't agree or buy into. The merchants want to throw all the stuff into one box, and it all works like garbage, but its all-the-garbage-in-one-box.

I say no way, give me ONE GOOD THING (ie a calculator) and give me ANOTHER GOOD THING (ie a cellphone) but dont stuff them all together. That whole concept is ridiculous. Who has time to use junk like that. And when it busts (and believe me, it will bust) then you have NOTHING, instead of like if you have a cellphone AND a calculator, then you still have one of them when there's a breakdown.

I CONCLUDE THAT the HP "RED BRICK" is still EXACTLY where the truth about calculators resides. HP-34C, HP-15C, HP-41C, etc. Try to sell me a combination toaster/microwave oven/calculator/cellphone/DVD player and you'll never make the sale (with me) and the companies just look silly to propose such junk. IF CONSUMERS BUY IT (and that's the main strength of the argument) that's only because the consumers have become exceptionally mentally retarded at this juncture. The people who buy crap like that is just Mr. Beevis and Mr. Butthead, and actually they don't buy it they shoplift it so how much money does Carly make on THAT.

While having some tolerance for the derivatives of the Red Brick HP-LED calculators (32S, 32Sii, etc) there is no advantage to overcomplicating the works, and indeed, that is exactly why I would AVOID buying those units. Too much junk . Too tedious to figure out.

I know a 10 year old kid and I want him to get a headstart in math. Although later he would probably do best with a 32Sii, for starters, what's the best ticket? A 31E . Why? Because its straightforward with not too many buttons. I want him to gradually go thru and learn what all the different buttons do (what's "x to the y", whats "log") etc. When he's learned all of them, I'll graduate him to a more complicated calculator (perhaps a 32S) .

Where does the 49G fit into all that? It doesn't. Its got so much garbage thrown into it, that it is truly just garbage. Huck it out the driver's side window while I'm going 85 mph, for all I care.

And as long as Carly and her mafia goon squad keep cranking out manure like cameras and toasters and vacuum cleaners, I'll just not patronize them thank you very much. Thank God for eBay and the internet, as mentioned before, it allows us to run circles around these indecent corporations when they refuse to serve

their customers.

oops, one of Mike's posts is right ...

*Message #16 Posted by **Norm** on 18 June 2003, 5:11 p.m.,*
in response to message #15 by Norm

I am confused now.

Mike says that he would want a real camera, like a Nikon digital, and to heck with the cameras from HP the maker of superior travel luggage and golf clubs.

BUT Mike also said he wants "all in one stuff", like a combination cellphone/camera/calculator/electric shoe polisher.

Now I am all embarassed because I dont know which is the real story or who is right and who is wrong.

But Mike why own a kick-butt Nikon digital camera ?

I mean you could have a combination Kinpo calculator/camera that sports a 4-function calculator with equals button, and a black and white imaging chip that sports 50 x 75 pixels ? What more could you want than that ?

Anyway sorry that I do not understand your position, guess I only understnd mine. Thats human nature.

Re: oops, one of Mike's posts is right ...

*Message #17 Posted by **Ellis Easley** on 18 June 2003, 7:55 p.m.,*
in response to message #16 by Norm

I don't think Mike said he wanted a combo device, he just said that's the way the market is going. I think his argument is pretty good. They talk about disposable cell phones - that takes care of the problem of servicing the unit when it fails. And if you happen to be someone who needs a cell phone and a calculator with you all the time - who wants to carry two things?

I just wonder if there isn't a place for a general purpose pocket information device with a high quality mechanical keyboard with high contrast soft legends on the keys - maybe at a higher price point, given the higher manufacturing cost.

what if ... my combo calculator cellphone

*Message #18 Posted by **Norm** on 19 June 2003, 3:09 a.m.,*
in response to message #17 by Ellis Easley

WHAT IF I am talking on my HP cellphone calculator, and its about a business problem, and I need to type the numbers in that the person is giving me over the telephone.

What do I do? Do I hold it to my ear, or do I hold it in my hand ?

What if I need to toast a bagel at the same time (using the built-in toaster oven) while I do the calculations using the numbers that he gives me over the telephone (so that I wont be hungry by the time the call is over). Can I run the toaster oven simultaneous with the cellphone and the calculator ? Does it also have programming steps so that it will autodial the telephone numbers and not burn the bagel ? Does it also have some buttons for sine and cosine, and 1/x or was that

less important than the built-in autodial directory ? Is it on a nested pulldown menu?

Do I also have built-in formulas incase i forgot that

area = pi * r ^ 2

after all, its not reasonable to expect me to REMEMBER things like that.

Re: The future of calculators is dead?

*Message #19 Posted by **Paul Brogger** on 18 June 2003, 5:36 p.m.,*
in response to message #12 by Mike

Reading InfoWorld (and perhaps elsewhere), much is being made about the fact that GM is standardizing on a multifunction handset rather than on a PDA.

The thinking seems to be that the PDA is the worst of both worlds: the complexity of a workstation and *less* convenient input capability than the average cell phone. The character recognition capabilities still seem problematic (certainly in the WinCE generation installed in my iPaq) and the folding keyboards are Mickey Mouse in the extreme.

The cell phone / camera bundling is, I think, interesting. It combines two devices whose I/O needs are readily accomodated in a small package: numeric keypad and a mic / speaker for the phone, a lens and a viewscreen for the camera. And sending pictures over telephone lines? (That's sort of what the Internet is . . .) I think there's a future in this combo. (Note: the DOD doesn't want contractors walking aboard a submarine with a photo-capable cell phone!)

The Calculator? I think there's still a limited market for a specialty provider offering a customizable system in a quality, purpose-built but connectible package. (It doesn't seem like a large company like HP, driven by shareholders' aspirations, belongs there.) For **The Rest of Us** (er, ***Them***), a calculator application with a phone-oriented keypad (!) and a few soft keys on a multipurpose handset seems about right.

The future of calculators is dead!

*Message #20 Posted by **Nenad (Croatia)** on 19 June 2003, 3:33 a.m.,*
in response to message #12 by Mike

Mike is right! There is no future for HP calculators as we know them from yesterday. They will certainly be replaced by PDAs. The comparison with slide rules is also right. HP calculators will only live in our memories and in glassboxes of a few nerds (us!). Please be honest, do I look weird to other people when I tell them that I collect HP calculators? They almost always say: Why do you need that old junk at all?

One can make a lot of money on eBay today buying and selling that "old junk". This has nothing to do with the usefulness of calculators today at all.

We love our old HP's. Norm loves his HP34C's. I love my HP67. But, we have to admit: the story ends here. Any calculator's functionality is 1/1000 of the funcionality of any PDA today, or a funcionality of a NOKIA 3650, ...

Mike's post (the subject one!) was written on a basis of reality. Other posts have been written on the basis of our feelings for old HPs (on the basis of our heart). Period.

Nothing of this will prevent me to collect old HPs, learning how to repair them, trying to conserve some old forgottten knowledge, talk to my friends (everybody) here and feel thankful to the curator of moHP who have given us such an opportunity to "meet" each other and share the same feelings ...

Re: The future of calculators is dead

*Message #21 Posted by **Valentin Albillo** on 19 June 2003, 7:17 a.m.,*
in response to message #12 by Mike

Caveat *reader*: all that follows is My Humble Opinion, I mean *no* disrespect at all to anyone's opinions, much less Mike's, and I don't claim I'm in possession of the one and only thruth, or that I'm necessarily right and Mike's necessarily wrong. That said, let's begin:

Mike posted:

"For someone who has a PDA, there is NO NEED for a calculator."

That's your opinion. And I'm not so sure you believe it 100% yourself. Don't you ever grab a calculator for a quick math ? Or will you make us believe you actually care to use your PDA to find a percentage, add up something, etc ?

Myself, I do use and need a calculator frequently, not for very complicated things but for such things as computing taxes, discounts, costs, and the like. Such computations require the reliability *only a good keyboard interface can provide*, and I find PDAs most uncomfortable and unreliable in that aspect.

"Calculators will have a life, only as long as PDAs are costly. But PDA prices are dropping rapidly. Soon, everyone will have one. Think not?"

Think not. Not everyone does like and use PDAs, even if they were given for free. But everyone must use some sort of calculator for most everyday math chores, even if simple. Most people make do with 4-bangers, some fortunate people use their 32S, 42S or whatever. But if you've got a suitable calculator *at hand*, you *never* reach for a PDA.

"Well, I've been to Japan recently. Japan is years ahead of the U.S. in terms of consumer electronics. You know the new rage picture phones? They have had them for years in Japan."

Yes, and kids play Pokémon over the phone, so what ? Japan's always been a consumer's craze, where people crave and rave for all kind of gadgets we would consider just plain stupid, to say the least. And ? Are you implying that local Japanese fads are the thing to copycat in the US ? Come on !

"You know, I can actually recall people saying, "The CD will never catch on"

A little biased, don't you think ? Don't you also recall people saying "Quadraphonics will never catch on" or "DIVX (the original DVD rental system) will never catch on", or the many other fads that *never did* actually catch on ? And who's saying PDAs will never catch on, anyway ?

"All that is needed for anyone to fullfil that destiny is to have a programmable box, suitable for a calculator. Well guess what? A PDA is that box."

Fine, go on. Let us know of your progress, please.

"Think about it. A box not much larger than the size of a 15C, that holds GigaBytes of program, RAM and storage, is currently available. It comes in color, plays your music, calls your friends, takes photos and holds any variety of calculator that you like. We may like the nice HP buttons, the functionality, the reputation, the RPN the, the, the. But these are irrelevant concerns for the future consumers of the world."

Sure. Seems to me a book case of the "Hog's Principle", which reads as follows:

```
"If something's good, more is better"
```

Sometimes, just the *right thing* is far better. I would *never* exchange/trade you a single, fine HP-15C for a box choke-full of those wonderful gizmos you describe. And what's more, let's see 20 years from now just *how much* is my HP-15C worth, and how much is your choke-full box of today's PDAs' worth. That also applies to many other classic HPs as well. Care to make a bet ?

"The business model for producing consumer electronics is not governed by a few serious collectors. It is governed by consumers."

Sure. That's why we are seeing more and more garbage products all the time, designed to *not last*, produced as cheaply as possible in China, Taiwan, or somewhere else where labour costs are as low as possible whatever the quality, of abysmal physical characteristics, and instantly obsolete.

I rest my case. And my HP-15C will be with me *long after* you've thrown your 23th PDA to the garbage bin.

Best regards.

Re: The future of calculators is dead

*Message #22 Posted by **Chris(FLA)** on 19 June 2003, 9:28 a.m.,*
in response to message #21 by Valentin Albillo

Not everyone does like and use PDAs, even if they were given for free. But everyone must use some sort of calculator for most everyday math chores, even if simple. Most people make do with 4-bangers, some fortunate people use their 32S, 42S or whatever. ***But if you've got a suitable calculator at hand, you never reach for a PDA.***

I have a IIIx & 2 IIIxe's with 5 calcs on them(all are RPN). I **never** reach for the PDA when I need to bang out some numbers. Actually the PDA calcs are more of a interesting diversion than a real tool. The only thing I really use them for is converting HMS->HR or the reverse. I have a GPS unit for my PDA.

Chris

Re: The future of calculators is dead

*Message #23 Posted by **Ernie Malaga** on 19 June 2003, 9:43 a.m.,*
in response to message #21 by Valentin Albillo

Bravo, Valentin! Your comments are right on target.

> Quote:
>
> Sure. That's why we are seeing more and more garbage products all the time, designed to not last, produced as cheaply as possible in China, Taiwan, or somewhere else where labour costs are as low as possible whatever the quality, of abysmal physical characteristics, and instantly obsolete.

"American components... Russian components... Everything made in Taiwan!!" -- Astronaut Lev Andropov (from the film "Armageddon").

-Ernie

Excellent post Valentin; Nenad is absolutely wrong.

*Message #24 Posted by **Norm** on 19 June 2003, 1:09 p.m.,*
in response to message #21 by Valentin Albillo

Excellently stated, Valentin .

These people running their PDA's dont even know how to solve a problem. Recently I was solving a problem involving vectors of a moving item where a little cable is wrapped around several pulleys.

It was unclear what forces and torques were created as the item rotates.

What was my PRIMARY TOOL ??????? A PENCIL AND PAPER !!!!!!!

Once I created a formula, what did I use to evaluate and plot the formula ? MY 34C !!!!!

DID I SOLVE THE PROBLEM, with pencil, paper, and a 34C ? HELL YES!

If I give you the same problem, and you have your PDA (and presumably no pencil and no paper) can you solve the problem?

HELL NO! I'll just tell U right now U could not solve the problem. That PDA is great for trading e-mail and watching streaming downloads of Beevis and Butthead, but when there's work to do, it will be useless.

The PDA thingy is garbage. The traditional calculator (HP was best) built back in the late 1970's is serving generation after generation, that's how great and useful an item it is .

It is not obsolete, it is completely useful to this day.

PDA's are garbage. Thats 2 things I wont own, a PDA and a cellphone. Gee I am so dumb, I dont want a bone marrow tumor above my right ear. What a loser I am, everybody else has a bone marrow tumor above their right ear, and I don't. I feel so left out.

Ever occur to you that these big nasty corporations are run by the nastiest, meanest, most evil Ford/Firestone creeps the world has ever seen, and that your stupid PDA is just bait to give them your money? The less money you give them the better. All they sell is worthless trash, and that trash is worthless for solving simple vector algebraic problems like I solved the other day with my paper and pencil.

- Norm

Re: Garbage???

*Message #25 Posted by **Paul Brogger** on 19 June 2003, 7:03 p.m.,*
in response to message #24 by Norm

There's nothing keeping someone from implementing a good, easy-to-use, scientific/engineering programmable calculator application on a PDA.

Most of the emulators that I've seen share the fault that they try to simulate a calculator keyboard, taking up all-too-valuable PDA screen space with fancy but illegible renderings of (nearly microscopic) virtual keys

As much as I like to hold my 34C (and other models), it's hard to argue with the utility of a collection of easy-to-use applications, integrated in a single configurable device (whether PDA or handset).

I'm afraid that the future lies with capable, general-purpose hardware running user-selected and user-configured applications. But that doesn't mean it has to have such a sterile, unimaginative feel. Eliminating ALL keys in favor of a touch screen is throwing out the baby with the bathwater.

A row of quality soft keys along one or more edges of a PDA or cellphone screen would make it a much more "tactile" device, without sacrificing flexibility. (Maybe something more like the Xpander, with a basic numeric and navigation keyset, a touch-sensitive screen, and some soft keys for customization?)

Palm tops with buttons

*Message #26 Posted by **bill platt** on 20 June 2003, 9:10 a.m.,*
in response to message #25 by Paul Brogger

http://www.palm.com/us/products/handhelds/tungsten-c/

also saw another brand (maybe it was a Windows CE platform) at radio shack, that also had many buttons.

Seems to me that this Tungsten C device, with the numeric keyboard, could be a decent platform for a calculator.

Of course, it's still not as nice as a proper calculator, but it is getting closer. Maybe a little more time and we'll see a proper hybrid (from the hardware point of view).

Then, it is a matter of the software.....

Re: The future of calculators is dead

*Message #27 Posted by **Ernie Malaga** on 19 June 2003, 6:38 p.m.,*
in response to message #21 by Valentin Albillo

Valentin:

> Quote:
>
> Yes, and kids play Pokémon over the phone, so what ? Japan's always been a consumer's craze, where people crave and rave for all kind of gadgets we would consider just plain stupid, to say the least.

I've often thought that, as soon as possible, all new homes should come equipped with a central computer that can control all appliances and perform certain remote tasks like putting the garbage can on the curb for pick-up. And no keyboard or mouse, please! Just voice commands.

Can you imagine the following dialog?

You: "Open the microwave door, please Hal." Hal: "I'm sorry, Valentin, but I can't do that." You: "What's the problem?" Hal: "This conversation serves no further purpose. Good bye, Valentin."

Sounds familiar? 8^)

-Ernie

I want a microprocessor controlled toilet

*Message #28 Posted by **Norm** on 19 June 2003, 9:36 p.m.,*
in response to message #27 by Ernie Malaga

It would be controlled by Microsoft software, because after all Bill Gates is going to control everything so why not my toilet.

It will have embedded Windows XP and Intel microprocessors (one extra for back-up).

Face it, you nostalgic calculator collectors, the old way of doing it, with a handle and a valve, is obsolete. The future is softkeys and pulldown menu's. Your toilet is no exception.

I want the toilet to have internet access and its own email address so that I can command it by remote control when I am not there.

And I want a firewire port and a bluetooth so that I can control it wireless from my PDA .

It should automatically notify me if there is any technical problems (low water pressure, plug-up, electronics malfunction, or need for a software upgrade OS to be downloaded and installed off the Microsoft home page).

But the important part is the PDA. That is the future. As long as I can control it from the PDA by pressing on the screen with a stylus, then it is acceptable.

You guys who think it should have a handle and a valve (and no electronics) are living in the past. That's not the way to do it, now that we have got PDA's.

Re: I want a microprocessor controlled toilet

*Message #29 Posted by **Ernie Malaga** on 19 June 2003, 10:05 p.m.,*
in response to message #28 by Norm

> Quote:
>
> I want the toilet to have internet access and its own email address so that I can command it by remote control when I am not there

You left something out: Every time your toilet flushes, its contents should go directly to Redmond, WA -- where it belongs.

-Ernie

Yah !! Software Port ..

*Message #30 Posted by **NH** on 19 June 2003, 10:09 p.m.,*
in response to message #29 by Ernie Malaga

Yah !! And I want a big 12" pipe to come up out of the ground and go thru a right angle section and everything splats straight out of the front of Bill Gate's 6 foot wide TV screen .

BLAAAT! And hope he is sitting there to receive the delivery of that software.

Is that what we would call a download to a software port ??

Re: Yah !! Software Port ..

*Message #31 Posted by **db(martinez,california)** on 20 June 2003, 12:52 a.m.,*
in response to message #30 by NH

How about a "wastebasket" to store up a months-worth. Imagine Bill's wall when all that brown spam hits it.

But back to the subject: i like the pda/calculator idea. I can imagine a 3 line screen with a level of hotkey labels OR the fourth level of the stack, a numeric keypad, chs and stack manipulation keys but precious little else -- using off the shelf technology. Most everything else could be accessed through menus and the programming done on a pc. I can see it but i can't do it.

HP is not going to improve on what they have already done; they can't even keep up with their past. Right now there are platforms and programmers good enough to outdo the 42, and do it with mass storage. It will happen and i will finally buy one, but i'll keep using my 41 every day too.

Life is short; use sharp tools.

Re: Yah !! Software Port ..

*Message #32 Posted by **Art Litka** on 20 June 2003, 11:46 a.m.,*
in response to message #31 by db(martinez,california)

Hi Dennis! Back in FLA and it was great meeting with you in CA. Let's stay in touch via email. HP charger works fine on the 25 and 25C and NOVUS in in my non-HP dispaly case. I will look for the 71 Bat door.

Re: Yah !! Software Port ..

*Message #33 Posted by **David Smith** on 20 June 2003, 5:14 p.m.,*
in response to message #30 by NH

Actually Billy G's TV is (was) a 4x4 matrix of 6 footers... I knew his toymaster when he was building the house.

Re: Debugging a microprocessor controlled toilet

*Message #34 Posted by **Paul Brogger** on 20 June 2003, 11:19 a.m.,*
in response to message #28 by Norm

I agree, if only because during development and debugging, the phrase "*take a dump*" would apply in at least two ways . . .

Re: Debugging a microprocessor controlled toilet

*Message #35 Posted by **Norm** on 22 June 2003, 1:46 a.m.,*
in response to message #34 by Paul Brogger

I know what a "download" would be for a microprocessor controlled toilet.

But more subtle is an "upload" for a microprocessor controlled toilet. Its when somebody in the high school stall next to you flushes the lit cherry bomb.

:o|

Re: Debugging a microprocessor controlled toilet

*Message #36 Posted by **Ellis Easley** on 23 June 2003, 7:28 p.m.,*
in response to message #35 by Norm

It should produce a good old-fashioned core dump printout - the paper can always be put to good use.

(Turn it over and use it for note paper. What did you think I meant?)

Re: Debugging a microprocessor controlled toilet

*Message #37 Posted by **David Smith** on 25 June 2003, 4:14 p.m.,*
in response to message #36 by Ellis Easley

There is a Japanese compu-crapper with a built in bidet. It even plays a jaunty tune why you work. Personally, I don't like appliances that are smarter than me.

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New unused HP-42S

*Message #1 Posted by **Thomas** on 18 June 2003, 6:25 a.m.*

In German eBay sells one an unused, new HP 42S Calculator. The auctoin still ramain over 7 days, but the price is about Euro 240,- . This is really expensive - maybe this one is in pure gold??

Thomas

Re: New unused HP-42S

*Message #2 Posted by **brp** on 18 June 2003, 9:14 a.m.,*
in response to message #1 by Thomas

sounds like the going rate to me!

Re: New unused HP-42S

*Message #3 Posted by **Thomas** on 18 June 2003, 9:44 a.m.,*
in response to message #2 by brp

The advantage for all other "searchers" is: Some see the high price an want to sell their calculator. Just see: Next week you found 5-10 HP 42S in eBay, but the price is much lower.

Regards Thomas

Re: New unused HP-42S

*Message #4 Posted by **David Smith** on 18 June 2003, 5:33 p.m.,*
in response to message #3 by Thomas

By the time the auction closes, the price won't be... The 43S regularly goes for over $200 in used condition. $300+ if new-in-box

Re: New unused HP-42S

*Message #5 Posted by **Thomas** on 19 June 2003, 6:35 a.m.,*
in response to message #4 by David Smith

Now I follow the auctions in German eBay for a lot of weeks. The price for a used calculator in good conditions is about 100-120 Euro.

The highest price I saw was 289 Euro.

If there only one or two auctions at the same time the price is higher 180-200 Euro.

But I saw now there are 3-4 to sell and the price will be lower. May be the new one will be frozen on 240 Euro???

Thomas

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hp32sii rom

*Message #1 Posted by **Axel Bodemann** on 18 June 2003, 5:30 a.m.*

Hello,

does anybody has information if there are different 32sii rom versions? If so, is there any way to check it?

Regards Axel

Re: hp32sii rom

*Message #2 Posted by **Christoph Giesselink** on 22 June 2003, 7:30 p.m.,*
in response to message #1 by Axel Bodemann

Hallo Axel,

because nobody replies to this posting I want to tell the minor what I know.

- does anybody has information if there are different 32sii rom versions?

Sorry no information about this.

- If so, is there any way to check it?

Another difficult question. I had a look into the ROM image symbol file I have and found no hint about a label or function that has something to do with version handling/printing. 2nd I had a short look into the disassembled code of the key waiting routine inside the <ON> <Y^X> single step selftest mode. I had found no key dispatcher which would allow calling other functions inside the single step display test.

BTW, the HP32SII ROM image has a size of 16KB and is fully programmed in assembler. That means no RPL code inside.

Regards

Christoph

Re: hp32sii rom

*Message #3 Posted by **Julián Miranda (Spain)** on 23 June 2003, 10:28 a.m.,*
in response to message #1 by Axel Bodemann

It seems there are different ROM versions. If you look at Craig Finseth's HPDATA (http://www.finseth.com/~fin/hpdata.html) at the end of the file about 32SII some known bugs affecting fractions are mentioned and he says HP offered, back then (1991), a trade in to exchange the bugged machines for upgraded ones.

Re: hp32sii rom

*Message #4 Posted by **Christoph Giesselink** on 23 June 2003, 2:11 p.m.,*
in response to message #3 by Julián Miranda (Spain)

That's correct. I just tested "2) The "Fixed Denominator" mode" with a ROM image and with a real HP32SII from 1999. The ROM image shows the bug, my real one not -> different versions.

Christoph

Re: hp32sii rom

*Message #5 Posted by **Renato** on 23 June 2003, 4:23 p.m.,*
in response to message #4 by Christoph Giesselink

Christoph, Your post lead to two conclusions: a- you have a 32Sii emulator, b- you have a 32sii rom image. Is that so ?

Renato

Re: hp32sii rom

*Message #6 Posted by **Christoph Giesselink** on 23 June 2003, 5:48 p.m.,*
in response to message #5 by Renato

My answer is http://privat.swol.de/ChristophGiesselink/Pict/HPBkgnd.jpg (bigger). ;-)

Christoph

Re: hp32sii rom

*Message #7 Posted by **R Lion (España)** on 24 June 2003, 2:15 a.m.,*
in response to message #6 by Christoph Giesselink

I have a real 32sii but I'd like to add the 32sii to my virtual collection too.

What can I do, Christoph?

Raul

Edited: 24 June 2003, 2:16 a.m.

Re: hp32sii rom

*Message #8 Posted by **Wektor** on 24 June 2003, 2:17 a.m.,*
in response to message #6 by Christoph Giesselink

Just curious: How did you extract ROM image from the real HP-32SII?

Re: hp32sii rom

*Message #9 Posted by **Renato** on 24 June 2003, 2:13 p.m.,*
in response to message #6 by Christoph Giesselink

Eloquent answer.
Nice marketing piece and efficient marketing strategy !Where do I send payment to ?
Renato

Re: hp32sii rom (longer)

*Message #10 Posted by **Christoph Giesselink** on 24 June 2003, 4:53 p.m.,*
in response to message #9 by Renato

If it would be a marketing piece the picture would be a fake and/or the pay button is missing. But why the pay button is missing? I haven't the rights to distribute any ROM images and to answer another question an extraction from a real calc isn't possible. An emulator without ROM images is useless and will only cause requests for ROM images on differents forums (ie. HP28C ROM images for the published Emu28).

It makes no difference if the calculators are in production or not. We should be glad that HP gratefully allowed us to make ROM images from our personal calculators to use them in emulators. Emulators never dammned by HP. So what about the ROM images that are available (list not complete): HP38, HP39, HP40, HP41, HP48, HP49. The following list is my personal opinion, be free to have your own one.

Let us begin with the oldest one

- HP41, paper ROM sources published under the NOMAS license, do this also allow publishing in binary form? I remember years ago it was difficult to find them on the internet.
- HP49, here it isn't very difficult because ROM update file contain most of the operating system and HP published his own emulator with a ROM image in a seperate file.
- HP39/40, officially only beta versions as emulator and HP49 update images had been available. AFAIK the one non beta which is published somewhere is the one I grabbed from my HP40G with an own written Aplet (sorry eLesson).
- HP48, members of ACO told us that HP48 images can be used freely in non commercial use. I never saw any license and I tried to get one from HP, no answer. This is the reason why I don't distribute any ROM images with Emu48.
- HP38, free interpretation of the the HP48 license, but here I know the case that somebody asked HP to put Emu48 and ROM images onto a book CD (the emulator wasn't the main topic on the CD). This was definitely forbidden by HP because of commercial use.

Another final words to the free available emulators Emu28, Emu42beta, Emu48. Some people think they can get all for free without any payback. Payback don't mean money in all cases. I personally also use free software, so my development on HP emulators is a sort of payback for there work. But in the last time I invested many of my free time on emulator development and that's the most important thing, much money to buy the original calculators, first to get a legal copy of the ROM image and 2nd without the original calculator the emulator development is very very difficult, even if you have some documents about the hardware (BTW, TNX to Paul Courbis for his picture of the HP28C memory layout). This is also one of the reasons why I don't publish a fully working non beta version of Emu42. 1st I hate questions for ROM images, 2nd I invested to much time and money to give it away for free.

Christoph

Re: hp32sii rom (longer)

*Message #11 Posted by **Renato** on 24 June 2003, 5:46 p.m.,*
in response to message #10 by Christoph Giesselink

Christoph,
You are talking to a marketing guy. I don´t usually create fake pics. I am also at finance/administration/sales. As I started career as a SW developer, I understand that engineers have prejudice against many non-technical responsibilities. It is ok for me, but I find it distracting, non-productive, and promotes bad communications.

Having said that, I might add that I do not believe you can turn this emulator production into a business. I learned from Luiz (I met this guy from Brazil in this USA forum 8-0) that by trading (without using money) you can have lots of fun, make interesting friends, and have access to things that would not be available to you otherwise. Luiz taught me how to create good-will among strangers and remote friends.

So my suggestion to you is : share. You can pe picky on the people you share with, but at the end I bet you will get much back.

Renato

Re: hp32sii rom (longer)

*Message #12 Posted by **Raymond Del Tondo** on 26 June 2003, 10:12 a.m.,*
in response to message #11 by Renato

Hi Renato,

I think Christoph has shared many things with the HP-48 (and relatives) community. Without his hard work, Emu48 would be still next to useless, as it was before Christoph took over. And he offered competent answers in software (emu) and hardware questions at no cost.

Regarding the additional emulators, I think it's also a matter of copyright. It makes no sense distributing an emulator for a ROM which you definitely don't have access to;-)

Regards,

Raymond

thank you, Christoph

*Message #13 Posted by **bill platt** on 26 June 2003, 11:18 a.m.,*
in response to message #10 by Christoph Giesselink

Christoph,

I just want to weigh in here and say thank you for your work on emulators. When I first discovered the various emulators a few months ago, I was totally astounded.....it was wonderful to see the old computer culture--with the spirit of cooperation and sharing--still living on!

And I USE these emulators frequently--they are great! I run the virtual 41 and the EMU 48 and also "excalibur" on all my machines--so that I NEVER have to be without an HP....

I think you are right to be careful about the patents and copyrights and to be discretionary---you and your fellow contributors to the "cause" of emulators have given

a whole lot, for very little financial gain. And if you find a way to make commercial gain from your expertise with making emulators--then more power to you!

Best regards,

Bill Platt

Me too: thank you, Christoph

*Message #14 Posted by **R Lion (España)** on 26 June 2003, 4:17 p.m.,*
in response to message #13 by bill platt

Emu48 is THE way for manteining a back up of my 48GX (1280kb)and also THE way for testing my own or third party prgs.

Thanks for your work

Raul

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Likely cause of the display problems

*Message #1 Posted by **Karl Schneider** on 18 June 2003, 2:55 a.m.*

Doug --

You mentioned that your unit is likely an "older" one with pressed-together connections. I also have two older 34C's, one of which exhibited the same symptoms.

I'd believe that the cause is poor contacts. The cure would be disassembly and cleaning. Others have done it, but I have only taken the backs off. After all, I developed the dental floss trick...

Re: Likely cause of the display problems

*Message #2 Posted by **DougT** on 18 June 2003, 7:15 a.m.,*
in response to message #1 by Karl Schneider

Thanks, Karl. I've kept handy a printout of your posting with the procedure, from back in October. I'm hoping a little *careful* cleaning will take care of the symptoms. I'll pass on the results after I have time this weekend to "play with those darned calculators", as my wife would say. Regards, Doug

Display problem fixed

*Message #3 Posted by **DougT** on 19 June 2003, 11:49 a.m.,*
in response to message #1 by Karl Schneider

Success! It's working now after gingerly cleaning and reseating things, so apparently it was just a loose connection. I just hope it lasts...

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HP-IL problem

*Message #1 Posted by **David Ramsey** on 18 June 2003, 1:43 a.m.*

Although it worked as recently as last weekend, I can no longer get my 82161A cassette drive to talk to a 41. When I try to issue a "DIR" command on the 41, the message TRANSMIT ERR appears. The same thing happens when I plug the HP-IL module into another 41.

I don't have another HP-IL peripheral, but I can plug the drive into my HP-71B...except I have no documentation on issuing HP-IL commands from this machine. DIR certainly doesn't work!

Suggestions, anyone?

Re: HP-IL problem

*Message #2 Posted by **Massimo Gnerucci (Italy)** on 18 June 2003, 3:10 a.m.,*
in response to message #1 by David Ramsey

Is the switch on the lower side of the 41 module in the correct position?
Just a guess...

Massimo

Re: HP-IL problem

*Message #3 Posted by **Christoph Klug** on 18 June 2003, 3:18 a.m.,*
in response to message #2 by Massimo Gnerucci (Italy)

The switch is only for enabel/disabel the internal printer feature of the IL-Module.

Remove the IL-Cass-Drive from the loop and close the loop. Now execute DIR . If you get the message NO DRIVE your IL-Module works nice - if you get the massage TRANSMIT ERR the bug is limited to the IL-Module (not to the IL-Cass-Drive, I hope so).

Best wishes from Germany - Christoph Klug

Re: HP-IL problem

*Message #4 Posted by **David Ramsey** on 18 June 2003, 11:48 a.m.,*
in response to message #3 by Christoph Klug

Damn. Plugging the ends of the HP-IL cables coming out of the module together and executing DIR still gives TRANSMIT ERR.

If I try any HP-IL commands with the tape drive connected and turned off, there's a pause before TRANSMIT ERR appears.

And making sure a new, freshly charged battery is in the tape drive (which was also plugged into AC)

didn't help.

Anyone have an HP-IL module they want to sell?

Re: HP-IL problem

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 1:09 p.m.,*
in response to message #4 by David Ramsey

Hi, David;

TRANSMIT ERR message will also appear if the loop is opened. If you have this message when you close the loop by plugging both ends together, chances are you have a "broken cable". If this is my unit, I'd open it and check if all four wires are integral and conducting alright. You can also slightly move and gently twist the cables close to their ends and repeat the DIR command (assign it to a key to easen the job). Maybe you get NO DRIVE message.

This also means you'll have to find where the cable is broken and repair it (or cut part of it off). In any circumstances, this means an easy repair with some time to be spent...

Success. And let us know what you want or will do.

Luiz C. Vieira - Brazil

Re: HP-IL problem

*Message #6 Posted by **David Ramsey** on 18 June 2003, 1:41 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

I thought about that (simple broken conductor).

I can fix things like that-- I've replaced bad LED modules in classic HP calcs, so I should be able to do this.

How does the module open? Is it snap-apart?

Re: HP-IL problem

*Message #7 Posted by **Vassilis Prevelakis** on 18 June 2003, 9:19 p.m.,*
in response to message #6 by David Ramsey

```
David Ramsey wrote:
> How does the module open? Is it snap-apart?
```

Before taking the hp-il module apart, maybe you should check whether the break is in the plugs on the far end of the cable (the ones that plug into the tape drive). These take a lot of beating as you plug and unplug them.

One easy way of checking connectivity is to stick a pin into one of the conductors in the cable and check connectivity between the pin and the corresponding pin on the plug. Check all four wires and if they work, then the problem is most likely on the connection of the cables with the HP-IL module.

**vp

Re: HP-IL problem

*Message #8 Posted by **Ellis Easley** on 18 June 2003, 1:46 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

If you do find that one of the wires is open, look for a multimeter with a capacitance range. I used one the other day on the cord for a Classic battery charger. As it turned out, the break was at the plug end, but the total capacitance between adjacent wires in the 8 foot cord was about 200 pf, easily measured on the meter's 2000 pf range. If the break had been someplace other than at the end, I could have measured the capacitance from both ends and used the ratio of the measurements to narrow down the location. (In fact, I measured 200 pf from one end and 4pf from the other.)

Re: HP-IL problem

*Message #9 Posted by **David Ramsey** on 18 June 2003, 1:50 p.m.,*
in response to message #8 by Ellis Easley

[quote] If you do find that one of the wires is open, look for a multimeter with a capacitance range. I used one the other day on the cord for a Classic battery charger. As it turned out, the break was at the plug end, but the total capacitance between adjacent wires in the 8 foot cord was about 200 pf, easily measured on the meter's 2000 pf range. If the break had been someplace other than at the end, I could have measured the capacitance from both ends and used the ratio of the measurements to narrow down the location. (In fact, I measured 200 pf from one end and 4pf from the other.) [\quote]

This goes beyond my simple understanding of basic electronic theory. But I'll make a note of it.

Re: HP-IL problem

*Message #10 Posted by **Ellis Easley** on 18 June 2003, 2:02 p.m.,*
in response to message #9 by David Ramsey

Maybe I should say more properly, the ratio of the capacitance measured at one end to the sum of the capacitances measured at each end. The capacitance should be proportional to the length of the continuous pair of wires. For example, if you measured the same capacitance from both ends (and you knew that there was a break in one of the wires) then the break would be near the middle of the length. If you measured three times as much capacitance from one end as from the other, the break would be about a quarter of the way from the end with the smaller capacitance measurement.

Re: HP-IL problem

*Message #11 Posted by **David Ramsey** on 18 June 2003, 9:22 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Luiz,

So...how do you open the HP-IL module? Snap together? Fasteners under the label?

-- David

An image of an HPIL opened

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 19 June 2003, 1:12 a.m.,*

in response to message #11 by David Ramsey

Hello, David;

I opened some HP41 ROM and memory modules to try to repair them. In two cases I was successful after re-soldering a couple of terminals. Unfortunately I found at least three ROM modules that did not respond to calculator's commands, and they seemed to be perfectly fine inside.

The best procedure is testing the cables and checking if there's a chance not to open it. Avoid opening the HPIL module.

Look at the picture below. It's an opened HPIL. The original image is from the HP Journal, January 1983, p. 11. Im calling attention to two very sensitive components:

http://www.logeng.com.br/images/HPIL_int_view.jpg

(1) - Hybrid pulse transformer
(2) - HPIL custom chip (for the HP41)

As you can see, both halves are "welded" (ultrasound) together by teir borders. The best way to separate the case is to use a tool that allows you to gently "break" it exactly in the "jointing" surface. This is a time consumming task and there are some actual cases that are easier to open than others (it seems that some modules are better "welded" than others, what is a great disadvantage when opening). I remember seeing some pictures (private page) of one contributor opening a memory module, and he used a small knife. I think you'll have a better idea and you'll probably find your own way to open it; consider doing this only if needed. I did not need to open an HPIL so far, but I'll not hexitate if I need to.

If it does not give you a good idea, let me know. I have a memory module for the HP41 that was opened once. If needed, I'll open it and scan some images showing the process.

PLEASE, READ

Keep in mind that your module may be dammaged or have a broken case if you force it too much or if you use a tool that's sharp enough to destroy the internal components. Please, go slow and take necessary precautions to avoid it.

Success.

Luiz C. Vieira - Brazil

Edited: 19 June 2003, 1:22 a.m.

Re: HP-IL problem

*Message #13 Posted by **Vassilis Prevelakis** on 19 June 2003, 7:57 a.m.,*
in response to message #11 by David Ramsey

```
David Ramsey wrote:
> So...how do you open the HP-IL module? Snap together? Fasteners under the
label?
```

No, the two halves are glued together like ordinary memory modules. Have a look at the following article which explains how to take apart memory modules and follow a similar procedure.

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/articles.cgi?read=329

**vp

Re: HP-IL problem

*Message #14 Posted by **Johnny Billquist** on 18 June 2003, 8:22 a.m.,*
in response to message #1 by David Ramsey

When I get that error, I normally have low power in the casette drive. My battery is getting bad and I should replace it. You might have the same problem. Is the low bat indicator lit on the drive? I have written a little program to test the memory in the drive as well, which might be useful. It requires that you have the Extended I/O module though. I can post that program if required. I wrote it when I had a problem previously with my drive, which turned out to be a broken memory IC in the drive.

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Funky Spice Display

*Message #1 Posted by **DougT** on 17 June 2003, 8:51 p.m.*

Hi folks,

The display of my 38E is acting up. At every digit location, the upper left LED segment does not work. Since it's at every digit, I doubt it's simultaneously burned out LEDs. Perhaps something's amiss with the display driver? This is an older unit that may have the "press-fit" chips. I thought I'd see if the resident experts had run into this condition before, prior to cracking it open (with the dental floss trick). I've done plenty of transplant surgery on my Woodstocks, but this will be my first time digging into a Spice model.

Thanks!

Doug

Re: Funky Spice Display

*Message #2 Posted by **David Smith** on 18 June 2003, 5:41 p.m.,*
in response to message #1 by DougT

This is a very common type of problem with the pressed together spice machines. I have found the problem is slightly more likely to be a bad connection on the 40 pin chip than the LED module. Occasionally the problem could be a fault in the LED module itself... only repairable by replacement from a scraped machine.

Before opening up the keyboard sandwich make a note of the positions of each chip. The little 8 pin ones are easy to get swapped. Also be careful of the battery connector flat cable. The etches in the cable are rather fragile and don't like to be handled much.

After opening up the keyboard sandwich clean the keyboard circuits with 91% isopropyl alcohol.

Re: Funky Spice Display

*Message #3 Posted by **DougT** on 18 June 2003, 6:35 p.m.,*
in response to message #2 by David Smith

Thanks, David! Your advice and everyone else's will be very helpful on my first adventure inside a Spice unit.

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interchanging 34c commas and dots

*Message #1 Posted by **Tim Willis** on 17 June 2003, 8:44 p.m.*

I have a *foreign* 34c which uses a comma for a decimal point and dots for digit separators. Is there a jumper or something to reverse this behavior?

Re: interchanging 34c commas and dots

*Message #2 Posted by **Axel Bodemann** on 18 June 2003, 5:33 a.m.,*
in response to message #1 by Tim Willis

"There is a hardware jumper that can change the display to non-US notation (switch the dot and comma). Location is not known (outside of HP)."

(HPDATABase, http://www.finseth.com/~fin/hpdata.html)

Regards, Axel.

Re: interchanging 34c commas and dots

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 8:38 a.m.,*
in response to message #2 by Axel Bodemann

Hi;

sometime ago, Katie Wasserman showed that this jumper is located in the power supply board. In fact, it is located there, but it connects two pins in the mainboard, not necessarily power supply components. I can say that I REMEMBER seeing some Spice's power supplies and found only one jumper, but I cannot say I'm one hundred percent positive about my own memories...

I'll test it and post later.

Luiz C. Vieira - Brazil

Re: interchanging 34c commas and dots

*Message #4 Posted by **Thomas** on 18 June 2003, 11:40 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Please don't laugh - I don't know the HP 34C.

On the voyager-models you can change the comma-dots by holding down the dot-key while turning on the calculator.

Regards Thomas

Re: interchanging 34c commas and dots

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 12:54 p.m.,*
in response to message #4 by Thomas

Hello, Thomas;

if someone laugh, he's the one that's wrong.

The HP34C is something like the HP11C with a LED display, vertical case instead of the horizontal one found in all Voyagers, no nPk (permutation) neither nCk (Combination), four flags instead of two, two direct access lables ([A] and [B] keys) instead of the five ones of the HP11C and its autotest is started with the sequence [STO][ENTER] instead of [ON]&[×] (or [ON]&[+]) of the HP11C. It uses rechargeable batteries and is older than the Voyagers (it was introduced in the same month and year of the HP41C).

When applicable to the place it was commercialized, the Spices (HP34C include, of course) were available with a comma as radix mark. For example, in Brazil it's the standard representation. And to change this "condition" the only way is to change a jumper inside the calculator. I wonder if a small externaly accessible miniswitch would be applicable...

Hope this helps a bit. And never hold a question too long, mostly if there are teachers around you...

Best regards.

Luiz C. Vieira - Brazil

Edited: 19 June 2003, 11:10 a.m. after one or more responses were posted

pretty picture!

*Message #6 Posted by **Norm** on 18 June 2003, 4:21 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

hey that last one was a pretty picture!

I like a calculator that looks like that.

Where can I go buy one brand new, just like that ? Tell me and I will buy a whole bunch, for me and some friends.

:o)

O.T. (it's an MoHPC original picture...)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 4:34 p.m.,*
in response to message #6 by Norm

Hey, Norm;

I forgot to post the credit, but the link would say that.

It's the very picture of the HP34C that is available at the MoHPC. You should thak Dave Hicks.

Best regards.

Luiz C. Vieira - Brazil

Re: interchanging 34c commas and dots

*Message #8 Posted by **Thomas** on 19 June 2003, 6:44 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hello Luiz,

thanks - thanks for the pretty picture. I know the design of the calculator. But nothing about the usage.

It was only an idea. HP do anything for easy usage. :-))

Regards Thomas

Confirmed: jumper identified

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 3:39 p.m.,*
in response to message #1 by Tim Willis

Hey, Tim;

I opened an HP38C that has the separator set to "dot" and checked for the jumper. Look at the image below:

http://www.logeng.com.br/images/comma_jumper.jpg

This is the small power supply board (PS board) and it's the same one used in the HP34C. If you open the calculator (excuse me if this is a silly question: do you have the skills to handle this? I'd not like to know you tried and dammaged your calculator) and fasten the PS board, you'll see the jumper shown above is not present, meaning your unit is set to comma separator. After generating this image I cut the jumper, rebuilt the calculator and switched it to ON: comma as radix mark. The relation is:

```
Jumper closed - dot separator
Jumper opened - comma separator
```

In your case, you'll have to use a small wire and connect both terminals as shown in the picture.

I hope you are successful. Let us know.

Luiz C. Vieira - Brazil

Edited: 18 June 2003, 3:53 p.m.

Damn Luiz, you are red hot

*Message #10 Posted by **Norm** on 18 June 2003, 4:24 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

If you waz a pilot, you'd be flying the SR-71 blackbird.

I am very impressed with your detective work and the photograph of the jumper.

You figured it out very fast for everybody.

I will print it out for my records.

Awesome, absolutely awesome. Good job dude.

SHOULDN'T that go to Dave Hicks for posting into a "service-database" ?? I think stuff like that should be recorded in a big long list, for the model(s) that it applies to. Like a master service index.

Thanks!

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 4:49 p.m.,*
in response to message #10 by Norm

Hello Norm, guys;

thank you, Norm. That's the least I can do.

But I must be fair: I'm supported by giant's shoulders. Katie Wasserman posted this information about one year ago. I have the "bad" habit of not forgetting what I take as a rational and coherent information. I think this is why I still remember some of English from my 1982's classes. Oh, yes, for the reords: the image is a scanned image. I'd like having a camera, but NOT an HP camera...

And if I'm a pilot, I'd surely try to fly a Blackbird... Wonderfull machines: SR-71 and the B-52. Oh, my...

Luiz C. Vieira - Brazil

Re: Confirmed: jumper identified

*Message #12 Posted by **Dave Shaffer** on 18 June 2003, 5:14 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Luiz,

Neat picture.

I can identify the (rather amazing) mish-mash of components, except for the circular thing on the right, with the 10 wires coming out of (going into?) it. What is that? An inductor? A switch? ???

Re: Confirmed: jumper identified

*Message #13 Posted by **David Smith** on 18 June 2003, 5:44 p.m.,*
in response to message #12 by Dave Shaffer

That is the switching power supply inductor (transformer).

By the way, there are a couple of different styles of Spice power supply. Your's may look a bit different. I have seen one where the jumpers looked like small surface mount resistors.

Re: . . . but what's the OTHER jumper for???

*Message #14 Posted by **Paul Brogger** on 18 June 2003, 5:46 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Despite the risk of causing mischief, I had to ask.

Feel free to answer, "Open up your 34C and find out!"

(To which I'll have to reply, "I started to open it once, and just didn't have the heart to keep prying the case halves apart -- they seem *sure* to break!")

Have no idea, sorry...

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 5:54 p.m.,*
in response to message #14 by Paul Brogger

Hi, Paul;

all Spices I saw so far have this jumper opened. I was not curious enough to follow it and see what is it related to.

Sorry not giving you a better answer.

Best regards.

Luiz C. Vieira - Brazil

Re: Confirmed: jumper identified

*Message #16 Posted by **Tim Willis** on 18 June 2003, 7:45 p.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

Luiz, thank you very much for the information and the photo. I have the skills, as soon as I get the time I will try this out and report back.

Tim

other jumper

*Message #17 Posted by **Ellis Easley** on 18 June 2003, 8:11 p.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

For what it's worth, that jumper would connect pin 6 of all three 8 pin chips, and pin 14 of the 40 pin chip, to the negative terminal of the battery, which is also connected to pin 7 of all three 8 pin chips and pin 13 of the 40 pin chip.

Factory test point(s), perhaps?

*Message #18 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 8:23 p.m.,*
in response to message #17 by Ellis Easley

Hello, Ellis;

thank you for the information.

Have you also measured voltage across them? What do you think, could these points be connected together or maybe they are test points?

I know that without knowing precise pin function under each possible situation it's just speculation.

But it's also fuin to exercise the brain cells. Our brain cells...

Best regards.

Luiz C. Vieira - Brazil

Edited: 18 June 2003, 8:24 p.m.

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(long) Storage Register Math in 48GX

*Message #1 Posted by **bill platt** on 17 June 2003, 3:07 p.m.*

I couldn't decide whether to post here or in comp.sys.hp48, but since I am including an RPN program, decided to post here.

(I think Raul Lion will find this question easy to answer).

My problem is (and this will show me to be a real RPL neophyte) that I have not found a clean and easy way to do storage register math with RPL. Perhaps it is just that the "STO + x" mentality is just so engrained, but when I try various combinations of local and global variables in RPL, I keep ending up with problems trying to add a value to an old register---because if the register is not defined, then I cannot add to it! I am not clever enough to figure out a flag or loop control to say, "if the register x does not exist, then make it, else recall it, act on it with the stack, and store the result back in x".

The specific RPN programs which I was trying to convert are shown below. Being a mechanical type of engineer (actually ships and boats etc) I often solve weight and moment computations, and a handy way of doing this repetitively (like when checking a spreadsheet, or on a ship in the bilge, adding up lead ingots or something) is to use the following programs:

Programs for summing moments about the w,x,y axes and finding the arms and total masses.

Will find intermediate summations and allow for continuation.

first, enter data int stack this way:

Mass <ent> arm w <ent> arm x <ent> arm y <ent>, leaving the stack as such:

T z (mass)

z w (arm)

y x (arm)

x y (arm)

01 LBL w (Program for taking mass and arm input, and producing running sum of moments)

02 R ^

03 STO s (stores currently entered mass for temp use)

04 STO + z (stores currently entered mass for summation)

05 X (multiplies the "y" {from orig reg. "t"} arm by the mass

06 STO + y (stores the y moment for summation)

07 R down

08 RCL s

09 X (multiplies the "x" {from orig reg. "z"} arm by the mass)

10 STO + x

11 R down

12 RCL s

13 X

14 STO + w

15 RTN

checksum AD51 022.5 bytes

view any mass or moment sum by reviewing the appropriate register

01 LBL T (program to take sums of moments in w,x,y axes and sum of mass, and finds arms.

02 0

03 ENTER

04 ENTER (clearing stack)

05 RCL y ("y" moment sum)

06 RLC z (mass moment sum)

07 / (solve "y" arm)

08 STO v (store "y" arm)

09 RCL x ("x" moment sum)

10 RCL z

11 / (solve "x" arm)

12 STO u

13 RCL w ("w" moment sum)

14 RCL z

15 /

16 STO t (store "w" arm)

17 RTN

check 089E 025.5 bytes

Note that the w,x,y arms are in the (x,y,z) stack registers and may be viewed with Rdown.

Besr regards,

Bill Platt

A small clue...

*Message #2 Posted by **Vieira. Luiz C. (Brazil)** on 17 June 2003, 5:12 p.m.,*
in response to message #1 by bill platt

Hey, Bill;

try something like:

```
IFERR STO+ THEN DUP 0 STO STO+ END
```

I have no manuals in hands, but what you should take much care is to make sure LAST ARGUMENT is set ON or you'll lost the arguments when STO+ (or any storage operation) fails. Also, storage arithmetic allows variable name in level 1 or 2; in my example, the variable name should bve in level 1.

If my example fails, let me know. I read your post now and I know this is one possibility, but I'm in a rush. I have to teach classes in about five minutes... Gosh!

Bye

Luiz C. Vieira - Brazil

Re: (long) Storage Register Math in 48GX

*Message #3 Posted by **R Lion (España)** on 17 June 2003, 6:18 p.m.,*
in response to message #1 by bill platt

Well, as Luiz said, one way is the IFERR...THEN...END, but the easiest way (IMHO) is define the variables we are going to use at the begining of the program. Why don't do it?

I'll try to convert these prgs to RPL, but, please, help me with a good description of what is exactly you want in my email.

Raul

Re: (long) Storage Register Math in 48GX

*Message #4 Posted by **bill platt** on 17 June 2003, 7:16 p.m.,*
in response to message #3 by R Lion (España)

Raul and Luiz,

Thanks!

I tried both your respective ideas the first time around----but I'm sure I did not understand the command order quite right but will try a bit now and get back to you-all.

Thanks again,

best regards,

Bill

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HP-75C battery repair

*Message #1 Posted by **Alain Jacques** on 17 June 2003, 1:01 p.m.*

Hello HP lovers,

I am trying to restore a HP-75C S/N 2304... with a rather damaged battery compartment. I am a bit puzzled because it contains 3 contacts and, as far as I know, the corresponding battery pack 82001B only have 2 pads. Refering to the battery compartment on the picture http://www.hpmuseum.org/75int2b.jpg, I have the two left contacts (top=black wire, goes to VN on PCB i.e. ground; bottom=red wire, goes to VB on PCB) and an extra contact on the right side of the top ground (blue wire, goes to VA on PCB). A previous owner apparently has tried to cut it and to solder it to the top ground contact. Does anyone else have the same configuration? Is there a battery pack similar to the 82001B with 3 pads. I assume the third contact is designed to recharge the battery ... should I keep the makeshift jumper to the top ground contact? Any suggestion?

Kind regards.

Re: HP-75C battery repair

*Message #2 Posted by **Ellis Easley** on 18 June 2003, 8:52 a.m.,*
in response to message #1 by Alain Jacques

I have a 75D. It has some extra features molded into the plastic in the battery compartment which I just realized are for a third battery contact. It would touch the negative battery pack terminal, if it had the same shape as the other contacts and was maybe a little longer. I have a 1988 Sanyo NiCad databook which includes a picture of an HP Classic battery pack in a chapter about multi-cell assemblies - it looks identical to the packs I have except that the contact openings in the molded plastic are a little shorter - they go about as far toward the middle but not so far toward the end - my packs are all 82001B, maybe the picture is 82001A. Anyway, the databook suggests that in some applications it is a good idea to have a separate contact to apply recharging current to the pack. I think they are talking about applications that can use either rechargable or regular batteries.

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Brainf*ck on the HP41

*Message #1 Posted by **Mike (Stgt)** on 17 June 2003, 12:13 p.m.*

I am looking for a Brainf*ck (bf) implementation for the HP41. If I remember well there once was one, alas no find on Google. About bf see here: http://www.muppetlabs.com/~breadbox/bf/

Re: Brainf*ck on the HP41

*Message #2 Posted by **Valentin Albillo** on 17 June 2003, 12:37 p.m.,*
in response to message #1 by Mike (Stgt)

At the URL you posted:

"A Brainfaq" program has an implicit byte pointer, called "the pointer", which is free to move around within an array of 30000 bytes"

This is going to be hard ... 30000 bytes on an HP41 ... perhaps one of those HP41CY machines will do the trick ... or some HEPAX-assisted machine ... maybe an EPROM box ...

Would you mind it being limited to, say, 1000 bytes instead ? Else the HP-71B + 16 Kb extra would be a better choice.

Best regards.

Re: Brainf*ck on the HP41

*Message #3 Posted by **Mike (Stgt)** on 17 June 2003, 4:47 p.m.,*
in response to message #2 by Valentin Albillo

Every implementation of BF has its limits. I do not regard 30000 as a language defined value.

Ciao.....Mike

Re: Brainf*ck on the HP41

*Message #4 Posted by **Valentin Albillo** on 18 June 2003, 7:43 a.m.,*
in response to message #3 by Mike (Stgt)

Mike posted:

"Every implementation of BF has its limits. I do not regard 30000 as a language defined value."

Agreed, but the fact remains that non-trivial BF programs tend to be extremely large (just generating the constant "100" requires a 26-command program), and furthermore extremely slow. For these two reasons and several others, I think that the HP-71B, with its faster processing, large RAM, larger display, and good string-handling functions, would be far more suited to the task, specially using FORTH.

Of course, this has nothing to do with your original request for an specific 41C/CV/CX version, it's just some rambling of mine ...

Best regards.

Re: Brainf*ck on the HP41

*Message #5 Posted by **Mike (Stgt)** on 18 June 2003, 11:39 a.m.,*
in response to message #4 by Valentin Albillo

I do agree with your worries that the HP-41 is **not** the ideal platform for that task. I just wrote an BF interpreter in REXX and see the trace output of a 49 steps BF scrolling now since several minutes. It shows clearly that the HP-41 may only test some BF code snipets.

BTW, the 49 steps BF was (not my prgm!):

```
+++++[>++++++++++<-],[[>--.++>+<<-]>+.->[<.>-]<<,]
```

and 32 character test input, output is 4528 bytes.

Ciao.....Mike

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Instructions here on how to use the HP-80

*Message #1 Posted by **gene** on 17 June 2003, 12:09 p.m.*

http://www.rskey.org/gene/hpgene/HP80.html

Someone wrote to me recently and was looking for instructions on how to do time value of money problems on the HP-80 (HP's first business calculator) since it didn't work like most financial calculators since then. The page above has been on my webpage for sometime now, but folks may not be aware of it. Just an FYI.

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Collection photo (very large, 1M)

*Message #1 Posted by **David Ramsey** on 17 June 2003, 11:50 a.m.*

A couple of people have been telling me to put a photo of my collection up here, so here it is. I started collecting HPs in 1983 and pretty much finished the theme (scientific RPN) by 1995 or so. Since then I've been collecting HP-41 accessories, branching out occasionally (the Curta), and in general just having fun.

http://www.neko.com/~dramsey/Calcs.jpg

I have seen the heaven...

*Message #2 Posted by **R Lion (España)** on 17 June 2003, 12:06 p.m.,*
in response to message #1 by David Ramsey

... and I can not to go there, because I am an envious.

Raul ;-)

Looks good...including the ...

*Message #3 Posted by **Gene** on 17 June 2003, 12:19 p.m.,*
in response to message #1 by David Ramsey

1) the TI-58 or TI-59 on the PC-100A in the lower left corner. :-)
2) I myself might have avoided some of the more recent HP's (my personal anti-bias) such as the HP-6S I see and the 39G-style calculators. I want to refuse calling these things HPs!

Re: Looks good...including the ...

*Message #4 Posted by **David Ramsey** on 17 June 2003, 12:26 p.m.,*
in response to message #3 by Gene

Yeah, in college, I couldn't afford an HP, so like many of my peers I bought a 59...

You're right about the non-HPs. I have a 30s, and some 6s solar and non-solar. Free for the shipping, folks, if anyone wants them!

Re: Looks good...including the ...

*Message #5 Posted by **Paul Brogger** on 17 June 2003, 1:44 p.m.,*
in response to message #4 by David Ramsey

My son would take the 30s -- not that he needs it, but it's his favorite & the last one got stolen.

The only hope for the 6s is that they'll make so few of them, and those will die so quickly, that some day they'll be (rightly) rare!

By the way, how do you stand 'em up?

Re: Looks good...including the ...

*Message #6 Posted by **David Ramsey** on 17 June 2003, 5:09 p.m.,*
in response to message #5 by Paul Brogger

Send me your son's address and I'll send him the calculator.

The stands are small Plexiglas things I picked up at a shop in Portland, Oregon. I don't recall the name of the shop but I'll be back in Portland in a couple of weeks and will look it up then.

The stands work well for thinner calcs:

http://www.neko.com/~dramsey/42stand.jpg

...but can handle the thicker ones as well, although they'll fall off easily:

http://www.neko.com/~dramsey/39stand.jpg

The stands themselves look like this:

http://www.neko.com/~dramsey/stand.jpg

Re: Looks good...including the ...

*Message #7 Posted by **David Smith** on 17 June 2003, 5:28 p.m.,*
in response to message #3 by Gene

Yes, dump the 6S... they eminate copious negative waves that causes one all sorts of evil problems... and give cats acid hairballs and scurvy mange.

Re: Collection photo (very large, 1M)

*Message #8 Posted by **Jeff** on 17 June 2003, 1:49 p.m.,*
in response to message #1 by David Ramsey

Very nice collection. The "stands" look pretty nifty. Did you make them, if so, how? If you purchased and/or adapted from some other use, what is the source?.

Congratulations! Mostly for...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 17 June 2003, 5:06 p.m.,*
in response to message #8 by Jeff

... the rarities. I saw it in brief (otherwise I'd start to cry), but the Xpander is a "must see".

Is there an HP95C amongst the topcats?

Well, for the most, what I see is outstanding.

No envy, believe me. Just sincere admiration.

Luiz C. Vieira - Brazil

Re: Congratulations! Mostly for...

*Message #10 Posted by **David Ramsey** on 17 June 2003, 7:12 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

HP-95C? Ha! I wish! It's a 91, actually. Here's the list:

```
Top row:


* HP-35, legends above keys
* HP-35 legends on keys
* HP-45
* HP-55
* HP-65
* HP-67
* HP-70
* HP-80
* HP-45 in security cradle


Second row, back to front, left to right:


* HP-20S
* HP-20S in packaging
* 32SII in packaging
* HP-21, 25, 25C, 27, 29C, 19C, 28C, 28S
* HP-27S, 10C, 11C, 15C, 16C, 200LX, HP-01 watch ($50 from a friend 10 years ago!)


Third row, back to front, left to right:


* HP-31E, 32E, 33C, 33E, 34C, 38G, 48S, 48SX, 48G, 48GX, 48G+
* HP-32S, 32S "50th", 32SII, 42S, 39G, 40G, 49G, Expander, OmniGo 120, Type 1 Curta


Fourth row:


* HP-91, 97, 97S
* HP-75C, 75D, 71B (with card reader & HP-IL)


Bottom row:


* 41C "Blanknut" with overlay
* Early 41C with "high top" keys
* 41CV connected to tape drive and printer
* 82240A printer
* Extra 82143 printer
* 41CX with card reader
```

Where's the HP-12C ?

*Message #11 Posted by **Valentin Albillo** on 18 June 2003, 10:51 a.m.,*
in response to message #10 by David Ramsey

Can't believe you haven't got several of those as well, but it's nowhere to be found in your list ! :-)

Best regards.

Re: Where's the HP-12C ?

*Message #12 Posted by **David Ramsey** on 18 June 2003, 1:47 p.m.,*
in response to message #11 by Valentin Albillo

Valentin,

There's no HP-12C because it's not a scientific calculator. There's also no 17, 18, 19BII, etc.

You will have noticed the 70 and 80. These were in a huge box of classic HP calcs I found in an army surplus store in Pocatello, Idaho, about 15 years ago. The box had about 40 calculators in it that looked as if they'd been stored in a pot of boiling chicken fat! However, after disassembly and cleaning, most of them proved functional. I kept the best ones and sold the rest-- $25 for an HP-35 and $35 for an HP-45 (most of the calcs were 35s and 45s).

Sigh. It was more fun, sometimes, finding these old machines in surplus shops and places like Weird Stuff than it is simply scanning eBay.

Re: Where's the HP-12C ?

*Message #13 Posted by **db(martinez,california)** on 18 June 2003, 5:17 p.m.,*
in response to message #12 by David Ramsey

David; So YOU are why i never find anything at Wierd Stuff! Thats ok; I have my own happy hunting grounds.

btw: you could include the 19bii; it has scientific functions along with the bean counter stuff.

David, are you 100% sure ?

*Message #14 Posted by **Valentin Albillo** on 19 June 2003, 5:49 a.m.,*
in response to message #12 by David Ramsey

David posted:

"There's no HP-12C because it's not a scientific calculator. There's also no 17, 18, 19BII, etc."

I would ask you to please have a careful look at the following "exhibits", just in case you might find it appropriate to reconsider your classification of the HP-12C. Please note that said exhibits do *not* apply to the other models you mention (17, 18, 19BII).

Exhibit A

Exhibit B

Exhibit C

I would be very interested to know what you think once you've read (and even tried) them. My points are:

- a sufficiently programmable calculator can always trascend its intended purpose.
- classifying mathematical algorithms as "financial" or "scientific" is only in the eye of the beholder, they have no intrinsic meaning *per se* so seemingly "financial" algorithms can be used for "scientific" computations as well.

  "Exhibit A" is particularly enlightening, because it shows how a large number of supposedly "financial use only" functions are actually used for purely "scientific" purposes, with no financial meaning whatsoever in sight.

Best regards.

Edited: 19 June 2003, 5:51 a.m.

Re: David, are you 100% sure ?

*Message #15 Posted by **Trent Moseley** on 19 June 2003, 4:01 p.m.,*
in response to message #14 by Valentin Albillo

Another tour de force!

tm

Thank you, Valentin

*Message #16 Posted by **A grateful 12C** on 19 June 2003, 4:10 p.m.,*
in response to message #14 by Valentin Albillo

Many thanks for the pointer towards your excellent articles - most interesting and as I can now do trig I can stop the HP-41s that live with me looking down their noses at me and putting on superior airs and graces.

Re: David, are you 100% sure ?

*Message #17 Posted by **David Ramsey** on 19 June 2003, 10:35 p.m.,*
in response to message #14 by Valentin Albillo

You're quite correct: many of the financial calcs can be used for scientific purposes.

But I guess my point is that I'm just not interested in them. Besides, I have no place to put them!

Re: David, are you 100% sure ?

*Message #18 Posted by **Michael F. Coyle** on 20 June 2003, 12:27 a.m.,*
in response to message #14 by Valentin Albillo

Hi Valentin,

No, the 12C is still a financial calculator, not a scientific, your excellent and imaginative articles notwithstanding.

Just because a butter knife can be pressed into service as a screwdriver doesn't make it one. Nor would I recommend that anyone purchase a knife when what they really need is a screwdriver.

IMHO, pressing a 12C into service as a not-very-good scientific seems like an act of desperation. Does anyone really use a 12C like that?

But since The Future of Calculators is Dead (TM) maybe it's a moot point.

- Michael

Re: David, are you 100% sure ?

*Message #19 Posted by **Trent Moseley** on 20 June 2003, 1:10 a.m.,*
in response to message #18 by Michael F. Coyle

Michael,

I think Valentin's point is to show the potential of an underestimated resource. It's nice to see such a clear exposition of his thoughts.

tm

What's that?

*Message #20 Posted by **Vieira, Luiz C. (Brazil)** on 19 June 2003, 9:57 p.m.,*
in response to message #10 by David Ramsey

Hey, David;

is it "my eyes" or you have a "lost" HP75, on the floor, almost hidden in the bottom of the photograph?

You did not mention it... a spare unit? Man, you have an awesome "collection"...

Best regards.

Luiz C. Vieira - Brazil

Re: What's that?

*Message #21 Posted by **David Ramsey** on 19 June 2003, 10:36 p.m.,*
in response to message #20 by Vieira, Luiz C. (Brazil)

It's not lost; its an AT&T relabeled HP-75 in a cradle (I don't even think it comes out!)

It's pretty beat up but does seem to work. You want it?

Re: What's that?

*Message #22 Posted by **Vieira, Luiz C. (Brazil)** on 19 June 2003, 11:01 p.m.,*
in response to message #21 by David Ramsey

I'm sending you an e-mail right now...

Re: Collection photo (very large, 1M)

*Message #23 Posted by **Don Williams** on 18 June 2003, 3:43 p.m.,*
in response to message #1 by David Ramsey

Nice collection and display. I have also mounted a fair collection (same as your's plus the financials and many of the desktop's). I have been contemplating some insurance for the collection. It seems prudent to try to protect the actual money and time we have invested but it would seem to me there is a greater value in the whole. Have you or any of the other collectors attempted to find the insurable value of a collection like this ? I would be interested in any of the experience's others may have had.

Calculator Appraisal

*Message #24 Posted by **Michael Meyer** on 19 June 2003, 9:20 p.m.,*
in response to message #23 by Don Williams

Actually, I was thinking of looking into how one would become an official calculator appraiser through the American Association of Appraisers.

Then the insurance companies could "schedule" them with official values.

Just a thought. Any interest? I could make the appraisals with some photos, serial numbers, etc.

Michael

Re: Calculator Appraisal

*Message #25 Posted by **Don Williams** on 20 June 2003, 1:16 p.m.,*
in response to message #24 by Michael Meyer

I have always made an effort to keep records to establish the " Provenance " of the collection. That is at least a starting point for value. A quick glance at those records recently made me realize how " out of control " this penchant had become. (and I don't even bother to bid against booklung or therwil or the other "deep pockets" on ebay. At least I learned to practice a little self control. Better late than never) I think it would be possible to come up with an apprasial value for each individual model but I am not sure the sum of those indivdual values would really reflect the assembled value and I am also not certain you could convince an insurance company to add these items to a policy. Of course the " marketplace " would establish the value immediately, but who wants to sell a collection to find its value. I just realized lately that I probably couldn't afford the time or money it would take to replace these things if anything happened to them. My wife wouldn't allow it. It may be that I am the only one concerned. Just thought I would throw out the question.

Re: Collection photo (very large, 1M)

*Message #26 Posted by **David Ramsey** on 19 June 2003, 10:38 p.m.,*
in response to message #23 by Don Williams

Good idea re the insurance. As you know, it would be very difficult to rebuild this collection in case of a fire or other catastrophe.

But insuring it would be hard, I think. Sure the machines are valuable to you and me, but to the rest of the world they're junk, and so few people collect them that assigning values would seem to be impossible...

Re: Collection photo (very large, 1M)

*Message #27 Posted by **David Smith** on 20 June 2003, 5:09 p.m.,*
in response to message #26 by David Ramsey

Just point your insurance man to Ebay completed auctions and he will quickly learn of their market value.

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HP Forum Archive 13

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HP 48SX quit

*Message #1 Posted by **unspellable** on 17 June 2003, 11:26 a.m.*

My HP 48SX quit. Now what?

Re: HP 48SX quit

*Message #2 Posted by **Jeffrey_G** on 17 June 2003, 12:13 p.m.,*
in response to message #1 by unspellable

Buy another one through Ebay or the classified ads here.

Jeff

Re: HP 48SX quit

*Message #3 Posted by **Daniel Webster** on 17 June 2003, 2:00 p.m.,*
in response to message #1 by unspellable

Ask HP? Ba-boom. But seriously,

1. Check the batteries.
2. Try the master reset under the top left foot.
3. Press on the rasied portion of the bezel above the B and C keys while trying to turn it on.
4. If none of the above work, repost here or roll the dice of eBay.

Re: HP 48SX quit

*Message #4 Posted by **unspellable** on 18 June 2003, 7:29 a.m.,*
in response to message #3 by Daniel Webster

Daniel,

Did all that, no luck.

Re: HP 48SX quit

*Message #5 Posted by **Steven Kutoroff** on 20 June 2003, 9:14 a.m.,*
in response to message #1 by unspellable

Have you tried removing the batteries and any inserted cards, waiting a few hours, and then using the master clear power on sequence? This is what works for mine when it goes brain dead from something I have done. Last time was when I was changing memory card batteries and accidentally pulled the card out with power on. The calculator appeared to be dead. The above sequence fixed it.

Re: HP 48SX quit

*Message #6 Posted by **unspellable** on 20 June 2003, 12:25 p.m.,*
in response to message #5 by Steven Kutoroff

Not sure what you mean by the master power on sequence.

I've tried leaving the batteries out for a couple of days. Tried the paper clip end in the hole on the back. Tried a couple of reset key procedures. No luck.

The calculator stopped responding to any key strokes including resets and had a frozen display. I took the batteries out and have not been able to turn it on since.

If you reply, please specifiy key sequence as I do not happen to have the manual with me at present.

HP48SX keyboards

*Message #7 Posted by **Randy Sloyer** on 20 June 2003, 7:50 p.m.,*
in response to message #6 by unspellable

It sounds like a shorted keyboard. A key that stays closed electrically will lock up any 48 series or Pioneer machine.

Does it get used in a dirty environment? If so, it might clean out with a couple of passes in distilled water in an ultrasonic cleaner.

I have a 48 sized machine if needed, but you'll have to send me the unit as the cleaner stays right here.

Edited: 20 June 2003, 7:50 p.m.

Re: HP48SX keyboards

*Message #8 Posted by **unspellable** on 23 June 2003, 9:50 a.m.,*
in response to message #7 by Randy Sloyer

It has been living in an ordinary room environment, not particularly dirty. Keys feel normal. A few months back it got squeezed (while in the soft case) in the hinge of my brief case. Display was funny for a while but straightened out. Looked as if the it had lost connection to a few bars in the zebra strips, but after a week or so it was back to normal. I'm beginning to view it as a candidate for the parts bin. I have some application cards that supposedly will not work with a 48GX so I'll probably have to find another 48SX.

BTW: I have an HP-12C,. no manual, and an HP-11C with a 15C manual, an Casio 7000G w manual, and a TI-83 with manual, if any one is interested in horse trading.

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HP Forum Archive 13

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Thank you! to Julian Miranda (and to Dave Hicks)

*Message #1 Posted by **Andrés C. Rodríguez (Argentina)** on 17 June 2003, 8:33 a.m.*

Thsi message is just to make public my gratitude to Julian, a friend from Spain, who was kind enough to send me an HP25 to replace the one I had and lost. I'm more than happy with this addition to my small collection, which combines my fondness for that particular model (my first HP) with a special quality as a symbol of friendship.

And thanks to Dave Hicks; because this, his wonderful MoHPC, helped us to know friends who share this same interest, and who we would never have met otherwise.

(Please disregard any idiomatic mistake)

Thank you Dave Hicks

*Message #2 Posted by **Julián Miranda (Spain)** on 17 June 2003, 1:32 p.m.,*
in response to message #1 by Andrés C. Rodríguez (Argentina)

Well, this is a surprise for me, I didn't think of being thanked in this forum. As Andrés said if this kind of things happen is because of Dave Hicks who decided to spend his time in building this site.

Thanks Dave.

This is the Dave Hicks Ant Farm

*Message #3 Posted by **Norm** on 17 June 2003, 1:53 p.m.,*
in response to message #2 by Julián Miranda (Spain)

Know those "ant farms" where it has 2 glass windows and sand, and you pour sand and sugar and ants in the top, and watch them run around and make tunnels ?

Well, Dave Hicks always wanted an ant farm. But he probably could not have one when he was a kid because of the worry he would tip it over.

So now, what he did, is he made up this "HP Museum" website. The computer is the ant farm.

The monitor screen is the glass window.

And we who visit, and who post, are the ants. We are running around like little ants in the Dave Hicks ant farm.

And it all happens on the server in the corner of his basement .

And the ant-farm keeps getting bigger ... and bigger ...

Re: This is the Dave Hicks Ant Farm

*Message #4 Posted by **Dave Hicks** on 18 June 2003, 12:22 a.m.,*

in response to message #3 by Norm

You're all welcome and thanks to everyone from the ant keeper!

The "sharing" enthusiastics

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 12:34 a.m.,*
in response to message #1 by Andrés C. Rodríguez (Argentina)

Hi, all;

forgive me K*$$$$-type collectors if I mention these facts, but at the very moment we see e-Bay crowded with calculators being sold by US$ hundreds, some of us still practice the joy of sharing and fair trading. When sharing happens at large, no one looses.

This is a unique, remarkable e-place.

Thanks, Dave.

Luiz C. Vieira - Brazil

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HP Forum Archive 13

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Matrix Trilogy [LONG]

*Message #1 Posted by **Valentin Albillo** on 17 June 2003, 4:44 a.m.*

Hi ya all, specially HP-15C & RPN lovers:

A new week has begun, so there you are, a new, original HP-15C quiz/challenge I've composed and solved for you to sharpen your RPN teeth. As always, though the actual solutions are particularized to the HP-15C, *the techniques featured can be useful for many other HP models* (HP-71B/Math, HP-42S, HP-41/Advantage) so you may want to have a go at it with said models as well; the intended solutions are certainly rewritable for those models (I've done that for the 71B, actually).

The quiz's theme is as follows: comprehensive and well-designed as the HP-15C's matrix capabilities are, there are some very useful functions that regrettably were *not* included in the instruction set. For instance, there's no "SUM" function which will return the sum of all the elements of a given matrix (!)

So, this week's quiz (kind of a trilogy, actually) centers around the *missing* "SUM" matrix function, asking for a general solution and two particular cases, as follows:

1) Given an arbitrary MxN matrix, which contains *arbitrary* values (positive, negative or zero), write a routine (LBL A, ..., RTN) which takes the matrix descriptor in the X-register as input, and returns *the sum of all the elements in the matrix*. For instance:

```
A =  |  3  -21  7  |  must return S = 3-21+7+2-10+8 = -11
     |  2  -10  8  |
```

The routine must be primarily optimized for *speed*, and subject to that, be as short as possible and consume the least resources (registers, labels, subroutine levels, flags, etc). We are only interested in the *sum* of the elements, *not* the matrix itself (which for all we care, might be destroyed in the main program as soon as your routine has returned, to free RAM).

Under these conditions, there is a solution in *20 steps* or less (LBL and RTN included), which takes some *10 seconds* to return the sum of all 60 elements of a 10x6 matrix.

2) Write an *specialized* routine for the particular case in which all the elements of the matrix happen to be arbitrary *sines and/or cosines* [i.e.: values of sin(x) or cos(x)]. For instance: (values obtained in radians, displayed in FIX 4)

```
A = | sin(2)   sin(4)   sin(1)  |  must return S = -0.1033
    | sin(6)   sin(5)   sin(3)  |
```

(of course you don't have to evaluate any sin/cos, they already come evaluated, you only have to add them up quickly).

For this special case, there is a solution in *13 steps* or less (LBL-RTN included) which takes some *5 seconds* to return the sum of all 60 elements of a 10x6 matrix.

3) Write another specialized routine for the case in which all the elements of the matrix happen to be arbitrary values of the *exponential function* [i.e.: values of e^x]. For instance (result displayed in FIX 4):

```
      A = | e^1.2  e^1.4  e^1.1 |  must return S = 23.4835
          | e^1.6  e^1.5  e^1.3 |
```

For this particular case, there is a solution in *9 steps* or less (LBL-RTN included) which takes only *2.5 seconds* to return the sum of all 60 elements of a 10x6 matrix.

That's all. Give it a fair try, it's quite an interesting, genuinely useful problem, and I eagerly await for your own implementations and ideas (remember to test your routines against the 2x3 numerical cases given, and to time their speed for a suitably filled-up 10x6 matrix).

Best regards :-)

Edited: 17 June 2003, 6:21 a.m.

My Solution, Part 1

*Message #2 Posted by **Patrick** on 18 June 2003, 3:07 a.m.,*
in response to message #1 by Valentin Albillo

Once again, thanks Valentin for the opportunity to use the little grey cells.

For pedagogical reasons, I provide the answers to your questions in reverse order. I will also post separate messages for each question to allow the interested reader to pick up and continue the solution.

3) First, we consider a simpler case where the matrix consists of a single row. If you look at the instruction set of the HP-15C, you will find that [f][MATRIX][7] computes the matrix *row norm*. In the case of a one row matrix, this is almost what we want (i.e., the sum of values of the elements of the matrix). The difference is that the row norm takes the *absolute values* of the matrix elements first, before summing. However, in the restricted case of Valentin's question 3, this is not a problem: exponentials like e^1.2 are always *positive*. Putting this together, here is the solution to the problem for a one row, non-negative matrix:

```
001 LBL A
002 f MATRIX 7
003 RTN
```

Like, good thing the 15C is programmable, eh?

Well, consider now the more general case of a multi-row, but still positive, matrix. The solution here is not much harder: we simply re-dimension the matrix to have a single row! Of course, the sum of the matrix elements is not changed by the re-dimensioning operation, so here is the complete solution to Question 3:

```
001 LBL A
002 STO I
003 1              // = number of desired rows
004 RCL DIM I      // X,Y = matrix dimensions
005 *              // Total number of elements = number of desired columns
006 f DIM I        // Re-dimension the matrix to have one row
007 RUP            // Roll up the stack
008 f MATRIX 7     // Row norm = our answer
009 RTN
```

Re: My Solution, Part 1

*Message #3 Posted by **Valentin Albillo** on 18 June 2003, 6:17 a.m.,*
in response to message #2 by Patrick

Hi, Patrick & everyone following this thread:

Absolutely correct. My own original solution was as follows, with comments describing how it deals with

```
      A = | e^1.2  e^1.4  e^1.1  |  which must return S = 23.4835
          | e^1.6  e^1.5  e^1.3  |
```

For this special case (*all matrix elements are >= 0*), there is a solution in 9 steps or less (LBL-RTN included) which takes only 2.5 seconds to return the sum of all 60 elements of a 10x6 matrix

```
LBL A          begins routine. Say we've got 2x3 matrix above in the X-register
STO I          for indirect addressing of the matrix
EEX            1 (EEX is slightly faster than 1 itself)
RCL DIM I      recall matrix dimensions to X,Y: X -> 2,  Y-> 3
 *             total number of elements = 2*3 = 6, Y holds 1
DIM I          redimension the matrix to 1x6
RCL I          recall the matrix descriptor to X
MATRIX 7       find the sum of the absolute values of all elements = 23.4835
RTN            returns to the calling program
```

Of course, this works not only for values of e^x, but for any other values as long as they all are >= 0.

Best regards.

My Solution, Part 2

*Message #4 Posted by **Patrick** on 18 June 2003, 3:32 a.m.,*
in response to message #1 by Valentin Albillo

2) Now to answer Valentin's second question, where the matrix elements consist of the sines and cosines of various angles. Well, this type of matrix is no longer non-negative, so the technique we used in Part 1 does not apply directly. However, the essential attribute of sines and cosines is that they are never less than -1. So, if we were to add 1 to every element of the matrix, we *would* have a non-negative matrix again and the earlier technique could be used. Of course, we've changed the sum of the elements of the matrix by doing this, but in an entirely predictable way: we've added to the sum a number exactly equal to the number of elements in the matrix!

Here is a program which is based on this algorithm. It adds one to each element of the matrix, finds the row norm, then subtracts from that value the total number of matrix elements.

```
001 LBL A
002 STO I
003 1
004 RCL DIM I
005 *
006 f DIM I          // redimension matrix to a single row
007 x<>I             // put num elements into I, matrix into X
008 STO RESULT       // prepare for matrix arithmetic
009 +                // add one to matrix
010 f MATRIX 7       // calculate row norm
011 RCL - I          // subtract num of matrix elements from total
012 RTN
```

Re: My Solution, Part 2

*Message #5 Posted by **Valentin Albillo** on 18 June 2003, 6:34 a.m.,*
in response to message #4 by Patrick

Hi, Patrick & everyone following this thread:

Again, absolutely correct. My own original solution was as follows, with comments describing how it deals with

```
      A = | sin(2)   sin(4)   sin(1)  |  which must return S = -0.1033
          | sin(6)   sin(5)   sin(3)  |
```

For this special case, there is a solution in 13 steps or less (LBL-RTN included) which takes only 5

seconds to return the sum of all 60 elements of a 10x6 matrix.

```
LBL A          begins routine. Say we've got 2x3 matrix above in the X-register
STO I          for indirect addressing of the matrix
STO RESULT     we'll operate on the matrix itself
EEX            1 (EEX is slightly faster than 1 itself)
 -             subtracting 1 from all elements makes them all negative or 0
EEX            1 (again, faster)
RCL DIM I      recall matrix dimensions to X,Y: X -> 2,  Y-> 3
 *             total number of elements = 2*3 = 6, Y holds 1
DIM I          redimension the matrix to 1x6
RCL I          recall the matrix descriptor to X, Y holds 6
MATRIX 7       find the sum of the absolute values of all elements = 6.1033
 -             subtracting it from 6 gives the result sum = 6-6.1033 = -0.1033
RTN            returns to the calling program
```

As you may see, your solution is one step shorter (thanks to that nifty X<>I, RCL-I technique, though the byte count is the *same*, because RCL-I requires two bytes) but there is another difference: you *add* 1 to all elements in the matrix, to make them all *positive* or zero, while my solution *subtracts* 1 from all the elements in the matrix, to make them all *negative* or zero! :-) In this particular case of sines and cosines, it doesn't matter at all, of course. Otherwise, your routine would work unchanged if all elements where >= -1 while mine would work unchanged if all elements where <= +1.

Of course, this works not only for values of sin(x), but for any other values as long as they all are <= 1 (for my solution, or >= -1 for yours). By changing it slightly, it will work as well whenever you know that your values are all of them less than some limit or all of them greater than some limit. The (very easy) details are left as an exercise for the reader. :-)

Best regards.

My Solution, Part 3 (start)

Message #6 Posted by ***Patrick*** *on 18 June 2003, 3:42 a.m.,*
in response to message #1 by Valentin Albillo

1) Finally, to the general question that Valentin posed, his question number 1.

No longer do we have either a positive matrix, nor a matrix nicely bounded below so that we can easily make it positive ... or do we?

It is late here and I do not have the time to give the entire solution right now, so I encourage others to fill in the remainder of the solution. Here is a hint. We've seen what the row norm does for a matrix with a single row. What does it do for a matrix with a single *column*?

Good night for now and happy programming...

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HP 12C Platinum - a mystery

*Message #1 Posted by **Luc Chanh Truong Vietnam** on 16 June 2003, 10:56 p.m.*

Hello, my friends.

Yesterday, I read some pages in the HP 12 C Platinum owner's hanbook, i found a mystery:

- in page 61, HP wrote : "Calculating NPV for Grouped Cash Flows. A maximum of 30 cash flow amounts (in addition to the initial investment CF0) can be stored in the HP 12C Platinum.15;

- and also in page 61, at footnote paragraph for note 15, HP wrote:"15.If you have stored a program in the calculator, the number of registers available for storing cash flow amounts may be less than 31"

So, HP said that HP 12 C Platinum has "Capability to handle up to 30 cash flows" (20 cashflows in HP 12C), in fact HP 12 C Plat has to share memories (when store 30 cashflow) with memories of programming (if they are idle).

Besides, HP said that 12C Platinum has more than 130 built-in functions (120+ in classical 12C, I think that 10 new build in functions reserved for algebraic entry keystrote.

In short, what's news in HP 12C Platinum:

- algebraic entry; - Keystroke programming performs up to 400 steps (you need ?); - Sofware source was be rewritten (more reliable than classical 12 C ?).

That all.

Any comment else.

HP 12CP ? That's all? no there's more,

*Message #2 Posted by **Norm** on 16 June 2003, 11:29 p.m.,*
in response to message #1 by Luc Chanh Truong Vietnam

LCTV wrote:

In short, what's news in HP 12C Platinum:

- algebraic entry; - Keystroke programming performs up to 400 steps (you need ?); - Sofware source was be rewritten (more reliable than classical 12 C ?).

That all.

****

Hey wait a minute here !!!! You forgot what else they did !! They came up with a color scheme featuring ugly aluminum front panel they call "platinum", virtually unreadable light yellow lettering on the aluminum, and they changed the color of the plastic to a dark blue.

So don't forget that they put a lot of engineering department resources into that color scheme.

Of course, a monkey throwing darts at a color wheel would've done better ..... we can laugh at the HP execs on this one.... it's THEIR BUSINESS CALCULATOR, THEY have to use it ! har har har . Youd think it was for the engineers when they screw up the colors like that.

Re: HP 12CP ? That's all? no there's more,

*Message #3 Posted by **Luc Chanh Truong (Vietnam)** on 16 June 2003, 11:46 p.m.,*
in response to message #2 by Norm

Hi Norm, And we have to pay more 10 USD to get Platinum instead Classical. :-(((

Re: HP 12C Platinum - (another) mystery

*Message #4 Posted by **Luk** on 16 June 2003, 11:55 p.m.,*
in response to message #1 by Luc Chanh Truong Vietnam

Page 62:

(3) If the initial investment consists of more than one cash flow... key in the number of those cash flows, then press [g][Nj].

DOES NOT WORK! It works on the original HP-12C though.

Re: HP 12C Platinum - (another) mystery

*Message #5 Posted by **Luc Chanh Truong** on 17 June 2003, 12:03 a.m.,*
in response to message #4 by Luk

Oh dear !!!!, really ?

Re: HP 12C Platinum - (another) mystery

*Message #6 Posted by **Ellis Easley** on 18 June 2003, 1:38 p.m.,*
in response to message #4 by Luk

I've poked around with my financial calculators just to learn how they work, and I find that that some, like the 12C, let you treat the first cash flow as a member of a cash flow group (n[0]>=1) and some, like the 10B, call it an "initial investment" (n[0]=1). I think in either case, the actual first cash flow (either the first cash flow of the first group or the initial investment) is treated differently - it inherently happens at the beginning of the first period.

But this sounds like another exception to the proposition that the 12C Platinum contains most of the 12C ROM and a Nut emulator. It sounds like they picked something out of the 10B manual.

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About displays

*Message #1 Posted by **Julián Miranda (Spain)** on 16 June 2003, 5:44 p.m.*

There have been several threads about displays. I want to ask if anyone knows why are the characters in the displays slightly slanted to the right? I can only think of the 71B which has "squared" dot matrix characters. Are easier to manufacture, or is a question of readability, or ...

Re: About displays

*Message #2 Posted by **Ernie Malaga** on 16 June 2003, 5:56 p.m.,*
in response to message #1 by Julián Miranda (Spain)

As far as I know, there's no justification for the slant other than aesthetics. English is written from left to right, so when one writes by hand, letters and numbers tend to slant to the right. I suppose this may have been the reason. I also suppose that if the Arabs had designed the first calculator, digits would tend to slant to the left. 8^)

Be that as it may, more modern calculators using dot-matrix displays have strictly vertical characters (no slant), such as the 28, 48 and 49.

-Ernie

Re: About displays

*Message #3 Posted by **/Slanted/** on 16 June 2003, 7:56 p.m.,*
in response to message #2 by Ernie Malaga

Ernie> English is written from left to right, so when one writes by hand, letters and numbers tend to slant to the right.

Unless you're left-handed. (Not that there's anything wrong with being left-handed %^)

___ with the left hand (a "lefty" speaks)

*Message #4 Posted by **glynn** on 16 June 2003, 10:16 p.m.,*
in response to message #3 by /Slanted/

What REALLY bites is being a left-handed typist. ;-)

I cannot speak really about the slant of characters-- it seems to me just a decision intended to make the characters seem more "natural" and less machine-like to an audience used to the slant of English handwritten characters. In a world-marketing view nowadays, that's probably less "cricket" than it used to be. ;-) {But thank goodness nobody yet has made the decision to display characters with the least significant digits on the left...}

I will tell you about left-handedness...

My second-grade english/writing teacher used to whack my left hand with her ruler whenever I picked up a pencil in my left. As she told my parents, "it's the mark of the devil".

Aw, I got over it, and I'm still a Lefty despite all the row. My handwriting skills, to this day, approximate those of a rabid squirrel on crack; but hey, it suits my personality. :-D

Needless to say, I had much opportunity to display the marks of the devil to my Drafting teacher in eighth grade. The tendency of a lefty is to drag the ham-end of his fist across every line he draws, leading inevitably to a grey pallor cast over the whole vellum.

Combining that with my lettering skills, lack of math savvy, poor grasp of proportionality, and my tendency to overwork every portion of the drawing, I was able, over the course of a semester, to convince him that early retirement was a viable option.

The great equalizers, of course, are automated tools. Typewriters and word-processors now help me write, and calculators and computers help me do maths I'd be helpless to do on my own. Even me, ME! who art teachers assessed had only the talent to clean brushes, issue aprons and sharpen pencils, has MADE A LIVING from time to time using tools like Illustrator, CorelDraw, Photoshop and such.

Yeah, a mouse makes EVERYONE equally lefty/klutzy. MuuuHahahaha.... <revenge at last!>

And, yeah, on my 15c, I *DO* have to move my hand out of the way a lot, to see the screen. I wouldn't trade it away, though; it's my daily tool-- I have come to feel it is like an extension of myself.

I have half a dozen "standard" calculators at my office, none of which I like. I love all my HPs, though, and the 15c is just too "handy" not to keep within arms reach. (Well, I could have probably made use of an 11c just fine-- I never really have used matrices or complex numbers.)

But dangit, when oh when will American cars come equipped with a lefty-compatible drink-holder? Those stupid things that clip onto the window-sill are just a crime...

Re: ___ with the left hand (a "lefty" speaks)

*Message #5 Posted by **Ernie Malaga** on 17 June 2003, 1:04 a.m.,*
in response to message #4 by glynn

> Quote:
>
> Combining that with my lettering skills, lack of math savvy, poor grasp of proportionality, and my tendency to overwork every portion of the drawing, I was able, over the course of a semester, to convince him that early retirement was a viable option.

8^)

> Quote:
>
> The great equalizers, of course, are automated tools. Typewriters and word-processors now help me write

QWERTY keyboards overwork the left hand (when writing in English) because the most commonly used letters in English are all on the left half (E, T, S, C, etc.) The Dvorak keyboard layout purportedly solves this problem -- among others. I wouldn't know, though; I've never used Dvorak, and am not inclined to learn it.

> Quote:
>
> Yeah, a mouse makes EVERYONE equally lefty/klutzy.

Why's that? I'm right-handed and my mouse sits comfortably to the right of my keyboard, where I can use it with the right hand. I'd say that the opposite is true, particularly in those keyboards/trackball combinations; the trackball is always on the right side and, being one piece with the keyboard, you can't rearrange things to left-handed nirvana.

My sister is a lefty, but she can write (more or less) with her right hand as well. She too suffered from uninformed teachers during childhood. What astonishes me is that she can write with both hands at the same time, going in opposite directions: left-to-right with her left hand, and right-to-left with the other one... you know, mirror-image-like. I've tried it a number of times, and never get the hang of it.

-Ernie (dekstrulo)

mousiness

*Message #6 Posted by **glynn** on 17 June 2003, 2:36 a.m.,*
in response to message #5 by Ernie Malaga

Of course a mouse does not care if you are righty or lefty. I use a mouse, and it suits me fine as a lefty.

I am speaking of the spastic decoupling of hand and screen and eye and ball on desk, that unique artifact of using a mouse freehand that makes most everyone look drunk until they learn the more automated features of their drawing programs.

Get ahold of a PDA with the stylus, and draw the outline of your state or country in its paint program. Now go to your desktop PC, and sketch the same using the mouse. You are decoupled, pointer and image, and that alone is a handicap. Lefty or righty, the mouse drawing will be MUCH harder to do well.

Re: About displays

*Message #7 Posted by **hugh** on 17 June 2003, 2:05 p.m.,*
in response to message #2 by Ernie Malaga

good theory! add to that the fact that HP machines display on the left and not right (like japanse).

Re: About displays

*Message #8 Posted by **Andrés C. Rodríguez (Argentina)** on 17 June 2003, 8:24 a.m.,*
in response to message #1 by Julián Miranda (Spain)

Julian:

I think that the slanted digits are a leftover of seven-segment displays, used in the '70s (such as the Monsanto MAN 1, or the diminutive MAN 3, or Litronix models). Some numerals are more readable with a little slant (specifically, the 7 digit), I think it is an aesthetics issue. BTW, I think the slant is specified as 10 degrees in some display spec sheets.

The slant may also came from CRTs used as numerical displays (i.e.: HP 9100); in such case there may be issues about the electron beam sweeping pattern, which may contribute to the slant. But I am not sure.

In my article in the Memories forum (I know you read it some time ago), there was a reference about unusual patterns on seven-segment displays on those years (i.e.: the Casio Mini-6 calculator with green fluorescent display). However, while the patterns were made to make them distinguihable even after a one-segment failure (sort of a Hamming distance analysis to cope with one-bit errors), some confussion was still possible.

RCA Numitron tubes (circa 1974) adopted a non-slanted, seven-segment pattern. They were an alternative to the classic and very nice (but older) Nixie tubes, with ten individual digit-shaped cathodes. Nixies used high voltage (170 V), but Numitrons were low-voltage devices.

Back to LED displays. On the opposite side from seven-segment, dot matrix displays from the '70s (such as the Monsanto MAN 2) were not slanted, either. But the electronics needed to drive them were expensive, using a ROM to encode ASCII patterns; and also multiplexing was mandatory. The seven-segment displays were easy to drive with cheap TTL parts like the 7447 (for common anode displays)or 7448 (for common cathode); and multiplexing was just an option. There was an issue of Popular Electronics magazine (between April and July 1974), in which a MAN 2 hobby project, which linked a full-size keyboard with a SINGLE CHARACTER MAN 2 display deserved the magazine cover!

Edited: 17 June 2003, 4:41 p.m.

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9830 ROM advanced prog II

*Message #1 Posted by **Achim** on 16 June 2003, 2:22 p.m.*

Has somebody a manual or brief description of the functions contained in the Advanced Programming II ROM for the 9830A? I have such a ROM but no idea what it does.

TIA, Achim

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HP12-Platinum's Sunplus SPLB20D CPU...

*Message #1 Posted by **Bill Wiese** on 16 June 2003, 1:07 p.m.*

Did some more nosing around the web.

The Sunplus SPLB20D CPU in the 12C Platinum appears to be a full-house 6502. Sunplus does also have a 'crippled' reduced-feature semi-6502 with an X index register but no Y index register - this is for at least their lower-end chips (mouse controllers).

I saw nothing about the Sunplus chips having the newer 65C02 features (bit ops, etc.).

Sunplus apparently keeps lots of their documentation (instruction set, etc.) under wraps as 'trade secret'.

Nevertheless, this sounds like HP/Kinpo will be using these 6502 chips in other calcs. If there's ever an external ROM mode we can re-do a calc the 'right' way!

Now if we could just get someone to make double-injection molded keycaps at a reasonable cost :)

Regards, Bill Wiese San Jose, CA

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Woodstocks: ACT chip compatibility? (again)

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 16 June 2003, 10:34 a.m.*

Hello, Woodstock maniacs;

please, just clear this doubt out: which Woodstock is PMOS-technology and has the ACT chip not compatible with others? Not a quiz, I simply forgot... that.

Thank you for your answer.

Luiz C. Vieira - Brazil

Re: Woodstocks: ACT chip compatibility? (again)

*Message #2 Posted by **Massimo Gnerucci** on 16 June 2003, 10:51 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

The HP-27.

Massimo

Re: Woodstocks: ACT chip compatibility? (again)

*Message #3 Posted by **Massimo Gnerucci** on 16 June 2003, 10:54 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

...but it is N-MOS (cfr. http://www.hpmuseum.org/tech20.htm)

Thank you twice, Massimo! (n.t.)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 16 June 2003, 12:21 p.m.,*
in response to message #3 by Massimo Gnerucci

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9g lamers

*Message #1 Posted by **hugh steers** on 16 June 2003, 8:19 a.m.*

aside from other critisms, which i won't repeat. why oh why doesnt the 9g have solve and numerical integration? it's not really that hard is it. and it would be a sales feature.

even if they can't be bothered, how about having a few rom-based programs that can be called up. like on the hp20s. i know this sucks a bit, but it's better than nothing.

Re: 9g lamers

*Message #2 Posted by **J.Manrique López de la Fuente** on 16 June 2003, 8:24 a.m.,*
in response to message #1 by hugh steers

Perhaps because they are leaving that feature for a more advanced scientific calc.

Best regards,
J.Manrique
Users Club from Gijón
1077 HPCC Member
AsturLiNUX & HispaLiNUX Member

Re: 9g lamers

*Message #3 Posted by **bill platt** on 16 June 2003, 9:25 a.m.,*
in response to message #1 by hugh steers

The 9g is not an HP. It might *say* HP on the calculator, but it's not. It's not worth any thought about. 9g,9s,30s,6s, they are all not HP. Don't waste any emotional energy on them.

Buy a used real calulator---like a 34C with Red LED's ....

Re: 9g lamers

*Message #4 Posted by **Norm** on 16 June 2003, 1:18 p.m.,*
in response to message #3 by bill platt

Yah, Yah, right on ! "Get a used real calculator like a 34C with Red LED's" . Lets hire a rock & roll band and cut a hit single "My 34C with Red Leds". It'll be a hit song coast to coast.

Hugh, I dont mean to downplay your work, because you've clearly gone carefully through the unit, tried it out, learned it, which is more than I did.

But isn't a thoughtful analysis of a 9G kind of like a "Road & Track Magazine" studiously analyzing the handling qualities and acceleration times of a Geo Metro ??

Re: 9g lamers

*Message #5 Posted by **Bob** on 16 June 2003, 2:13 p.m.,*
in response to message #4 by Norm

As a person with a former interest in cars, it was depressing to always see tests of race ready, high performance, high dollar vehicles that I would never have a reason to own, when all I wanted was reliable transportation.

It's kind of like saying "We tested the latest model XYZ and, compared to all of the others which are just like it, they were great !" So what ?

Testing a Geo Metro might provide a stark comparison of the state of the art and would add value. It might also make you feel better about your Geo and the extra cash in your pocket.

What's wrong with taking a good hard look at any unit with the HP badge on it ? It might be educational and without it, anyone's HP collection is missing a unit.

Besides when they come out with the new super-dee-duper hp41/42/48/49/YGX later this year, those models will be highly valued on E-bay as the "Tweener calcs" from the desperate years.

...ok, I just made that last part up.

Re: 9g lamers

*Message #6 Posted by **bill platt** on 16 June 2003, 2:13 p.m.,*
in response to message #4 by Norm

Not just any old R&R Band----LED BRICKELIN---or maybe Smashing CMOSkins !;-)

LED Brickklin -- <Imagine those wild cheering crowds...>

*Message #7 Posted by **glynn** on 16 June 2003, 11:46 p.m.,*
in response to message #6 by bill platt

Hey Lady, ya got the calcs I need;

Maybe, more than enough.

Oh, darlin', darlin' Carly

Do some R & D

Ooooh, you've got so much

So much... so much.

Many are displays,

and many times I've bitten

Many cheesy ways,

but none can shine as bright

Many many men,

who make their living with 'em

Pocket full of dreams,

but faltering in sight

Many buttons pushed

But some are way too mellow

I live for the days

When keys don't feel like gum

Many chances passed

You fancied algebraic

But I could show you how

To make a tidy sum.

< long Norm Page solo here >

Many L. E. D.'s

With only numbers in 'em

Many batteries

To make those suckers glow

Much intensity

To never leave ya guessing

Guessing 'bout the thing

You really oughta know,

oooh, oooh,

You really oughta know,

Ya really oughta know...

Edited: 16 June 2003, 11:49 p.m.

Re: LED Brickklin -- <Imagine those wild cheering crowds...>

*Message #8 Posted by **bill platt** on 17 June 2003, 9:08 a.m.,*
in response to message #7 by glynn

Glynn,

Not bad---for a lefty ;-)

(seriously---we can't stop chuckling over here--you could be a copywriter for sure)

best regards,

Bill

"Kodachrome" by Paul Simon

*Message #9 Posted by **Norm** on 17 June 2003, 1:41 p.m.,*
in response to message #8 by bill platt

(roll,roll,roll, THUNK) (sound of quarter being put into jukebox)

Selection "34-C"

Record comes up, "THUD" needle hits record....

(a few scratches & pops)

.....

When I think of all the crap I learned in high school....

its a wonder I can think at all,

it werent for my trusty red LED calculator,

math class wouldn't have done me no good at all.

RED LED""s, give me them bright red digits

give me them 7 bright segments,

make me think every calculation is a sunny day,

oh yeah,

I got an HP 34C

I love to do caaalculations

but Carly gonna take my 34C away.

(chorus)

Carly don't take my 34C

Carly don't take my 34C

Carly don't take my 34C away

Carly she took my 34C

Carly she took my 34C

Carly she took my 34C away .....

Re: 9g lamers

*Message #10 Posted by **hugh steers** on 17 June 2003, 2:02 p.m.,*
in response to message #4 by Norm

you're quite right about this. and also, i dont regard the 9g nor 9s & 30s as HP machines, badge notwithstanding.

the critic i have against these new line machines is simply how bad some of the things have been done. hp originals were masters of detail. looking closer at features exposed geniune engineering.

lets say a new calculator company sprung up (with an old badge). i can see that we're not going to get such attention to detail. but some of the gaps here are real novice mistakes.

anyway.. im still searching for a 34C :-)

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Emmanual Compes - I need your help

*Message #1 Posted by **Donald Leonard** on 16 June 2003, 4:50 a.m.*

You were suggested as a possible source of information on my MLDL from Germany with 6E O.S. software and David Assembler. Please read my earlier post of 12 June for details, or send me an e-mail and I will explain. I have serious problems with hardware now and need to find some documentation on this unit, but any info. is appreciated. Don

Edited: 16 June 2003, 4:56 a.m.

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Charging NiMH batteries

*Message #1 Posted by **Tracy Vermeyen** on 16 June 2003, 12:46 a.m.*

Last week I sent a message about a N-size battery charger for NiCad batteries. I found some rechargeable N batteries at Radio Shack (as suggested in this forum), but they are NiMH and the don't seem to charge well. Can someone enlighten me on why not?

tv

Re: Charging NiMH batteries

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 16 June 2003, 7:14 a.m.,*
in response to message #1 by Tracy Vermeyen

Hi, Tracy;

I'm surprised with this fact. After reading many posts here, I believe NiMH tend to charge the same way as NiCad's with similar capacity. What I read also is that they have some advantages, liek no memory effect.

Is it possible that because of the fact you found NiMH with larger capacity you need more time to fully recharge them? This is a fact, not a bad thing :).

Let us know more about it, please.

Luiz C. Vieira - Brazil

Re: Charging NiMH batteries

*Message #3 Posted by **Chan Tran** on 16 June 2003, 11:27 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I wonder how did you charge the battery? I don't think you can charge it inside the 41 as the charging circuit is built in to the battery pack.

Re: Charging NiMH batteries

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 16 June 2003, 12:19 p.m.,*
in response to message #3 by Chan Tran

Hello, Chan Tran;

I agree with you, there are no specific componets in the HP41 to charge the batteries. Anyway, based on the existing HP41 rechargeable pack circuit, charger output goes straight to batteries contacts. I do not remember if the fullnuts' DC input (the well know golden ball contacts) also go straight to the batteries contacts or if they have some sort of protection, like a series diode or something else. In any case, if the 82120A charging circuit is externally replicated and somehow connected to the calculator's (+) and (-) poles, the only problem I see is the possibility of bad contact between batteries poles and

the calculator's poles.

Just wondering about it.

Luzi C. Vieira - Brazil

Re: Charging NiMH batteries

*Message #5 Posted by **Tracy Vermeyen** on 16 June 2003, 1:36 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I have a N-size battery charger (HP PN 92266a) which I used to recharge the batteries. I left the new batteries in the charger overnite and still after about 10 minutes in the 41C the BAT indicator came on.

Perhaps the charger is defective?

Thanks for the support!

Re: Charging NiMH batteries

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 16 June 2003, 2:23 p.m.,*
in response to message #5 by Tracy Vermeyen

Hi, tracy;

do you have the means to measure voltage on each battery separately? Each one should measure from 1.25 to 1.3 Vcc right after being fully charged.

I don't know how does the HP PN 92266a charge the batteries, maybe it charges them as a single 5Vcc unit. If it works this way and if one of the batteries is bad, none of the others will be charged accordingly. On the other hand, if it charges them as four 1.25 units (what is better but unlikely), then each good unit will be charged and if there are bad units, they will not.

In any case, all four batteries are used in series when they are in the HP41, and if one of them is bad, BATT annunciator will appear as the set goes close to 4.5 Vcc.

Let us know if you measure the batteries and what you found.

Best regards.

Luiz C. Vieira - Brazil

Edited: 16 June 2003, 2:24 p.m.

Re: Charging NiMH batteries

*Message #7 Posted by **David Smith** on 16 June 2003, 5:27 p.m.,*
in response to message #5 by Tracy Vermeyen

Yes, I think your charger is bad (or the contacts need cleaning). I think the original "N" nicads were 100 maH. Your NiMH cells should be 2-3 times this capacity and a full charge would thus be 2-3 times as long... probably 24 hours should do it (assuming your charger is a standard trickle charger that charges the nicad cells in 10 hours).

Re: Charging NiMH batteries

*Message #8 Posted by **Dave Shaffer** on 16 June 2003, 11:09 p.m.,*
in response to message #5 by Tracy Vermeyen

Tracy,

Do you have an ammeter? If so, try to measure the current while the batteries are charging. (You will have to insert the ammeter in series with the batteries somehow.)

Just as a guess (depends on the intended charging rate), you should probably have somewhere between 10 and 100 milliamps of current running through the system. (Somebody else may have a better value for the charging current - but if the charger is bad, or one of the batteries is bad, the current is probably much less than this.)

As Luiz indicated, the batteries may be in series or parallel. If the charger operates in parallel, you need to check the current in each branch.

Re: Charging NiMH batteries

*Message #9 Posted by **Tracy Vermeyen** on 17 June 2003, 1:05 p.m.,*
in response to message #8 by Dave Shaffer

Using the suggestions to my last post, I found that one of the Radio Shack rechargeable batteries is BAD (surprised?) which Luiz suggested might be the problem. I do not have an ammeter handy.

Another question, the MiMH batteries are listed as 1.2V, but when charged and tested they read 1.5V -- is charging the 1.2V battery to 1.5V safe for the batteries or more importantly the 41CV?

Re: Charging NiMH batteries

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 17 June 2003, 2:50 p.m.,*
in response to message #9 by Tracy Vermeyen

Hi, Tracy;

It's actualy good news. In fact, using an ammeter is the best way to measure, because sometimes measuring voltage in a battery without loading in (connect it to a circuit) may give you unexpected good results. If you can measure current across it in a circuit or its voltage in same circumstances, results are the ones you actualy need.

About 1.2V and 1.5V. Regular disposabble alkaline batteries have a 1.5V working voltage, what means that when NiMH are being charged and reach 1.5V they will be "seen" as regular batteries by the calculator, what means no trouble. And rechargeable batteries must be connected to a voltage source that's higher than their own so they become the "load" seen by the charger circuit. As their chemicals recombine to receive "energy", their voltage raises and their internal resistance alters as well. As they reach full charge, voltage measured at the very moment they are disconnected is higher than their nominal. If you let them "rest" for a while and measure again, a small voltage drop will be observed.

If you need more specific data, I believe it's not hard to find papers from battery suppliers.

Best regards.

Luiz C. Vieira - Brazil

Re: Charging NiMH batteries

*Message #11 Posted by **David Smith** on 17 June 2003, 5:34 p.m.,*
in response to message #9 by Tracy Vermeyen

When a Nicad or NiMH battery is freshly charged the voltage is around 1.35-1.45 V per cell. As it discharges, it quickly falls to around 1.2V per cell where it stays until it is about to die. Then the voltage falls rapidly to 1.0V per cell.

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"Constructing" a Pioneer's battery cover

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2003, 10:14 p.m.*

Hi, guys;

Brief reference: I used to build plastic models and I also used to dare changing and building extra pieces.

About a couple of months ago I lost my HP17BII battery cover and I was trying to find a way to rebuild another. After a few "eye research" I found the folding protection that exists in VHS cassettes as a suitable "raw" material source. I cut it, molded, glued small pieces and I got this:

http://www.logeng.com.br/images/pion_door_1.jpg http://www.logeng.com.br/images/pion_door_3.jpg

These images show the final piece with an original "door" I used as model. It's not identcal, but works fine.

http://www.logeng.com.br/images/pion_door_4.jpg http://www.logeng.com.br/images/pion_door_5.jpg

The battery "door" in place. In the last image we can see a... "touching" message for free!

O.K., there is no way to send an infrared command unless I oppen a hole on it. If I have any of the pioneers without the IR,'I'd use it without any problem. But I have an HP17BII and an HP42S. When I need to send data, I remove the cover...

Hope this is , at least, inspiring.

Best regards.

Luiz C. Vieira - Brazil

Re: "Constructing" a Pioneer's battery cover

*Message #2 Posted by **bill platt** on 16 June 2003, 1:04 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Luiz,

That is VERY good work! Now I realize that I better be patient with my 41---I am getting true professional advice from a master of plastic fantastic:-)

But why did you blank out the serial number and place of manufacture---to protect the innocent?

Best Regards,

-Bill

Re: "Constructing" a Pioneer's battery cover

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 16 June 2003, 6:52 a.m.,*
in response to message #2 by bill platt

Hi, Bill;

> Quote:
>
> But why did you blank out the serial number and place of manufacture---to protect the innocent?

I think I'm afraid of that *Urban Legend* crap... I don't want to see two attorneys knocking at the door and claiming to have the calculator's original (fake) proof of purchase.

Back to the world of living: this subject has already been discussed here. My "original" HP42S no longer works and I was able to build a frankencalc with donated parts from three calculators ant my own stuck 42S, thanks to Renato. Now I have it but I do not remember which back case I used. I thought it would be prudent not to reveal patient's identity, if you understand me...

Thank you for the "master of plastic", but I must confess one thing: I seldom use measuring instruments because I never had precise "length" meters. I use my eyes and similarity. This Pioneer's battery "door" was practically sculptured this way, by "facing" it's original counterpart and testing if it fitted in place. That's why it has some irregularities, it's hand craft. I like building missing parts mostly to exercise my hands and eyes.

Have you seen the other posts about the HP41 screw posts?

Best regards and gook luck with your repairment.

Luiz C. Vieira - Brazil

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HHC2003 HP Calculator Conference 9/20-21/2003

*Message #1 Posted by **Jake Schwartz** on 15 June 2003, 10:13 p.m.*

Hi,

In case the announcement hasn't made it to the HP forum yet, here is the first one. The HHC2003 HP Calculator Conference will be held over the weekend of September 20-21, 2003 at the Radisson Hotel in Newport Beach, California. We are expecting SIGNIFICANT participation by Hewlett-Packard at this conference.

A website has been created to formally provide information and registration, located at http://holyjoe.net/hhc2003/ . Please consider attending this one, as it looks to be extremely interesting with respect to HP's future plans in the calculator market. These conferences have been going since 1979 when the HP41 was announced, and they've provided an enjoyable and educational time for everyone.

Hope to see you in September,

Jake Schwartz

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Calculator Case

*Message #1 Posted by **Iqbal** on 15 June 2003, 7:51 p.m.*

Anyone ever bought one of these hardcases : http://shop.store.yahoo.com/calculatorsource/accessories-cases-ciarmadillo.html

Would it work for the pioneer series calculator? Looks very similar to the Astech Industries hardcase.

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MoHPC *The Museum of HP Calculators*

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Platinun × Classical Voyagers: new LCD images

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2003, 7:28 p.m.*

Hi folks, Gordon;

I removed the previous LCD images and used two new ones. I tried to put them closer to each other in terms of resolution and quality, but I must tell you it's not yet the way I'd like it to be. Original post was this one and current images are these:

http://www.logeng.com.br/images/LCD_class.jpg

Classic

http://www.logeng.com.br/images/LCD_plat.jpg

Platinun (from Gene's original picture, posted a couple of weeks ago)

Hope you enjoy them.

Luiz C. Vieira - Brazil

Edited: 15 June 2003, 10:26 p.m. after one or more responses were posted

Re: Platinun × Classical Voyagers: new LCD images

*Message #2 Posted by **GS Leong** on 15 June 2003, 9:55 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

classic looks much more crisp

Re: Platinun × Classical Voyagers: new LCD images

*Message #3 Posted by **Michael F. Coyle** on 15 June 2003, 11:14 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Good work with the photos. I do prefer the older display, though that preference would not keep me from buying a machine with the new one if I had to.

(One thing though: I don't remenber if anyone brought this up in the past, but the fact that the new display doesn't have a "GRAD" annunciator makes it less likely that the 15C (or 11C) are going to be revived. Which is too bad. True, they could make another display for a new 15C, but they lose some economy of scale that way. If they were planning to make several new Voyagers, it would make more sense to design one new display for all of them.)

- Michael

There's a post...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2003, 11:19 p.m.,*
in response to message #3 by Michael F. Coyle

....here about this very subject.

I think this is what you mean.

Luiz C. Vieira - Brazil

Thanks, that's it (no message)

*Message #5 Posted by **Michael F. Coyle** on 16 June 2003, 12:51 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

:)

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RUBBER KEYPAD under SPICE calculators

*Message #1 Posted by **Norm** on 15 June 2003, 5:56 p.m.*

Hi guys,

there is supposed to be a rubber pad between the keys, and the dome switches, in a spice calculator.

But I learned something, its not that many units have got it. Its definitely better (quieter, less rattling, probably dome switches will last longer). I guess they thought of it only near the end of production?

Somebody said U can make your own out of old bicycle tubes.

What if a person wanted a more "correct" and consistent material than that. Did anybody find it?

Occasionally I buy from "Boker's" and they stamp large quantities of washers, in any and all materials. And I am before too long going to order some flat-stamped round rubber washers from them.

I could find out a suitable material, if anybody's interested. ONE MORE TIME..... if anybody could supply me with a rubber pad I would pay $$ for it. I want one sitting in front of me while I try to line up replacement material. The only rubber pad material I own is INSIDE OF my only working 34C, and NO I am not taking it apart just to look at it again. Hope to hear from somebody, and beyond that, I am going to find a good source of the material by the square foot.

Re: RUBBER KEYPAD under SPICE calculators

*Message #2 Posted by **Randy Sloyer** on 15 June 2003, 7:03 p.m.,*
in response to message #1 by Norm

Can't help with the original, but here's a source for just about anything by the foot:

http://www.mcmaster.com/

Go to Raw Materials then select rubber. Their thickness ranges are a bit limited, but you can usually find something that will work. This is where I found 41 and Voyager feet material.

Re: RUBBER KEYPAD under SPICE calculators

*Message #3 Posted by **David Smith** on 16 June 2003, 5:32 p.m.,*
in response to message #1 by Norm

Get thee to a Home Depot garden center. They sell lining material for garden ponds. First type is 1/16" think EPDM roofing membrane. Makes nice rubber footsies for your your machines. The other is a thinner polyethylene or vinyl material. Looks like the right thickness for keyboard membranes. Only think is the material is sold by the liner foot (it is about 12 feet wide).

Pond liners and such

*Message #4 Posted by **Randy Sloyer** on 16 June 2003, 8:38 p.m.,*
in response to message #3 by David Smith

So a minimum purchase at H-D would make 8,228 HP41 feet?

Even at a 50% yield, (I can't cut straight) I'll still have enough to do a 1,000 complete 41 footies transplants. Yeah, that 'ought to hold me for a while.

Dang, I never have learned how to think in production quantities, no wonder I don't have any money left at the end of the week.

hello David, Randy, LUIZ

*Message #5 Posted by **Norm** on 16 June 2003, 11:10 p.m.,*
in response to message #4 by Randy Sloyer

Hello David, Randy, Luiz

if one of you has already bought the pond liner, and been cutting it to pieces, I got a good idea.

Send me 1 square foot of the material. You can even cut it smaller so it fits into an envelope.

I will pay my way. Let me know. But then I dont have to buy so much I can see it from outer space, and I dont even know if I like the material yet.

I STILL need an authentic pad, so I have something to compare to.

HEY LUIZ I know U got one of the genuine rubber pad pieces, can U send me a real one? I'll pay.

- Norm

analogee@gte.net

Hey, Norm!

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 16 June 2003, 11:34 p.m.,*
in response to message #5 by Norm

Hey, Norm;

in the name of the big friendship and cooperation spirit around here, you got it. I'll send a keyboard rubber pad as a gift. You deserve it for your devotion and need to keep the original parts in your HP34C, no pun intended :)

Send me your actual address and I'll mail it to you ASAP.

I've been doing all I can do for as many MoHPC contributors as possible, and I've been receiving a lot in turn as well. Doc Mike Meyer knwos what I mean. And I am sure this means a lot to you.

I have been reading your posts in search for for the keypad, now you mentioned my name and asked for help. You got it.

I'm waiting for your e-mail with your actual address.

Best regards, my friend.

Luiz C. Vieira - Brazil

(I know I should write you in private, but I'm sure people will be happy for you as well)

thank you, Luiz, try

*Message #7 Posted by **Norm** on 17 June 2003, 4:28 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Hi Luiz, thank you very much for this idea. I am grateful.

Try e-mailing me direct.

My e-mail is analogee@gte.net

When I tried contacting you the e-mail didn't work.

So if you send me something I will reply..

analogee@gte.net

Misspelled e-mail address...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 17 June 2003, 7:37 a.m.,*
in response to message #7 by Norm

Hey, Norm; you're welcome.

The e-mail address was wrong: I typed "con" instead of "com". The e-mail here works fine, sorry.

Please, would you try again? Be my guest!

Luiz C. vieira - Brazil

Re: RUBBER KEYPAD under SPICE calculators and rebuild notes

*Message #9 Posted by **Ellis Easley** on 18 June 2003, 7:38 p.m.,*
in response to message #1 by Norm

I opened up my 34C's last weekend to lubricate the switches and generally clean up the one that I never opened before. I used the dental floss for the first time and it works great! I used a double loop (a single loop broke the first time I tried it) and tied the loop to a screwdriver handle with a triple half-hitch (I remembered a "dumb criminal" story about a couple of convicts who made a rope out of dental floss and cut their hands up escaping from an upper-story prison window.)

My original unit is the soldered type. I had opened it before with a modified crack-of-doom and twisting operation which resulted in breaking the narrow lip along the front edge, which I had glued back as well as I could. The dental floss re-cracked the end of my glue joint but otherwise didn't affect the front edge. I hadn't remembered some details, such as that the main assembly is a regular fiberglass PCB (its S/N is 2051S)- with so much discussion about the flexible PCB in the solderless design, I though the only difference was some solder! Then I opened the other unit and saw the solderless design up close for the first time (its S/N is 1934A).

My newer, soldered unit has metal disks under clear sticky tape for the keyboard click, like the Voyagers. It also has the thick rubber sheet between the keys and the tape over the disks. The older, solderless unit has a sheet of plastic over the keyboard with printed traces and the clicky domes molded into it - actually it looks

vacuum formed. There is a third layer of plastic between the sheet with domes and the main flexible PCB, with holes under the domes where the column lines make contact with the row lines. There are also five holes where the column lines on the outer layer are "spot soldered" to the main flexible PCB. Now I see how much greater is the travel of the older keyboard. When switching back and forth between them, the the older, long travel keyboard seems tiring, but after using just it for a while, it seems normal.

The sheet of rubber in the newer, soldered unit isn't just flat on my unit. It has disc-shaped regions molded in over each keyboard disk.

My older unit had corrosion on the power switch but was otherwise pretty clean. I removed the corrosion and cleaned the rest of the flexible PCB pads - and the IC and display and P.S. assemply pins - with a "Pink Pearl" pencil eraser. It worked when I lubed the switches and put it back together except some segments of the LED are open. I found that my multimeter diode test range is good for testing the LED display - it puts out just enough current to light up the segments, and the voltage readout should show up segments that are marginal - in fact I thought the minus sign segment was somehow different because it registered a higher voltage when I first lit it up (all other segments had registered about 1.5V), then I found the other terminal that connects directly to the minus sign cathode and determined that the display assembly has a regular diode connected between the two outer terminals - what's that for? It's between the power supply positive (after the power switch) and negative inputs - like a shunt reverse polarity protection diode, except without a fuse - but why is it part of the display?

I traced out a schematic of the solderless unit including the power supply and compared the two units. I noticed two differences in the power supplies: The newer unit has a 10K resistor instead of a diode to provide the standby power from the battery - I imagine that keeps the memory alive with a lower battery voltage - also, the capacitor that holds some charge for the standby power when the battery is out is 22 mf in the older unit and 33 mf in the newer one.

My newer, soldered unit doesn't "flash" (at least not as much) and the older one does, but I don't believe it has anything to do with deterioration of the IC's - they have different IC's. The units have two IC's in common - the two 8 pin packages that are not connected to standby power: 1MA1-14 and 1MA1-15 (-0015 on the older unit but I imagine it is the same as -15). On the older, flashing unit the other 8 pin is 1LB5-002; on the newer unit it is 1LB9-02. The 40 pin IC on the older unit is 1820-2162-A, on the newer unit is is 1820-2162 (no A). The 40 pin IC's are made by AMI and the datecodes are 7906 and 8047 respectively. Who knows if the A means they are different?

Regarding flashing, the difference between my units is this: when executing a function like Sine, the older unit flashes random commas and the minus sign; the newer unit is completely dark until the result is displayed. Both units flash random numbers, commas, periods and the minus sign when a user program is running.

BTW, both units return the same number for the Calculator Forensics test as the 41CX and the 15C - does this mean that the Spice models contain some kind of Nut CPU and firmware?

I also made some current measurements. The battery charging current is 150 mA. This would be the .3C "quick charge" 5 hour rate. With the battery almost discharged (just before the low battery indication starts) the unit draws 150 mA with the display set to FIX 9 just after power on (all zeros) and 190 mA after STO ENTER (all segments lit). With a freshly charged battery, the unit draws 125 mA with all zeros and 160 mA after STO ENTER. Also with a freshly charged battery, it draws 65 mA displaying "1." and from 60 to 75 mA executing the Integration function - the higher current occurs during evaluation of the function in the user program, when random numbers are displayed.

One final thing about my older, solderless unit: it has a mistake in the printing on the keyboard bezel - above the "A" key, both "FIX" and "DEG" are printed in gold! Also, the blue arrows in "->D->R" and "->H.MS->H" have a bit of gold at the very end of the tails.

Can you share the schematics? Ahn? >>8^)

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 18 June 2003, 8:30 p.m.,*
in response to message #9 by Ellis Easley

Hi, Ellis;

I was wondering about to find some time to track Spice's power supply to draw their schematics... If I promse to do it with the E-series (non-continuous memory) and post it here, would you share what you have? Ahn?

Would you be as kind as for sending me the schematics? Please?

Thanks alot!

Luiz C. vieira - Brazil

Edited: 18 June 2003, 8:33 p.m.

Re: Can you share the schematics? Ahn? >>8^)

*Message #11 Posted by **Ellis Easley** on 18 June 2003, 8:40 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Sure, I'll email it to you after I clean it up.

thats a lot of interesting detail, and hey Luiz,

*Message #12 Posted by **Norm** on 19 June 2003, 9:49 p.m.,*
in response to message #9 by Ellis Easley

thats a lot of interesting detail. U say that your solderless one flashes, and the soldered one doesn't.

I have one solderless that flashes when you enter Sin(45) and another solderless that does NOT flash when you enter sin(45) . I absolutely do NOT care for the extra flashing and consider it a serious problem, although maybe it was just something from the first 3 months of production, I just can't stand it and start looking for the next unit rather than put up with all that ....

Luiz and I determined that the "flashy" ones will blink at each push of "2" if you enter 2.22222222 but not for any other digit.

Try the 2.222222 and let us know if it flashes ?

HEY LUIZ: Maybe the firmware is in one of the 3 little 8-pin chips. Maybe they really did make some firmware that blinked too much. They must've got rid of it fairly early on. What do you think, maybe the problem is from software that was stored as firmware in one of the 3 little chips ?

I think you have a point, Norm.

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 20 June 2003, 2:26 a.m.,*
in response to message #12 by Norm

Hey, Norm;

I think you have a point here. And the best way to determine what is going on for good is to find two Spices of the same type (solderless is better) provided that one of them blinks the "2" and the other doesn't. Then it's time to exchange components and check at which moment the blinking exchanges,

too.

Because of a destiny contingency, it happens that I'm gonna be with some Spices of the same type this very weekend. Maybe we're all lucky enough they fit our needs and I can resume the experiment successfuly.

I'll let you know. Please, warn Captain Zener about any emergency call... I'll be scanning the power supply of the E-series spices (non-continuous memory) and I'll check for both: tantalum capacitors and comma/digit separator selection. Their power supply is different, as you reason about it.

Best regards Norm, folks. Thank you for your advice; I appreciate it.

Luiz c. Vieira - Brazil

The great Luiz Vieira 34C firmware test ....

*Message #14 Posted by **Norm** on 20 June 2003, 3:49 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

Hey Luiz, If you get 2 such units, and you swap their firmware chips, I want to make a suggestion ....

The main litmus test for the 'blinking' problem is two things:

(a) the 2.22222222 test, everytime you type "2" it blinks, the other digits do not (like 1.11111 or 9.99999 is normal).

(b) Sine or Cosine will blink while its computing the answer.

YES, if you can clearly demonstrate its all in the firmware chip, that would be fascinating to me. BTW, I wonder which chip is the firmware chip anyway??? There are 3 little chips, and then there is the big chip.

The big chip must be a microprocessor with a special display driver.

The little chips must be memory chips, that hold the program, the register, the stack, and the firmware.

I bet you they used cheaper smaller IC's on the cheaper models. For example only, a 512 byte memory was cheaper than a 1024 byte memory. People played around with that a lot, back then. The 512 byte chip was 50 cents cheaper than the 1024 byte chip, so they'd get all excited and build 2 models (instead of use the 1024 byte chip in all models). Kinda dumb really, would be better just to make them all use the big chip for consistency.

SO ANYWAY Maybe all chips are just fine, its just that one of them has substandard firmware..... HMMMMMM ..... then maybe I could find a chip that has the good programming in it... not real likely.

I wonder how the heck they found 8-pin memory chips that would surely be downloading on a serial bit stream.

Obviously then they programmed the microprocessor to accept that sort of data.

Fascinating..... absolutely fascinating. Beats the pants off some laptop or PDA with a 30 Gig hard-drive, I can get more done with the 34C.

Re: The great Luiz Vieira 34C firmware test ....

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 20 June 2003, 9:20 a.m.,*
in response to message #14 by Norm

Hey, Norm;

thank you for your enthusiastic e-mails; both for the HP34C and for the experiments. And, hey: there are people in here that put me in their pockets... I know, I learned a lot with them. I'm just too nosy and curious!

One thing to add: if you examine the PCB's layout, you'll see all three 8-pin DIP chips are in parallel EXCEPT for the topmost (the one closest to the LED display): its #8 pin is separately connected to the power supply. After posting some notes about it some months ago, I remember reading that this is the RAM place, where it is constantly fed (continuous memory). The other positions are ROM places, no order.

If you reason a bit about it, there is no specific place for the 8-pin DIP chips if you have an E-sereis Spice, and if you switch places in a C-type, you'll loose memory contents when you switch the calculator to OFF.

I think this should be also posted.

Best regards.

Luiz C. Vieira - Brazil

Edited: 20 June 2003, 10:42 a.m.

Calculator Algorithms

*Message #16 Posted by **Michael F. Coyle** on 20 June 2003, 1:03 a.m.,*
in response to message #9 by Ellis Easley

Hi Ellis,

> Quote:
>
> BTW, both units [HP-34C's] return the same number for the Calculator Forensics test as the 41CX and the 15C - does this mean that the Spice models contain some kind of Nut CPU and firmware?

Not necessarily. This just means that the exact same algorithms were used; the underlying hardware can be different. The same Forensics result goes all the way back to the HP-27. So calculators from three different series -- Woodstock, Spice and Voyager, plus the 41 -- all give the same results. But this does not mean that the instruction sets are the same, although they are undoubtedly similar.

- Michael

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Depends on the definition of NICE

*Message #1 Posted by **Mike** on 15 June 2003, 3:35 p.m.*

Nice?

NICE 12C

Auctions like this crack me up.

Re: Depends on the definition of NICE

*Message #2 Posted by **Juergen (CH)** on 15 June 2003, 3:43 p.m.,*
in response to message #1 by Mike

Nice scratches? Nice dust on the keyboard? Nice carpet? Nice that it isn't a Platinum?
The only nice thing is that the picture says everything...

Re: Depends on the definition of NICE

*Message #3 Posted by **GS Leong** on 15 June 2003, 3:55 p.m.,*
in response to message #2 by Juergen (CH)

pretty ugly!

Re: Depends on the definition of NICE

*Message #4 Posted by **David Smith** on 15 June 2003, 4:08 p.m.,*
in response to message #3 by GS Leong

Now now, lets be politically correct... it's beautifully challenged.

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The superb HP-15C (adding to archived post)

*Message #1 Posted by **Karl Schneider** on 15 June 2003, 3:01 a.m.*

Valentin Albillo wrote nice short essay in the Forum (3 June, 2003) extolling the HP-15C. I've been meaning to expand on parts of it as a reply, but it's already gone to the archives. Here's a link to his posting:

Voyagers rule ! [LONG]

I bought my 15C in late 1983, and it met my needs through three university-degree programs. Only in the last 15 months did I fill out my HP collection with 12 other models. The 15C is still probably the one I'd take to an exam, if I were allowed to bring only one calculator. It's that capable and useable.

> Quote:
>
> Now, if the HP-11C is amazing, the HP-15C is simply unbelievable, the best pure calculator in the world, hands down. It has everything the HP-11C has, and much, much more.

An excellent HP Journal article about the development of the HP-15C, written by Dr. William Kahan in 1983, is available on the MoHPC CD-ROM/DVD-ROM set, and Dr. Kahan's website. If "pure calculator" implies non-alphanumeric, I'd also agree with the "best in the world" assessment. Otherwise, I'd give the nod to the 42S, while conceding that the 15C has some advantages -- e.g., more-legible display, quick keyboard access to all functions.

> Quote:
>
> Further, everything was so well *(thought through)* in its design .. You felt there were no arbitrary limitations at all .. All features were integrated and complemented each other perfectly, most served for several apparently unrelated purposes.

Exactly! The 15C is a masterpiece of thorough, meticulous engineering, not only in the construction, but the up-front design of algorithms and functions. The engineers packed an impressive amount of functionality onto a keyboard and display that lacked the expandability of named functions and menus, and yet made it all intuitively logical. The detailed, error-free manual is thicker and heavier than the calculator, but I believe that most users, after initially learning how to program and to use the advanced functions, need not consult the manual (or the supplementary Advanced Functions Handbook) in order to perform tasks using the 15C.

I also agree about the lack of "arbitrary limitations" -- something I see in the direct-successor 32S/Sii and the 20S. The 32Sii has less user RAM, and lacks the matrix functions and complete, integrated complex-domain functionality that were specifically provided in the 15C as a design objective. The 20S provides certain functionality of the 15C as "loadable" programs that require usage-instructions and wipe out the contents of user RAM. Both products seem "stripped down" in that respect.

The 15C, by contrast, is "right-sized" -- it has enough resouces and built-in functionality to tackle any problem you'd reasonably want to try on a handheld calculator. Practically anything it can't handle would be better attempted on a PC with the appropriate software. Of course, the 41CV/CX and 42S are better for extensive programming than the 15C, which wasn't really indended for those purposes.

The dual-purpose keys of the 15C were ingeniously intuitive. For example:
-- nPk and nCk keys [statistical permutation and combination; or, "partitioned" and "complex" matrices]
-- I and (i) keys [indirect addressing of registers/labels; or, imaginary (complex) numbers]
-- 1/x [reciprocal or matrix-inversion]

> Quote:
>
> There's never been anything like the HP-15C, there never was before, and there never will be in the future...

Alas, probably so. Modern high-end calculators compute faster and have more fancy capabilities, but I'd doubt that any are as thoroughly well-executed as the 15C. It's more than a still-useful tool; it belongs in a "Hall Of Fame" of consumer electronics.

Re: The superb HP-15C (adding to archived post)

*Message #2 Posted by **David Ramsey** on 15 June 2003, 12:22 p.m.,*
in response to message #1 by Karl Schneider

The orthagonality of the functions in HP calculators was something I always admired. This carried through to their other products. For example, the HP-01 calculator watch is the only calculator watch I know of that actually integrated the time and calculation functions: you could, for example, get a real-time readout of the cost of a long distance phone call after inputting the per-minute cost.

In the HP palmtops (1xx, 2xx), the built-in Lotus 1-2-3 spreadsheet's cells could link to an external routine written in the "Solver", so that the contents of a cell were determined by algorithms you implemented.

I recently started seriously playing with the 82161A digital cassette drive. As I expected, it can easily load and save programs. But it can also load and save a range of registers, as well as a custom keyboard layout on the 41.

They really don't make them like this any more.

We can only hope that the rumored successor to the 32SII isn't as "improved" as the HP-12CP is.

Re: The superb HP-15C (adding to archived post)

*Message #3 Posted by **David Smith** on 15 June 2003, 4:09 p.m.,*
in response to message #2 by David Ramsey

Too bad the HP-01 does not have trig functions... you could then take the sine of the times.

Ouch! arrgh! Gag!

*Message #4 Posted by **Norm** on 17 June 2003, 4:33 a.m.,*
in response to message #3 by David Smith

The sine of the times ! Ouch! arrgh! Gag!

Well, with trigonometry on such a watch, you'd take it with you whenever you COSINE a note at the bank !! har har har

That is quite amazing, to have it do things related to math on a time-basis.

SOON I WISH TO BRING UP CALCULATOR WATCHES. There is a unit being made presently that

can be acquired on eBay. For $40 it can make U every happy. I wear mine daily. It is called Casio CA-602 . No, it is not RPN but other than that its a very sensible little package !! :o)

The seller I have bought from is "IVSHC", and you can trust him. He ships from Hong Kong. Another guy was also reliable, "loose-logic" from Japan, BUT I think he ran out.

Re: Ouch! arrgh! Gag!

*Message #5 Posted by **Michael F. Coyle** on 17 June 2003, 11:48 a.m.,*
in response to message #4 by Norm

Hi Norm,

Try not to let this thread go off on a tangent.

As for the calculator watches, secant you shall find.

- Michael

gasp! gak! blak! (thud)

*Message #6 Posted by **Norm** on 17 June 2003, 1:50 p.m.,*
in response to message #5 by Michael F. Coyle

fell over dead of a heart attack on that last one !!!

Re: The superb HP-15C (adding to archived post)

*Message #7 Posted by **Euclid** on 24 June 2003, 3:28 p.m.,*
in response to message #3 by David Smith

Time, RPN, now I get it... revolutions per.. uhhhh nanosecond!

the 9g fights back (a bit)

*Message #8 Posted by **hugh steers** on 24 June 2003, 4:19 p.m.,*
in response to message #7 by Euclid

for amusement, i decided to see if i could make the 9g do something useful. no really. and to this end; is it possible to make up for the woeful lack of numerical integration by programming it to do so.

in order to make its ability comparable to the 15c, i wanted a romberg method and for added piquancy, replicate the sampling redistribution performed which avoids evaluation at endpoints and problems arising from fixed width sampling. ideally to beat the 15c.

but does the 9g have any trousers?

originally, i wanted to supply solve and integrate subroutines. however, the 9g has so little memory, only 400 bytes for basic (can you believe it?), that it is impossible to write anything very useful. you can fit in a secant solver and simpsons rule and still have memory for your own function, but not a lot more. i have a very nice ridders solver, but it wont fit with romberg at the same time.

you can see the finished romberg method below. sampling redistribution is incorporated, so expect similar limitations to the 15c. problems mostly arise from infinite limits because the method requires limit scaling to unity then multiplies by b-a (the interval) and b-a is large, consider:

int(x*exp(-x),0,inf)==1. 9g gives 0.99999988 after 2.5 mins using 228 ~ inf. see the 15c advanced manual for this example.

all in, it ought to flatten the 15c, but its so slow that it only just beats it. im seeing something like 2 evals/sec, which is more than the 15c but then the 15c is 20 years old and has the algorithm in rom.

more cpu and memory please.

INPUT A,B,E H=2;D=0;M=0;J=1;B=B-A FOR (K=0;K<9;++K) { L=D;F=H/2-1;C=0 FOR (I=0;I<J;++I) { D=1-FF;X=((F+DF/2)*B+B)/2+A GOSUB PROG 9;C=C+DY;F=F+H;} F=4;D=M;M=(M+HC)/2 FOR (I=0;I<=K;++I) { C=N[I];N[I]=(F*M[I]-D)/(F-1);D=C;F=4F } D=M[I] IF (ABS(D-L) < 16E*ABS(D)) THEN { GOTO 1; } J=2J;H=H/2 } Lbl 1: S=3DB/4;PRINT S END

write function in prog9, for example:

Y=Xexp(-X) END

all the variables are used except for Z :-)

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15C History

*Message #1 Posted by **Ted** on 15 June 2003, 2:13 a.m.*

I believe the first release year of the 15C was 1983. Does anyone know is this is correct? Any of our HP experts out there know of interesting bugs or such from the first series versus later series in 86 etc? There's so much halfnut/fullnut history of the 41's internal development through the years; I just imagine that the Voyagers also had some kind of changes (albeit smaller ones) than the 41 did: processors, internal machine instructions, construction, etc.

Re: 15C History

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2003, 10:28 a.m.,*
in response to message #1 by Ted

Hi, Ted;

I have a few scanned images of some different Voyagers' internals, including codes for two different chipsets I found in two HP15C's.

As expected, the one showing more internal changes is the HP12C. There are four different HP12C's internals before the Chinese, 1-buttom battery version, and I have images of three of them.

I'm organizing these images and I'll let them ready to download soon. You'll be able to see the chipset codes and compare. I'm affraid I have almost nothing to say about the chips and their internal structure. All I know is based on Tony Duell's (UK) mentions. There is a "big chip", based on the HP41's "nut" chip, that contains RAM/ROM and Display Driver (R2D2 only; no C3PO) plus processing, and another smaller one that contains keyboard scanner and probably part of ROM (this is the same in all units I saw, exception made to the HP10C that I never saw inside). There is an extra small chip in the HP15C that contains extra 448 bytes RAM (64 registers) and probably ROM.

As soon as I have the images ready to download I'm posting again.

Best regards.

Luiz C. Vieira - Brazil

Edited: 15 June 2003, 10:35 a.m.

Re: 15C History

*Message #3 Posted by **Ted** on 21 June 2003, 4:28 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks Luiz, look forward to it. Am away a lot but will keep my eye open for your posting! ted

Re: 15C History

*Message #4 Posted by **Hank J.** on 21 June 2003, 5:16 a.m.,*
in response to message #1 by Ted

My 15C has a serial number of 2234A03681. If the sn code is correct, the unit was made in 1982. I often purchased these calculators when first advertised. My 16C has a S/N of 2228A08039 - also 1982 Hank

Re: 15C History

*Message #5 Posted by **Vieira, Luiz C,** on 21 June 2003, 11:38 a.m.,*
in response to message #4 by Hank J.

Hi, Hank;

about "clacssic" Voyagers, except the HP12C, there's a hint if you want to know what type of MBoard it has. If the battery compartment has an helicoidal spring for (+) pole and a small tab for (-) pole then it's a newer, one-board only. If it has two metal strips on each pole, then it's an earlier, older model, that has all chips, some passive components and the LCD built in a flex circuit in a small, separate assembly.

Just an additional information.

Luiz C. Vieira - Brazil

Edited: 21 June 2003, 5:20 p.m. after one or more responses were posted

Re: 15C History

*Message #6 Posted by **Trent Moseley** on 21 June 2003, 3:52 p.m.,*
in response to message #5 by Vieira, Luiz C,

Luiz-

Is one type to be preferred over the other?

tm

Re: 15C History

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 21 June 2003, 7:16 p.m.,*
in response to message #6 by Trent Moseley

Hi, Trent;

to be honest, from the user point of view, any of them is good. But if we consider maintenance, there are a few points to be considered:

1 - the earlier models with flex circuit allow LCD maintenance without cutting the plastic rivets;
2 - in the other hand, I'm still scared with my previous flex experience: I was not able to repair the calcualtor because the flex circuit was contaminated with battery leakage and the trails easily popped out when I tried to desolder the IC's;
3 - although the earlier models do not need their plastic rivets to be cutten in this situation, I prefer maintaining and repairing the newer, latest Voyagers mostly because their PCB is not affraid of soldering irons; I successfuly desoldered at least three times.

I know battery leakage corrodes the glue/resine that holds cooper foil over the PCB (fiberglass) as well, and cooper trails may also pop out from rigid boards, but flex circuits need specific maintenance. I'm not sure I can handle these earlier models, and I have an HP16C this type...

Best regards, Trent.

Luiz C. Vieira - Brazil

Edited: 21 June 2003, 7:27 p.m.

Re: 15C History

*Message #8 Posted by **Trent Moseley** on 22 June 2003, 1:02 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz-

Thank you so much for your knowledge. I have an older 15C which I use all the time. Believe me since it is the only one I own I will be very careful about maintenence, batteries, etc. It's twenty-one years old.

tm

Re: 15C History

*Message #9 Posted by **Patrick** on 21 June 2003, 4:19 p.m.,*
in response to message #4 by Hank J.

Interesting. I have two 15C's with the same serial number prefix: 2234A00113 and 2234A01998. As others have mentioned, the week number is only approximate and did not change each week. They probably left it on 2234 for a while!

My earliest Voyager is a 12C: 2216A05895.

What you don't hear much of is what is the *latest* serial number found on each model. Collectors all seem to concentrate on the early editions. My latest 15C is a 2809A version and my latest Voyager (not including 12C) is an HP-11C 2838A69951. You know, I really don't believe that HP made 70,000 HP-11C's that week!

Which brings up another question, could the same serial number appear on two different models, or did they uniquely identify the item over all of HP's inventory?

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fascinating... (31E, spice)

*Message #1 Posted by **Mr. Spock** on 14 June 2003, 9:00 p.m.*

Was just dismantling a 31E, and noticed that it has exactly the same number of chips as a 34C.

There are 3 smaller IC's, and a large IC.

This means that the build-cost for the cheapest and the most expensive in the spice lineup,was completely and absolutely identical.

Fascinating, absolutely fascinating. Marketeers are most illogical. Their only focus is to extract the maximum amount of money possible from each possible customer, using artificially contrived "models" in a product line to force people to make different selections based upon their limited resources.

What a primitive culture that based their manufacturing of scientific tools in this way.

Re: fascinating... (31E, spice)

*Message #2 Posted by **David Ramsey** on 14 June 2003, 9:12 p.m.,*
in response to message #1 by Mr. Spock

> Quote:
>
> Was just dismantling a 31E, and noticed that it has exactly the same number of chips as a 34C.
>
> There are 3 smaller IC's, and a large IC.
>
> This means that the build-cost for the cheapest and the most expensive in the spice lineup,was completely and absolutely identical.

Actually, no, it doesn't...unless the 4 chips used are identical to the chips in the 34C.

Re: fascinating... (31E, spice)

*Message #3 Posted by **Michel Beaulieu** on 14 June 2003, 9:13 p.m.,*
in response to message #1 by Mr. Spock

Perhaps the same to produce but not the same cost to develop and "invent" :-).

Re: fascinating... (31E, spice)

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2003, 9:20 p.m.,*
in response to message #1 by Mr. Spock

Cheers from an inferior, emotional life form, Mr. Spock;

I would humbly add these facts:

```
HP33E/C - two chips
HP37E   - four chips
HP38E/C - three chips
```

Have not seen an HP32E inside already, cannot say much about it.

Hey, does Norm know you're using his e-mail address? Are you both acquainted? Do you know Captain Zener as well?

If you allow me: Live Long and Prosper...

Luiz c. Vieira - Brazil

Re: fascinating... (31E, spice)

*Message #5 Posted by **David Smith** on 15 June 2003, 4:13 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

The number of chips in the machines is not a constant. Some later versions of the models combined two of the small chips.

Also, it can be hard to tell if a Spice CPU chip will work with a different model or a different small chip set within the same model. They do not seem to be compatible like all the Woodstock ACT chips are.

Re: fascinating... (31E, spice) (Long)

*Message #6 Posted by **bill platt** on 14 June 2003, 10:11 p.m.,*
in response to message #1 by Mr. Spock

Yes, the marketing thing.....

I think their is a name for it, something along the lines of "market insertion at all price points" or something like that.

A story from the bicycle world: The greatest mechanical parts maker in the world is from Italy: Campagnolo (OK so the Japanese have some fine stuff too, I know.....) in the good old days (up through the 80's) the only difference between some of parts in the top of the line and the 2nd and third was how many years had elapsed since the last top of the line release, e.g. a 1988 "Victory" part (3rd down the line) was identical to a 1986 "Record" (top of the line) part, whereas a "Chorus" (second) was the same as the 1987 "Record".

This feature was by no means absolutely consistent and their have always been some parts that are only in one line or another, and then sometimes there was a difference in polishing.

But also although the parts may have been the same, they were 3 years late, so amortisation of tooling etc had already been borne in large part by the first year etc.

I guess there might be a philosophical issue here, but I don't think I completely disagreee with the approach, although it can seem cheezy.....

I guess the best example of this is really in women's fashion. The price is almost *only* a matter of what the market will bear.

regards,

Bill

fashion-ating

*Message #7 Posted by **db(martinez,california)** on 14 June 2003, 10:35 p.m.,*
in response to message #6 by bill platt

So Bill; If we can convince Carly that she looks younger and thinner with a 32k 42s with i/o stuffed into each cup then we're home free.

Re: fashion-ating

*Message #8 Posted by **bill platt** on 14 June 2003, 10:44 p.m.,*
in response to message #7 by db(martinez,california)

Now, you got the picture..;-))

Re: fascinating... (31E, spice)

*Message #9 Posted by **Frank Wales** on 15 June 2003, 9:28 a.m.,*
in response to message #1 by Mr. Spock

I passed your message on to Dr McCoy, and here is what he said:

I'm a doctor, not a marketeer, but even I know that the price of something has nothing to do with the cost of making it, and everything to do with what it's worth to the buyer to have it.

Just because you green-blooded Vulcans have no concept of using design as a way of making products better, it doesn't mean we humans have to suffer the same grey, boring fate; we stopped driving identical black cars a long time ago.

If you tried some of my Romulan ale sometime, you'd see why it's good enough to be banned in three quadrants, even though it costs the same to make as some of your vile herbal tea. But I suspect it would be wasted on your unemotional heart.

(By the way, you still owe me for the last bottle of ale you said was for your mother's temperament.)

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Different bezel on new 17BIIs?

*Message #1 Posted by **Scuba Diver** on 14 June 2003, 10:36 a.m.*

Hello everyone!

I've been looking for a backup 17BII and I've noticed something; the newer units have a different bezel than the older ones...I haven't seen one up close, however the portion that's nearest the display appears to be dark brown in the newer units, whereas it was lighter in the older ones.

Does anyone know if there is a difference? Is the screen or bezel design different?

Just curious.. Thanks! B.

Re: Different bezel on new 17BIIs?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2003, 11:32 a.m.,*
in response to message #1 by Scuba Diver

Hi, Scuba;

I have a newer, Indonesian one and they have a different bezel. Also, their case AND bezel background color is black instead of brown; an ugly duck.

I'm not completely sure about it, but I suspect there are three types: some of the first "top-model" Pioneers had a protective "shield", like the one found in all Voyagers, but the newer models came without the protection and they have a recessed bezel frame around the LCD (you can actualy touch the LCD). I saw at least two HP42S with these different bezels. Also, my new HP17BII has a different bezel when compared to another earlier one I saw these days. The only source of information I have about the first HP17B (not 17BII) is the front-cover photo in my HP17B Owner's Manual, where we can clearly see it has a protection over the LCD. I am not sure if the first HP17BII had this sort of bezel.

Not much information, but I hope it helps a bit.

Luiz C. Vieira - Brazil

Edited: 14 June 2003, 11:40 a.m.

Re: Different bezel on new 17BIIs?

*Message #3 Posted by **Randy Sloyer** on 14 June 2003, 2:38 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

All 17B's had the lens in front of the LCD, all 17Bii's did not.

The original 17B was algebraic only, the 17Bii added a selectable RPN mode.

Luiz, your description of the new color scheme as an Ugly Duck is spot on. The change occurred at about

the same time as the 32Sii/20S switch from brown to black. IMO, the problem with the new black scheme is the shifted key functions are printed in a lighter color yellow rather than the older better contrasting orange. Overall, a poor color choice for a make-over. Brought to you no doubt by the same designers as the new 12CP.

Re: Different bezel on new 17BIIs?

*Message #4 Posted by **jose goncalves** on 14 June 2003, 5:54 p.m.,*
in response to message #3 by Randy Sloyer

I own 2 17BII from Indonesia. One has the old serial number scheme, brown case and keys, light brown bezel and orangeish-yellow shift key. The other one has the new serial number begining with ID, black case and keys, black bezel around the display and a light lemmon yellow shift key. On the backside, the new one has wider rubber feet on the upper part and 2 (instead of 4) wider segments of foot in the lower part. Evolution towards the end ?

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slooow 49g

*Message #1 Posted by **Eric Lundgren** on 14 June 2003, 3:50 a.m.*

I have a 49g with 'chotkeh' engineering software pre loaded but it's painfully slow, even for simple stuff. Any ideas? Is there some flag that doesn't need to be checked?

Re: slooow 49g

*Message #2 Posted by **Speck** on 16 June 2003, 10:55 p.m.,*
in response to message #1 by Eric Lundgren

Is there any way to load the ROM without the additional software? I'm not familiar with that software, so I don't know if it's a ROM modification, or added programs (i.e. could you play with the system, but still be able to get the software back?)

I suppose it could be something with a number tolerance somewhere, or it could be that the software (if add-on) is in a wrong port, taking up system resources, and needs to be moved. Surprised someone else hasn't jumped on this one. Course, it might not be enough info to diagnose. What OS is installed (what version, I mean)?

Re: slooow 49g

*Message #3 Posted by **Mark Ordal** on 17 June 2003, 5:18 p.m.,*
in response to message #1 by Eric Lundgren

It just might be that the software package in question was optimized for earlier models of RPL calculator. In my own testing, one of my programs that was highly optimized for the HP28S/48SX took 24 seconds on my 49G versus 9 seconds on my 48G. I made a version of the program optimized for the 49G and got the run time down to 11.6 seconds---still slower than my 48G but not bad.

Incidentally, the program optimized for the 49G takes 11.4 seconds to run on my 48G. So it is evidently possible to have a program that performs equally well on both the 48G and the 49G. (BTW, with my 48SX, the 49G optimized program takes 18.7 seconds while the program optimized for the 28S/48SX takes 14.8 seconds.)

My experience with HP RPL models is that the 48G is the fastest of them all (I've personally owned or tested the 28C, 28S, 48SX, 48G and 49G).

--Mark

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Re: 16C Cheap?

*Message #1 Posted by **Calckidd** on 14 June 2003, 12:23 a.m.*

I just bid too... it's mine ;-)

Re: 16C Cheap?

*Message #2 Posted by **gifron** on 16 June 2003, 5:13 p.m.,*
in response to message #1 by Calckidd

Bummer!

Re: 16C Cheap?

*Message #3 Posted by **brp** on 16 June 2003, 5:47 p.m.,*
in response to message #1 by Calckidd

You've got to watch out for CalcKidd--he wins a lot of auctions, and rarely pays much. He has been seen actively accumulating a number of HP'--recently he bought a 48- (at like $10) and he's even known to buy an HP71B or two--he got one for $55!

Evidently, the kidd knows a thing or two about auctions and how to avoid paying top dollar.

Re: 16C Cheap?

*Message #4 Posted by **gifron** on 17 June 2003, 10:41 a.m.,*
in response to message #3 by brp

I guess that's why they call him... (dramatic pause)

The Kidd.

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(long)

*Message #1 Posted by **1/3AAA** on 13 June 2003, 10:27 p.m.*

What is that meaning in title appart the message is long? is it an automatig adding tothe subject?

Re: (long)

*Message #2 Posted by **Wayne Brown** on 14 June 2003, 10:56 a.m.,*
in response to message #1 by 1/3AAA

It's added by the person who posts the message, as a courtesy to warn people with slow modem connections that it may take a while to download the page because it contains a long message.

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HP's Low-End Competition

*Message #1 Posted by **Paul Brogger** on 13 June 2003, 7:52 p.m.*

I picked up a "SPECTRA SSC-200" scientific/statistical calculator at Target down in San Diego last week -- It cost five (5) bucks in a blister pack, without a manual or instruction sheet.

Two-line screen, 27 memories, plenty of functionality, in a nice, tight little package (by today's standards). It seems to me to be at *least* as good as any equivalent currently put out by Casio, Sharp, or TI, and beats the HP-6S hands down (IMHO).

It's not RPN or programmable -- just another little rubber-button algebraic to pile on my display. But, at only five dollars, it does suggest that HP had better not bother with the low end of the market -- there *can't* be any money to be made there!

Re: HP's Low-End Competition

*Message #2 Posted by **jose goncalves** on 13 June 2003, 9:33 p.m.,*
in response to message #1 by Paul Brogger

It even has the parentheses that the HP 12CP doesn`t have!

in a world of $5 LCD sci-trig calcs,

*Message #3 Posted by **Norm** on 14 June 2003, 4:47 a.m.,*
in response to message #2 by jose goncalves

In a world of $5 LCD sci-trig calcs, if I was boss and feared how to make money with competition like that, I'd be duplicating original HP-34C's and HP-41C's and selling them for $350 apiece factory new.

And I'd spread the wealth with stock options to the employees. With a strategy like that I'd be minting more millionaires than Microsoft.

Re: in a world of $5 LCD sci-trig calcs,

*Message #4 Posted by **Gordon Dyer** on 14 June 2003, 6:28 a.m.,*
in response to message #3 by Norm

Sorry, but you would have a VERY limited low volume market!

Re: in a world of $5 LCD sci-trig calcs,

*Message #5 Posted by **bill platt** on 14 June 2003, 11:50 a.m.,*
in response to message #4 by Gordon Dyer

And you would need to raise the price by an order of magnitude in order to make the "curves" (unit cost, overhead, number of units per shift etc) work out. So then you are at $3,500 and the market is even more limited.

For comparison:

I like rowing--and so do many other people. But "sea kayaking" is much more popular. The popularity of kayaking fueled the development of very low cost rotomolded boats which cost less than $800 for a full-sized 18' (5.5 meter) boat.

By comparison, a hand=made mass produced kayak made of fiberglass, costs about $2,000.

There are probably 10,000 or even 100,000 kayaks sold for every proper rowing boat (I don't mean a small aluminum boat that is really a motor boat, but without the motor).

To build a nice high quality rowing boat that is equivalent in quality and size to the mass produced kayak, built one-off, costs between $5,000 and $7,000. A production rowing boat, built in a limited production environment, goes for about $2,000 to $3,000. So, only those persons who *really* want to row will buy one. And unless you are willing to pony up the $6,000, your selection is severly limited.

Seems like diminishing returns. I think the calculator market is similar in some respects. Look at RPN and high quality as the rowing. Compare that to two other classes--the dominant ones--scholastic calculating, and "handheld" devices (palm) and you see the comparison.

I think the best opportunity for quality RPN in the future will rest in *software* solutions for handheld devices. I have seen two such hardware devices, one a Palm OS, the other WinCE, with very good click buttons. By piggybacking on a mass-produced paltform, the quality will be better at the lower price.

Of course, emotionally, we would all rather have a nice brick with BRIGHT RED LED's....

Regards,

Bill

Re: in a world of $5 LCD sci-trig calcs,

*Message #6 Posted by **Norm** on 14 June 2003, 1:21 p.m.,*
in response to message #5 by bill platt

Bill Platt wrote:

> And you would need to raise the price by an order of magnitude in order to make the "curves" (unit cost, overhead, number of units per shift etc) work out. So then you are at $3,500 and the market is even more limited.

..... Hey Bill, I like your pricing schedule, that has a little profit margin built into it. Your right, for $350, a corporation cannot be expected to ship anything more than a couple of software CD's in a cardboard box (hold the owner's manual, that would be extra).

I mean, U gotta charge a lot these days in order to make a few nickels profit. I was wondering, can I come over to your house and wash and wax your car, and vacuum the interior? I'll do it for just $3,500 .

:o)

Re: HP's Low-End Competition

*Message #7 Posted by **Andreas Stockburger** on 14 June 2003, 1:55 p.m.,*
in response to message #1 by Paul Brogger

Hi,

Qestion: Who will use a scienific Calculator these days? My Answer: - Students: Low financial budget - Engineers: Mostly works with complex PC-Programs like Catia etc. where calculations are one function out of hundreds - Scienctists: In my opinion same as Engineers ...

Hey - Is there a market for High-Price calculators ?

Next qestion: Who will use vacuum tube amplifiers these days ? My Answer: There are *many* people who spent a lot !!! of money for high-end amplifiers!

Why ???

Why are there many people who spent a lot of money for high-end motor-bikes, high-end computers, high-end what ever ?

I think its the fun - and only the fun !!!!!

If someone builds a calculator which creates fun (I mean really fun - not rubber-key in a hp49 :-( ) I think there will be a market for high-end products !!!!!!!!

We should not search for customer who need the calculators for their work we should search for customers who needs them because of their fun (do we have the right products ????)

Andreas

Mr. Burger is right on !

*Message #8 Posted by **Norm** on 15 June 2003, 12:40 a.m.,*
in response to message #7 by Andreas Stockburger

I liked that last post, a lot !!

Right on !! Dont know why, but the MBA/CEO/marketeers are incapable of comprehending the "fun factor" of an item. Perhaps because those people themselves are no fun. Serious now, I've met a few marketeers. They've got applesauce for brains.

Look at the jukebox industry.... marketeers ruined it by hiding the record mechanism around 1965 . It was decimated after that, and then they trashed what residual of their market was left, by switching to CD's and hiding that mechanism too. Was that fun, to hide the mechanism???? NOO!!

Recreating HP classic "RED LED BRICK CALCULATORS" would be damn fun and they would sell by the millions, and all these young publik skule zombies would re-discover what math is all about.

There was a Mr. Holden browsing this board who was on the team for the original HP-35 and he told me that the marketeers were off by a factor of 1000 in their marketing..... marketeers said the HP-35 would sell like, 100 a year, they immediately got orders for 1000 calculators a week.

Recreating the original HP stuff would be no different. Would sell like wildfire. Because it would be fun .

Re: Mr. Burger is right on !

*Message #9 Posted by **Chan Tran** on 16 June 2003, 11:34 a.m.,*

in response to message #8 by Norm

Andreas is right. Just like vacuum tube amplifier to succeed in high end calculator you have make them with extremely high quality (not only performance as tube amplifiers don't outperform solid state ones but were extremely well built), sell them at a very high price and not making many of them.

Re: Mr. Burger is right on !

*Message #10 Posted by **Mike Sebastian (Texas)** on 16 June 2003, 10:57 p.m.,*
in response to message #8 by Norm

Norm, you are right about the "fun factor." A lot of consumer electronics items now come in clear or translucent cases, including many Sharp calculators. Even something as simple as a clear case adds excitement to an otherwise mediocre product.

Re: Mr. Burger is right on !

*Message #11 Posted by **Speck** on 16 June 2003, 11:05 p.m.,*
in response to message #8 by Norm

In many ways, I'd have to agree. People tend to be drawn to what they like, and not what's best for them. Personal choice. Speaking of which, personally, I always thought something like a 48GX, or some other graphic calc) with a VFD (Vacuum Fluorescent Display, like they use on stereo equipment, for those unfamiliar with the term) would be a lot of "fun." Combined with glow paint on the keys, and it would be a hell of a lot easier to follow along when college profs turned out the lights to use an overhead display.

So it would use a bit more power. That's just incentive to show up early and pick a spot closest to the only outlet in the room! :)

Speck.

Re: Hmmmm . . . Vacuum Tubes . . . . .

*Message #12 Posted by **Paul Brogger** on 16 June 2003, 12:25 p.m.,*
in response to message #7 by Andreas Stockburger

So, the solution is: build vacuum tube calculators!

No,

*Message #13 Posted by **Norm** on 16 June 2003, 2:41 p.m.,*
in response to message #12 by Paul Brogger

No, build a few high-end stereo amplifiers from vacuum tubes and sell them at high prices.

For the calculators use red led's and silicon chips and sell those at high prices. Sell them factory new.

Re: Hmmmm . . . Vacuum Tubes . . . . .

*Message #14 Posted by **bill platt** on 16 June 2003, 3:01 p.m.,*
in response to message #12 by Paul Brogger

Actually, why not?

And why not a wooden keyboard and chassis, with mother of pearl keys?

I was at a maritime music festival this weekend and my young son was so happy to see really good musicians playing his favorite instruments: the accordion and the concertina. We took a close look at some of them and they were really beautiful works of art--and of course the "feel" of the keys is really important, especially as the musician will play her instrument for many hours at a time.

A real calculator *afficiando* will also use his calculator incessantly--and so, the expense, beauty, and feel of a honduran mahogany calculator with ivory-inlaid ironwood keys and vacuum tube circuitry, RED LED's and genuine African Alligator skin case are well justified.

U forgot the solid gold feet

*Message #15 Posted by **Norm** on 16 June 2003, 11:14 p.m.,*
in response to message #14 by bill platt

U forgot the solid gold feet,

each one shaped like a little pointy pyramid, to cut down on material resonances.

Re: Hmmmm . . . Vacuum Tubes . . . . .

*Message #16 Posted by **David Smith** on 18 June 2003, 5:52 p.m.,*
in response to message #14 by bill platt

I have a friend who is a silversmith/goldsmith/jeweler/artisan par excellence. She has made several gold/silver/jeweled cases for various (very famous) hoity toity rich types palm pilots/cell phones/laptops/blackberrys. You too can have a $1500 Vaio in a $100,000 case. Last I heard, waiting list was 5+ years.

Re: Hmmmm . . . Vacuum Tubes . . . . .

*Message #17 Posted by **bill platt** on 18 June 2003, 6:06 p.m.,*
in response to message #16 by David Smith

You are certaily not joking, as truth is stranger than fiction!

Re: Hmmmm . . . Vacuum Tubes . . . . .

*Message #18 Posted by **David Smith** on 20 June 2003, 5:20 p.m.,*
in response to message #17 by bill platt

Nope, I'm quite serious. Once you come up on the waiting list you need to choose what current technology you want customized... by then your Vaio will be at the Goodwill for $20. You want diamonds, rubys, emeralds, pearls, etc on your platinum cased techno toy... no problemo... just send money... and LOTS of it.

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have info on new CPU in HP12C Platinum...

*Message #1 Posted by **Bill Wiese** on 13 June 2003, 2:32 p.m.*

The 6502 Lives!!

The SPLB20D2 CPU mentioned in the MSNBC article (there's a link in a forum entry a dozen or so lines below this) is in fact a Sunplus CPU - they call it an LCD controller for data bank.

See this chip & related ones at

http://w3.sunplus.com.tw/products/lcdcontroller/splb.htm

While these data sheets give the specifications for hardware, I/O and memory layout they don't indicate overall CPU architecture other than calling it an "8-bit RISC processor". There's another document around somewhere else that'll go into register layout, opcodes, etc.

From prior searches about Sunplus, I'm pretty sure this is a 6502-based CPU. (Their other low-end 8bit CPU is an 8051, but I think this just shows up as a core in other special function ASIC products like their camera/imaging/speech chips.) A brief look indicates it has 32KB ROM and ?? RAM (I believe this is purchaser-selectable, since RAM takes up a fair bit of die area and thus affects the cost.)

The memory map indicates some vectors in the $FFF0 region, which is consistent w/6502 architecture. (A standard 6502 has 2-byte vector entries for /RST, /IRQ and /NMI in the upper 6 bytes of its 64KB addr space. Peripherals may add some extra interrupt vectors to this design.)

I am not yet sure if this is a plain 6502 instruction set or a improved 65C02 instruction set - or some crazy mix of the two.

This looks to be a ROM'd chip - as opposed to flash or EPROM - and there may not be a way to dump/verify ROM data for reverse engineering.

There is a good chance that much of the HP12C-Plat ROM code is written in C not assembly - making reverse engineering harder. (It can be easier to figure what another engineer does, except when he gets real 'tricky', than to guess what a compiler does.)

In a perfect world, if this were in a PLCC package like orig 12C and there were spare lines for address & data we could just clamp on an EPROM on top, put the chip into emulation mode and have fun. Guess not.

When I know more I will let y'all know... maybe there's room for hacking...

Hope so, as I love the 6502. Been a long time since my Commodore 64 days!

Bill Wiese San Jose, CA bill[at]bwiese[dot]org

Some More SPLB20D Information (long)

*Message #2 Posted by **Michael F. Coyle** on 13 June 2003, 9:26 p.m.,*

in response to message #1 by Bill Wiese

Hi Bill,

Thanks for pointing out Sunplus. What follows is a combination of things I found on the Web site plus some guesswork on my part.

Yes, the CPU is a 6502 of some sort, but no hint as to whether it has any extra instructions. They call their 6502 core the "CPU14B." According to their FAQ for another product,

> Quote:
>
> The SPL61A/191A CPU is an 8-bit Full Instruction Set microprocessor. It includes 151 instructions with Y Index Register. The ICE environment must be upgraded to v.5.7 instead of ICE v5.1. Note that the ICE command, "CPU F6502", must be applied on ICE command line for Full Instruction Set.

The SPLB20D has 32K ROM, and three areas of RAM: 128 bytes CPU RAM ($80-$FF), 64 bytes display RAM ($00-$3F) and 2K data RAM ($1000-$17FF). I notice that none of the memory is mapped to the 6502 stack area ($01xx); the data sheet shows this area as "Reserved."

There is a Test pin. I suspect it generates an interrupt on one of the three reserved vectors in high memory ($FFF2-$FFF7). The bottom 2K of ROM is reserved by Sunplus for a test program.

The amount of RAM on the chip is probably not customer-selected as you state, but different members of the family have various amounts of ROM and RAM so the customer will pick the appropriate device after he knows how much memory he'll need.

It looks as if there's an emulation board with EPROM for testing. No other details are given.

I think we're out of luck as far as dumping ROM is concerned. The Sunplus test program might include that function but there's no way to know. There is one other possibility though. It might be possible to dissolve the glop covering the chip, photograph the ROM and get the bits from there. Peter Monta did this with the HP-35 ROMs so it's at least possible.

If anyone can find out anything else about this chip or the 12Cp, I'd like to hear about it.

- Michael

Re: Some More SPLB20D Information (long)

*Message #3 Posted by **Bill Wiese** on 13 June 2003, 10:48 p.m.,*
in response to message #2 by Michael F. Coyle

Michael..Hi Bill,

> Yes, the CPU is a 6502 of some sort, but no hint as to > whether it has any extra instructions. They call their > 6502 core the "CPU14B."

If it has bit set/clr operations it's a 65C02. There's prob a few extra addressing modes for a few instructions in the 65C02 not in 6502. Don't think there's any new addressing modes though. If not it's a plain ol' 6502.

I wonder if they still have the original Rockwell JMP bug (IIRC, JMP instruction crossing page boundary doesn't increment the PC's MSB. Thus orig 6502 assemblers had to check for this and pad with NOPs).

> SPL61A/191A CPU is an 8-bit Full Instruction Set > microprocessor. It includes 151 instructions with > Y Index Register.

The 151 sounds like 6502 - all valid operations with all valid addressing modes. The "..with Y index register" worries me but it just could be Chinese phrasing: a normal 6502 has both X and Y index registers.

> Note that the ICE command, "CPU F6502", must be > applied on ICE command line for Full Instruction Set.

Now that I vaguely remember, these may be the guys offering a skinny 6502 that has only an X register and few addressing modes. So it sounds like this is a std 6502.

> There is a Test pin. I suspect it generates an interrupt > on one of the three reserved vectors in high memory > ($FFF2-$FFF7).

Hmmm. Maybe this is an old design without JTAG scan test. Wonder if the test pin is just held Hi or Lo or if you can shift stuff in and read stuff back. JTAG scan tests can drive logic with test sequences. Sometimes on CPUs instructions can be shifted in - might be a way of peeking at ROM using an LDA $addr opcode/operand shifted in.

I once wrote a flash EPROM burning routine so a 'naked' (i.e., no bootcode) oddball CPU could burn its own flash by shifting in instructions over JTAG port. Since P/ROM was mapped out, you only had an address space depth of one, so you couldn't branch anywhere. Just loads & stores.

> bottom 2K of ROM is reserved by Sunplus for a > test program.

Interesting. With JTAG that really shouldn't be necessary. JTAG can excercise more of the die than any program code can.

> SPLB20D has 32K ROM, and three areas of RAM: 128 bytes > CPU RAM ($80-$FF), 64 bytes display RAM ($00-$3F) and > 2K data RAM ($1000-$17FF). I notice that none of the > memory is mapped to the 6502 stack area ($01xx); > the data sheet shows this area as "Reserved."... > ... amt of RAM on the chip is probably not customer- > selected as you state, but different members of the > family have various amounts of ROM and RAM so the > customer will pick the appropriate device after he > knows how much memory he'll need.

OK so these are separate RAM sections. From the way I (quickly) looked at the diagram there might have been 3 flavors w/3 differing RAM amounts. Guess not, just different areas.

On pg 5 of 13 on the Sunplus LB20DV12.PDF document I see that "CPU working SRAM" is from $80-$FF so that must be the stack. They put the I/O registers and LCD buffer all below $100 so as to take advantage of 6502's more efficient zero-page addressing opcodes.

> It looks as if there's an emulation board with EPROM > for testing. No other details are given.

That prob means they have a 'bond out' chip. Everything's mapped the same but there are extra pads for external addr/data bus. Perhaps this die could be bonded out...

> I think we're out of luck as far as dumping ROM is > concerned. The Sunplus test program might include > that function but there's no way to know.

Yes. If we found out more about the Test pin that might be useful.

> one other possibility though. It might be possible > to dissolve the glop covering the chip, photograph > the ROM and get the bits from there. Peter Monta > did this with the HP-35 ROMs so it's at least possible.

Yes. However this is likely a much smaller geometry chip than the HP35. What was that, 10+ microns? This is prob something around a .75 or .90 micron process. So might be hard to photomicrograph well without blowing away the glass passivation layer. Even then detecting 1s from 0s may take a bit of effort. Bit/byte addressing may be scrambled/interleaved too so that's another puzzle to solve.

Bill Wiese San Jose, CA bill[at]bwiese[dot]org

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Nimh N-cells

*Message #1 Posted by **41Jeff** on 13 June 2003, 10:44 a.m.*

I am using an Hp41 with card reader and would like to use 360 mah Nimh cells. Does anyone know how I might charge these cells? I have an AA Nicad/Nimh charger from Radio Shack but I think an adapter would be required to charge N cells.

Re: Nimh N-cells

*Message #2 Posted by **David Smith** on 14 June 2003, 2:26 p.m.,*
in response to message #1 by 41Jeff

There are adapters made for charging the N cells in a AA slot. I beleive that Radio Shack has them in their catalog (or did at one time). They are basically just a spring loaded space filler. Should not be hard to cobble up something that would work... even a short piece of metal rod should be fine.

Re: Nimh N-cells

*Message #3 Posted by **Michael Sprenger** on 16 June 2003, 11:30 a.m.,*
in response to message #2 by David Smith

Radio Shack has an N cell holder to adapt N cells to AA size charger ports: catalog #270-405.

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CPU of HP 12 C Platinum

*Message #1 Posted by **Luc Chanh Truong** on 13 June 2003, 4:38 a.m.*

Hi every body, please follow this link http://www.msnbc.com/news/918886.asp?0cv=CB20 there are some informations regarding on processor of HP 12C Platinum (H-P SPLB20D2). Please discuss more HP 12C Platinum. Thanks

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HP41 barcode Wand

*Message #1 Posted by **Meindert Kuipers** on 13 June 2003, 3:56 a.m.*

I have been looking for a barcode reader on Ebay, but these are pretty rare and expensive. The wand is mainly meant to prevent typing in a whole lotta code and then transfer it to my PC for more permanent storage. Has anyone ever come up with the idea (and solution) for scanning barcode with a flatbed scanner and making a (PC-based) program to read the barcode straight into the PC?

Meindert

HP41 barcode: Another issue

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 9:46 a.m.,*
in response to message #1 by Meindert Kuipers

Hello, Meindert;

your idea brought another one to my head: why not using commercialy available barcode readers and then create a custom HP41 decoder (or coder)? Aligning the original image, scanning it, reducing image errors and the like would also be fast and SW demanding; I think current PC-based wands and related drivers/software may generate a stream file with a sequence of bytes from the HP41 barcodes. A single program would break the line into bytes and combine them to form an HP41 valid sequence.

What do you think? You'll need more time to read the barcodes (to wand them) but obtaining final listing without much errors is easier. I used to scan program hardcopies and unse an OCR to retrieve ASCII data. In some cases, when original hardcopy had enough contrast and darker printing, a few instructions needed to be corrected. In some cases, with old paper with few contrast and failing characters, keyining in the program was easier. After that, 41UC could generate any equivalent, even .PS barcodes.

Hope this adds a bit to yout original and very good idea.

Best regards.

Luiz C. Vieira - Brazil

Re: HP41 barcode: Another issue

*Message #3 Posted by **Andrés C. Rodríguez (Argentina)** on 13 June 2003, 5:51 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz: I think that the coding used by the HP41 does not respond to any of the usual "symbologies" read by commercial wands or barcode scanners of today. If the decoding is done in the scanner, and just serial (decoded)data is passed to the host, there is little chance we can go farther with this approach. If the scanner has a "raw" mode which senses and send upstream just the transitions, then a software piece could take care of them...

Just my 0.5 cents

Re: HP41 barcode: Another issue

*Message #4 Posted by **Johnny Billquist** on 14 June 2003, 3:45 a.m.,*
in response to message #3 by Andrés C. Rodríguez (Argentina)

You are correct, Andrés. The 41 barcode use a coding I've not seen anywhere else. It's a rather simple coding, though. The 41 only uses the black bars, which are either narrow or wide, to represent 0 and 1. Most barcodes use both the bars and the gaps between bars.

I have a book that fully describes the 41 barcode format.

Re: HP41 barcode: Another issue

*Message #5 Posted by **Hans Brueggemann [GER]** on 14 June 2003, 3:52 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

really nice idea. however,i think it's really easier to take a cheap flatbed scanner instead of an industrial wand, because nowadays even new scanners cost only around $40 AND come with a twain interface. i am close to finishing version 2.0 of my HPILCOM (a small piece of software that faciliates data transfer to/fro a PC and a HP-41C and is solely controlled by the 41). i'll be digging into it to find out whether this feature can be implemented into the program.

cheers, hans

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32sII numeric integration

*Message #1 Posted by **Eric Lundgren** on 13 June 2003, 2:27 a.m.*

Does anyone have experience setting up numerical integration on the 32sII? Also, are there sites devoted to this particular machine? Should I buy one of the few remaining 48gx's at my local Fry's before rpn is gone for ever?

Eric

Re: 32sII numeric integration

*Message #2 Posted by **Axel Bodemann** on 13 June 2003, 3:34 a.m.,*
in response to message #1 by Eric Lundgren

Hello,

numerical integration is pretty simple with the 32sii:

- define your integrand in the equation writer (r-shift STO) using A...Z as integration variable - put your limits in the x and y register - push the integrate key (r-shift 8), you will be ask for the integration variable (and the other variables if available)

-> numerical precision (and integration time) depend on the display format (number of digits) -> error estimation (conservative) in the y-register

Regards Axel

PS: of course, you can use numerical integration within programs

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LOVE THIS FORUM!

*Message #1 Posted by **Trent Moseley** on 13 June 2003, 12:24 a.m.*

Between the HP-67 mystery cable and the width of the 16C display, who wants to watch TV!

tm

Re: LOVE THIS FORUM!

*Message #2 Posted by **Ernie Malaga** on 13 June 2003, 1:10 a.m.,*
in response to message #1 by Trent Moseley

Just wait until some smart aleck from this forum finds out how to connect a DVD to a 48GX...

-Ernie

And you can even...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 9:50 a.m.,*
in response to message #1 by Trent Moseley

... improve your English skills, mostly when your mother tong is not English. It's e-traveling around the world without leaving home.

In fact, there are so many issues going around here... I guess neither Dave thouhgt how thoughtfull would be people contributing in here.

Count on my support!

Luiz C. Vieira - Brazil

Re: And you can even...

*Message #4 Posted by **Valentin Albillo** on 13 June 2003, 10:09 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz Posted:

"... improve your English skills, mostly when your mother tong is not English."

It's "tongue", not "tong" :-)

"I guess neither Dave thouhgt how thoughtfull would be people contributing in here."

It's "thought", not "thouhgt", and "thoughtful", not "thoughtfull" :-) :-)

Very best regards and enjoy the weekend !

See what I mean?

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 4:56 p.m.,*
in response to message #4 by Valentin Albillo

Thanks, Valentin;

I did not use the spell-checker (Portuguese has a lot of tricky words I already must remember...), so "thouhgt and "thoughtfull" are... "forgiveless";) But tong instead of tongue was really a shame...

We learn here in any way. No excuses.

Luiz C. Vieira - Brazil

Re: See what I mean?

*Message #6 Posted by **Trent Moseley** on 14 June 2003, 12:37 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Luiz,

All of us who love this Forum can use American slang once in awhile and say "ain't it grand!".

tm

Re: See what I mean?

*Message #7 Posted by **Trent Moseley** on 14 June 2003, 12:49 a.m.,*
in response to message #6 by Trent Moseley

Luiz,

What I ment to say was don't worry to much about your grammar. Your postings to this Forum are a joy to read!

tm

Thanks!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2003, 9:35 a.m.,*
in response to message #7 by Trent Moseley

Hi, Trent!

Thank you for your appreciation.

I'm always compelled to wtrite and post here. And you know what? It's been a long, long time that this formu has no unpleasant visitor. For the last months I cannot remember reading even one bad post; all of the ones I read are completely in accordance with MoHPC forum's statements.

For as long as someone likes to read, I'll keep writing and posting :)

Best regards, Trent.

Luiz C. Vieira - Brazil

Re: Not watching TV??? Haven't you heard of TCC?

*Message #9 Posted by **Paul Brogger** on 13 June 2003, 11:36 a.m.,*
in response to message #1 by Trent Moseley

"The Calculator Channel" on GCN ("Geek Cable Network").

;^)

American English

*Message #10 Posted by **Scuba Diver** on 14 June 2003, 8:15 a.m.,*
in response to message #9 by Paul Brogger

I've been trying to find a way to "try out" some of my American slang on the forum, but I haven't found a way yet to integrate "y'all come back now" and "where you at" in the same post!

:) B.

You just did it!

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2003, 9:27 a.m.,*
in response to message #10 by Scuba Diver

Congrats 8^)

Luiz C. Vieira - Brazil

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test
*Message #1 Posted by **1/3AAA** on 12 June 2003, 11:03 p.m.*

Link to Museum

bold]bold text[/bold] produces bold text *italic text* produces italic text underlined text produces underlined text ^{text} produces text $_{text}$ produces text text produces text text produces text

> Quote:
>
> Some text you are quoting

head]Headings[/head

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41CV corrosion puzzle

*Message #1 Posted by **bill platt** on 12 June 2003, 10:58 p.m.*

To any 41 repair experts:

I recently bought a 41CV (Fullnut) which, other than the battery terminals, is in really beautiful condition. And it has a set of manuals etc.

I got a decent price on account of the terminals, but here is the problem:

After surface cleaning of the negative contact (left side, looking from the back towards the front), the unit would not turn on. even with a little ball of wire smooshed into the contact, no power.

So I carefully took apart the (Fullnut) calculator, and saw that the corrosion had leached down the contact, and dirtied the contact at the printed circuit board. So, I carefully cleaned all the parts that had to touch, using a q-tip and a bit of alchohol. After drying the unit and reassembling, I put the little ball of wire in the negative contact, installed the batteries, and Voila!--it worked!

Unfortunately, after a blissful 10 days or so, she (the calculator, like a boat, is a vessel) locked up--with numbers in the dispay, she would not turn off or respond. So I took the batteries out. A few days later, I opened her up, re-cleaned her, and with more wire, put the batteries in, but the instant the batteries made contact, she let out this horrendous piezo squeek, and the display filled up with segments. Again, no keystroke response.

I am afraid for the worst, but I hope for the best. I took some pictures, but am not sure how to get them up on this site. I read a really great article (on MOHPC i think) about soldering a new terminal on. I suppose I could go for it--but I wonder if I have already "fried" the guts with my impetuous first repair.

regards,

Bill

Re: 41CV corrosion-ADDENDUM

*Message #2 Posted by **bill platt** on 12 June 2003, 11:20 p.m.,*
in response to message #1 by bill platt

I just found two other facts which must be important.

1. one of the screw posts at the bottom of the calculator is cracked through (did I do that when re-assembling? !!)

2. there is very light but noticeable green corrosion visible on the contacts that are in way of the lower screw posts.

I also have a piece of plastic that fell out just now, that I can't for the life of me figure out from whence it came. It is 2.75" (69.9mm) by 1/8" (3.2mm) x 5/32" (4 mm)and shaped like a very long angle iron with caps on each end.

I have pics of this stuff, too, but again, don't know about posting (method, bandwidth, etc.).

a note for Luiz--see, I did need help with a calculator fix-it job--thanks again for your suggestion--but I saved up for a "good one" instead of the lowly 48G--though that will surely come around to the bench, too!

-Bill Platt

Re: 41CV corrosion-ADDENDUM

*Message #3 Posted by **gifron** on 13 June 2003, 2:02 a.m.,*
in response to message #2 by bill platt

In my recent "41CV Gone Wild," I had a similar problem, in that the display filled up, and the keyboard did not respond - Had to remove the batteries to turn it off.

The problem was a slightly cracked post. Per help received here, I fixed the post using Tenax "model adhesive"/solvent from Hobby Town (this is great stuff, by the way). Just drop a little in the crack and squeeze the crack closed for a few seconds, and it's a done deal. Some have suggested using small wire to wrap the post while the adhesive cures, but there's not time. The Tenax bond is complete within about ten seconds, so I just used a pair of needle-nosed pliers to squeeze the crack closed, and then held it for about 20 seconds (10 recommended, plus 10 for good measure). You have to work fast though, as the Tenax evaporates faster than you can say "Jack Sprat."

Hope this helps.

Can't help with the corrosion though.

Re: 41CV corrosion-ADDENDUM

*Message #4 Posted by **David Smith** on 13 June 2003, 4:34 p.m.,*
in response to message #3 by gifron

Although the Tenax appears to evaporate and set quickly this is just the surface material. You should wait 24 hours before reassembling. This gives time for the solvent locked up within the bond time to evaporate and gives the joint maximum strength.

Re: 41CV corrosion puzzle

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 12 June 2003, 11:33 p.m.,*
in response to message #1 by bill platt

Hi, Bill;

gimme a few minutes and I'll find the pictures I need to compose a complete answer, O.K.?

I'll add a new post after this one with a new tittle soon.

Best regards.

Luiz C. Vieira - Brazil

Small plastic piece and broken post rebuilding...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 12:17 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hi, Bill;

With the calculator opened, look at the LCD (top). There is a small gap between the LCD assy and the calculator's case. It's where the small plastic piece fits in. Look at the picture bellow and you'll have a better idea.

http://www.logeng.com.br/images/lcd_hp41.jpg

About calculator's complete malfunction, you wrote:

> Quote:
>
> 1. one of the screw posts at the bottom of the calculator is cracked through (did I do that when re-assembling?!!)
> 2. there is very light but noticeable green corrosion visible on the contacts that are in way of the lower screw posts.

These are reasons enough to freeze calculator's keyboard and allow the "horrendous piezo squeek" come to life. I'll find other images, but for now you might want to have a look in a zebra connector (two spare pieces or an assy) between the small mainboard and the keyboard. You should also carefully clean them, but do it only after being sure you can repair the broken post so it can hold both case halves together.

I replaced some broken posts with styrene plastic "custom" posts. Tis styrene is the same one used in plastic models (Revell, Tamiya, etc.). Some are too weak and canot hold a screw thread, while others are hard enough to hold it AND the screw inside.

This sort of repair procedure demands removing the keyboard and the keys, so you should be able to settle a new post without gluing keys or damaging the keyboard. I took some shots when doing it, but almost all photos were out of focus.

The images below show the final stages of the process, when the "new" post is placed with glue to "dry out", and later when a small hole (guide) is drilled by hand. What's the name in English of the tool used to keep the parts together? I know it's not wrench, but this is the name that comes to my mind...

http://www.logeng.com.br/images/post_reblt_10.jpg http://www.logeng.com.br/images/post_reblt_14.jpg

Hope these help, too.

If you need more advice (I know these are not enough) let us know.

Good luck and success.

Luiz C. Vieira - Brazil

Edited: 13 June 2003, 1:52 a.m.

Re: Small plastic piece and broken post rebuilding...

*Message #7 Posted by **Wayne Brown** on 13 June 2003, 7:43 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

> Quote:
>
> What's the name in English of the tool used to keep the parts together? I know it's not wrench, but this is the name that comes to my mind...

Quote:

The word you want is "vise." Great pictures!

Re: Small plastic piece and broken post rebuilding...

*Message #8 Posted by **Frank Wales** on 13 June 2003, 9:29 a.m.,*
in response to message #7 by Wayne Brown

Actually, just to confuse the non-native English speakers around here, I'll point out that 'vise' is the American English spelling; in British English, it's spelled 'vice'.

(Except when it's spelled 'clamp', of course.)

Re: Small plastic piece and broken post rebuilding...

*Message #9 Posted by **Massimo Gnerucci** on 13 June 2003, 11:34 a.m.,*
in response to message #8 by Frank Wales

Quote:

Actually, just to confuse the non-native English speakers around here, I'll point out that 'vise' is the American English spelling; in British English, it's spelled 'vice'

That's not the British English spelling, it rather is the Miami slang... ;-)

Re: Small plastic piece and broken post rebuilding...

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 12:17 p.m.,*
in response to message #9 by Massimo Gnerucci

I thought I should not mention "Miami Vice", but.... :)

Re: Small plastic piece and broken post rebuilding...

*Message #11 Posted by **David Smith** on 13 June 2003, 4:35 p.m.,*
in response to message #8 by Frank Wales

I really liked that old cops and druggies TV show... Miami Clamp...

Thank you both...

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 9:53 a.m.,*
in response to message #7 by Wayne Brown

Hey Wayne, Frank;

thank you both.

About pictures, I'm taking a few time to draw what could not be shown by the original images (the others are pretty worst than these) and I'm thinking about to write an article. What do you think?

Best regards.

Luiz C. vieira - Brazil

Edited: 13 June 2003, 9:55 a.m.

Re: Thank you both...

*Message #13 Posted by **Meindert Kuipers** on 13 June 2003, 1:58 p.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

Luiz,

You HAVE to make a website with all your great pictures and procedures!

Meindert

That's a call I can't decline to attend!

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 5:06 p.m.,*
in response to message #13 by Meindert Kuipers

Hello Meindert, guys;

as it comes from you, Meindert, and I'd say the same if these words came from some other giants in here, I cannot decline to do. Your site and your work are kind of a reference, a model to all of us. In fact I thought about doing something about this, so I can share what I think that is useful. But it MUST be something I'm proud to show. For now, I can only store these images and post messages, maybe a few articles.

Anyway, I'll start the engines and start the tour for building some HTML and trying a few "looks". As I have something to show, I'm posting about it.

Thank you for the encouragement. I'm flattered.

Luiz C. Vieira - Brazil

Edited: 14 June 2003, 11:43 a.m.

Re: Thank you both...

*Message #15 Posted by **Wayne Brown** on 14 June 2003, 11:18 a.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

You're welcome, Luiz. I think an article is a great idea. Most people who deal with the 41 models are likely to run into the cracked-post problem sooner or later, and this would be a big help.

Re: 41CV corrosion puzzle

*Message #16 Posted by **bill platt** on 13 June 2003, 5:00 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Luiz et al,

Thanks for your help so far! I also went back and looked around a bit in the early May post about the "41 Gone Wild" and there are some distinct similarities to my situation. In fact I remember reading either there or somewhere else about how importatnt it is to avoid over-tightening the screw, as it can crack the post, and so I *thought* I was careful--but not enough!

So far all the comments seem good news--I haven't heard any ideas of the unit having been automatically "fried" from having corrosion.

Your pictures are very helpful---I need to upload mine so that you can see them, too.

I had not thought of the LCD being a potential problem, but I will look at those connections, too.

Regarding the broken screw post: mine is cracked right off--right at the plane of the PCB for the brain. I will try to glue it back on, and hope it holds.

Somebody posted some weeks ago about actually replacing the contacts with soldered connections. I am not only mystified by the thought of doing that, but also I do not understand how the contacts work. I don't see any insulators on the intermediate part (the part that looks like two long coils, or two combs).

I guess I better post my pictures to explain (in my work, I deal with drawings and sketches as much as I do with numbers and words, so I always want to make a picture..:-)

Best regards,

Bill

P.S. I haven't had this much fun communicating since I first got my HAM radio license and made contacts all over the world with a tiny little transmitter.....

Re: 41CV corrosion puzzle

*Message #17 Posted by **Ed Martin** on 13 June 2003, 11:00 p.m.,*
in response to message #16 by bill platt

Bill,

I would advise against trying to solder permanent wires between the main board and CPU board. I tried it and failed. I'm not saying it can't be done, but it's tricky business and very hard to do well without oversoldering or actually desoldering the traces from the main board.

The zebra connector consists of a bunch of tiny "loops" that connect the main board to the CPU board. They are all isolated from each other, and typically more than one will make contact to each pad on the board. However, because they are isolated from each other, they won't short across to the wrong pad.

I suspect your display problems and squeaky piezo are the result of a bad zebra connection, which is in turn due to lack of sufficient compression because of the broken post. That connection is particularly fussy in fullnuts.

My advice is to clean all contacts and remove any corrosion using isopropyl alcohol, then repair the post as advised in an earlier post (I couldn't avoid using the word "post" twice ... err ... three times). Replace the small plastic LCD support as advised in Luiz's post, reassemble, and good luck.

On another note, I think Luiz's idea to contribute an HP-41 repair guide would be an excellent addition to the Forum. The 41 is a great calculator, and very durable, but it does have some very specific weaknesses, many of which can be quickly diagnosed based on the symptoms. If Dr. Vieira provided us with the appropriate medical texts, we could maintain our machines in better health !

- Ed

Re: 41CV corrosion puzzle

*Message #18 Posted by **Randy Sloyer** on 13 June 2003, 9:23 a.m.,*
in response to message #1 by bill platt

While the green heebie-jeebies under the logic board area are enough to cause the problem, check/resolder/clean the LCD module connections. Check for green fuzz growing there as well. They have to be pristine with no flux or fuzz.

This is another common cause of @@@@@@@@@@@@ displays.

41CV corrosion update

*Message #19 Posted by **bill platt** on 15 June 2003, 11:11 a.m.,*
in response to message #1 by bill platt

To all who have posted,

Thanks much for the advice! I have now gone through round two of the repair. For a brief moment, I thought I might have the repair successfully completed, but alas some more thinking is required.

So, here's how it went. I carefully removed the connection between the board and the keyboard, and cleaned the green gunk off. Then, I thought it would be best to test the contacts before fixing the post, and so I re-asembled and merely squeezed the system back together. And for a brief second or so, I had a happy "memory clear" message, but then it is hard to hold it together.

So at this point I was fairly confident that merely applying some plastic model cement to the cracked off post and reasemblig, and clamping externally, would do the trick. But it did not work.

I did not use Tenax--rather, I used "Testor's".

I tried to do more dry fits, but had no "memory clear" messages.

So, two issues to be explored, next>:

1. Try Tenax this time (have to find some)

2. Figure out how critical the alignment has to be. It seems that the alignment has to be very precise.

3. NOTE: I do not have a merely cracked poset; rather, the post is broken right of at its root.

To Luiz: thanks for the photos of the repair you did. Have you ever had a completely broken of post, or just a cracked one? How would you test the alignment is right? I don't want to glue it back together in a permanently non-workable alignment.

Best regards,

Bill

A brief drawing... (edited)

*Message #20 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2003, 4:12 p.m.,*
in response to message #19 by bill platt

Hello, Bill;

I'm glad you made it!

The "MEMORY LOST" is the best sign that everything is fine. There is a small, tiny chance of failure, but let's first check the post.

http://www.logeng.com.br/images/post_reblt_01.jpg

This is what I need to rebuild a post. Small screwdrivers (jewelers type), drill, cutter, glue (not shown), the "clamp" and a small plastic tube, a piece of styrene found in plastic models. The small black plastic piece at the right side of the cahlcualtor's case is the piece I used to build the missing post in this HP41 (down, right). I also rebuilt two posts with a similar technique in my 82143A, but I had to use small, custom metal "gloves" to hold the plastic tube in place. Look at the drawing below.

http://www.logeng.com.br/images/post_drwng_.jpg

1 - Representation of a "sane" post
2 - an "X-ray" view sowing where the screw fits (no thread, sorry...)
3 - this is how would it look a base remaining from a broken post, say, completely removed; in this case...
4 - I homogenize the surface and drill a hole a bit larger, so I can build...
5 - a new post that fits in the hole...
6 - like this.
7 - After placed (with the glue of your choice), you should drill a new hole that is enough to allow a hew thread when using a screw for the first time.
8 - An X-ray view of the final settling.

About alignment: after settling the new post and before drilling the hole for the screw, put both halves of the calculator's case together and you'll be able to "mark" the precise location of the screw by using it's own hole on the back case. I cannot see a better and faster way, unless you have precision instruments that allow you to precisely locate the place for drilling.

I hope this helps. Success!

Luiz C. Vieira - Brazil

Edited: 15 June 2003, 4:40 p.m.

Brief drawing... addendum

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2003, 8:32 p.m.,*
in response to message #20 by Vieira, Luiz C. (Brazil)

Hi;

I recovered this image, where two rebuilt posts are shown in the same HP41 case, the ones in the bottom that you can easily see (the ones that go in the top are in the shadow and out of focus). You can see they don't have a regular surface, they are not "pretty" well finished, but they can hold the case. This HP41CV is perfectly fine.

http://www.logeng.com.br/images/post_reblt_13.jpg

The remaining small plastic and the cutter (what's the actual name for this sort of knife, please?) are also shown.

I think this is all I have for now. The remainign data is about measurements, but I cannot find a precise meter.

Let me know if there is anything else I should have posted here.

Thanks.

Luiz C. Vieira - Brazil

Re: Brief drawing... addendum

*Message #22 Posted by **bill platt** on 17 June 2003, 9:12 a.m.,*
in response to message #21 by Vieira, Luiz C. (Brazil)

Luiz,

Thanks for your posts! What sort of "glue" are you using---(glue or is it a solvent type cement). Does the regular plastic modelling glue such as "Testor's" work for you? Another person mentioned "Tenax" which I am not familiar with.

I tried "Testor's" but it wasn't the regular stuff in a tube--it was like a felt tip pen. Perhaps the thicker stuff in the tube will work?

Re: Brief drawing... addendum

*Message #23 Posted by **Randy Sloyer** on 17 June 2003, 10:25 a.m.,*
in response to message #22 by bill platt

Heed David Smith's advice on solvent cements in his previous post int this thread, he knows of where he speaks.

There many brands available, DO NOT get the citrus based products. Tenax and Pro-weld are two that come to mind. They should be clear, of a water like consistency and smell pretty nasty.

Regular styrene model cement will not do the job, period. Nor will cyanoacrylates, not to mention the white bloom mess they make. Using anything other than a solvent cerment will only make matters worse. You want to fuse the pieces together, not glue them.

If you can't find any, let me know and I can UPS you a bottle.

Edited: 17 June 2003, 10:27 a.m.

Randy's is the best solution...

*Message #24 Posted by **Vieira, Luiz C. (Brazil)** on 17 June 2003, 11:08 a.m.,*
in response to message #22 by bill platt

Hi, Bill;

I have access only to super glues like SuperBond (Loctite®), I have not found those solvents mentioned by Randy. In this case, to keep the "new post" in place, I sculpt it tight enough to firmly sit in previous post's hole (draws #4 and #6 in my post) and I keep them together with the clamp (vice). Remaining super glue between the new post and the calculator's hole is a thin coat.

I believe solvent will be a lot better, but I could not found it so far. As the (negative) pressure is not too big, super glue is holding bravely.

What I must warn is about glue/solvent quantity: in some cases, a drop is too much. I you can use something that allow you to put a small amount of glue and spread it in the base of the hole (avoid the walls so you can press th new post till the bottom) and let the new post itself to finish

spreading it trhough the rest of the surface. I strongly recomend having the clamp already in position and enough opened. And remember using all necessary safety protecion for your eyes, skin and hands. And don't breath too deep while doing it...

Let us know how things are going. If you have the chance, take some pictures so they will help illustrate for the others.

Success!

luiz C. Vieira - Brazil

cutter

*Message #25 Posted by **Ellis Easley** on 18 June 2003, 12:38 p.m.,*
in response to message #21 by Vieira, Luiz C. (Brazil)

I think that qualifies as a "box cutter". Primary purpose is to cut open cardboard boxes.

Re: cutter

*Message #26 Posted by **David Smith** on 18 June 2003, 5:56 p.m.,*
in response to message #25 by Ellis Easley

I though the primary purpose of a box cutter was to get you busted at the airport... It's amazing how many idiots still try to fly with these things. My next door neighbor is a pilot of American Airlines. DFW still carts away a barrel of such things every month.

type of blade

*Message #27 Posted by **bill platt** on 18 June 2003, 1:11 p.m.,*
in response to message #21 by Vieira, Luiz C. (Brazil)

We call it an X-acto (TM) knife

Re: type of blade

*Message #28 Posted by **Ellis Easley** on 18 June 2003, 2:25 p.m.,*
in response to message #27 by bill platt

Really? It's not the regular X-Acto blade holder with the round aluminum handle - but that's another kind of knife X-Acto makes?

Re: 41CV corrosion update

*Message #29 Posted by **David Smith** on 15 June 2003, 4:21 p.m.,*
in response to message #19 by bill platt

Glues will NOT work. They will eventually give way. Tenax, etc is a plastic solvent. It disolves the plastic and the joint it makes is a weld.

I have fixed several units that have had sheared off bottom posts just by using a longer screw. The case plastic below where the post shears off is quite deep and reinforced by ribs in the keyboard construction. I carefully drill out the hole in the sheared off plastic post so that it is now just a bushing that keeps the CPU board aligned. The screws that you need are 2-28 self tapping sheet metal screws (preferably with a type "B" point)... good luck finding them though.

Re: 41CV corrosion update

*Message #30 Posted by **bill platt** on 17 June 2003, 9:09 a.m.,*
in response to message #29 by David Smith

David,

how far below the bottom of the post can you drill?

-Bill

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HP Forum Archive 13

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Lietz Part ID Needed

*Message #1 Posted by **Mike** on 12 June 2003, 8:44 p.m.*

I got this Lietz tray, with a recent acquisition, but have no clue what it is. It seem interesting. It holds an HP-71 and has an HP-IL interface.

The tray has an integral compartment that has a circuit board with an HP-IL interface, as well as a cable with a circular connector with 6 pins.

There is a 40 pin chip inside that is marked HD63A01V1P. I did an internet search for this but nothing useful came up.

Is there anyone here that can ID this tray?

http://www.msdsite.com/hpcalcs/lietz/trayx.jpg http://www.msdsite.com/hpcalcs/lietz/connx.jpg

Edited: 12 June 2003, 8:46 p.m.

Re: Lietz Part ID Needed

*Message #2 Posted by **db(martinez,california)** on 12 June 2003, 11:03 p.m.,*
in response to message #1 by Mike

lietz (sokia) is a surveying equipment company - transits, total stations, levels, and lots of etc. your tray is probably external memory and ic's to translate the gun language to i.l. is there a hook-like apendage somewhere to help hang it on the tripod? if that 6 pin thinger is a bit smaller than the diameter of a pencil and plain aluminum with a little dip so it can only be pluged in one way it is a standard lietz data collector plug.

you might ask an old timer at servco, or terry nutt at allen precision instruments. i believe they both carried lietz.

Re: Lietz Part ID Needed

*Message #3 Posted by **Michael F. Coyle** on 12 June 2003, 11:12 p.m.,*
in response to message #1 by Mike

I don't know about the device, but the HD63A01V1P is a Hitachi one-chip micro with a little ROM (1K? 2K?) and a little RAM, and some I/O. It's in the 6800 family. Presumably the chip has a program on it to translate data and/or commands between the 71 and whatever your 6-pin connector is hooked up to.

Sorry if the above seems too obvious. Probably not too useful, but there you go.

- Michael

That's probably it

*Message #4 Posted by **Mike** on 12 June 2003, 11:38 p.m.,*

in response to message #3 by Michael F. Coyle

There is also a 27C64 EPROM and a 28 pin device (likely RAM) that has no specific markings. So, it looks like just some electronics to move data from the Lietz interface to the 71B.

Thanks, Mike

Re: Lietz Part ID Needed

*Message #5 Posted by **David Smith** on 13 June 2003, 4:38 p.m.,*
in response to message #1 by Mike

It is an HP-IL interface to the Leica/Leitz GPS equipment. The electronics actually are an RS-232 converter to/from the Leica equipment. Are you sure it is for the HP71? Mine looks the same and is for a '41.

It came with 71B attached

*Message #6 Posted by **Mike** on 13 June 2003, 11:58 p.m.,*
in response to message #5 by David Smith

Well HP-IL is HP-IL but mine came with an HP-71B attached. I don't even see how a 41 could be attached to the one I have. The brackets are angled to match the 71B (see photos below).

http://www.msdsite.com/hpcalcs/lietz/71bx.jpg http://www.msdsite.com/hpcalcs/lietz/endx.jpg
http://www.msdsite.com/hpcalcs/lietz/end2x.jpg

Click photos to see larger image

If it's just RS-232, that might make it still a useful device. Is there any special protocol for operation? Or does the device firmware simply send HP-IL data as RS-232 data?

Edited: 14 June 2003, 12:03 a.m.

It came from outer space with 71B attached?

*Message #7 Posted by **db(martinez,california)** on 14 June 2003, 1:06 a.m.,*
in response to message #6 by Mike

Mike- Surveying software of this vintage usually came on a rom, or eprom. If you have that you can find which instrument it was for and write Lietz in (i think) Overland Park, Kansas. They will know what language the gun talked. RS 232 is very probable. Most did but with different pins doing different things and most mfgrs. using proprietary connectors it was really a babel situation. For instance; i think it was Lietz and Topcon that used the same connectors, but needed different software to read and fire the instrument. Nothing communicated then. Nothing works now. Life was sure simpler when all you had to do was think. - d

Edited: 14 June 2003, 1:13 a.m.

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Why?

*Message #1 Posted by **Mike** on 12 June 2003, 5:34 p.m.*

1) Because it's in poor condition

2) What's the hurry?

Even though this is only at $9.95, there is no need to rush. It still has 4 days.

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HP Forum Archive 13

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Re: 16C Cheap?

*Message #1 Posted by **David Smith** on 12 June 2003, 5:30 p.m.*

Patience, young grasshopper... patience. The price for most HP calculators is determined in the last 10 seconds.

width of 16C display

*Message #2 Posted by **Norm** on 12 June 2003, 5:34 p.m.,*
in response to message #1 by David Smith

wondering why 16C wasn't popular. Maybe because of that narrow LCD display.

It should be twice that width, if trying to display numbers for conversion to binary, etc. esp with formatting spaces.

Narrow display?

*Message #3 Posted by **Mike** on 12 June 2003, 5:36 p.m.,*
in response to message #2 by Norm

Name a calculator that has a longer display.

your question is illogical

*Message #4 Posted by **Mr. Spock** on 12 June 2003, 5:44 p.m.,*
in response to message #3 by Mike

your question is illogical. Naming another width of display, on some other calculator, has no bearing on the optimal width of the display for a "programmers calculator" such as 16C.

The optimal width of the display, may not match to the width of the displays that were sold on other makes and models.

Therefore, even if no display were wider than on 12C, 15C, 16C, there may be an optimal display width that nevertheless is wider.

Manufacturing methods today make it inexpensive to prepare displays of varying widths. Indeed, they may even be paying more for such a small display, in comparison to a larger one (since the small display may be special order, the large display may be a standard item).

"Mr. Spock, your logic is impeccable. We are in grave danger."

Sure it is logical

*Message #5 Posted by **Mike** on 12 June 2003, 6:00 p.m.,*
in response to message #4 by Mr. Spock

The suggestion was that it was not popular because the display was too small.

That pre-supposes that it has any value at all. A valuable item will be used.

That being the case, if such a calculator is of value, and it is suggested that it's not used because of the display length, then the implied implication for not using it is that there is another that has a longer display. Because, something of value that is needed will be used.

I simply asked for the name of the one that had the longer display.

Note: A valuable and necessary device will be used, regardless of display length, if that's the only choice.

Edited: 12 June 2003, 6:04 p.m.

people dont like 16C

*Message #6 Posted by **Norm** on 14 June 2003, 4:41 a.m.,*
in response to message #5 by Mike

people dont like 16C. Point taken. I had no idea, never owned one, am not a programmer.

Could it really be true that they have no value? Somebody must like them, if only on some other planet somewhere .....

People dont like 16C ???

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2003, 9:50 a.m.,*
in response to message #6 by Norm

Hi, Norm;

I'm suspicious, but I have two of them. Think of one of the best tools ever made, but it was too specific and the precise activity it was developed for had only this "dedicated" tool available at the time it appeared. When I was an E.E. student, I was the only one in the hole campus to have one. Guys were amazed how funny it was finding the resulting data in a digital design without building it. In a time the first 16-bit processor were ruling, the HP16C could handle up to 64-bit words, and a few up-to-128-bit-word operations.

As Grant Goodes' post shows, it is still being used in the way it is expected to be. I just imagine that there are few places where it happens.

My thoughts.

Luiz C. Vieira - Brazil

Re: people dont like 16C

*Message #8 Posted by **Wayne Brown** on 14 June 2003, 11:36 a.m.,*
in response to message #6 by Norm

I certainly like the 16C! It was my first HP calc, and if I could keep only one, it would be that one! Besides the sleek lines and solid construction that it shares with the other Voyagers, it has functions I've never seen on any other calculator. While many calculators let you convert between number bases, not many let you switch all operations to a particular base and then use all the calculator's other functions normally with that base, without having

to enter special prefix keystrokes before numeric entries.

Some of us still work with mainframes and have to deal with large dump files full of octal or hexadecimal gibberish. I also work with networks of Unix systems and sometimes have to decipher the contents of TCP packets or debug driver problems. How many handheld calculators allow you to take a string of hex digits, convert them to binary, shift all the bits a specified number of positions, perform a logical AND against a bit mask, etc. -- all after setting the wordsize and complement mode to match the processor of the system you're debugging! All that (and more) is easy with a 16C.

16C and mainframes

*Message #9 Posted by **Karl Schneider** on 14 June 2003, 10:40 p.m.,*
in response to message #8 by Wayne Brown

Wayne Brown wrote:

Some of us still work with mainframes and have to deal with large dump files full of octal or hexadecimal gibberish.

Hey, that sounds familiar! In the mid-to-late '80's, I maintained Fortran software running on Sperry mainframes. Sperry (which merged with Burroughs to become Unisys during that period) was somewhat unorthodox in many respects, and they used 36-bit words with ones-complement integers. (Even then, twos-complement was favored.) Memory dumps were rendered in octal, which fit the 36-bit words.

One of the programs I wrote for my 15C (purchased in 1983) decoded a 12-digit octal representation of a floating-point number. The program accepted the three-digit exponent and the nine-digit mantissa into the stack.

The 15C program worked fine, but I now see that I could have written a slicker program for a 16C, with its word-size and octal modes. The 16C also had the correct integer conversions built in!

I bought a 16C on eBay a few months ago, but hadn't known of its existence back then. The 16C is the only HP unit I know of that offers ones-complement mode. The 41C Advantage assumes unsigned integers for its base conversions; all other HP's with base conversions (e.g., 42S, 32S/Sii, 20S, 28/48/49) use twos-complement only.

Re: 16C and mainframes

*Message #10 Posted by **Wayne Brown** on 15 June 2003, 1:18 a.m.,*
in response to message #9 by Karl Schneider

> Quote:
>
> Hey, that sounds familiar! In the mid-to-late '80's, I maintained Fortran software running on Sperry mainframes. Sperry (which merged with Burroughs to become Unisys during that period) was somewhat unorthodox in many respects, and they used 36-bit words with ones-complement integers. (Even then, twos-complement was favored.) Memory dumps were rendered in octal, which fit the 36-bit words.

I worked with a Sperry 1100/60 in 1984-85 and did a little Fortran programming on it. At the time I was working as a (civilian) computer operator at an Air Force training base. We were in the process of converting all our applications from a Burroughs system (I believe it was a B3700) to run on the Sperry. I thought it was very funny that Sperry and Burroughs merged shortly after that project was complete. :-)

I didn't get my 16C until a few years later. By then I was working for another employer as a programmer/sysadmin on HP3000 minicomputers and IBM mainframes. The 3000 systems were stack-based machines and failing programs often produced octal stack dumps. The 16C was great for digging through them. It was useful for analyzing CICS hex dumps on the IBM, too.

Re: people dont like 16C

*Message #11 Posted by **Ernie Malaga** on 14 June 2003, 12:48 p.m.,*
in response to message #6 by Norm

> Quote:
>
> Point taken. I had no idea, never owned one, am not a programmer.

The HP-16C is way too specialized for most people. I don't have actual figures, but it wouldn't surprise me to learn that the market share for this type of calculator were .001 of the share for all calculators.

That's also, by the way, why HP never created an airline pilot's calculator. Other companies make them and sell them to piloting students, usually through mail-order channels.

For the rest of us, a much simpler calculator that performs the very basic binary operations is sufficient -- and for that there are plenty of choices under $30 at Wal-Mart.

It doesn't make me happy to say these things. I had a 16C myself.

-Ernie

serving .001 of the market

*Message #12 Posted by **Norm** on 14 June 2003, 1:35 p.m.,*
in response to message #11 by Ernie Malaga

well I hear what you are saying, but why not serve that one in a thousand. And maybe its a little better than that anyway. Maybe its 1% of the market .....

Here's the deal, we get this continuous onslaught of greed, from greedy CEO's, who feel if they scoop up 95% of the money by satisfying 95% of the customers, that its enough, and that they dont care about the other 5%, because that would 'not offer enough return on investment'. And we hear that litany so often, that we think it normal that corporations tell their faithful customers to buzz off. Not only that, as we capitulate and try to think their way, then its "give 'em an inch and they take a mile" so they discontinue every calculator worth buying, until they aren't even serving 10% of their market anymore.

Why not serve the .001 specialty applications. I was very unimpressed with pilot's

calculators I saw from the non-HP sources, and would've been delighted if there was one of high integrity and of logical thought processes. And isn't that what market penetration is all about? It is to be deeply entrenched across as wide a marketplace as possible so that all the world beats a path to your door.

So while your words are persuasive, you are just giving a fig-leaf to help this new generation of ultra-selfish MBA/CEO's something to cover up their naked greed, while they run off and buy another 20,000 square foot beach-front designer home.

I would say let HP serve the pilots, and let them serve the computer software people who want a 16C. When HP has already got a calculator engineering dep't, they can keep those people busy implementing a few 'low-popularity' models rather than do something so incredibly innovative such as sign off on coloring changes on a 12CP.

You gotta realize that once the drawings are done by an engineering group, then its 'over the wall' to the production people, and these models can be built for years and years, while the engineering group works on other things. We can understand that, I do NOT think HP's MBA management can understand that. Otherwise they'd keep building HP-15C, etc., using the same production line and the old tools and specifications.

Re: serving .001 of the market

*Message #13 Posted by **Ernie Malaga** on 14 June 2003, 4:34 p.m.,*
in response to message #12 by Norm

> Quote:
>
> So while your words are persuasive, you are just giving a fig-leaf to help this new generation of ultra-selfish MBA/CEO's something to cover up their naked greed, while they run off and buy another 20,000 square foot beach-front designer home.

Norm, I think you forgot to take your Valium this morning. That's OK -- we love you nonetheless.

-Ernie

aw c'mon that was so perfect

*Message #14 Posted by **Norm** on 14 June 2003, 10:48 p.m.,*
in response to message #13 by Ernie Malaga

aww c'mon, that was so perfectly true, that the sentence you took a 2nd look at, was written so perfect it was like a snippet of Mozart... every note and beat exactly where it was supposed to be.

Valium, what's that, is that like Lithium?

AS TO THE POINT, its completely true. These damn modern CEO's are so full of greed & selfishness that they dont even care about serving their markets..... it is an absolute embarassment to HP that they never served pilots with a couple of aviation calculator specimens. I'm sure if the MBA's would get out of the way, it would be possible to deliver some really beautiful work that would help all types of pilots from VFR to airline captains.

shame to HP calculator dep't, abandoning their principles and refusing to serve the world's needs. They try to sell us Walmart-Kinpo garbage instead.

aviation calculator

*Message #15 Posted by **db(martinez,california)** on 14 June 2003, 11:22 p.m., in response to message #14 by Norm*

Norm; There was flight planning and nav software for the 97 and 41, and of course the Concord used the 41. HP just didn't make a dedicated unit like the Navtrinic. You'ld like my navtronic. It's got a red LED.

Edited: 14 June 2003, 11:25 p.m.

Navtronic pilots calculator

*Message #16 Posted by **Norm** on 15 June 2003, 12:28 a.m., in response to message #15 by db(martinez,california)*

looked under "navtronic"

and "navitronic"

just didn't find much. Nuthin' on eBay. Got any links ?? model numbers?

Hmmmmmm red led's in a cessna cockpit..... Sounds charming at first, however, I could see a slide power switch with 3 brightness settings.....

off, night, normal, bright.

If they didnt do that, it could be hard to work with that under greatly varying lighting conditions.

Re: Navtronic pilots calculator

*Message #17 Posted by **db(martinez,california)** on 15 June 2003, 9:09 p.m., in response to message #16 by Norm*

I have the Navtronic 1701 r, which has two National Semiconductor I.C.'s in it, among others. Joerg Worner has a 1701 t and yes; 1701 is the Starship Enterprises number. They were made by Specialized Electronics Corp. in Chicago. Mine is a nice solid unit with clicky keys. They refer to it as a "computer" and back then i guess it was. There is a pdf of the manual on Katie Wasserman's website at

http://www.wass.net/manuals

Isn't she wonderful to do that for us?

Re: Navtronic pilots calculator

*Message #18 Posted by **Katie** on 15 June 2003, 10:09 p.m., in response to message #17 by db(martinez,california)*

Thanks for the compliment db!

There were 5 Navtronics that I know of:

The first was the model 16. Then came a series of 4:

```
1701
1701 r - same as the 1701 with area navigation
1701 t - same as the 1701 with up/down timer and alarm
1701 tr - same with area navigation and timer/alarm
```

The marketing people got away with murder on this because as far as I can tell they use the same chip set. The area navigation works on my 1701 (plain) just the keys are not labeled and the chips are identically marked.

However the t and tr versions do have some extra stuff in there: a NS MM5368N oscillator chip, a 32Khz Xtal, a piezo element and a handful of passive components. Since these parts are still available and all the 1701's use the same circuit board it should be quite easy to upgrade a 1701 to a 1701tr for about $10. (I need to try that some day.)

Edited: 15 June 2003, 10:09 p.m.

Re: Navtronic pilots calculator

*Message #19 Posted by **Norm** on 16 June 2003, 3:28 a.m.,*
in response to message #18 by Katie

got any pictures ?

Is it good enough to be useful to a modern day VFR pilot ?

Or have the rules changed enough to make it obsolete ?

Here's a picture,

*Message #20 Posted by **Norm** on 16 June 2003, 3:32 a.m.,*
in response to message #19 by Norm

here is a picture,

http://www.datamath.org/Related/Navtronic/1701T.htm

Hey, that does look like a nice little unit.

No B.S. just give me what I need.

So the main question is, are they good for modern usage ?

Were they popular? Do they show up on eBay ?

looks like.....

*Message #21 Posted by **Norm** on 16 June 2003, 4:15 a.m.,*
in response to message #20 by Norm

looks like "jeppesen techstar" is the only game in town.

I see they have a "jeppesen techstar pro" which sports a personal organizer, oooohhh !! wow! will having all my friends telephone numbers in there keep me from flying into a mountain ?

it looks like maybe even if 'techstar pro' was the newer one they discontinued it. Looks like 'jeppesen techstar' is the one pilots are buying.

plz correct if mistaken ...

Re: looks like.....

*Message #22 Posted by **Les Bell [Sydney]** on 16 June 2003, 5:30 a.m.,*
in response to message #21 by Norm

Norm,

I have the 41 Aviation Pac, as well as the Sporty's E6B, which is a purpose-built pilot's calculator with multi-line display. Ignoring the incredibly short battery life of the E6B, I found that the last thing you wanted to be doing while bouncing around in turbulence was diddling little buttons on a gizmo that didn't get everyday use the way our HP calcs do.

So I went back to the trusty Jeppesen CR-5, a shirt-pocket sized whiz-wheel that does everything you'd want, and has extremely simple one-handed data entry. And extremely long battery life, now that I reflect upon it.

But more than anything else, what has probably killed the pilot's calculator market is the hand-held or panel-mounted GPS. These things usually have an E6B data page that will tell you a lot more about winds aloft, fuel usage etc. than your calc would, with far less data entry because GS and TRK are fed into it continually. I have an Apollo Precedus, and it's amazing how it turned flying into something approaching a video game - no more being "temporarily uncertain of one's position".

With the whiz-wheel for backup, that's all you'd ever need.

Best,

--- Les [http://www.lesbell.com.au]

[US AMEL, UK PPL/IMC, Aust. PPL/CIR]

U are way ahead of me..

*Message #23 Posted by **Norm** on 16 June 2003, 1:24 p.m.,*
in response to message #22 by Les Bell [Sydney]

Well, U are way ahead of me in the aviation department.

Sounds like people are none too enamored with the Jeppesen Techstar, although it is "FAA approved for written exams" and I bet U cant take your dash-mounted GPS to the written FAA exams ...

I took about 50 hrs of flying instruction which was probably 50% decent instruction and 50% joyride.

While enjoying it immensely, I came to realize that the #1 mandatory ingredient for successful flight is NOT knowing the exam material and NOT aviation fuel and NOT the horizontal component of lift.....

Nope, #1 mandatory ingredient for flight is money, and measured only by the wheelbarrow full, and lots of 'em. So I have reattached the tie-down ropes for good, until I figure out how to be a better swindler and rip off some unsuspecting working class, like all the MBA's who have got their big stack. Soon as I do, its back to the runway.

Re: U are way ahead of me..

*Message #24 Posted by **Les Bell [Sydney]** on 16 June 2003, 6:38 p.m.,*
in response to message #23 by Norm

In the same boat here, Norm. It was all very well when I was young and single, but now with two kids and the decline of the IT business, I've had my wings clipped as well.

But you've obviously discovered what a lot of aeronautical engineers long suspected: Bernoulli was completely wrong, and what causes lift is *money*.

I hope you are able to get back to it - there's *nothing* else in the world (that you can do with your clothes on) that's as much fun!

Best,

--- Les [http://www.lesbell.com.au]

Re: width of 16C display

*Message #25 Posted by **Les Bell [Sydney]** on 12 June 2003, 8:16 p.m.,*
in response to message #2 by Norm

The 16C really is a product without a proper place in the world. It was introduced at the end of an era when programmers did a lot of bench-checking of assembly and other low-level code, particularly for mainframes, where they couldn't get actual machine time for debugging.

These days, we code in higher-level languages, and we typically code, compile and debug directly on the target platform. The types of calculations the 16C performs are often built-in to the debuggers.

And of course, the floating-point representation used in the 16C was unique to HP minis. The incorporation in the manual of a routine to covert that to and from the now near-ubiquitous IEEE-754 format is a stop-gap solution and not much more.

I have a 16C that I picked up new in 85 or so, but I rarely use it for anything computer-related, other than those occasional hex-decimal conversions. I occasionally wave it around in networking classes when teaching subnet masks, but in practice, I work those out in my head.

Still, it's an elegant toy; I might be able to use it if my son asks me to explain boolean logic and De Morgan's theorem, but that's about it.

Best,

--- Les [http://www.lesbell.com.au]

Re: width of 16C display

*Message #26 Posted by **David Ramsey** on 12 June 2003, 9:15 p.m.,*
in response to message #25 by Les Bell [Sydney]

Yeah, I have to agree...

When I moved out here (SF bay area) to start work as a programmer in the early 80s, the 16C was a godsend. When HP quit making them, I panicked, wondering what I'd do if mine died.

I prowled the streets of San Francisco, where I found dozens of tiny import electronics shops run by people with a tenuous grasp of English. You could often find older HP calcs there. Over a summer I picked up 3 additional units.

So now I have four. They all work perfectly. And I can't remember the last time I used one for real. Sigh.

If anyone here wants one for a collection, let me know.

Sad and truth

*Message #27 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 1:32 a.m.,*
in response to message #25 by Les Bell [Sydney]

Hi, Les Bell;

I reluctantly have to face it and completely agree with you. When I got my NIB HP16C in the mid 80's I used it to test almost every logic design before going to PCB. If programming was needed, no matter: let's exercise the brain.

It definitely replaced protoboard for me when logic design was the issue. After setling logic design, electronic design demanded actual HW.

Sad, instead true: I still use mine because I still design digital stuff. Mostly for my own.

Regards.

Luiz C. Vieira - Brazil

Edited: 13 June 2003, 1:43 a.m.

Re: width of 16C display

*Message #28 Posted by **Grant Goodes** on 13 June 2003, 2:15 p.m.,*
in response to message #25 by Les Bell [Sydney]

Sorry, but I cannot more strongly disagree with you! Yes, the majority of programmers these days are operating in the nose-bleed echelons of high-level languages, and have no use for hex/bin/oct, but the absolute number of people operating in low-level regions has probably not decreased, nor has their importance to development of new products. I'm an embedded-systems engineer, and most of what I work on is lucky to have an indicator LED, let alone an actual display, and debugging my code involves constant use of my trusty HP-16c. And DON'T tell me I should be using some piece-of-crap calc-tool built in to the all-too-fancy Windoze-running 'scope I am reduced to using these days.

No, most programmers may have turned their backs on the "Bad old days" of manual radix conversions, but there are still lots of programmers who need them, and the HP-16c is the only game in town.

Re: width of 16C display

*Message #29 Posted by **David Ramsey** on 13 June 2003, 4:05 p.m.,*
in response to message #28 by Grant Goodes

Don't worry, Grant, we'll work something out!

BTW, folks, my spare 16Cs are now gone...

Re: 16C Cheap?

*Message #30 Posted by **gifron** on 13 June 2003, 2:13 a.m.,*
in response to message #1 by David Smith

I just bid. There's no need for anyone else to try and outbid me, as I bid really high, and there's no hope for any of you - Just let it go, and hope for another one soon.

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HP Forum Archive 13

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Solver Software

*Message #1 Posted by **Earl F. Levin** on 12 June 2003, 3:59 p.m.*

Looking for 200LX type Solver Software that will run on a Compaq iPAQ Handheld.

Re: Solver Software

*Message #2 Posted by **Patrick** on 12 June 2003, 4:21 p.m.,*
in response to message #1 by Earl F. Levin

I don't know anything about the 200LX, but there is supposedly a true HP-15C emulator from Lygea which includes the HP-15C SOLVE function. Since I am a Palm person, I've never tried this emulator.

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HP Forum Archive 13

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HP-15CP ?? HP-32P ?

*Message #1 Posted by **NH** on 12 June 2003, 3:28 p.m.*

anybody hear any rumors about maybe there would be an HP-15C platinum later on?

Anybody hear anything about a follow-on HP-32Sii maybe a platinum, later on?

U know, for steady production again .

HP-12CP at college bookstore

*Message #2 Posted by **Norm** on 12 June 2003, 5:38 p.m.,*
in response to message #1 by NH

I saw an HP-12CP at the college bookstore today.

The color scheme really is as ghastly as our chat board said it is. The yellow key legends really are invisible against the platinum, for many lighting situations.

I mean, you really had to look twice (three times?) to see what the legend said.

And it had BLUE plastic for the sides..... why not a dark navy blue for the lettering ? To attain a coordination ? instead of baby-diaper yellow ???????

Gotta hope they DONT release an HP-15C platinum, they would probably "improve" the letter coloring by printing them with light grey ink, atop the aluminum metal.

Re: HP-12CP at college bookstore

*Message #3 Posted by **Clive Marner** on 12 June 2003, 6:43 p.m.,*
in response to message #2 by Norm

Talking to yourself again, CZ?

No Clive,

*Message #4 Posted by **NormH** on 14 June 2003, 4:35 a.m.,*
in response to message #2 by Norm

No Clive, now that you are here,

we can talk to all 3 of us.

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HP Forum Archive 13

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plotters/hp41's

*Message #1 Posted by **Geoff** on 12 June 2003, 1:45 p.m.*

hello

pretty basic question! I have an hp41cx with plotter module, hpil 82160a module, 82162a printer and etc... The question is; I would like to print barcodes on a plotter with the above system. I have with the printer but would prefer the plotter for this and plotting functions. Which plotter (7470, 7550...) and what set of cables are required to perform this (R232 with hpil or r232 with HPIB TO HPIL)etc. In other words what do I need to look for at surplus stores or EBay or here.

from "not a novice" but "not that knowledgeable"!!!

Cheers Geoff

Re: plotters/hp41's

*Message #2 Posted by **Juergen (CH)** on 12 June 2003, 3:21 p.m.,*
in response to message #1 by Geoff

I had a similar question. See thread: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv011.cgi?read=29203

Hope this helps, Juergen

Re: plotters/hp41's

*Message #3 Posted by **Geoff** on 12 June 2003, 5:15 p.m.,*
in response to message #2 by Juergen (CH)

Well thread 3 seems to have the answer. I have the plotter module and the hpil module. If I find an Hpib to hpil translator and an HP plotter with the HPib I should be okay.

Next question, any one out there with a translator, as it seems the 7450A plotter is aplenty.

thanks Juergen

cheers, Geoff

Re: plotters/hp41's

*Message #4 Posted by **Richard Garner** on 12 June 2003, 5:35 p.m.,*
in response to message #1 by Geoff

Check out V41, it is an 41CX emulator for your PC and additional software at the same site that will generate barcode on your PC's printer. Look in the calculator simulators/emulator section of this web site.

Re: plotters/hp41's

*Message #5 Posted by **Tony Duell (UK)** on 12 June 2003, 6:00 p.m.,*
in response to message #1 by Geoff

The 'correct' plotter is the 7470 Opt 003. This is an HPIL plotter (AFAIK the only one HP ever made) which will plug straight in. It's true plug-n-play -- the plotter module will find the plotter in the loop, etc. Practical tests suggest that an HPIB plotter (I've tried a 7440 'Colorpro' and at least one other) work fine if you connect it using an HPIL-HPIB translator (82169). You then have to SELECT the plotter manually (use MANIO, then enter the address of the plotter and SELECT). I've never tried plotting barcodes with that setup (I do that on the PC), but it works for plotting graphs, etc. An RS232 plotter doesn't seem to work, even with a correctly configured 82164 interface. It appears the HP41 can't read back data from the plotter -- it does this to determine plot size, etc.

HP41 barcode plott

*Message #6 Posted by **Christoph Klug** on 13 June 2003, 2:45 a.m.,*
in response to message #5 by Tony Duell (UK)

Barcode plott is also possible with EMU41 plus virtual SkwidIn barcode plott module and PC laser printer. This solution generates fast and high quality barcodes for HP41...

And EMU41 gives you much more features for printing, mass storage, data transfer to PC world, mcode, Ram-Box... For more details refer to HP-Museum article forum item 311 : "HP41-PC gateway & emulator".

Best wishes from germany - Christoph

Re: plotters/hp41's

*Message #7 Posted by **Donald Leonard** on 13 June 2003, 2:13 p.m.,*
in response to message #1 by Geoff

I have and use the 7470A Opt. 003 plug 'n play plotter and use it only for bar codes. I love it! I highly recommend it as a direct connect HP-IL peripheral, even for just bar codes. A recent 7470 went for only $75 on ebay. When you get tired of the fiber tip pens used on in these machines, switch over to the Koh-I Noor Rapidoplot Archival DPP 'Disposable' 0.35 metal tip pens for Vellum/paper. Although marked 'Disposible', they are supplied in two pieces which can be carefully seperated and refilled with ink-jet ink, just like refilling your ink-jet cartridges. I use the black 64NDS.01F for the bar codes/row/lines nomenclature and the blue 64NDS.07F for the header (program name and register count). Don

Re: plotters/hp41's

*Message #8 Posted by **Geoff** on 14 June 2003, 2:37 p.m.,*
in response to message #7 by Donald Leonard

7470A Opt. 003

this seems to be the best way to convert my programs to barcode. trying to find one is the hardest part, any ideas?? ebay hasn't got one yet.

I have a spare refurbished cardreader and an HP41c fully functional with quad ram and xfunctions module for trades to entice any one.

thanks to every one for their answers, a great forum.

cheers, geoff

Re: plotters/hp41's

*Message #9 Posted by **Geoff** on 15 June 2003, 3:07 a.m.,*
in response to message #7 by Donald Leonard

Thank for all the responses:

seems the easiest way to go is the 7470a opt 003. Does anyone out there know where to find one. I have tried surplus electronics on the web and ebay. I do have a spare card reader (refurbished), printer, hp41c with quad ram and extended functions module for trade.

any takers????

Cheers, geoff

Re: plotters/hp41's

*Message #10 Posted by **Dave Shaffer** on 15 June 2003, 5:16 p.m.,*
in response to message #9 by Geoff

Geoff,

If price is no object, there are any number of surplus/rental electronics outfits that list (note - this is possibly different from "having") HP 7470 and HP7475 (nearly the same, but only two pens instead of (I think) 6 or 8). The last time I bothered to look, the prices were insane: many hundreds of dollars. These are equipment rental houses trying to get rid of their old units. I can't remember a name at the moment (I am away from home), but if you are interested, send me an e-mail, and the next time I get a catalog, I'll let you know. (I get several of these a month.)

I sold an HP 7475 a few years ago on E-bay and felt lucky to get $25 for it. Somebody else in here probably knows whether the '7475 also came in an HP-IL version, but if it did, you can look for one of them, too.

Re: plotters/hp41's

*Message #11 Posted by **Donald Leonard** on 17 June 2003, 3:13 a.m.,*
in response to message #10 by Dave Shaffer

I believe that the 7475A came with HP-IB input, and one was sold on ebay recently WITH the HP-IL to HP-IB converter for a package price of $177.50. Don

Re: plotters/hp41's

*Message #12 Posted by **Juergen (CH)** on 17 June 2003, 7:20 a.m.,*
in response to message #11 by Donald Leonard

Some 7475A come with HP-IB, but most have a serial interface. Many plotter auctions on eBay do not state the kind of interface, so check it before you bid.

An alternative is the 7550A (A3!) which has both a serial AND an HP-IB interface. That's nice! You can drive the plotter with your HP-41 and with your PC (without having an HP-IB interface card installed).

I think the 7470A was the only plotter with the HP-IL interface option.

Regards, Juergen

Re: plotters/hp41's

*Message #13 Posted by **Mark Hardman** on 17 June 2003, 10:30 p.m.,*
in response to message #11 by Donald Leonard

The HP-IL/HP-IB interface (82169A) is frequently available on eBay at a reasonable price. I picked mine up a year ago for $35 (with manual.) A substantial portion of the 82169A manual details interfacing to HP plotters.

LED

Re: plotters/hp41's

*Message #14 Posted by **Donald Leonard** on 19 June 2003, 5:49 a.m.,*
in response to message #1 by Geoff

Just a note to let you know that ebay has a HP 7440A 8 pen (2 is all you need for bar code) HP-IB plotter complete with HP-IL to HP-IB converter for the starting bid of $40 US. See at http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2737224362&category=1247 or go to ebay and search for 2737224362. Don

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Re: 16C Cheap?

*Message #1 Posted by **Raymond Del Tondo** on 12 June 2003, 12:56 p.m.*

Hmm. The machine really looks very bad. OTOH, it's 4+ days to go, so someone will bid on it for sure.

Raymond

16C for $10 is way too expensive

*Message #2 Posted by **Luk** on 12 June 2003, 9:11 p.m.,*
in response to message #1 by Raymond Del Tondo

You can get it for $1 here:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3029766321&category=3294

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Mystery HP-67 cable

*Message #1 Posted by **Patrick** on 12 June 2003, 3:34 a.m.*

Any idea what this mystery cable is attached to an HP-67?

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3030204832&category=11713

A (wide) wild guess...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 12 June 2003, 10:57 a.m.,*
in response to message #1 by Patrick

Hi, Patrick;

I'd not be surprised if the pins are connected to the card reader. I cannot see how many pins are available at the cable end (barely shown) but this would be the easiest way to load and retrieve programs to/from an external source: through the reader's circuits.

I remember when working as a telecom technitian whe a computer was connected to an ESK 10000 command unit (Siemens Switching Network) in order to automate the "analog" equipment. A complete daugtherboard was needed to convert computer data into comands and vice-versa.

Have anyone heard about such possibility? The HP97S has a specially developed data collector, I know, but I wonder if using card reader's input/output would also be possible.

Just a 1¢ "guess". Lluiz C. Vieira - Brazil

Edited: 12 June 2003, 10:59 a.m.

Re: Mystery HP-67 cable

*Message #3 Posted by **David Smith** on 12 June 2003, 5:32 p.m.,*
in response to message #1 by Patrick

It is almost certainly an interface to an external printer or a reader for the blind. There were a couple of articles printed at the time talking about these interfaces.

Re: Mystery HP-67 cable

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 13 June 2003, 1:21 a.m.,*
in response to message #3 by David Smith

Hi, David;

would this output be an on-line, LED display "tracker" or it would respond to the standard HP97-equivalent "printing" functions? In any case, this is what I call "cool!"

I am curious because it leads me to think that the HP67 was not only able to "blink" the display with "to ptint" data but also could generate the equivalent HP97 printing signals. I used to think that part of the software was dedicated and different to each model, now I'm wondering if the HP67 had extra O.S. routines. Am I doing a bad analysis? Do you have any additional information?

This is amazingly weird!

Luiz C. Vieira - Brazil

Re: Mystery HP-67 cable

*Message #5 Posted by **David Smith** on 13 June 2003, 4:44 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

They spliced into the LED display driver signals. I think the PPC journal had an article on an HP65 printer mod. I remember seeing an HP67 converted to drive a Braille pin driver for the blind.

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MLDL 6E O.S. source

*Message #1 Posted by **Donald Leonard** on 12 June 2003, 1:47 a.m.*

I finally received my MLDL, and it contains an O.S. -MLDL 6E. I have no idea what the functions are. Several unique functions are: BEEPMOD, COMPILE, DUMP, PPROM, PUPROM, ROMGO, ROMMOVE, RPROM, RUPROM, PRSYM, MDUMP. Can anyone identify this O.S. and provide a clue where I might acquire a copy of the manual? Don

Re: MLDL 6E O.S. source

*Message #2 Posted by **Meindert Kuipers** on 12 June 2003, 5:27 a.m.,*
in response to message #1 by Donald Leonard

Don,

What kind of MLDL is this? The functions do not sound like the Eramco MLDL. I have some documentation on the Eramco software, but that still needs to be scanned.

Meindert

Re: MLDL 6E O.S. source

*Message #3 Posted by **Donald Leonard** on 13 June 2003, 3:01 p.m.,*
in response to message #2 by Meindert Kuipers

It's a huge case (8 1/2" X 5 1/4" X 3") with a silk screened nomenclature over a painted silver/grey front panel. Interior circuitry has 3 daughter boards of discreat CD4000 series CMOS devices mounted through connectors to a buss board. The front panel contains the 4K EPROM SET (2732 & 2708), a RAM switch marked EIN/1ma at the top and AUS/.005ma at the bottom. I suspect that this switches the 4.5V battery backup out of the circuit when the MLDL is connected to the HP-41. Also on the front panel is a 31 pin test connector marked Port XFFF, sub divided into input 0-9, WPORT, ENOUT, XS, X, MS, and a miniture Digiswitch for 8K RAM Address select, with a 'X2' printed next to the digit.

This unit appears to be a corporate R&D/development unit rather than a home made/hobbiest unit. Some serious cost and preparation time went into the construction of this box. And, the MLDL 6E routine/function list is unusual as well. Besides the sample routine list given earlier, there are a total of 23, one of which is most likely used for developing commercial modules only (CHKSUM) as the HP-41 does not check for a checksum. This box also is from a european source as the HP-41 turns ON with european digit separators/radix when the MLDL is connected.

I would dearly love to find out about these routines as I have a suspision that they are a powerful support to the David Assembler also contained within the same EPROM set, not seperate. Don

Re: MLDL 6E O.S. source

*Message #4 Posted by **Meindert Kuipers** on 14 June 2003, 8:36 a.m.,*
in response to message #3 by Donald Leonard

This model doesn't sound familiar. Your description of the switches re German language (EIN/AUS is ON/OFF). The 3 daughter boards are similar to the Eramco MLDL design. CHKSUM is not all that unusual.

Meindert

Re: MLDL 6E O.S. source

*Message #5 Posted by **Donald Leonard** on 14 June 2003, 12:09 p.m.,*
in response to message #4 by Meindert Kuipers

One more difference I noticed last night while playing with the MLDL is that the David Assembler function 'Assembler', which in my MK-2 manual uses the acronym 'ASSM' is 'ASM' in this MLDL. Does this version mean that it is a MK-1, or just a non-Eramco version? David van Leeuwen, in 1985, wrote in a letter to me that Eramco changed some of the function acronyms. Maybe this will help identify the source of this MLDL. And thank you for explaining the meaning for EIN/AUS. It is curious that that was the only German words - all the rest were in english. Could this be a Zengrange unit, or is it still more likely a personal/hobbiest unit built with the traditional German standards of quality and durability? Don

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HP N-size battery charger

*Message #1 Posted by **Tracy Vermeyen** on 12 June 2003, 12:36 a.m.*

I have a N-size battery charger (HP PN 92266a) which was for ni-cad batteries used in HP 41Cs. I read that N-size ni-cads are no longer produced. Does this make this charger obsolete? Can some other form of rechargeable battery be used? If so, what kind?

Re: HP N-size battery charger

*Message #2 Posted by **Stefan Hauschild** on 12 June 2003, 9:27 a.m.,*
in response to message #1 by Tracy Vermeyen

They are still available from Panasonic (175mAh)

-Stefan

Re: HP N-size battery charger

*Message #3 Posted by **Randy Sloyer** on 12 June 2003, 9:35 a.m.,*
in response to message #1 by Tracy Vermeyen

Ni-cad N cells are also available from your local Radio Shack.

Re: HP N-size battery charger

*Message #4 Posted by **David Smith** on 12 June 2003, 5:33 p.m.,*
in response to message #1 by Tracy Vermeyen

The cells that are no longer made are the 1/2N cells used in the 82120A battery pack for the HP41.

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Voyager cases direct from HP?

*Message #1 Posted by **Patrick** on 11 June 2003, 9:05 p.m.*

eBay seems to always feature some seller or another with brand new vinyl/leatherette cases for the Voyager series. One would think that, with the 12C still on sale, that an individual could still buy these direct from HP.

I have not been able to track these down on their sales sites. Anybody have any experience buying these from HP?

Re: Voyager cases direct from HP?

*Message #2 Posted by **Randy Sloyer** on 11 June 2003, 9:53 p.m.,*
in response to message #1 by Patrick

You would think so... The HP part number for the standard old 12C case is 82174-60001.

http://partsurfer.hp.com/cgi-bin/spi/main?

If you enter this into part surfer, you'll get a "Part no longer supplied" message. They've been NLA for at least 6 months.

PS: You'll get the same result for Pioneer cases: p/n 82243-60001

Voyager cases direct from HP? NOT!

*Message #3 Posted by **db(martinez,california)** on 11 June 2003, 10:28 p.m.,*
in response to message #2 by Randy Sloyer

i called a while back and a young lady said that hp had sold all their cases to third parties. she gave me some names to contact and their prices. up to $20 for a 32/42 slipcase that was $6 a couple of months ago from hp. thanks carly. don't make anything. don't sell anything. just milk the name till it's dead. btw: there are no more battery doors either.

the girl did say that an rpn replacement for the 32sii would be out before the end of the year. she was so nice that i didn't even ask if i have to leave a tooth under my pillow or write santa to get one.

Edited: 11 June 2003, 10:32 p.m.

Re: Voyager cases direct from HP? NOT!

*Message #4 Posted by **Art Litka** on 11 June 2003, 11:16 p.m.,*
in response to message #3 by db(martinez,california)

Dennis, I bought a charger from you a while back for 34c, WORKS GREAT! I recently acquired a 32SII so I would like to see if they can make a "better" version-ha ha! Incidently I'm back in Oakland so you can contact me at this email address-would like to see your collection!

Re: Voyager cases direct from HP? NOT!

*Message #5 Posted by **Grant Goodes** on 12 June 2003, 11:12 a.m.,*
in response to message #3 by db(martinez,california)

Any chance you could post the list of places with these cases? I'm actually looking for one of the leather ones, but maybe they have those too?

Re: Voyager cases direct from HP?

*Message #6 Posted by **Eduardo** on 12 June 2003, 3:48 p.m.,*
in response to message #1 by Patrick

What a coincidence! I spent today about half an hour calling HP Parts Direct to inquire about the Pioneer and 48G cases, as well as the Pioneer battery doors. Result? An extremely nice rep who was quite surprised that parts for calculators that HP is still selling haven't been available for years (!!!).

In the end, she gave up. Oh well. But *where can one find these*?!!! (and I mean, for a price that's congruent with their *fair* value...)

Eduardo

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9815/9825 tape drive

*Message #1 Posted by **Achim** on 11 June 2003, 6:46 p.m.*

Can anybody tell me, which type of lamp for end-of-tape detection is build in the internal tape drive of a 9815 or 9825? The lamp is burned out and I need to replace it.

Re: 9815/9825 tape drive

*Message #2 Posted by **Tony Duell (UK)** on 12 June 2003, 6:24 p.m.,*
in response to message #1 by Achim

That bulb runs straight off the 5V line, and is not that bright, so it's probably a 6V bulb. I think there's a 6V, 60mA bulb about that size, which I'd try first. There are 2 bulbs in the tape drive, one to detect the hole in the tape and one for the tachometer sensor. They are in parallel electrically, and AFAIK the 2 bulbs are the same type, so if only one has failed you could measure the current through the good one to get some idea of the rating.

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HP Management Idiots Make *Another* Bad Decision...

*Message #1 Posted by **Wayne Brown** on 11 June 2003, 2:59 p.m.*

Jean-Yves Avenard is one of the principal authors of MetaKernel for the HP48GX and the operating system of the HP49G. While he worked for HP's ACO division he helped supply the official updates to the flash ROM that were available from HP's web site. Since HP closed down ACO (which means JYA lost his job) and stopped releasing upgrades for the 49G, JYA has been providing FREE support for the 49G, including ROM upgrades, from his personal web site. He posted this article today in comp.sys.hp48:

> Quote:
>
> Dear all.
>
> For the past few weeks I've received several inquiries for why my web site was not accessible anymore.
>
> Well believe it or not my university closed my account due to copyright infringements after they received a request from HP to close my web site (they didn't like that I used their logo and distribute the 1.19-5 ROM).
>
> Thank you very much HP for closing what I believe is a very useful source of information for your own customers...
>
> Jean-Yves

It's clear that HP management is not only malicious, but stupid as well. This sort of thing is only going to cost them more sales. I, for one, will not buy anything HP has to offer. I don't care if they finally release that "dream calculator" we've all been waiting for. No matter how good their promised new calculators are, I will not buy them and I will encourage everyone I know to avoid buying them (or any other HP product).

If even I, who don't especially *like* the 49G, feel this strongly about the matter, imagine how the fans of the 49G will feel about this betrayal...

Re: HP Management Idiots Make *Another* Bad Decision...

*Message #2 Posted by **Dave Hicks** on 11 June 2003, 4:59 p.m.,*
in response to message #1 by Wayne Brown

As I understand it if you make no attempt to protect your trademarks then you risk loosing them.

I heard some grumblings from a number of HP engineers about a year or two ago about his lack of concern for HP's IP and the legal/business issues that can cause. (Note that all of these people were hired long before Carly - you can't blame her for everything :-)) This was brought up in connection with HP denying some of my more recent requests to use their IP. The general feeling I got was that HP wanted to help people but had issues with some people redistributing things without asking, and other people assuming that if they saw someone doing it on the Internet, then it must be OK and assuming that if it was OK to redistribute "that", then it must be OK to redistribute "this" etc. All of this had caused them to become much more conservative about IP than they had

been just a few years earlier.

From that perspective, it seems to me that HP moved slowly on this. It would not surprise me to learn that HP tried to work out something with him before going to the university.

Of course I have no way of knowing and I'm reporting 2nd hand info from people who may have their own axes to grind etc. etc. It sounds to me like it was a "difficult marriage" and a "difficult divorce" so we may never get a single explanation.

How does Greek row fit into all this ?

*Message #3 Posted by **NH** on 11 June 2003, 5:15 p.m.,*
in response to message #2 by Dave Hicks

How does Greek row fit into all this?

During our college years, weren't the Enron and HP blue-suits the same yahoo's who drank their beer from large aluminum alloy pressurized kegs and majored in business?

I think they had it in for engineers, because engineers were smart enough to use their mind to hold formulas, instead of their stomachs to hold beer.

Some of this is demonstrated in the movies "Revenge of the Nerds".

Except the Nerds won in the movie, which is not the case in real life. In real life the business majors all make $8 million bucks a year and they get to pay the engineers $49,000 a year. Then they discontinue all the engineer's calculator products so that engineer's can't get their work done.... and also, blow up the engineer's work (i.e. 2 out of 5 space shuttles)

:o|

Re: How does Greek row fit into all this ?

*Message #4 Posted by **bill platt** on 11 June 2003, 5:30 p.m.,*
in response to message #3 by NH

Hi Norm,

It is all about being close to the money. We (engineers) are far from the money.

Apparently, it really is that simple.

I also think that many engineers like what they do, and so tend to under-charge....

Oh well, better to live a wise and happy life, rather than a sad and ignorant one.

Re: HP 49 OS - Calcs in general

*Message #5 Posted by **Chris(FLA)** on 14 June 2003, 9:39 p.m.,*
in response to message #2 by Dave Hicks

As I understand it if you make no attempt to protect your trademarks then you risk loosing them.

Kleenex - Xerox have to work very hard at this for obvious reasons.

Maybe HP is coming out with a new unit and they don't want the old 49 to keep them from selling the new

unit. I know it sounds like a pipe dream, but it could be another reason why HP did that.

I am beginning to think one of the reasons that calcs aren't as popular anymore is because you can't lock up the software like say a palm unit. No one including HP can make money from software if they can't lock it up.

I think we all know that hardware is a very small amount of the cost of machines these days. Software and services is were the big money is. Look at Microsoft as an example.

Chris

It's obvious...

*Message #6 Posted by **Mike** on 14 June 2003, 1:10 a.m.,*
in response to message #1 by Wayne Brown

that most collectors on this site, forget that HP is running a business and makes decisions based on a business model and not what's best for the few collectors (compared to all the users in the world).

Clearly, he should not have been distributing any ROM data using HP logo or trademark, if he doesn't have HP's permission.

One thing you do not understand about trademark rights. It is incumbent that holders of trademarks, to be vigilent in enforcing the trademark. If HP knew of an infringement and didn't do something about it, they could lose their trademark.

What's so hard to understand about that?

Edited: 14 June 2003, 1:11 a.m.

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HP 41 X module

*Message #1 Posted by **Howard** on 11 June 2003, 1:04 p.m.*

Can anybody tell me if I can use the X Module (part number 82181A) in my HP41CV? The manual doesn't actually mention this module vis a vis the HP41CV. Thanks in advance.

Re: HP 41 X module

*Message #2 Posted by **Johnny Billquist** on 11 June 2003, 2:13 p.m.,*
in response to message #1 by Howard

That's the X-MEM module. Yes, you can use it in a 41CV. In fact, you can use it in any HP-41. However, to get any use from it, you *need* the X-FUNC module as well. That module is built in to the CX, but an option for the C and CV.

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selling a HP 35 in good condition

*Message #1 Posted by **Ingmar Tengler** on 11 June 2003, 11:05 a.m.*

Hello everybody,

i'm about to sell my dad's hp 35. i guess i wont have to tell you anything about that great invention hp made there quite a few years ago... it is in very good condition, only shows a little wear around the on-off switch. it works just like a new one would, and the led's are still quite bright. only the battery has been removed long time ago. so it has to be run with the ac adapter. i still have the original leather case and the original hard plasitc box as well

it is the version where to top buttons are not printed on the buttons...

if you are interested i will send you very detailed pictures... please contact: ingmarusa@gmx.de

Re: selling a HP 35 in good condition

*Message #2 Posted by **Larry Corrado, USA (WI)** on 11 June 2003, 11:22 a.m.,*
in response to message #1 by Ingmar Tengler

I'm sure there are people on this forum who would be interested in your calculator. However, please note that there is a "Classified" section of the HP Museum where you can post an advertisement. Simply click on the "MOHPC" at the top of the page to go to the Museum home page.

May I also suggest that you don't run your calculator on the charger without batteries. You risk damaging the unit. Evidently it has not happened so far, but it could happen.

Good Luck. Larry

Re: selling a HP 35 in good condition

*Message #3 Posted by **David Ramsey** on 11 June 2003, 12:05 p.m.,*
in response to message #2 by Larry Corrado, USA (WI)

Why shouldn't he run his calculator on the AC adapter without batteries? As I recall, even the manual says this is OK...

Re: selling a HP 35 in good condition

*Message #4 Posted by **David Smith** on 11 June 2003, 1:32 p.m.,*
in response to message #3 by David Ramsey

The HP35,45,70 and 80 were designed to be run without the battery installed. There is a small chance that a 65 or 67 card reader chip could be hurt this way. It is the best way to fry a Woodstock series machine. Not good for Spice series machines either.

My Mistake...

*Message #5 Posted by **Larry Corrado, USA (WI)** on 11 June 2003, 4:04 p.m.,*
in response to message #4 by David Smith

I've always taken it as a general principle that one shouldn't run a calulator on the charger without batteries. Of course, the reason is the voltage regulation that rechargeable batteries provide.

Evidently, that's not a problem in some HPs. I stand corrected.

Thank you, David and David.

Larry

Re: selling a HP 35 in good condition

*Message #6 Posted by **Ingmar Tengler** on 14 June 2003, 9:36 a.m.,*
in response to message #2 by Larry Corrado, USA (WI)

Thank you for the info, surely it is more likely that anybody searching for a hp 35 will search for it in the ad section, but i just did not know about it... thanks for telling me about it....have a nice day

greatings from munic, ingmar

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9830 ROM Modules

*Message #1 Posted by **Achim** on 11 June 2003, 5:28 a.m.*

Recently I got three working ROM modules for the 9830 which lost their labels. I want to reproduce them with a color printer but some idea of the original layout and color. Can somebody send me photos of some front labels of the following modules? Model 30 Matrix Operations Model 30 String Variables Model 30 Advanced Programming I Model 30 Extended I/O Model 30 Plotter Control

Many thanks, Achim

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Mr. Hicks how about a screen saver

*Message #1 Posted by **Norm** on 11 June 2003, 3:36 a.m.*

I wonder if Mr. Hicks could build us a screen saver. It would have a slide show of HP classic calculators.

Anybody who wants to give thumbs down to the Kinpo/Carly stuff, would download the screen saver and let it run. Esp. at HP headquarters.

Imagine the warfare on this chat board, over which calculators should be included in the slide show !!

I could imagine a near replica of the 25C owner's manual. That is, a 25C silhouetted against the earth shot from space. Then perhaps a 'people' shot of some famous-type guy posing next to one of the suitcase models, in the 70's.

Of course, I would design the screen saver as follows:

First would come the face-on view of the 34C..... then would come the 3/4 view of the 34C..... then would come the 34C framed next to its owner's manual .... then a 34C superimposed atop an engineering marvel such as the 747... then an interior view of the 34C circuit board .....

Re: Mr. Hicks how about a screen saver

*Message #2 Posted by **Jürgen (CH)** on 11 June 2003, 8:58 a.m.,*
in response to message #1 by Norm

Great idea, although the design has to be discussed ;-) I suggest the screen saver has to be highly customizable to meet the collector's individual preferences.
Let me know if Windows programming skills are required. I would be proud of participating this project.

Re: Mr. Hicks how about a screen saver

*Message #3 Posted by **Juan-J** on 11 June 2003, 11:43 a.m.,*
in response to message #2 by Jürgen (CH)

Just wondering, about HP calculators and engineering marvels... What about the HP-41/Space Shuttle ads? The 65 and the Apollo-Soyuz mission? Or perhaps the 9810/20 (not really sure on this) and the Pioneer 10?

It would be great. So many themes on screen savers, some of them hardly attractive, why not HPs?

A little bit off-topic, I once read that Stanley Kubrick had an HP-35 and liked it very much, that's all I remember and have not found the original paper. Has anyone heard about this story or know more about it?

Re: Mr. Hicks how about a screen saver

*Message #4 Posted by **Valentin Albillo** on 11 June 2003, 12:02 p.m.,*
in response to message #3 by Juan-J

Juan-J posted:

"A little bit off-topic, I once read that Stanley Kubrick had an HP-35 and liked it very much, that's all I remember and have not found the original paper. Has anyone heard about this story or know more about it? "

Don't know about Stanley Kubrick himself, but famous sci-fi writer Arthur Clarke (who worked with Stanley Kubrick in the making of "2001 A Space Odyssey") did mention a number of times that he owned (and loved) an HP-9825 programmable calculator. Also, Wendy Carlos (Tron's OST, etc) owns another HP-9825 and does some amazing things with it. See:

http://www.wendycarlos.com/maps.html

Perhaps some forum contributors could name other celebrities owning classic HP calculators/computers ?

MORE screen saver slide show ideas

*Message #5 Posted by **Norm** on 11 June 2003, 4:58 p.m.,*
in response to message #4 by Valentin Albillo

MORE screen saver slide show ideas

slide pictures of.....

34C in front of space shuttle

34C orbiting planet Earth,

34C with Albert Einstein

34C tucked into shirt pocket of Admiral of U.S. Navy

34C in companion shot with 41C, 34C in foreground, 41C in background...

34C next to Rolls Royce jet engine

34C in truck driver's pocket, 48G+ underneath truck tire

34C in technician's hand at main console of atomic reactor station.....

34C being typed on by Nobel peace prize winner, President Bush in background.

C'mon Jurgen..... you can code it for us !!!! I'm ready !!!! C'mon screen saver !!

no slides, plz..

*Message #6 Posted by **Hans Brueggemann [GER]** on 12 June 2003, 10:25 a.m.,*
in response to message #5 by Norm

instead, i want a 'matrix style' one calculating primes or whatever senseless stuff with optional LEDs or 41C-style LCD characters.

cheers, hans

Kubrick and Clarke (Long)

*Message #7 Posted by **Michael F. Coyle** on 11 June 2003, 11:04 p.m.,*
in response to message #4 by Valentin Albillo

Some information about Stanley Kubrick and Arthur C. Clarke and their HP Calculators you might find of interest:

The HP Digest, Volume 2 (1977) has an article by Bernard Oliver. At the end, he says,

> Quote:
>
> Stanley Kubrick, director of *2001, A Space Odyssey*, was an early purchaser of an HP-35. He wrote me a letter of praise and ended by saying that the HP-35 would do for now, but what he really wanted was a pocket machine that told him what to do next. Even at the present rate of progress, I doubt if Kubrick can ever have *that* machine.

(This article is on Disk 4 of the MoHPC set. It is fascinating and well worth reading.)

Arthur C. Clark tells a interesting story about how he got his first HP Calculator. In 1968 he received a postcard from a magazine; they were preparing an article for their Christmas issue. They sent cards to many celebrities asking them what they wanted for Christmas; the best ones would be compiled and published as an article. Clarke threw the card out, then retreived it and wrote "Hewlett-Packard Calculator." The 9100A had just come out and he was impressed with its capabilities. He eventually did get the 9100 -- HP engineers saw the article and took up a collection to buy it for him. (*2001* had just come out, and I guess the calculator was sort of a thank-you.)

This story is told in a book called *Ascent to Orbit*, a collection of Clarke's non-fiction writings published in 1984. It introduces an article called "Hal Jr. vs. the Integers," in which he uses his 9100 to do some mathematical exploration, the details of which I've forgotten.

Just thought you'd like to know.

- Michael

Re: Kubrick and Clarke (Long)

*Message #8 Posted by **Ernie Malaga** on 12 June 2003, 11:05 a.m.,*
in response to message #7 by Michael F. Coyle

I've often wondered whether Sir Arthur ever upgraded or is still using the 9100A. If he still uses it, it must be one of the oldest HP calculators still in use.

The reason why I don't dismiss the possibility of Clarke still using the 9100A is because of a parallel with Isaac Asimov: Asimov never stopped using his TRS-80 computer till the day he died. Of course, Asimov (as much as I respect him) was a total klutz with gadgets. Once he called for repairs when his TRS-80 wouldn't boot up. The technician came to his home, flipped on the wall switch, and the TRS-80 started up as usual.

Man!

-Ernie

to valentine:

*Message #9 Posted by **db(martinez,california)** on 12 June 2003, 1:01 a.m.,*
in response to message #4 by Valentin Albillo

w. carlos does amazing things with equipment period. amusing too.

Edited: 12 June 2003, 1:04 a.m.

Re: Mr. Hicks how about a screen saver

*Message #10 Posted by **Michael F. Coyle** on 11 June 2003, 11:15 p.m.,*
in response to message #1 by Norm

Great idea!

You know, you could also get a little subversive -- in addition to the calculator pictures, also scan the *introduction* inside the manual -- with the statement about how HP's mission is to provide high-quality products with service and support...you know the one I mean. Just imagine if that popped up along with the photos on the screens of the PCs at HP. It would be a constant reminder of how HP served their customers back in the good old days, and they couldn't repudiate it, since it's a direct quote from their own manual!

- Michael

Re: Mr. Hicks how about a screen saver

*Message #11 Posted by **Dave Hicks** on 12 June 2003, 1:45 a.m.,*
in response to message #1 by Norm

I don't use screen savers myself but if someone can point me to a simple screen saver developer kit which generates screen savers for at least the common platforms like Windows, Mac OS, Linux, and FreeBSD* I'll take a look at it. I'm just thinking in terms of a slide show - hopefully no need to write anything remotely platform-specific.

*And preferably some not so common ones too like AmigaDOS since I know we have at least one AmigaDos user.

still even more slides ...

*Message #12 Posted by **Norm** on 12 June 2003, 2:30 a.m.,*
in response to message #11 by Dave Hicks

even more slides ...

34C with smiling Mr. Hewlett and Mr. Packard standing nearby ...

34C with 1979 HP corporate policy boldly stated underneath...

34C silhouetted against close-up of the moon

34C silhouetted against Milky way galaxy

close-up of "0.0000" of RED LED's of 34C display

34C with Obi Wan Kenobi

34C with James T. Kirk

34C with Neil Armstrong

34C with Darth Vader

close-up of just the "Enter" key of 34C

34C and Hewlett Packard 1980's headquarters

34C silhouetted with John Ashcroft

34C and President Bush Jr.

34C on deck of U.S.S. Abraham Lincoln etc etc

etc etc etc

Re: still even more slides ...

*Message #13 Posted by **Juergen (CH)** on 12 June 2003, 4:43 a.m.,*
in response to message #12 by Norm

You forgot an important one ;-)

Norm (the greatest 34C fan), with shiny eyes, surrounded by dozens of 34C

Oh yah that's a good one...

*Message #14 Posted by **Norm** on 12 June 2003, 3:23 p.m.,*
in response to message #13 by Juergen (CH)

a screen saver starts out with my big grinning face

more and more and more HP34C's keep appearing at varying angles and sizes, until finally my whole face disappears behind all the 34C's

then it repeats.

Re: still even more slides ...

*Message #15 Posted by **Michael F. Coyle** on 12 June 2003, 12:14 p.m.,*
in response to message #12 by Norm

Hi Norm!

You wrote:

> Quote:
>
> 34C with smiling Mr. Hewlett and Mr. Packard standing nearby ...
>
> 34C with 1979 HP corporate policy boldly stated underneath...
>
> 34C silhouetted against close-up of the moon
>
> 34C silhouetted against Milky way galaxy

close-up of "0.0000" of RED LED's of 34C display

34C with Obi Wan Kenobi

...and much much more in the same vein.

Reading your post is like reading the menu at the restaurant that serves Spam with everything. (For details, see http://www.ironworks.com/comedy/python/spam.htm)

Aargh! Enough!

- Michael "That's not got much spam in it" Coyle

You forgot.....

*Message #16 Posted by **james (UK)** on 13 June 2003, 3:56 a.m.,*
in response to message #12 by Norm

34C falling on Carly from a great height

34C placing Carly on the railroad tracks...

Bad idea...

*Message #17 Posted by **Juergen (CH)** on 13 June 2003, 10:38 a.m.,*
in response to message #16 by james (UK)

> 34C falling on Carly from a great height

Bad idea, the 34C may be hurt!

Yah,

*Message #18 Posted by **Norm** on 14 June 2003, 4:49 a.m.,*
in response to message #17 by Juergen (CH)

Yah,

use a grey paver brick, not a 34C.

Gotta feel sorry about maybe damaging that brick though !!

What about some 'Monty Python' animation to the screen saver, complete with circus music. 34C's marching across the screen, then Carly's big foot comes down to smash them, with a raspberry sound

PLPLPLPLPBBB!!

Re: Mr. Hicks how about a screen saver

*Message #19 Posted by **Meindert Kuipers** on 12 June 2003, 6:01 a.m.,*
in response to message #11 by Dave Hicks

For those few who still use Windows (at least it works om my XP machine) is is very simple to setup a slide show from the My Pictures folder (or any other folder ...) with the standard tools

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Public thanks!

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 2:03 a.m.*

Hi, folks;

I'd like to let you all know how thankful I'm feeling for those who sent me e-mails about the HP71B, and even for those who expressed their support as well. I'll do my best giving it lots of attention and studying it so I can learn HPBASIC the way it is. I have no words to express my gratitude to Doc Meyer, and I hope others that wish having this sort of chance, to get it as well.

What gives me the necessary support amongst the high quality people I have found in this forum is that it exists a bi-directional flow, and I try to keep it flowing both ways, in and out, keeping balanced resources coming and going. And this is gold, too.

Thank you all. I'll write private e-mails as well, but I found a public "thanks" a good remind that I received the mails and I am thanked for them.

Luiz C. Vieira - Brazil

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What's CPU of HP 12C and HP 12C Platinum

*Message #1 Posted by **Luc Chanh Truong** on 10 June 2003, 11:58 p.m.*

Hi every body, Do you know what is CPU of HP 12C and HP 12C Platinum. What are differences between them (specially on technology and speed)?

Thank you.

Re: What's CPU of HP 12C and HP 12C Platinum

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 12:27 a.m.,*
in response to message #1 by Luc Chanh Truong

Hello, Luc;

I read here that former Voyagers CPU was based on the HP41 CPU, known as **nut**. This is the explanation for Coconut as HP41 project name, and the later references as fullnut (earlier models) and halfnuts (later ones).

There are at least four major HP12C's "nuts", being three of them from previous 3-cell (4.5Vcc) units provided by HP and the later one, from Agilent, exclusively for the one-cell (3.3Vcc) newer version. I have their ID codes, if you wnat a list of them.

The HP12C Platinum has a bubble-type CPU without any identification at all. I call it a *peanut*, but someone here told me a peanut is not a nut, even being called peanut, and this is enough for me to rename it. So now I call *nonut* the HP12C Platinum processor! d;)

Sorry, but I could not resist...

Hope this helps... except for the peanut/nonut "joke".

Luiz C. Vieira - Brazil

Re: What's CPU of HP 12C and HP 12C Platinum

*Message #3 Posted by **Luc Chanh Truong (Vietnam)** on 11 June 2003, 1:21 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thank you,Vieira, Luiz C. please let me know the list of ID codes of HP 12C.

The (maybe incomplete) list

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 1:49 a.m.,*
in response to message #3 by Luc Chanh Truong (Vietnam)

Hey, Luc;

These are the ID codes for HP12C calculators I had in hands for maintenance. They are in "order of

appearance" and I do not know when they were introduced or discontinued. FIrst one is the earliest.

```
1LH1-0304 + ILF5-0301 (HP original, R2D2 and KBD scanner)
1LQ9-0322             (HP original)
1RR2-0001             (HP original)
2AF1-0001             (Agilent, 3Vcc cell type)
```

These are the ones I know. PLease, if anyone else has information about others, let me know.

Best regards, Luc.

Luiz C. Vieira - Brazil

Edited: 11 June 2003, 2:04 a.m.

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Battery questions

*Message #1 Posted by **Luk** on 10 June 2003, 10:23 p.m.*

Hello,

I am new to calculators collecting and have the following newbie question. I own a few calculators mostly HPs but use regularly only one of them at one time for a couple of months and then switch to another one and so on. I am wondering what would happen to the batteries in the calculators that I do not use for a long time. Would they leak or get corroded? Is there any sort maintenance that I should do? I know if this is a car I would have to turn on the ignition once in a while do I have to do the same with calculators?

Thanks in advance. Luk

Re: Battery questions

*Message #2 Posted by **Randy Smith** on 10 June 2003, 11:14 p.m.,*
in response to message #1 by Luk

I would suggest when storing the calculators you are not currently using to leave the batteries out. That way, if anything does happen, you will only have to rebuild a battery pack or buy new batteries, not have a potentially dead calculator.

I can't speak to exercising calculators. Maybe someone else can chime in.

I second Randy, and I'd add...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 12:46 a.m.,*
in response to message #2 by Randy Smith

Hi Luk, Randy, guys;

First: what calculators do you have, Luk? Not necessarily their ID numbers and quantities, but their type: graphic, scientific, LCD or LED, or even better: Pioneers, Woodstocks, whatever. Batteries characteristics and their "risk" are not the same.

I agree with Randy about any sort of batteries and I'd add the following suggestion: shorten the calculator's batteries poles while they are resting for longer periods of time, mostly if they are newer, LCD type. Their susceptibility to ESD (Electro Static Discharges) make them potencial victims. The well know electrolytic capacitors leakage probably does not occur in SMT (Surface Mounting Technology) components in this case. I know about tantalum SMD capacitors and I want to ask: are there electrolytic SMD capacitors as well? Are they sealed the same way?

Using (exercising) calculators is something I do not have a "technical" position about. All I can see is that leaving batteries inside continuous-memory type (all new models and some "ancient" ones) will feed RAM, a few capacitors and keyboard sensing circuitry, what gives us a few tens of microamps (µA), if not less than ten µA. Replacing batteries with discharged capacitors, and I mean ALL MOS parasite capacitors, will cause a brief current surge through some parts of the circuits. I am not sure how dangerous it is, if it is.

If a chip is burned somehow when a battery set is connected under normal to perfect conditions, I take as a weak link in a chain being broken: it would break someday.

Hope this helps. I'd like to read from others; maybe I added some wrong information here and did not realize it.

Luiz C. Vieira - Brazil

Re: I second Randy... - Thanks

*Message #4 Posted by **Luk** on 11 June 2003, 1:11 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Hello Randy and Luiz,

Thank you so much for the replies. I currently have the 12C, 15C, 16C, 10B, 17BII, 19BII and Casio CFX9850GB. I had always left the batteries inside the calculators even when they were not in use, but from now on I will take them out as you suggested.

The HP's always retain the memory and all the settings but the Casio always resets to default settings when turned on (after being unused for a while).

Cheers, Luk

SMD electrolytic capacitors

*Message #5 Posted by **Ellis Easley** on 18 June 2003, 10:57 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

First, I want to say that tantalum capacitors are also electrolytic - there are aluminum electrolytic capacitors and tantalum electrolytic capacitors (and probably some other types - for instance, some other chemistry might be at work in the "supercaps" that go up to 1 farad and more in a small, low voltage package, they were intended to provide low current for memory backup as an alternative to batteries - I never actually saw them in any equipment, though). Anyway, I understand that in normal discussions, "electrolytic" means aluminum electrolytic and "tantalum" means tantalum electrolytic.

There are SMD (aluminum) electrolytic capacitors. They consist of a cylindrical can mounted on an SMD base. They are not as compact as the same value tantalum capacitor and are usually tall, since they are basically cylindrical cans with a seal at the bottom. I think aluminum electrolytics need to be built this way because they need a pressure relief valve (built into the rubber seal). Aluminum electrolytics have higher leakage and tend to "form" to the voltage they operate at: if they are used at a voltage much lower than the rated voltage, the dielectric tends to re-form in a thinner layer causing the capacitance to increase. If the applied voltage is increased, the thinner dielectric leaks more for a time until a thicker dielectric layer is built up - through "electrolysis" (that's why they are called electrolytic - there is no dielectric layer when they are first made, it is built up by application of voltage and current at the factory). As the dielectric layer becomes thicker, the capacitance decreases. If the voltage is increased too much-too fast, the leakage is so high that gas builds up to a high pressure in the can and the relief valve must vent it to the atmosphere.

Since tantalum capacitors are also electrolytic, they must have a dielectric layer formed by electrolysis also. One plate of the capacitor consists of a porous slug of powdered tantalum metal joined by heat and pressure (sintered) (BTW tantalum has a high melting point, ~3000 degrees C, it is so named because it tantalized metallurgists who tried to extract it from its ore). The other plate is the conductive electrolyte that saturates the slug and is in electrical contact with the metal container. Tantalum capacitors have much lower leakage and can be made with a glass seal (no pressure relief valve) so

that's why they can be put in molded SMD packages and dipped wire-leaded packages.

Because of the sintered slug, all parts of the plate are electrically close together, compared to an aluminum electrolytic, where the plate is a roll of foil so the ends of the foil strip are electrically far from the terminal. This is why tantalum capacitors have lower inductance and lower ESR (equivalent series resistance - the resistance presented to an AC current).

There are aluminum electrolytic capacitors with extra-low ESR, these are important for use as filters in high frequency switching power supplies. I think they achieve the lower ESR by having multiple connections along the length of the foil strip to the terminal.

Re: Battery questions

*Message #6 Posted by **Alex** on 11 June 2003, 4:27 p.m.,*
in response to message #1 by Luk

Though avoiding battery contact corrosion is a good idea, one should also consider the effect of not having power applied to the electronics for a very long time. It is common for some electrolytic capacitors to fail if left uncharged for a very long time. Thus, the best way to long term store an HP is to periodically take it out and power it up to execise the electrolytic capacitors.

Re: Battery questions

*Message #7 Posted by **Luk** on 11 June 2003, 8:11 p.m.,*
in response to message #6 by Alex

Hi Alex,

Thanks for the information. How often do you think we should put the batteries back in and then power up the calculators? Would once every three months be sufficient? (Because of the nature of my job I only use one type of calculator for a couple of months and then switch to another).

Regards, Luk

Re: Battery questions

*Message #8 Posted by **David Smith** on 13 June 2003, 4:49 p.m.,*
in response to message #7 by Luk

The more often the merrier, but every three months should be fine.

If you have an HP91/92/97/82143A, etc with the printer make sure you run the printer also. This keeps the paper drive rollers from devloping flat spots, etc. Also run the card readers for the same reason.

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manual book hp12C

*Message #1 Posted by **Igi** on 10 June 2003, 8:44 a.m.*

I have a calculator hp12C, but i don't have the manual book. Can you give me the manual book (by e-mail) or can you give info where the specific store in my contrie. I live in Indonesia, Jakarta City. Thank you

Re: manual book hp12C

*Message #2 Posted by **Ellis Easley** on 10 June 2003, 12:34 p.m.,*
in response to message #1 by Igi

You can download a "Solutions Handbook" for the 12C from the HP website:

http://h20015.www2.hp.com/en/manualCategory.jhtml?reg=&cc=us&pagetype=manual&prodId=hp12cfinan81575&sw_lang=en&lc=en&docparent=26200492

HP still sells the 12C and you will probably have to order the User's Manual from HP as a spare part or accessory.

Re: manual book hp12C

*Message #3 Posted by **Patrick** on 10 June 2003, 4:45 p.m.,*
in response to message #1 by Igi

You can find the user manual for the new HP-12C Platinum on the hp site... try this link.

Of course, the Platinum has certain features not found on the legacy 12C (such as poor choice of colours), but not that many. For example, the legacy machine could deal with 20 cash flows while the new one can deal with more (30?). The lion's share of the document, though, ought to apply to both.

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TL 891 MinLibrary tape storage

*Message #1 Posted by **Yaniv** on 10 June 2003, 8:01 a.m.*

I am using one of your products “TL891 Mini Library storage”, it is a tape library. This library is connected to an Alpha server with VMS 7.1. Is there a way to tell the robot when it finishes using tape number 9 to move back to number 0. Also in the configuration option I have an option to set “Reticule” will it help me for this purpose?

Re: TL 891 MinLibrary tape storage

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 10 June 2003, 8:27 a.m.,*
in response to message #1 by Yaniv

The TL 891 is a DEC => Compaq => HP product, I know it but not from the VMS side.

Please note that this is an amateur HP-calculator site, not officially related to HP, and certainly far from the StorageWorks products.

While it is possible that someone here knows about your question (and in that case, most people here are more than willing to help and share any knowledge they have), I would suggest you to visit the HP-Compaq corporate web site, and look under the support section.

Good luck!. (Please disregard any idiomatic mistake)

Edited: 10 June 2003, 8:28 a.m.

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RPN/RPL - What?

*Message #1 Posted by **Jack** on 9 June 2003, 11:44 p.m.*

Did HP swich from RPN to RPL at some point or was RPL used only on certain models. Is RPL an official HP term?

My HP 12C manual(The only manual I can find with out unpacking a garage full of boxes) doesnt refer to RPL, but then it doesnt mention RPN either. However, the HP 100LX still refered to setting the calculator to "RPN Mode"

Did I miss a turn somewhere?

Jack

Re: RPN/RPL - What?

*Message #2 Posted by **Ernie Malaga** on 10 June 2003, 2:19 a.m.,*
in response to message #1 by Jack

> Quote:
>
> Did I miss a turn somewhere?

Yep. Around 1987 HP announced the HP-28C, which uses RPL. I am not sure whether the financial HP-18C uses it too (I've never seen one), and the 18C is, I believe, a bit older than the 28C.

In any case, RPL is a bona fide HP acronym, and it names an operating system similar to, but different from, the classical RPN. Other calculators that use RPL are the 48 and 49.

What makes RPL different from its predecessor is (1) the stack is infinite in size. Gone are X, Y, Z, T; now stack levels are referred to by number. (2) Stack registers can contain any kind of data -- even programs. (3) [ital]Everything[/ital] is backwards: not only 2 ENTER 3 +, but also "ABC" STO, which stores Level 1 into variable "ABC".

There is no consensus among users whether we like RPL better than RPN. I'm in the "no" side, but I seem to be in a minority.

-Ernie

Re: RPN/RPL - What?

*Message #3 Posted by **Valentin Albillo** on 10 June 2003, 7:27 a.m.,*
in response to message #2 by Ernie Malaga

Ernesto wrote:

There is no consensus among users whether we like RPL better than RPN. I'm in the "no" side, but I seem

to be in a minority.

Count me in.

Best regards.

Re: RPN/RPL - What?

*Message #4 Posted by **Massimo Gnerucci (Italy)** on 10 June 2003, 8:27 a.m.,*
in response to message #2 by Ernie Malaga

> Quote:
>
> *There is no consensus among users whether we like RPL better than RPN. I'm in the "no" side, but I seem to be in a minority*

me too... ;-)
Massimo

Re: RPN/RPL - What?

*Message #5 Posted by **R Lion** on 10 June 2003, 8:33 a.m.,*
in response to message #2 by Ernie Malaga

> Quote:
>
> There is no consensus among users whether we like RPL better than RPN. I'm in the "no" side

Hi from the "yes side" ;-)
I'm a fanatic, lover, maniac, etc.,etc. of the 48... BUT I wouldn't say that "like" is my feeling about RPL: I simply find easily the way for my programs do what I aimed for.
I'm not a programmer, so I'm always sure that my programs could be optimized for any more expert, but they do the work.
This calculator do all I have requested "her".
That's what I need.

Raul

I second Raúl...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 10 June 2003, 10:07 a.m.,*
in response to message #5 by R Lion

Hi, Jack! (Sounds familiar... sorry, I could not resist :)

I second Raúl and I'm at the "YES" side, but I'd never disagree with others choices. I like structured programming and functional paradigm. I would never give-up RPN, and RPL implememted functional, structured programming to an enhanced level.

I'm not calling RPL as an enhanced RPN. Not that I do not think that way, it's to avoid flames and blames.

Most of all, ***personal*** programming is a matter of choice and taste. I'm completely and 100% sure any RPN propgrammer is able to understand and use RPL as well; the reaons many in here decided not to

go for it are their reasons. It's not the same case, but may be "seen" as a personal choice: RPL-only programmers, those who did not get RPN at the time it was a fever, may also not like (or even feel tied for restrictions) to use RPN. Sometimes, when programming in an RPN calculator, I miss another stack register, or a PICK command, or DUP2, or an extra ALPHA register... well, they're not there, I must find another way.

My 2¢.

Luiz C. Vieira - Brazil

Re: RPN/RPL - What?

*Message #7 Posted by **jimc** on 10 June 2003, 11:23 a.m.,*
in response to message #5 by R Lion

I think I'd like RPL a little more if only there was some reasonable documentation! My 48's information on how to program lies somewhere between "inane" and "you really don't want to do this do you?". I am not a programmer by nature or by occupation. I just want an answer. As it stands, I am in the RPN camp.

BTW, if anyone could point me to a GOOD reference to learn RPL from (ideally from the 'net), I'd really appreciate it! It might even entice me into not listing my 48 on Ebay!;)

Thanks.

Learning RPL

*Message #8 Posted by **R Lion** on 10 June 2003, 11:46 a.m.,*
in response to message #7 by jimc

> Quote:
>
> BTW, if anyone could point me to a GOOD reference to learn RPL from

Well: the Advanced User's Reference Manual (AUR) is THE book (IMHO)

Raul

Re: RPN/RPL - What?

*Message #9 Posted by **bill platt** on 10 June 2003, 12:12 p.m.,*
in response to message #7 by jimc

Jim,

I found some very good references at www.hpcalc.org

I have three 5 references copied down to my hard drive at home; I would be happy to e-mail them to you, or put them on my FTP site later.

Three are on my hard drive here at work:

1.) The 48gx users manual (big, PDF)

2.) "An Introduction to Programming the HP 48G/GX Calculator" by Mervin E. Newton (PDF file,

135 kB)

3.) "Programming In User RPL" by Eduardo M. Kalinowski (225 kB, PDF)

Re: RPN/RPL - What?

*Message #10 Posted by **Valentin Albillo** on 10 June 2003, 1:12 p.m.,*
in response to message #7 by jimc

jimc posted:

"I am not a programmer by nature or by occupation. I just want an answer."

That's exactly my point. Classic HP calculators programmable in RPN were designed as tools for technical professionals, like engineers for example, who weren't programmers nor did they want to be, they just needed *answers*. Simple keystroke RPN programming provided those answers *easily and fast*.

On the other hand, RPL is a full-fledged, complicated, object-oriented language, which requires the user to deal with the vagaries and complications necessarily associated with such an OOP language, thus negating all simplicity and requiring its users to become what they'd rather not.

The result ? A divided user base, some loving RPL, some hating it, to the benefit of noone. Most technical users would find RPL unsuitable to get solutions fast, and would look elsewhere, ultimately dismissing RPL for good. The RPL revolution would gain only a very small percentage of people anew, while losing a lot of old timers. Most people saw the HP48/49 machines as *"already too complicated"* and they indeed are. I'm still waiting for someone to claim that any given RPN machine is "too complicated". Even the HP-41CX, with its large instruction set, its many ROM modules, and even its synthetics, still remained perfectly 'understandable', easy to grasp and use. Try that with an RPL machine.

I really feel classic RPN realized the best compromise between simplicity and power, with its 4-level+LastX RPN stack. Three or two level would be insufficient. More than 4 levels would be a book case of diminishing returns. Throwing it all in exchange for infinite levels which could also unexpectedly become *three, two, one, or none (!)*, with no automatic replication, with an overblown "last x" which could also be *non-available*, with all store operations now forced to always being *indirect*, etc, etc, was too high a price to pay for the loss of simplicity and convenience.

In the end, it caused most customers to completely ignore (and dislike) RPL, and RPN suffered as well. Every paradise has its snake.

"BTW, if anyone could point me to a GOOD reference to learn RPL from (ideally from the 'net), I'd really appreciate it!"

IMHO, this is the best, easiest, clearest book on the subject for learning purposes, assuming an user proficient with RPN but not versed at all in RPL:

"HP 48 Programming Examples" (HP Press Series) by Donald R. Mackenroth, paperback, 341 pages, Addison-Wesley December 1991, ASIN: 0201563258)

It includes lots and lots (more than 100) sample programs of all kinds, thoroughly explained and commented by the author, who, BTW, also wrote the excellent HP-25 Owner's Handbook, among others.

Best regards.

Sure I understand your point...

*Message #11 Posted by **R Lion** on 10 June 2003, 2:01 p.m.,*
in response to message #10 by Valentin Albillo

...because I often think that is "impossible" to change my 48GX for the 49G or whatever new calculator or system or expander... When someone feels comfortable, is very difficult taht he wants to change.

Raul

Re: RPN/RPL - What?

*Message #12 Posted by **Ernie Malaga** on 11 June 2003, 12:17 a.m.,*
in response to message #10 by Valentin Albillo

Valentin:

> Quote:
>
> That's exactly my point. Classic HP calculators programmable in RPN were designed as tools for technical professionals, like engineers for example, who weren't programmers nor did they want to be, they just needed answers. Simple keystroke RPN programming provided those answers easily and fast.
>
> On the other hand, RPL is a full-fledged, complicated, object-oriented language, which requires the user to deal with the vagaries and complications necessarily associated with such an OOP language, thus negating all simplicity and requiring its users to become what they'd rather not.

I agree with you wholeheartedly. When I was in college a friend had an HP-65. I taught him how to program it and, although he had absolutely no prior experience with computers, he understood everything the minute I said to him, "A program is nothing more than a series of codes that tell the calculator which keys to push -- automatically from the inside. Just imagine the calculator is pushing its own keys."

Boy, was that a revelation! Soon he was writing programs like a pro. [b]That's[/b] what RPN did for users -- provide a simple and efficient environment for either manual or programmed operation.

No longer true with RPL. Now the user is expected to learn the use of local variables, embedded programs, and an incredibly extensive list of operations, functions and commands -- for which there is little documentation.

Many die-hard RPL users scorn RPN calculators because they have so little RAM. Well, part of it is because RPN machines don't use up so much room in memory. Most instructions take up a single byte!

I'm not saying that RPN is perfect. I'm not even attempting to imply it. It has several serious defects (being GTO-happy is the most egregious), but for simplicity and ease of learning, it can't be beat.

-Ernie (PPC# 6594)

Re: RPN/RPL - What?

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 1:35 a.m.,*
in response to message #12 by Ernie Malaga

Hi, Ernie;

Yours are thoughtful words, but do you allow me to add a few comments to yours?

> Quote:
>
> "A program is nothing more than a series of codes that tell the calculator which keys to push -- automatically from the inside. Just imagine the calculator is pushing its own keys." (...) Now the user is expected to learn the use of local variables, embedded programs, and an incredibly extensive list of operations, functions and commands -- for which there is little documentation.

This is true when you're talking about RPN and AOS 80's pocket calculators. At the time BASIC and a few C-based pocket appeared, this rule no longer applied to them, too. As I mentioned sometime ago, I take RPN as a user interface, and programs using RPN interface take the advantage of the interface. The first RPN calculators where not even programmable, and they were RPN calculators.

About the little documentation I have nothing to say because I don't know all of them; anyway I have at least seven non-HP RPL-related publications, not counting the one I wrote about RPN-RPL "transition" (I must be careful not using Hicks' title...). But let's face one important fact: RPL stands for Reverse Polish *Language*. A language must be learned in its structures, as any other language. And in most cases (almost all) there is no way to use some languages' specific resources directly through the keyboard. There are exceptions, of course, but programming languages are intended to be used in programs. RPN is not a language; as the name says, it's a notation. And keystroke sequences in RPN-based calculators work fine as programs till the moment you test flags, use labels and gotos, subroutine calls and returns, index registers and control loops... These are of no use when performing direct computations, and you have to abstract when learning them as well as in any other language.

Using an RPL-based calculator as an RPN calculator are the first steps taken in their own user's manuals to introduce them:

```
number [ENTER] number [operation]
```

Or in a general, RPL-related form:

```
object [ENTER] object [command]
```

Using their programming structures and resources demand reading.

> Quote:
>
> Many die-hard RPL users scorn RPN calculators because they have so little RAM. Well, part of it is because RPN machines don't use up so much room in memory. Most instructions take up a single byte!

In any processor architecture, the combination of *n* bytes for instructions lead to an enhanced set of instructions. RISC and CISC architectures are the sign this is a subject for further studies. PIC processors have a 12-bit deep instruction code, allowing 16 times more

codes than the possible 256 with 8-bits only. If you take an HP11C and write down all possible, valid combinations of all keys and their respective prefixes, there is no way to go beyond 256. That's the maximum achieved. In other hand, if you do the same with the HP15C, you'll find there are more than 256 possible combinations. Then it's time to combine codes and select which one will be the prefix code, the one to be combined with the others, the code that will set a second-bank ROM call. Those who programmed Z-80 may remember the prefix codes: I only remember CEh, if I am not wrong.

The use of a single byte in program lines surely enhances memory use, but the fact is that memory was too expensive when programmable calculators first appeared. And some calculators, like the HP55, HP65 and both TI58/59, could merge a few combinations of codes, causing memory space to be consumed fast. And this is another reason I do not like to associate RPN (or even AOS) to programming resources. When we are talking about program-related structures, either RPN or RPL have their own environments, and both need a different approach. You may find both RPL- and RPN-calculator's users that do not know how to program. And both may use their calculators as well.

I know these are considerations based on some tendencies of mine, no doubts about. I just want to express what I see about RPN and RPL, mostly that RPL and RPN are related to each other, and that I repeated some thoughts in a different fashion, and for this I'm sorry. I think I must stop now to wait for comments, blames, flames, suggestions...

Luiz C. Vieira - Brazil

Edited: 11 June 2003, 2:38 a.m.

Re: RPN/RPL - What?

*Message #14 Posted by **Valentin Albillo** on 11 June 2003, 7:24 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

Hi Luiz & al.:

Luiz posted:

"I take RPN as a user interface, and programs using RPN interface take the advantage of the interface. The first RPN calculators where not even programmable, and they were RPN calculators."

I think you're confusing terminology. There's no way RPN can be called "a user interface". That would be a keyboard or wand on the hardware level, or a windowing system with icons and menus on the software level. Else, you could call BASIC a "user interface" to the underlying algebraic system. Perhaps you should refer to the RPN programming paradigm by some other name if you're going to consider it a language (I think HP-41Cs brand of RPN programming was called "FOCAL" at some point).

"In other hand, if you do the same with the HP15C, you'll find there are more than 256 possible combinations."

Many, many more. Just considering STO type instructions, there are more than 150 possible. Similarly for RCL instructions.

And some calculators, like the HP55, HP65 and both TI58/59, could merge a few combinations of codes, causing memory space to be consumed fast.

You meant "slow" instead of "fast", right ? Actually, merging codes *saved* memory space, of course; memory space would be consumed fast when keycodes *weren't* merged, as in the HP-55.

"You may find both RPL- and RPN-calculator's users that do not know how to program."

Anything goes in this bizarre world we've got, but I think that using an actual, nowadays existing, RPL calculator *only* for casual 'hand' computations, i.e., no programming at all (because its user "does not know how to program"), is really, really, *overkill*. For such use, I'd rather stick to my HP-11C or 15C, thank you very much. They just don't *consternate* me. :-)

Best regards.

Re: RPN/RPL - What?

Message #15 Posted by ***Vieira, Luiz C. (Brazil)*** *on 11 June 2003, 7:59 a.m.,*
in response to message #14 by Valentin Albillo

Hi, Valentin;

maybe I'm confusing something, I don't know. I call interface whatever exists between (inter) two systems, allowing them to "communicate" with each other. I consider both SW and HW resources necessary to compose an interface. If you take the automobile's cockpit as an interface, it doesn't mean anyone can drive a car, because there is a necessary protocol (driving skills) to make it "run". The cockpit MMI is complete only when there is a human being using it to drive the car, "communicating" with it. Likely, there are also machine-to-machine interfaces, being Hewlett-Packard's Interface Loop - HPIL - one of the very well known. There are both hardware and protocol needs to any equipment that wants to connect to another by means of an HPIL. If I am wrong it's because I'm taking the term in a much general meaning.

Best regards.

Luiz C. Vieira - Brazil

Re: RPN/RPL - What?

Message #16 Posted by ***Valentin Albillo*** *on 11 June 2003, 9:37 a.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

Luiz posted:

"Maybe I'm confusing something, I don't know. I call interface whatever exists between (inter) two systems, allowing them to "communicate" with each other."

Agreed. My objection was that you didn't use just "interface" on its own, which is as you just defined, but "user interface", which is rather a different beast in computer jargon.

Else, everything would be a "user interface", including RPN, your love for your wife, etc, etc.

Anyway, very interesting discussion, thanks for it.

Best regards.

User interface × User-level interface

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 10:57 a.m.,*
in response to message #16 by Valentin Albillo

Hi, Valentin;

not to extend the discussion more than enough, after posting it and got the road (I'm back and alive...) I thought I should post "user-*level* interface" instead of "user interface". At the moment it occured to me user interface is something created by the user, than you're right complaining: RPN is not a user interface.

I'd rather writting user-level interface, what would better explain how do I see RPN.

Best regards and thank you too, Valentin; it's indeed a "teasing" subject.

Luiz C. Vieira - Brazil

Edited: 11 June 2003, 12:17 p.m.

Re: RPN/RPL - What?

*Message #18 Posted by **Wayne Brown** on 11 June 2003, 9:08 a.m.,*
in response to message #14 by Valentin Albillo

> Quote:
>
> Anything goes in this bizarre world we've got, but I think that using an actual, nowadays existing, RPL calculator only for casual 'hand' computations, i.e., no programming at all (because its user "does not know how to program"), is really, really, overkill. For such use, I'd rather stick to my HP-11C or 15C, thank you very much. They just don't consternate me. :-)

I use a lot of RPL programs *other* people have written (like MetaKernel and Erable) on my 48GX, but I very seldom write any programs on it myself (mostly because I haven't yet been interested enough to devote the time necessary to learn more than a small subset of RPL programming). However, I frequently throw together small, special-purpose (often one-time-use) RPN programs on my 16C and 41CX. I just prefer the keystroke programming of the older models over RPL, though I really like the other features of my 48GX.

My day-to-day work involves dealing with high-level programming languages and I get enough of that at the office, so I've been putting off delving into the depths of RPL, which so far I haven't enjoyed very much. For anything except extremely trivial programs I prefer to go to hpcalc.org and grab whatever package is closest to what I need.

Re: RPN/RPL - What?

*Message #19 Posted by **Massimo Gnerucci (Italy)** on 11 June 2003, 10:37 a.m.,*
in response to message #18 by Wayne Brown

> Quote:
>
> *My day-to-day work involves dealing with high-level programming languages and I get enough of that at the office, so I've been putting off delving into the depths of RPL...*

Right on the nail!
Who needs *another* computer language?
IMHO a sort of macro language is all what is needed in a calculator for trivial, everyday, use.

When more specialized needs arise you either have to spend a great deal of time delving in the innards of UserRPL/SysRPL/ML/SynthProg and the like, or searching online for a library/listing that fits your needs or resort to a more specialized device.

It may be fun studying another language... when you have time and you can practice it everyday. No fun at all when time is **not** on your side and have to remember another way to write down an if/then/else.

My 1€¢,
Massimo

Re: RPN/RPL - What?

*Message #20 Posted by **Ellis Easley** on 18 June 2003, 3:01 p.m.,*
in response to message #19 by Massimo Gnerucci (Italy)

> Quote:
>
> It may be fun studying another language... when you have time and you can practice it everyday.

I think this is the key to the situation. I suspect high school and college students who were lucky enough to be able to afford a 48-Series machine (and were inclined towards programming in the first place) were able to pick up RPL with no problem because they were at the point in their lives when their job was to learn.

I bought several goodies from EduCalc - like an almost brand-new 41CX and a used 71B - that they had taken as trade-ins on purchases of 48S/SX/G/GX. EduCalc really pushed the 48's. I wonder how many of those buyers regretted giving up their RPN calculators when they were having ...

> Quote:
>
> No fun at all when time is not on your side and have to remember another way to write down an if/then/else.

Re: RPN/RPL - What?

*Message #21 Posted by **Johnny Billquist** on 11 June 2003, 2:18 p.m.,*
in response to message #10 by Valentin Albillo

A minor nitpick: RPL is not an OOP language, but a functional language.

Re: RPN/RPL - What?

*Message #22 Posted by **Jack** on 14 June 2003, 2:19 a.m.,*
in response to message #10 by Valentin Albillo

Lutz - Reverse Polish Language.. not Reverse Polish Logic, Thanks, that makes more sense.

I think I get it, RPL is really "Reverse Programming Language", the hazy point in the evolution of the calculator when someone at HP declaired Hey! This is not just recording keystrokes anymore, this is a high level programming language, and it needs a name.

I don't see the more powerful instruction set or merged instructions as being non clasical RPN and I don't think the infinite stack rules out RPN either, although I tend to agree with Albillo, "More than 4 levels would be a book case of diminishing returns"**. Enhancements accompanied each new model, somtimes huge enhancements. Memory increased, new commands were added, program steps became more powerful, but I don't see a point that RPN died or was replaced. RPN never was a language. It had a language though from the very start (HP-65), I just didn't know what to call it. RPL "Reverse Programing Language" works for me. The new calculator programmers with "Reverse Polish Language" RPL can call it RPN if they want, I'll just consider their RPL a newer version of my RPL. After all basic has come a long way from Dartmouth and it's still basic.

Of course I never programed with the "new RPL" so all this is easy for me to say :)

Jack

www.livingsoftware.net

**However, in Euclid's RPN I went with a 5 level stack* because I found that extra stack level often alowed even a poorly planned solution to be completed. *(ok 6 levels, counting the phantom register)

Re: RPN/RPL - What?

*Message #23 Posted by **Mark Ordal** on 18 June 2003, 4:49 p.m.,*
in response to message #22 by Jack

"More than 4 levels would be a book case of diminishing returns"

Perhaps this is true for just keyboard use. One strange use I found for the "unlimited" stack depth of the HP28S/48SX/48G was efficient evaluation of rational approximations for certain special functions. When the approximation polynomial is expressed in Horner's Form, you can put everything on the stack and then run through a FOR loop consisting of just *+ the right number of times. In my testing (about 14 years ago on my 48SX) the speed up was measurable compared with just "brute forcing it". (I didn't keep a record of just how much speed was gained---I just recall that it was enough of an improvement for me to consider this the preferred method.)

--Mark

"diminishing returns"

*Message #24 Posted by **Euclid** on 22 June 2003, 3:29 a.m.,*
in response to message #23 by Mark Ordal

Well.. with an unlimited stack you could from the keypad enter 50 numbers and then press add hmmmm.. 49 times but that's not very not efficent memory wise or ease. Speed is not always everything. Ok I admit programmically, sometimes you need to step outside the box, but I remember reading a quote from Vance Packard where he said "If you had a stack of infinite levels, then you can solve an infinitely complex equation. For all practical purposes four levels is almost infinite."

I guess the point is that your weighing speed vs memory and comming up with a win, but what if you had thousands of itterations, or hundreds of thousands of itterations? Not even HP's RPL had an truly unlimited stack.

Euclid :)

Re: "diminishing returns"

*Message #25 Posted by **Vassilis Prevelakis** on 23 June 2003, 11:46 p.m.,*
in response to message #24 by Euclid

```
Euclid on 22 June 2003, 3:29 a.m. wrote:
> Well.. with an unlimited stack you could from the keypad enter 50
numbers and then press add hmmmm..
> 49 times but that's not very not efficent memory wise or ease.
```

Depends, I used to do this very often with my 48SX when adding long lists of numbers. I would enter all the numbers and then confirm each one (on the Y register) before pressing +

Otherwise you have to double check numbers as you are entering them.

**vp

Re: RPN/RPL - Thanks to all

*Message #26 Posted by **jimc** on 10 June 2003, 3:15 p.m.,*
in response to message #7 by jimc

Well, as a result of the cooperative spirit and generous individuals (who continue to amaze me on this site), I have a whole bunch of new reading material for my bedside table. Who knows? Maybe this new kid on the block (my 48) will finally displace my 41. Stranger things have happened.....

In case of doubts or bold attempts...

*Message #27 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 12:08 a.m.,*
in response to message #26 by jimc

Hi, Jimc;

As a regular Brazilian-Joe, I try to be an specialist in general assumptions, so I got into a lack of expertise in almost everything I do, taking place in superficial matters.

Anyway, I offer my humble contribution in USER RPL whenever you want. Unfortunately, I have not found the time to go into SYStem RPL and Saturn assembly, but as you are begining with...

I'm sure others will support you as well, and even better than I, so you can count on us , RPL addicted (maybe I'm not speaking for all others...).

BUT, in no circumstances I'd support you if you decide to displace your HP41 for an HP48! Unless you send it to me as a gift... q8^D Kidding, guys, just kidding

Keep your HP41 and use it as well!

Best regards.

Luiz C. Vieira - Brazil

Programmining in RPL vs older calcs

*Message #28 Posted by **unspellable** on 11 June 2003, 1:15 p.m.,*
in response to message #27 by Vieira, Luiz C. (Brazil)

It has been said here that it is somehow more difficult to write a simple program in RPL than with one of the older RPN machines. Frankly, I find it much easier. RPL will handle both RPN and algebraic notation. For a very simple program I can wite it almost as quickly as directly solving the problem. I frequently write a very simple program if the calculation is to be repeated. I do a lot of calculating with complex numbers, and here RPL is vastly easier than the older HP calculator "languages".

On the whole, I find RPL to be more intuitive than the older languages. And I am not a programmer otherwise.

Perhaps part of the problem is confusion on the points that RPN is a notation, not a language or operating system, while RPL is both a language and an operating system.

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HP Forum Archive 13

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Hi !! Gene, HP 12C vs 12C Platinum

*Message #1 Posted by **Luc Chanh Truong** on 9 June 2003, 10:28 p.m.*

Hi, Gene

I owned a HP 12C, now HP has released new model HP 12C Platinum. I would like to know the speed solving TVM problems between 12C Plan vs 12C, specially on NPV and IRR problems. Does the 12C Plan faster than 12 C when solve the same problem ? Thank alot.

Luc Chanh Truong

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HP Forum Archive 13

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Black screen on 48GX

*Message #1 Posted by **Scuba Diver** on 9 June 2003, 8:19 p.m.*

Hi everyone!

I have a 48 with the older screen, and I have been REALLY curious to see the new black screen, however I haven't been able to find a 48GX at any store...

Does anyone happen to have any pics of the black screen? I've heard from many people that it's significantly better...would everyone agree?

If it's that good, then maybe I should pick one up while I still can!

B.

Re: Black screen on 48GX

*Message #2 Posted by **Randy Sloyer** on 9 June 2003, 10:22 p.m.,*
in response to message #1 by Scuba Diver

Can you find a 49 to eyeball? Same LCD. Two thumbs up. Of course the 48 will not be behind an extra window, so it's even better.

Re: Black screen on 48GX

*Message #3 Posted by **R Lion** on 9 June 2003, 11:10 p.m.,*
in response to message #1 by Scuba Diver

As you probably know, they can be found here
And you can see a picture here

Raul

Edited: 9 June 2003, 11:12 p.m.

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HP Forum Archive 13

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Am I too sensitive?

*Message #1 Posted by **David Ramsey** on 9 June 2003, 1:23 p.m.*

I've been collecting HP calculators since 1983. My collection (RPN scientifics) is complete, except for variations like a red dot 35. Recently I've been acquiring 41 accessories, like the cool HP-IL digital cassette drive.

I have one cassette for this drive. As we all know, nothing except a real HP cassette will work. I'd really like to have a couple more cassettes in case this one fails.

I see on the sale boards here that someone has a friend with a large cache of these cassettes that they're willing to sell in 10 packs. That's more than I want or need, but beggars can't be choosy, right? I know the cassettes are almost impossible to find.

Well, I guess they can. In response to an e-mail asking for price, I find the price for one 10 pack is $600, although if I buy two, I can get the second pack for a mere $300.

My reply was brief, and (I think to my credit) did not directly insult the sender or use any swear words. Basically I said I wasn't interested.

I dunno-- the Libertarian part of me thinks if they can get that much, more power to them. The HP collector part is kinda pissed off.

Am I too sensitive?

Re: Am I too sensitive?

*Message #2 Posted by **Paul Brogger** on 9 June 2003, 1:51 p.m.,*
in response to message #1 by David Ramsey

It's O.K. to be pissed off, even though you recognize the proximate cause (i.e., an irritating individual) is acting in a manner roughly consistent with your own philosophical beliefs. (After all, what kind of *philosophy* is it which simply holds "That is o.k. which doesn't cause me any discomfort"?)

Yes, it's unfortunate that "the market" as a whole will sometimes offer more for a desired item than a particular individual can justify. We can believe in the overall utility of letting supply and demand work, even while being occasionally stung by its effects in an arena of personal interest . . .

What seems unfair is that the seller is restricting supply by offering only batches of ten at what is probably a higher price than s/he would obtain were s/he to make them available in smaller quantities. But of course the seller needn't have made his/her supply of cassettes available at all, and you'd be no better off than you are now (except, perhaps, blissfully ignorant of their ready availability at an exhorbitant rate).

Bummer. Looks like you get to either get entrepreneurial (buy ten and try to sell a few to recoup some of your investment) or stay a careful buyer (wait and/or find another source of supply).

Anyone that pays $600 for 10

*Message #3 Posted by **Mike** on 9 June 2003, 2:20 p.m.,*
in response to message #1 by David Ramsey

has too much money. Prices shouldn't be over about $30 for new tapes.

You should be able to find bad tapes just to get the cartridge. Then for about $1 buy a new tape and change the tape media. Punch a couple of holes and you are in business for about $5.00

If you need a bad cartridge to respool, let me know and I'll send you one.

PS: Seller of the tapes. No need to reply to my email, if they are $600 per 10. Don't need anything that bad.

Edited: 9 June 2003, 2:22 p.m.

Re: Anyone that pays $600 for 10

*Message #4 Posted by **David Smith** on 9 June 2003, 3:49 p.m.,*
in response to message #3 by Mike

Hallelujah....

Collectors vs. Business people

*Message #5 Posted by **Michael Meyer** on 9 June 2003, 6:54 p.m.,*
in response to message #4 by David Smith

I remember lots of past threads with this issue: I once expressed my frustration with re-sellers who buy up everything they can only to re-sell at higher prices. It's great for profit, but bad for poorer collectors. (Even with some spendable income, there's a big difference establishing a collection of $30 calculators and $300 calculators.

Frustrating, but reality. Different goals. Both legit.

Only positive: my humble collection keeps going up in value.....though I'm not ready to sell them off yet. (They're... as Luiz says.... "my babies"....)

No, David, you're not being too sensitive. Just facing this now-becoming-age-old frustration.

Michael

Re: Am I too sensitive?

*Message #6 Posted by **Tony Duell (UK)** on 9 June 2003, 7:08 p.m.,*
in response to message #1 by David Ramsey

My first thought (as a user, rather than a collector) is that I've picked up 3 HP9114s for less than $600 total. The 9114 takes relatively easy-to-find 3.5" disks (the 720K DD type), and is a better bet for actually storing programs/data My second thought is that these tapes decay in storage anyway. The pressure pads certainly fail, and the bond between the tape and the leader also sometimes separates. Both these problems can be cured (I wrote an article about it in 'Datafile', the HPCC journal), but in any case, I'd not want to pay $60 per tape for something that needs repairing. I have a few, a very few (like about 5) of these tapes that are not in use (and AFAIK have never been used). I don't want to part with them, since I still use the 82161 sometimes, but if anyone _really_ needs one (as in, they have no other tape) and has something interesting to trade, then I might consider trading them. And I won't expect something worth $60 per tape either!

to heck with the cassettes,

*Message #7 Posted by **Norm** on 9 June 2003, 9:14 p.m.,*
in response to message #6 by Tony Duell (UK)

to heck with the cassettes, ask this Mr. Ramsey to send you a picture of his calculator collection. You will be most envious.

As to the greed thing, the seller sounds a bit greedy, certainly unhelpful. In his defense, it is impractical to just 'give stuff away' to try to be nice to people, but at the other end of the spectrum, greed should be kept down to a dull roar, and focus a little more on whether people are finding the right buyer for the merchandise (i.e. does somebody have a decent use for this thing).

That effect may seem subtle, but say I have a 32Sii to offload, and some guy who is just going to throw it in a file cabinet and never touch it will pay $250, but some starving college student who wishes to continue the HP tradition can only pay $199 . If I can get their respective stories straight, I'd go with the student for $199.

of course, its pretty hard to judge somebody else's need, that's why there is a marketplace with simple price tags attached.

If you bump into a seller who has triple-dosed on greed and wants you to pay his retirement, just smile and move on to another seller.

Re: to heck with the cassettes,

*Message #8 Posted by **David Smith** on 10 June 2003, 4:01 p.m.,*
in response to message #7 by Norm

Yeah, 60 bucks a tape is just way too much. You can often find a drive with a tape or two on Ebay for under that amount. And newish tapes have been bringing around $20 lately, used ones $10-$15.

Everyone needs to have the tape drive and some tapes as part of a collection or for demonstration, but the 9114 disk drive is a whole lot better for actual use... and lately they have been going for under $100.

Re: to heck with the cassettes,

*Message #9 Posted by **David Ramsey** on 10 June 2003, 7:54 p.m.,*
in response to message #8 by David Smith

Well, a fello who saw this thread has offered to sell me some new tapes in the $20/each range, so it's a happy ending for me.

I'll keep an eye out for a 9114 drive!

At $20 per tape they should be new

*Message #10 Posted by **Mike** on 11 June 2003, 5:15 p.m.,*
in response to message #9 by David Ramsey

Old tape are often very unreliable. Just be sure you are getting good or new tapes for $20 each. I have more bad tapes than good tapes. Bad tapes are a dime a dozen.

Michel, are you following this thread?

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 12:16 a.m.,*
in response to message #1 by David Ramsey

Hey, Michel;

I think many of your doubts are exposed, some answered, in here. A lot better than I could. And I think this is the best chance to ask for help...

Please, send me your last two e-mails again, because it seems I lost them. I could not open any of them again and I do not remember their contents quite well, and I know you may not even have their texts.

Thank you and sorry... As it is somewhat private, if you want to remove this post use the password 12345.

Luiz C. Vieira - Brazil

Re: Am I too sensitive?

*Message #12 Posted by **Richard Freeman (Australia)** on 11 June 2003, 2:23 a.m.,*
in response to message #1 by David Ramsey

I see there is a bloke down here who has the 9865a Drive for sale ... $25 Aud is about $14 US I dont know if he is willing to ship OS though http://electronictrader.webserver.com.au/equipment.html

Regards Richard Freeman

Re: Am I too sensitive?

*Message #13 Posted by **David Ramsey** on 11 June 2003, 12:10 p.m.,*
in response to message #12 by Richard Freeman (Australia)

The 9865A is a tape drive for the 9800 series of desktop calculator/computers. I wonder if it would work with my 9825A? I was unable to find any pictures of it...do you know how it connects?

Re: Am I too sensitive?

*Message #14 Posted by **Richard Freeman (Australia)** on 12 June 2003, 10:01 p.m.,*
in response to message #13 by David Ramsey

Sorry I dont know anything about it either just that Charles had it listed for sale. I was tempted to buy it on spec but I dont have any use for it at the moment and thought I would mention it here in case anyone here did...

Regards Richard Freeman

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Swapping 9825 Keyboards - Possible?

*Message #1 Posted by **Mike** on 9 June 2003, 10:56 a.m.*

I have a 9825 that has the low profile keyboard. As with most of these, there is no snap in a couple of keys. I have two options.

1) To remove good snap switches from another keyboard or,

2) To swap a normal (high profile) keyboard with the low profile keyboard.

Since I prefer the normal keyboard, #2 seems like the better choice. Does anyone know if the normal keyboard is interchangeable with the low profile keyboard?

Same question for swapping from an "A" version to a "B" version or visa versa.

Thanks,

Re: Swapping 9825 Keyboards - Possible?

*Message #2 Posted by **Tony Deull (UK)** on 9 June 2003, 7:11 p.m.,*
in response to message #1 by Mike

I have an HP9825 with the 'full' keyboard and an HP9831 with the 'chicklet' one. Apart from the labels on some of the keycaps, the keyboards are identical -- the same number of keys, wired in the same matrix, with the same connectors. I assume the HP9825 'chicklet' keyboard has the same labels as the 9825 'full' keyboard, and that therefore they can be swapped without problems. The keyboard is essentially a matrix of switches, and AFAIK, you won't damage anything even if the wiring is different, so it's worth giving it a try.

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hp48sx RAM module: what type of battery?

*Message #1 Posted by **andy delano** on 8 June 2003, 10:56 p.m.*

Hello,

As the subject states, I want to know what type of battery the RAM modules for the 48 series requires. Is it a CR2025?

I found my long lost 32k ram module while cleaning my garage (no wonder I couldn't find it...how on earth did it end up in my garage?...that certainly made cleaning it well worth the while!). I also found my sparcom ME applications pac which I still have the manual to!

Thanks,

Andy

Re: hp48sx RAM module: what type of battery?

*Message #2 Posted by **Randy Sloyer** on 8 June 2003, 11:25 p.m.,*
in response to message #1 by andy delano

Hp cards use 2016 3v coin cells. Don't know about the other brands.

I found a set of car keys that had been lost for two years in a box of nails in the garage. Seems it was at the exact height of my five year old, two years prior.

I let her play with car keys, but calculators, never.

Edited: 8 June 2003, 11:30 p.m.

Re: hp48sx RAM module: what type of battery?

*Message #3 Posted by **Thomas Rupp** on 9 June 2003, 5:20 a.m.,*
in response to message #2 by Randy Sloyer

Yes, the HP Cards use Batteries CR2016 - that means diameter 20mm and a high of 1,6mm. So the CR2025 has the same diameter, but is much higher. I own a 512KB for my GX and this card use also the CR2016.

greetings Thomas

Re: hp48sx RAM module: what type of battery?

*Message #4 Posted by **R Lion** on 9 June 2003, 8:41 a.m.,*
in response to message #1 by andy delano

My 128Kb HP card use a CR-2016. The same battery is used for my 512Kb from Cynox.

My 1Mb Klotz card use a CR-1216, much smaller.

Raul

Edited: 9 June 2003, 8:42 a.m.

Re: hp48sx RAM module: what type of battery?

*Message #5 Posted by **andy** on 9 June 2003, 11:40 a.m.,*
in response to message #4 by R Lion

This 32K ram card was actually sold by Smith Corona back in 1990-91 for their electronic type writers. They were a lot cheaper then the HP 32K cards and they work just fine (at least they do in my 48sx which has Rev A rom!...first shipment the bookstore received back in 1990).

Thanks for the answers...the CR2016 will fit.

Andy

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hp85 hpil question and hp85-->hp75

*Message #1 Posted by **andy** on 8 June 2003, 10:25 p.m.*

I have an hp85 (with i/o rom and 82938a hpil module). The hpil module works fine when setup to for the 85 to be the controller. When the hpil module is set to be the non-controller I get an error 114 (non active controller) which makes sense because the 85 is probably trying to access a drive through the hpil module and in order for it to do that it needs to be setup as the controller.

The reason I have the hpil module set to non-control is because I'm trying to setup communications with my hp75 (with i/o rom). With the 85 on, I turn my 75 on and it beeps and recognizes the 85 automatically as ":C1". However, when I try to send something from the 75 to the 85 with the following commands respectively:

75: output ':c1' ; "hello" 85: enter 9; a$

my 75 acts like it sent the string "hello", but my 85 just hangs until I perform a reset at which time the 85 returns with error 131 "time-out".

I've checked and my hpil module is set to address 9 and non-controller. My hpil cables are working too. I've even run the i/o exercisor program and the hpil module is error free. These are the commands reccomended in the hp75 i/o rom manual for 75->85 communications.

Any advice?

By the way, after writing the above message I re-tried the above commands but this time using my hp71 and everything works fine. Does the 75 not attach a CRLF or something?

Thanks,

Andy

Edited: 8 June 2003, 10:30 p.m.

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HP41C: successful transplantation (no more high consumption)

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 8 June 2003, 9:56 p.m.*

Latest news: after receiving a donated RAY-xxxxx LCD driver, an HP41C with high-current consumption shows signs of full rehabilitation. Life signals are fine and current consumption lies under expected low values.

Thank you all, WAG mostly, for your support and interest. May these news help others, too. If you want to know more, former thread is: HP41C: High current consumption

Best regards.

Luiz C. Vieira - Brazil

Edited: 8 June 2003, 10:08 p.m.

Re: HP41C: successful transplantation (no more high consumption)

*Message #2 Posted by **David Smith** on 9 June 2003, 10:43 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

The RAY-xxxx chip is the DC-DC converter/power supply chip. It was manufactured by Raytheon. It is apparently a bipolar (NPN/PNP transistor) technology and not CMOS.

Any possible replacement? Internal design?

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2003, 12:01 p.m.,*
in response to message #2 by David Smith

Hi, David;

bipolar technology was supposed to be harder to toast than CMOS under certain circumstances... Anyway, bipolar components may drift and cause instability, too.

Thank you for your information.

Have you ever heard about RAY-converter internals or equivalent? Even if it is not pin-compatible?

Best regards.

Luiz C. Vieira - Brazil

Re: Any possible replacement? Internal design?

*Message #4 Posted by **David Smith** on 9 June 2003, 3:50 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

No, the chip is an HP custom chip. Only source would be another machine.

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Heard any rumours about upcoming financial calc?

*Message #1 Posted by **Justin** on 8 June 2003, 8:41 p.m.*

Now that the 12cP is out, has anyone got any juicy info about what's next?

My dream would be something like a 17/19 BII with PC connectivity so one could use the computer for writing/proving Solver solutions and swapping data with the calc.

However, I spoke quickly to a guy at a calc shop here in Australia, and he said he didn't think PC connectivity was on the cards. I don't know what he was basing his info on, however.

Anyone have any bones to throw at all?

Edited: 8 June 2003, 8:42 p.m.

Re: Heard any rumours about upcoming financial calc?

*Message #2 Posted by **David** on 10 June 2003, 3:18 a.m.,*
in response to message #1 by Justin

I found this in an HP "industry analyst" newsletter from February 2003. I don't have the link anymore.

"HP has introduced two algebraic calculators designed specifically for the education market. These powerful new devices, the HP 9g and 9s, are the first products to be launched as part of the company's wider plans to enhance and develop a full range of Reverse Polish Notation (RPN) and algebraic calculators for education and financial users."

I was encouraged HP seems not to have given up on RPN, though I would be more reassured if they'd included "scientific" and/or "engieering" users in the above paragraph.

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Change from 17b to 12c Platinum

*Message #1 Posted by **Bart De Keyser** on 8 June 2003, 6:43 p.m.*

Hi all,

It is the first time I have a look at this Forum and I think it is the ideal spot to help me :

1. I own a HP 17b, but the key of the "6" needs to be pushed quite hard to get it displayed. I own this HP since 1988 (sg. like that), so there might have come some dust between the keys, etc.. Is there any way to get this fixed ?

2. Since the 17 B gets more and more difficult to work with (see above - I need to be make sure I push the "6" hard enough, ... just imagine...) I am considering to replace it by the new 12c - platinum, especially because you can change the mode to normal algebraic. Would this be a sensible purchase or is there a better (HP) alternative ?

3. Any good European web sites who sells these things ??

Thanks, Bart

Re: Change from 17b to 12c Platinum

*Message #2 Posted by **Gordon Dyer** on 8 June 2003, 7:27 p.m.,*
in response to message #1 by Bart De Keyser

I would prefer to get a 17BII for algebraic entry as an alternative to RPN. It will me more familiar to you and is a much more powerful calculator then the 12C platinum with the advantage of menus and text prompts in the display. But that is my choice. I do have 3x 12C's and like them a lot, but I find for financial use the 17BII is much more useable and powerful, it just doesnt fit in my pocket!

hold your horses

*Message #3 Posted by **bill platt** on 8 June 2003, 7:32 p.m.,*
in response to message #1 by Bart De Keyser

Bart,

The 12c Platinum appears to have a number of bugs. And the algebraic mode does not have parentheses, nor precedence.

You should peruse this forum and do a search on the subjects that interest you, to see what is up.

The classic 12c is probably a better bet, though you have to make the switch to RPN--which is really a good idea, but then again, I am not biased ;-).

Bill

I agree with Gordon...

*Message #4 Posted by **Scuba Diver** on 8 June 2003, 8:12 p.m.,*
in response to message #3 by bill platt

...I'd go with the 17BII. It's exactly the same as your 17 however it allows you to switch between RPN and ALG modes.

I have a number of 12Cs, a 17BII and a 19BII and I use my 17 the most. At work, I have a 12C because I'm usually just doing some basic arithmetic, however I'm also a part-time MBA student, so I use my 17BII for class.

The 17BII was recently discontinued, so you can probably still find some new ones around. Personally, I'd find an older one on eBay. The newer ones (with darker bezel) aren't made with the same quality as the older ones, IMHO.

B.

Thanks for the excellent advice ! - nt.

*Message #5 Posted by **Bart De Keyser** on 9 June 2003, 4:18 a.m.,*
in response to message #1 by Bart De Keyser

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how this italian spells relief

*Message #1 Posted by **db(martinez,california)** on 8 June 2003, 2:22 a.m.*

i just missed out on a bid for a spice. boy howdy am i relieved. the seller answered my questions quickly and straight. he seems like a good guy. there were no problems that i was worried about and it had not been abused by running on the charger w/o a battery. he had even used it a bit over the past couple of months, with a 9v battery. i wrote back using capital letters and the words "no" and "never" a lot. he swore to never do that again. i do not know that doing what he did will whittle away at the standard fourscore and ten years which an hp calc is due but; i made a lowish bid based on my private knoledge and missed. did i mention relief?

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Another version of "mint"

*Message #1 Posted by **Scuba Diver** on 7 June 2003, 11:54 p.m.*

I know we've talked about this before, but I thought I would share this one...it made me chuckle.

It's an auction for a "Like new" 17BII:

http://cgi.ebay.ca/ws/eBayISAPI.dll?ViewItem&item=3029346175&category=11712

Personally, I like the description, "Absolutely no scratch. The only difference between it and new one is the plastic cover."

Well, the plastic cover is ONE difference between yours and a new 17BII...I'm also thinking that the two dings in the bezel might be another one...

Maybe I need to reframe my definition of "mint"...

B.

Those are not dings

*Message #2 Posted by **Mike** on 8 June 2003, 12:50 a.m.,*
in response to message #1 by Scuba Diver

They are big friggin dents. :-)

I bought one one time that said no scratches and this showed up.

The seller also said the calculator had some slight corrosion that was removed. This is what showed up.

So, it's buyer beware.

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Repairing a 9114 drive - Tutorial

*Message #1 Posted by **Mike** on 7 June 2003, 4:10 p.m.*

I've been working on a tutorial for repairing a 9114 disk drive.

Tutorial on repairing a 9114 drive

What do you think? Is this format helpful?

Re: Repairing a 9114 drive - Tutorial

*Message #2 Posted by **Dan** on 7 June 2003, 4:15 p.m.,*
in response to message #1 by Mike

OMG THanks!

Re: Repairing a 9114 drive - Tutorial

*Message #3 Posted by **David Ramsey** on 7 June 2003, 8:43 p.m.,*
in response to message #1 by Mike

Very nice! The only thing that I would add is that if the drive is like other double sided drives of the era, you should be careful not to drop the mechanism into the "disk inserted" position without a disk. Doing this could cause the heads to crash together, potentially damaging them.

Good tip

*Message #4 Posted by **Mike** on 7 June 2003, 10:25 p.m.,*
in response to message #3 by David Ramsey

The head definitely drops if you actuate the mechanism without a disk and this should not be done.

I will add that to the description.

Thanks, Mike

Re: Repairing a 9114 drive - Tutorial

*Message #5 Posted by **Tony Duell (UK)** on 9 June 2003, 7:29 p.m.,*
in response to message #3 by David Ramsey

I normally put a piece of lens tissue (available from good camera shops) between the heads of a double-head drive when dismantling it. This prevents the heads from damaging each other.

Re: Repairing a 9114 drive - Tutorial

*Message #6 Posted by **Bill Smith** on 8 June 2003, 2:12 p.m.,*

in response to message #1 by Mike

Excellent!

When i can locate a battery pack or power supply for mine, i'll be doing this too. Very helpful.

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HP-71B

*Message #1 Posted by **John Kercheval** on 7 June 2003, 2:01 p.m.*

Any other users of the 71B out there? I have the 71, lots of modules and would like to discuss 71 topics with other users.

John in VA

Re: HP-71B

*Message #2 Posted by **Daniel Diggelmann** on 7 June 2003, 2:34 p.m.,*
in response to message #1 by John Kercheval

Hi John, Good idea. I've got only one (MATH) module but I like the HP-71B very much. I think it's the best calculator if you're interested in the HPIL. I'm mostly using it to control the HP 3421A Data Logger or the HP 3468A Digital Multimeter. For data storage I'm using an Omnibook 800CT plus docking station with the HPIL PC Card. EMU41 also works as a virtual mass mem with the HP-71B. I wish more modules were on the second hand market. It's hard to find any. The curve fitting module is one of the best I've seen. I once owned it and gave it away together with a circuit analysis module before I started collecting :(

Re: HP-71B

*Message #3 Posted by **John Kercheval** on 7 June 2003, 4:17 p.m.,*
in response to message #2 by Daniel Diggelmann

I use the Digital Cassette Drive for storage. I also use the HP41 Translator Pac. This is great as I can run all HP41 programs on it and can transfer by the IL. I am using the CMT 64K RAM module in the Card Reader Bay.

Re: HP-71B

*Message #4 Posted by **Tony Duell (UK)** on 7 June 2003, 6:25 p.m.,*
in response to message #1 by John Kercheval

I still use my HP71Bs (I have several of them) a lot. In fact I think it's one of the best HPIL controllers ever made. For that reason, I use it with the 3421 logger, and 82165 GPIO interface for homebrew hardware projects. I have several of the modules -- the 71B I use most of the time has the Forth/Assembler, Maths, AC circuits, and a 32K RAM module plugged in. I also have the 41 translator, finance, curve fitting, and Datacomms ROMs. HP71 BASIC Is a rather good version too, with named subroutines and parameters. Finally, of course, this is an 'open' machine -- all the internals were documented by HP in the IDS manuals -- I think they're on the MoHPC CD-ROMs, but I bought them as paper documents long before there was an MoHPC...

You can't have too many HP-71B

*Message #5 Posted by **Mike** on 7 June 2003, 10:40 p.m.,*
in response to message #1 by John Kercheval

I have 5 to 10 at any point in time. I think I have half a dozen right now. I have a couple that have CMT 128K Card Reader RAM and two 64K RAM in the front ports. Almost 300K.

I also have card readers for most of mine as well.

If I had to pick a favorite HP, it would be the HP-71B. It is still a very practical handheld for everyday use. The only drawback is that it's a little too big compared to a calculator but other than that, it's an awesome and very powerful computer.

I prefer to use the 9114 for mass storage than a digital cassette. Tapes are just too hard to find for the cassette and the 9114 isn't a lot larger. And the 71B can sit on top or right in front for a nice little package.

Re: You can't have too many HP-71B

*Message #6 Posted by **Michael Meyer** on 8 June 2003, 2:29 a.m.,*
in response to message #5 by Mike

I've said it before, but, I AGREE.

I love my calcs, all of them.

The 19C is my favorite for being spiritually admired, and the 67 is also a marvel. The 25 will always be my first love.

But, the 71B was my hobby all through med school. Despite eating left-overs from people's hospital trays and driving military ordinance (Mustang II = Pinto-- explodes on impact), I scraped up the money for a 71B.

I can still remember the first time I held it in my hand and typed in a command at the prompt. What a feeling of power! Prior to this, I had to run a stack of cards to high-level program. Now I could "blow away" those FORTRAN programs in a *personal* hand-held smaller than a stack of those cards.

And, with the 41 emulator, it has 5 calculators: 1. Basic command line math. 2. Built-in algebraic calculator. 3. RPN binary program (my favorite)...with overlay. 4. HP-41 RPN with keyboard overlay. 5. FORTH mode RPN.

(Do THAT on a 67....)

I would spray paint the overlays black, and then use white rub-on letters, followed by a clear-coat. I remember sitting at my girlfriend's apartment (now my wife of going on 17 years...) and carefully making the overlays on a coffee table.

I really only have one HP-71b. How many is too many? I think more than a couple is too many. But you can never have too many "spares"!!!!

RTN2RPN,

Michael

How many is too many?

*Message #7 Posted by **Mike** on 8 June 2003, 1:24 p.m.,*
in response to message #6 by Michael Meyer

When you have more 71b than you have modules and accessories-)

I have some with 128K Card Reader RAM. I don't like swapping things. So, when I want a card reader, I just use a different 71 with a card reader.

Also, you can't plug every module into a single 71B. Most of mine are loaded with RAM and only have 1 or 2 slots for application ROMS. So, I have one for 41 translator stuff and others for other things.

I guess I'd rather be lazy and have more, than efficient and have fewer :-)

Mike

Maybe U need one more ...

*Message #8 Posted by **Norm** on 8 June 2003, 2:40 p.m.,*
in response to message #7 by Mike

Maybe U need one more ...

It looks like a cool unit, but I suppose I have got an extra sitting here.

It's a shame but we all have to pick our favorites.

I am still most favorable to 34C, didn't have time, so far, to try out this 71B.

analogee@gte.net

I'd like to have at least one...

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 8 June 2003, 3:05 p.m.,*
in response to message #8 by Norm

Hi, folks;

I always had the 71's as one of the fanciest designs ever. It looks as Voyagers' dad (or mom?), and Voyagers also have their place.

What bothers me about the 71 is the BASIC language. I know how to program in BASIC but I think it is (sorry, BASIC lovers!) boring... I know HPBASIC is a heavy implementation, and it is closer to HP85/75 BASIC (is it correct?). If it is at least C-based... Well, as a computer, even portable, battery-operated, it should have (and it has) a high-level programming language; RPN would be of no use for such a "big guy".

But it should not look so nice... I confess I'd like having one HP71 more for its look than to its functionality.

I'm being honest.

Luiz C. Vieira - Brazil

Re: I'd like to have at least one...

*Message #10 Posted by **Tom Scott** on 8 June 2003, 3:19 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Hi,

I like the looks and solid feel of the 71 as well as the functionality. Unfortunately (some 15 years ago) I sold mine along with various modules, etc. Realizing my mistake I purchased a "new" one from Educalc (while they were still in business) a few years ago.

Are modules (e.g., curve fitting) still available anylwhere for the 71?

Tom Scott - Lander, WY

I always thought...

*Message #11 Posted by **R Lion** on 8 June 2003, 3:26 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

...the same!!: it looks very nice, like a big Voyager...but BASIC, and I prefer my 48GX with 1280Kb and RPL (sorry, couldn't resist >:-)

Well you can try here (Sure you knew it yet)

Raul

HP-71B's BASIC boring !?

*Message #12 Posted by **Valentin Albillo** on 8 June 2003, 7:12 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

Luiz posted:

"What bothers me about the 71 is the BASIC language. I know how to program in BASIC but I think it is (sorry, BASIC lovers!) boring... and it is closer to HP85/75 BASIC (is it correct?)"

I beg to disagree. HP-71B's BASIC is anything but boring, and for its time, it was (and still is) one of the best and most comprehensive BASIC dialects in the world. By itself, it has more than 240 statements and incredibly advanced features, but when extended with the Math ROM (which was meant to have been an integral part of the machine, ROM ID 2) and the HP-IL ROM, it's simply mind-boggling. Just to name a few:

- Full set of mathematical functions and operations, defined for either scalar values (in three precisions, INTEGER, SHORT, REAL), complex values, real matrices and complex matrices.
- Full 12-digit, 1000-decade range, the only BASIC ever to implement IEEE management of Infinities, NANs, and denormalization. No other dialect or language does it today, AFAIK.
- Single-line and multi-line user-defined functions and subprograms, passing parameters both ways by value or reference, and allowing recursion and separate environments.
- Multi-file, multi-type RAM file system, with independent RAM possible, handles several kinds of program and data files, including language extension files and binary programs and subprograms
- Event-driven programming possible, including programmable timers, errors, I/O events, hardware and software polls, etc.
- Incredible functionality for math, including Solve and Integrate with recursion allowed, Fourier transforms, polynomial root finding, gamma, hyperbolics, random number generation, and base conversions, to name a few.
- Incredible functionality for I/O, the best HP-IL loop controller anywhere, can control

up to 3 loops simultaneously, full range of both low-level and high-level I/O commands, full range of boolean operations.
- Soft and hard configuration to accept any number of external ROMs and RAM, up to 512 Kb addressing range.

and I could go on and on and on ... In short, there's nothing to even touch it, least in such a portable, small machine. I only find two flaws in its BASIC implementation: it doesn't allow two-dimensional string arrays, and it doesn't allow long names for the variables. And I guess even those could be overcome with a suitable LEX (language extension) binary file.

In real life, I've found that I can program most anything math related (incl. engineering problems, etc) in very few lines of HP-71B BASIC, and the resulting program is both easy to create and simple to understand and extend in a future date. Wish the same could be said of other languages/dialects.

As an example, I wrote a chess mate finder (which can in principle solve any "mate in N" chess problem) in some 90 lines of BASIC code. And the program listing is anything but boring, and easily understandable. Try that with your favorite calc language ! :-)

Best regards.

Edited: 8 June 2003, 7:19 p.m.

Re: HP-71B's BASIC boring !?

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 8 June 2003, 7:28 p.m.,*
in response to message #12 by Valentin Albillo

Hi, Valentin;

thank you for your (as always) clear explanations. I read about HPBASIC in an HP85B folder I have. I was aware of the fact it has many features, but I was not aware of some you posted.

Please, don't be mad! I have no HP71, I do not know HPBASIC; as I wrote, I find BASIC boring, not HPBASIC boring. But I am always ready to try...

I like structured languages, I do not like GoTO's and LaBLe's. I prefer "{" and "}" or "«" and "»" to hold complete clauses and sequences. As mentioned in all RPL-programming manuals (except HP49G's), one start point and one end point only. I know how to program in FORTRAN, BASIC and RPN (FOCAL?) but after RPL and C/C++ I found other programming directives.

Best regards, Valentin.

Luiz C. Vieira - Brazil

Edited: 8 June 2003, 9:17 p.m.

Re: HP-71B's BASIC boring !?

*Message #14 Posted by **Valentin Albillo** on 9 June 2003, 5:09 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

Luiz posted:

I read about HPBASIC in an HP85B folder I have. I was aware of the fact it has many features, but I was not aware of some you posted.

It's understandable because reading that HP85B folder will mislead you into thinking HP-71B BASIC is very similar to Series 80 BASIC (HP85, 86, 87, ...).

That's far from the truth. HP-71B's is a much improved BASIC dialect, far surpassing the one used in Series 80, even when using plug-in ROMs. Its advantages and distinguishing features are far too numerous to comment, but rest assured that reading about HP85 or HP86 BASIC will not give you an useable idea of the power and advanced capabilities of HP71's BASIC.

If you've got the HP71B manuals (Owner's Handbook and Reference Guide) I suggest you have a detailed look at them. After that, reading the 71B Math ROM Owner's Handbook is an enlightening delight, and further reading the HP-IL ROM manual will show its awesome I/O and controlling capabilities.

I'm confident you will see for yourself just how poor a picture that HP85B folder gave you, and just how HP-71B BASIC is the best BASIC for a pocketable computer, bar none, and one of the best high-level languages for technical applications, if not the very best. Wish it would be available for PCs ...

Best regards.

Edited: 9 June 2003, 5:09 a.m.

Re: HP-71B's BASIC boring !?

*Message #15 Posted by **Gordon Dyer** on 8 June 2003, 7:36 p.m.,*
in response to message #12 by Valentin Albillo

How about posting tour Chess Mate program for all of us 71B lovers...

HP-71B Mate Finder program

*Message #16 Posted by **Valentin Albillo** on 9 June 2003, 5:25 a.m.,*
in response to message #15 by Gordon Dyer

Gordon posted:

"How about posting your Chess Mate program for all of us 71B lovers ..."

Thanks for your interest. A simple post of the listing wouldn't do for me because, as you may know, I'm all for proper, detailed documentation, kinda perfectionist. I'm about to create a web site of mine dedicated to HP calcs, and this particular program will be available there (together with many others), including extensive documentation, diagrams, sample problems solved, the works.

Also, it might be the case that I'll submit it to HPCC to be published in a next issue of their Datafile magazine, so you would be able to read about it there as well, should publication occur before my site gets the green light. In either case, I will post a message to this forum to let you know.

Best regards.

Re: HP-71B Mate Finder program

*Message #17 Posted by **Gordon Dyer** on 9 June 2003, 5:47 p.m.,*
in response to message #16 by Valentin Albillo

Thanks, I am looking forward to seeing your new site! But if you are willing, then email me the program with an explanation?

Re: HP-71B's BASIC boring !?

*Message #18 Posted by **Michael Meyer** on 9 June 2003, 1:00 a.m.,*
in response to message #12 by Valentin Albillo

Luiz, my friend,

Please e-mail me your address again, and I will see to it that you have an HP-71 to "try out". (Alas, to be honest, I probably do have, "too many". I went a little "overboard" last year as it is my favorite machine, and I now have several "spares".) Thanks to a nice gesture by Mike Davis, who sent me a couple too beat up to sell, I was able to give one to a high school buddy of mine, and still have one left I can send to you. It is certainly not "mint", but is fully functional, and is still a beauty to look at.... in my opinion.... it even has the IL module so you can use your HP-41 peripherals with it.

I want to see if you feel differently about the 71 after you've used it, also!

Giving back a small amount of what I've received here, Michael

You have mail...

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2003, 1:48 a.m.,*
in response to message #18 by Michael Meyer

Hi, Doc;

After a public "Thank you so much!", I just want to tell you I sent you an e-mail with a complete text.

Best regards, Doc.

Luiz C. Vieira - Brazil

Lucky man! ;-) (no text)

*Message #20 Posted by **R Lion** on 9 June 2003, 1:57 a.m.,*
in response to message #19 by Vieira, Luiz C. (Brazil)

.

It's gonna be my community compromise

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2003, 2:06 a.m.,*
in response to message #20 by R Lion

Hola, Raúl;

It's gonna be my turn, so I'll try to follow and, if possible, help others with

another model. I can, as you know, help with Woodstocks, Voyagers, Coconuts, Spices and a few Pioneers. In a few days I'll be delving into a Topcat, and when time comes, I'll be posting about the HP71B.

Paraphrasing our good friend, Doc. Mike: I'll try to give back a small amount of what I've been receiving here. Mostly what I received off-line.

Best regards.

Luiz C. Vieira - Brazil

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$$$ Make money with your calculator junkyard

*Message #1 Posted by **Norm** on 7 June 2003, 1:15 p.m.*

$$$ There is a way you can make money with your calculator junkyard.

Here's how you do it:

Sell me the rubber keypad membrane from a SPICE calculator (i.e. HP-34C) etc. This is a cushioning piece that sits between the keytops and the dome switches.

No, I dont want to make my own out of a bicycle tire. I want a real one, and I am tired of trying to 'use the force' to make one appear out of thin air.

I'll pay you $6 for it and even throw in $1 for postage.

No damaged merchandize, if the kitty chewed the corner off then spare me the anguish.

That is how you make money with your calculator junkyard. Notify me at analogee@gte.net.

Surgery cannot start w/o parts from a donor.

Re: $$$ Make money with your calculator junkyard

*Message #2 Posted by **David Ramsey** on 8 June 2003, 12:36 p.m.,*
in response to message #1 by Norm

Norm,

Send me your address and I'll send you an entire 31C. This is one I picked up years ago and the battery contacts are completely rotted away. The last time I tried it, though, it did work if you judiciously used some aluminum foil...

I got a 31C with real contacts to replace it and it's been sitting in the junk pile ever since. Someone might as well get some use out of it.

Isn't there another forum for WTB?

*Message #3 Posted by **Mike** on 8 June 2003, 1:25 p.m.,*
in response to message #1 by Norm

Rhetorical!

Hi Mike,

*Message #4 Posted by **Norm** on 8 June 2003, 2:29 p.m.,*
in response to message #3 by Mike

Hi Mike, You have my apologies for the mis-use of the chat board to buy something, but this was a medical emergency and I had to locate an organ donor pronto in order to save the patient. Had already tried it the other way (WTB) and can't say that it worked.

Will try not to do it again.

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PPC MLDL Project

*Message #1 Posted by **Jeff** on 6 June 2003, 10:26 p.m.*

Recently I began a project to produce the MLDL discussed in the PPC Journal. I have had some success and some failure with the Phase Counter portion of the PPC MLDL. I have narrowed it down to 4 wires that cause problems. Whenever I connect the SYNC to the Phase Counter at the CD4013 pin #5(data), this locks the calculator up. Also, whenever any of the three ground wires are connected to the same IC, CD4013, pins 4,8 and 10 this causes the calculator to phase out, display fades away and then the calc locks up. Any thoughts to this. I have connected everything else up and it seems ok. Also, if you look at page # 35 in this documentation and see the BAT, V+ and GND connections on the cable connector. Then look at page #28 They show the V+, VCC switched from the cable connector. As long as this is how they are connected it is ok but I thought that the V+ and VCC might be mixed. Any thoughts from the HP Community?

Re: PPC MLDL Project

*Message #2 Posted by **Ellis Easley** on 6 June 2003, 10:51 p.m.,*
in response to message #1 by Jeff

Please remind me what issue(s) of the PPC Journal so I can look it up on Jake Schwartz's CD-ROMs!

When the calculator display fades out, has the supply voltage fallen? You mention ground wires on a chip - on CMOS chips, all unused inputs need to be connected to GND or VCC (or a logic level) but not left floating, worst case both transistors on the input circuit can turn on and the chip draws excessive current - maybe enough in this case to pull down the power supply.

Because of the protection diodes on all inputs of CMOS chips (clamps to VCC and GND), and the low current requirement of the chips, input signals can be rectified and supply enough current to power a chip - maybe marginally - if the chip's VCC or GND pin is open.

Re: PPC MLDL Project

*Message #3 Posted by **Jeff** on 7 June 2003, 8:36 a.m.,*
in response to message #2 by Ellis Easley

PPC Calculator Journal V9 N3. Your help is greatly appreciated. There does not seem to be any mention in the documentation regarding the comments that you have made. I am assuming that it is left to the reader to have the full understanding of the CMOS chips. Please take a look at the circuit and let me know what or how you might wire this. Best Regards, Jeff

Re: PPC MLDL Project

*Message #4 Posted by **Donald Leonard** on 8 June 2003, 4:21 a.m.,*
in response to message #1 by Jeff

Now that you have given specific information regarding your problem with the PPC MLDL design, I'll try to give you some suggestions.

First, the comment about CMOS inputs being tied to ground or supply - that is correct, as is the comment that I.C.'s with floating inputs can draw EXCESSIVE current. In fact, ground is the preferred referance/connection in most designs. And my understanding of the port connections is that (looking INTO the calculator port, out of the MLDL plug, or INTO the BACK of the plug) Vbat is the first connection on the left, followed by B4, Vcc, B3, GND, PWO, DATA, FI, ISA, SYNC, 02, 01. Vbat is the battery voltage (RAM sustain voltage) and Vcc is a higher voltage generated by a power converter inside the calculator which powers the active/operational circuits when the calculator is turned on. They are not the same. Don

Re: PPC MLDL Project

*Message #5 Posted by **jeff** on 9 June 2003, 1:47 p.m.,*
in response to message #4 by Donald Leonard

Check out page 32 of the PPC Calculator Journal V9 N3. In this Phase Counter diagram, U1 (4013), Pins 3 and 11 are connected to 01. Pin 5 is connected to SYNC. Pin 6 is connected to the output from U19. Pin 1 is connected to Pin 9. Pin 2 is connected to pin 6 of U19.Pin 13 is connected to pin 5 of U19. Pins 4,8 and 10 are connected to GND. This leaves pins 7, 12 and 14. In this diagram it does not mention that pin 7 and 12 should be connected to GND. Also, Pin 14 is for VCC. Should this be connected to the calculators VCC? This same question holds true for the U19. Should Pin 7-13 be connected to GRN and Pin 14 connected to the calculators VCC? How about the U2 and U3. Should the Pin 8 on both chips be connected to GND and the Pin 16 on both chips be connected to the calculators VCC? In the document it only states that all unused "INPUTS" should be tied to GND. Also to test this Phase Counter, di I need to run all the output from U2 and U3, except CU4 and CT5, to GND? Sorry for all the questions But I am also learning as I go. Best Regards, Jeff

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$$$$$$ Nobody wants HP-15C anymore $$$$$??

*Message #1 Posted by **Norm** on 6 June 2003, 8:31 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3028175897&category=11713

Wow, look at that HP-15C.

$455 and still got more than a day to go. Yah, nobody wants any of those.

I think the sellers who proclaim "new mint" just because they have the original carton, still dont have merchandise any better than the regular joe's. So it just becomes a good way to pay triple because the guy has the carton. It'll have the same scratches and cigar smoke odor as anybody else's merchandise.

Better to find a humble seller, than one who says 'its all perfect'. Usually there's something wrong with it anyway, its just that the guy had the original box..

This high-stakes 15C auction is like the horse races.....

and its Hero and Luckyday in a deadhead in the last lap

Hero is lagging behind, Luckyday out in front.....

Look at those hooves pounding folks, look at the dirt fly,

Hero catching up now, almost out front

No wait, here comes a 3rd horse up from behind ..... !

Ohhh .. my .. God .. folks .. this ... is .. un .. believable !

$200 box

*Message #2 Posted by **Mike** on 7 June 2003, 11:41 p.m.,*
in response to message #1 by Norm

The guy bidding it up, joined eBay within a day of that auction being posted. He's only been on eBay for 7 days.

Someone is paying far too much for a box. These 15C can be had in mint condition without a box for $300. That my friends is a $200 cardboard box.

Edited: 7 June 2003, 11:42 p.m.

dont like (0) bidders

*Message #3 Posted by **Norm** on 8 June 2003, 12:45 a.m.,*
in response to message #2 by Mike

Yeah, high bidder is about $510 and has (0) feedback.

Most sellers dont like (0) bidders. They are unverified and they have a high percentage of bozo's who just showed up and dont honor their bid.

I've noticed a seller strategy to "refuse" (0) bidders unless they specifically inquire. It is possible to cancel somebody's bid from your auction.

Last year they were going for $600

*Message #4 Posted by **Michael Meyer** on 8 June 2003, 2:31 a.m.,*
in response to message #3 by Norm

I still have printouts showing $600 sales last year.

Wow!

Doesn't mean someone isn't paying too much

*Message #5 Posted by **Mike** on 8 June 2003, 1:43 p.m.,*
in response to message #4 by Michael Meyer

A top price should be the price at which it's near impossible to find any for a lower price. Anything over that is overpayment.

I have bought many 15C in mint condition, without a box or manual for under $300. That means everything else is costing over $300 or $400.

Close to Mint $330 with better box

Like new 15C $360

But the real way you find the is to look for one that appears mint but not stated as mint. Sometimes you find jewels. Don't know about this one but it looks near mint.

Look near mint for $200

Anyone that pays $600, $800, or $1000 is buying a box for the additional.

I wonder what their definition of mint is. One of the foot pads seems to show a little wear. There also appears to be a scratch on the back on the left above the footpad. If that is the case, it's not mint.

Mint should not mean no big dents or scratches.

Re: $$$$$$ Nobody wants HP-15C anymore $$$$$??

*Message #6 Posted by **james (UK)** on 8 June 2003, 5:39 a.m.,*
in response to message #1 by Norm

And still a day to go - it'll be interesting to see what happens in the last few minutes!

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My Dyslexic Agnostic Insomniac HP-67 is misbehaving again...

*Message #1 Posted by **Michael Meyer** on 6 June 2003, 6:44 p.m.*

Hi.

My community-fixed daily HP-67 is having problems. It turns on OK, and computes, etc., but after a brief time, the display "goes crazy". No, the nuclear lithium battery pack is STILL full voltage. (Same behavior with bench supply at 4.5V)

This was the unit that went through 2 ACT chips already-- Is this an early failure or is it a more common problem such as another capacitor failure?

Thanks!

Michael

Re: My Dyslexic Agnostic Insomniac HP-67 is misbehaving again...

*Message #2 Posted by **Ellis Easley** on 6 June 2003, 10:37 p.m.,*
in response to message #1 by Michael Meyer

This is just speculation -

You mentioned 4.5V, I understand this would be the voltage of 3 alkaline cells - fresh, they might be 4.75V, fresh alkalines seem to measure 1.58V no load. Also, NiCads under charge can get as high as 1.5V each. But the nominal operating voltage is called out as 3.75V, so 4.5V is 20% high, 4.75V is 27% high. The DC-DC inverter has an output of about +6V and -12V. This puts 18 volts across two pins of the ACT and maybe other chips. I don't think those inverter outputs are regulated (NiCads being a pretty well regulated supply) so I think the outputs would increase proportionally to the input, so there might be 21.6V or 22.8V across the ACT etc. with alkalines, at least.

What is the actual voltage of the lithium cells? Factor that into the calculations above.

Now, suppose voltage for these IC's is like blood pressure for the body's organs - necessary, but harmful if too high.

The fact that any number of calculators are working fine on lithium cells doesn't disqualify the argument, because every IC is a little different - how much statistical data was needed before medical science figured out how high "high blood pressure" is? And didn't they announce a few weeks ago that 120/80 is now considered borderline?

Maybe when using lithium (or alkaline) cells, we should wire some diodes in series to drop the voltage to NiCad levels, just to be safe.

It's either that or diet and exercise!

Re: My Dyslexic Agnostic Insomniac HP-67 is misbehaving again...

*Message #3 Posted by **Michael Meyer** on 7 June 2003, 1:56 a.m.,*
in response to message #2 by Ellis Easley

Ellis,

Not a bad idea. Fortunately, none of my other calcs have shown any problems with alkaline or other 1.5v cells. I don't think other forum members have reported any problems either.

But I'll bet you're on the right track... there must be something wrong with the power supply on this one calc. In times like this I miss my oscilloscope... I have to admit: even if it dies, I'll find another ACT chip some day, and I have a couple of other, even better, 67's. But this has been my "'ole faithful" daily machine, and the thought of deceased calculators.....well, I hate to see grown men cry... especially me.

Now this is interesting: As the display acts strange, it'll sometimes still read a card. I guess it could still be a faulty chip, but I'm wondering if it's something else. It always turns on correctly for a couple of seconds before progressively "freaking out."

Ring a bell?

Michael

Don't trust my service ideas, I usually have to rely upon the train tracks..

*Message #4 Posted by **Norm** on 7 June 2003, 2:16 a.m.,*
in response to message #3 by Michael Meyer

Hello,

If it runs good for awhile, and then it goes bonkers, I'd suggest that a bit of heating may be part of the effect. You turn it on and a semiconductor gets warm.

One fairly common failure in a chip, is that the bond-wire has become cracked where it hooks onto the silicon die. And that's all buried inside the epoxy. It works OK at one temperature, but then the temperature changes and the connection separates.

I'd be looking for stuff like that. Bad news if the problem is INSIDE a chip. Gotta find the bad chip and replace it.

GOOD NEWS is when you get the same effect on a circuit board connection. Maybe its at a solder joint, the solder joint is cracked, and with thermal changes, the joint opens.

*** ***

I'd be in there with three things..... a can of freeze-spray, a shrink-tube heat gun, and, my bare hands.

I'd flex the circuit board a bit to see if something is driving it nuts (an open solder joint) AND, I'd be shooting the chips with freeze spray, to see if one specific chip is thermally sensitive. Then just replace that one....

Re: Don't trust my service ideas, I usually have to rely upon the train tracks..

*Message #5 Posted by **Michael Meyer** on 7 June 2003, 2:33 a.m.,*
in response to message #4 by Norm

O.K. I won't trust your ideas.

But I will try them.

Can't do it now (1:30 am here), but I'll try this weekend.

Thanks! Michael

Re: My Dyslexic Agnostic Insomniac HP-67 is misbehaving again...

*Message #6 Posted by **Ellis Easley** on 7 June 2003, 2:39 a.m.,*
in response to message #3 by Michael Meyer

No, I don't have much experience using the 67. But the increased voltage could affect other chips as well as the ACT - in fact, I was reading something just the other day about how the Woodstocks and Spices, running on 2.5V, need to have the inverter generate 4V for the display. I think it was an HP Journal article from the introduction of the Woodstocks and spoke in comparison to the Classics so I guess the Classics powered the display from the battery directly. I wonder what they did on the 67, since it has the Classic battery and Woodstock insides! But regardless, the display driver chip - wherever it gets its power - might be sensitive to the extra voltage. Have you tried the machine on your bench supply at a lower voltage?

Re: My Dyslexic Agnostic Insomniac HP-67 is misbehaving again...

*Message #7 Posted by **Michael Meyer** on 7 June 2003, 2:47 a.m.,*
in response to message #6 by Ellis Easley

No, but I will.

Still, it worked fine for over a year (or so... clocks go so much faster than a few years ago.)

Again, I've not heard of any problems from others on the forum using alkalines in their Woodstocks, etc.

Michael

Re: My Dyslexic Agnostic Insomniac HP-67 is misbehaving again...

*Message #8 Posted by **David Smith** on 7 June 2003, 2:38 p.m.,*
in response to message #2 by Ellis Easley

The voltage converter circuit in the classics positively definitely DOES NOT LIKE overvoltage. The DC-DC converter circuit is trying to generate a 6V regulated supply by upconverting the input voltage. This is one machine where the voltage difference between 3 Nicad cells and 3 alkaline cells is enough to give the machine a case of the heebie jeebies.

HP Power supply inverters

*Message #9 Posted by **Tony Duell (UK)** on 7 June 2003, 6:31 p.m.,*
in response to message #2 by Ellis Easley

Actually, the outputs _are_ regulated (and were, right back to the HP35). The +6V output is sensed, and used to control the inverter oscillator (that's what the second transistor is for). The -12V line (and the +8V display line on the 'classics') just tag along. One feature of this design of PSU is that the +6V output can never be _lower_ than the input voltage (if the oscillator stops, then that output is the input voltage less one

diode drop). So never apply more than 6V (or so) to the battery contacts, or you will burn out chips. Topcats have another circuit to load the input down if it attempts to exceed the +6V line. Which is why if the inverter fails in a Topcat, it will draw a high current from the battery pack (about 1A), trying to bring that voltage down.

Suggestions for tracking down fault

*Message #10 Posted by **Renato** on 7 June 2003, 5:13 a.m.,*
in response to message #1 by Michael Meyer

A friend of mine used freezing spray and hot air (from a hair dryer) to track down faulty components. In your case, you might use hot air to make the problem appear, and then use freezing air to make it go away. This can help locate what component is failing. This friend used to say that a thermal shock, created by freezing a component, then suddenly heating it, could sometimes fix intermittent components.

Good luck,

Renato

Hey Michael, (tracking down a fault)

*Message #11 Posted by **Norm** on 7 June 2003, 12:55 p.m.,*
in response to message #10 by Renato

Hey Michael Meyer,

When they say 'tracking down a fault' dont trust them, that's actually referring to my pioneering method of using tracks.

I think there is even one other way to look at this problem, in terms of troubleshooting.

Philosophically speaking, you've been given one thing that is to your advantage: it works fine initially, then abruptly goes nuts. That's better than if it never even turned on.

When it goes bonkers, the goal is either to get it to return to normalcy, or, keep it from going there in the first place. Beyond that, determine WHY so that it can be repaired genuinely.

HERE is a further example: Put the darn thing in the freezer!! :o) Then run it for awhile from there, does it NO LONGER go bonkers ???? i.e. that proves its definitely thermal once and for all. Beyond that, you still have to find out what is expanding and contracting to open a connection, make a cap go weak, make an inductor coil open up, etc etc.

And you don't even have to take anything apart to put it in the freezer. SAY that it solves the problem (putting it in the freezer) well, after that, try putting it in the fridge. It just gives you add'l data.

Again, the fact that it works for awhile, philosophically, can be used to help troubleshoot it. I fixed a computer monitor for somebody a couple years ago. Worked fine for 30 minutes, then went nuts. The problem was ultimately traced to a cracked solder joint (it didn't flow right, then it cracked as well). After resoldering that joint, it always worked perfect after that. The 30 minutes was a thermal effect.

If the problem is INSIDE one of the chips, well, then you'll need to find replacements.

Just to say "Hi, Doc!" (n.t.)

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 7 June 2003, 8:18 a.m.,*

in response to message #1 by Michael Meyer

:)

Re: My Dyslexic Agnostic Insomniac HP-67 is misbehaving again...

*Message #13 Posted by **Tony Duell (UK)** on 7 June 2003, 6:39 p.m.,*
in response to message #1 by Michael Meyer

A couple of quick suggestions : (1) Have you checked the output of the PSU inverter (at pins 1 (+6.2V) and 2 (-12V) of the ACT chip with respect to ground (-ve battery terminal) when the machine malfunctions? (2) Check, and maybe replace, all the electrolytic capacitors on the logic PCB. There's at least one across the battery terminals, one in the +6.2V supply, 2 in the -12V supply (capacitive input doubler) and the reset capacitor connected to one pin of the ACT.

Re: My Dyslexic Agnostic Insomniac HP-67 is misbehaving again...

*Message #14 Posted by **Michael Meyer** on 7 June 2003, 7:46 p.m.,*
in response to message #13 by Tony Duell (UK)

Thanks, Tony, I knew you'd know.

I'm glad to hear that 4.5V vs. 3.6 (or so) is still OK. (It's just so darn convenient)

I put the calculator in the freezer, and, Voila (or as I like to say, Viola!) it ran for a couple of minutes without flaw.

I don't know why, but I also suspected one of those pesky capacitors.

I'll work on it tonight.

Michael

OK, Tony, I have the results:

*Message #15 Posted by **Michael Meyer** on 7 June 2003, 10:03 p.m.,*
in response to message #13 by Tony Duell (UK)

Hi Tony!

Well, on a bench suppy, pin 1 reads about 5 volts, but pin 2 only reads -8V, and progressively drops to about -5V as the calculator malfunctions.

Does that narrow down a specific capacitor?

Incidentally, lowering the supply voltage to 3.5 dims the display, but results in the same malfunction.

THANKS AGAIN!

Michael

Re: OK, Tony, I have the results:

*Message #16 Posted by **Tony Duell (UK)** on 8 June 2003, 7:51 p.m.,*
in response to message #15 by Michael Meyer

Well, they're both a bit low, but that -ve bias supply is probably the main problem. Near the top edge of the CPU board there are 2 2.2uF tantalum capacitors (maybe red beads with a green dot on them).Those are the caps for the -ve supply doubler. Check and replace those first. Nearby there's a larger, 22uF tantalum bead capacitor, which is the smoothing cap for the +6V supply. You might as well check that one too.

IT'S ALIVE (again....) THANKS ALL

*Message #17 Posted by **Michael Meyer** on 8 June 2003, 10:55 p.m.,*
in response to message #16 by Tony Duell (UK)

Thanks, Tony.

I hadn't heard from you, so I already fixed it, but with your "hint" about "two capacitors...".

The mystery isn't that it's working again. (Tthough I replaced the capacitors with 1uf capacitors. Do I need to change-out for 2.2?)

The real mystery is why it was working at all for the past year or so.

Yours Truly, "The Genious", had replaced those two capacitors long ago, but installed them BACKWARDS! (I think it was me... hard to say, as this board had repairs on it, I think, when I got it...) They must have worked "well enough"!

Anyway, is the value important enough to swap out for the 2.2's? The voltages now read about 6.1 and -12.something.

THE "DYSLEXIC AGNOSTIC INSOMNIAC" CALCULATOR lives again, thanks to everyone here. It's been quite the "survivor" and has come back from the dead several times now. It really now belongs to the Forum community, but I'll hold onto it for now. It does my finances and taxes, has taught my kids math, and gives me something to do while sitting in "the library" (lavatory). And I like just admiring it too! (It's a sickness)

RTN2RPN,

Michael

About capacitors...

*Message #18 Posted by **Vieira, Luiz C. (Brazil)** on 8 June 2003, 11:30 p.m.,*
in response to message #17 by Michael Meyer

Hi, Doc;

Congrats, again! It's always good to receive good news.

About capacitors: inverting polarity is always a dangerous thing to electrolytic capacitors themselves, mostly if you are working close to 1/5, 1/4 (and upper) of their working voltage (it took me a while when I started working with electronics to figure WV meaning out) because they may become conductive, they will get actually hot and, in some cases, they will leak and even explode. If these capacitors are connected to signal lines, erratic operation may happen.

And using 2.2µF instead of 1µF will allow your calculator electronics to work under design specifications. I do not know in what sort of "point" are these guys connected to, but surely their original value will achieve better operation.

In any circumstances should a polarized capacitor (or any other component) be connected to inverted poles. But it happens, what else to do? The worst cases are semiconductors in general (zeners are easily toasted).

I do not know the HP67 internals so I decided to seat and watch.

Best regards, Doc.

Luiz C. Vieira - Brazil

Edited: 9 June 2003, 12:21 a.m.

Luiz-- I followed your advice.

*Message #19 Posted by **Michael Meyer** on 9 June 2003, 1:45 a.m.,*
in response to message #18 by Vieira, Luiz C. (Brazil)

Luiz,

Well, I went ahead and swapped-out the capacitors for 2.2uf. I can sleep nights, now, knowing my 67 is happy.

Make sure you check my post on the HP-71.

Michael

My HP67

*Message #20 Posted by **Howard** on 9 June 2003, 6:04 a.m.,*
in response to message #18 by Vieira, Luiz C. (Brazil)

All these troubles that Michael has been having with his HP67 are something like I'm having with mine. A couple of months ago I wrote in this forum about my HP 67. The problem was that the first seven lines of programe wrote the same incorrect imput. Then after the seventh line all was OK. It was suggested that it was a faulty chip and that there was nothing to be done about it. I put it in the back of my drawer and left it for a month or so. Anyway I took it out about five days ago and - Lo and behold it worked fine. Then a day or so later - the same seven line fault. Anyway I left it on battery charge for three days (I have 1700mAh batteries in it) and it works fine again. Maybe my HP 67 is voltage sensitive. Although when it didn't work properly it didn't make a difference whether it was on the charger or not. This calculator has a faulty card reader so it isn't important that I get it going as I have another. But it has me intrigued and this thread has given me a clue. I will now try it on alternative full and low powered batteries and see if this is the reason for its mysterious behaviour. Any suggestions would be appreciated. I don't have access to, or knowlege of, any sophisticated electronic instruments.

Re: IT'S ALIVE (again....) THANKS ALL

*Message #21 Posted by **David Smith** on 9 June 2003, 10:54 a.m.,*
in response to message #17 by Michael Meyer

The square pad is "+" on HP calculator component holes...

I keep getting dumber.

*Message #22 Posted by **Michael Meyer** on 9 June 2003, 7:03 p.m.,*
in response to message #21 by David Smith

"The square pad is "+" on HP calculator component holes... "

I've been restoring these things for almost 4 years now. Been able by using my head and help here to get most every dead machine to work again. I have them polished, touched- up, and looking and working like new.

I never figured out the above statement, nor do I remember seeing it posted elsewhere. As I hit my forehead, I can see the square and round holes.

THANK YOU for stating the obvious. I'm not sure I would have ever figured that out.....

Howard: My calc DIDN'T turn out to be a voltage problem, but a "faulty" component problem. (Yep. They don't perform as well when "backwards." Darn Kids!!)

Yours does sound to me like a chip malfunction, but why it's intermittent, is beyond me. If those memory addresses are "fried", I'm not sure how they'd be intermittent.

Again, I defer those more knowlegeable than I.

Michael

Re: I keep getting dumber.

*Message #23 Posted by **David Smith** on 10 June 2003, 4:03 p.m.,*
in response to message #22 by Michael Meyer

And the square pad is pin one on chips...

Re: IT'S ALIVE (again....) THANKS ALL

*Message #24 Posted by **Tony Duell (UK)** on 9 June 2003, 7:16 p.m.,*
in response to message #17 by Michael Meyer

My guess is that the circuit will work fine with 1uF capacitors, but it won't be able to deliver as much current. This may not matter, or it may cause the machine to malfunction when hot, or when cold, or something. Personnally, I'd fit the 2.2uF ones -- they're not expensive or hard to obtain. One thing I forgot to mention last night is that on most HP PCBs (and certainly on this one), the sqaure pad indicates the +ve lead of an electrolytic capacitor, or pin 1 of an IC (or connector), or the banded end of a diode, and so on.

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HP-51S Posted

*Message #1 Posted by **Ben Salinas** on 6 June 2003, 10:44 a.m.*

I finally got my calculator design posted. Right now there is no html file linking to the download. I will get around to that eventually. It's posted at www.series80.org/HP51S I would like to thank vassilip@ dsl.cis.upenn.edu (sorry i dont have a name) for the webspace. Basically if you download all the files and put them in the same folder, and run the .pdf. It will take you through and allow you to view all the other files. Sorry there is so many files. Originally, there was a single .zip file, but there was a miscommunication, and lack of explanation on my part so the zip file was unzipped to expose all the files. Hope you like it -Ben

Re: HP-51S Posted

*Message #2 Posted by **Gordon Dyer** on 6 June 2003, 4:33 p.m.,*
in response to message #1 by Ben Salinas

Congratulations for designing an excellent entry.
I wish I had found the time to do one too, but it would be very similar to yours.

Re: HP-51S Posted

*Message #3 Posted by **Raymond Del Tondo** on 6 June 2003, 5:25 p.m.,*
in response to message #1 by Ben Salinas

Cool stuff. Congrats!

What I wasn't able to see in your pdf (maybe just overlooked it):

Are the keys levered on one side, so that you always have a defined movement of the key when pressed? This is a quality sign, and is the case with nearly all HP calcs prior the 49G. The 49G and its relatives doesn't have a defined movement direction. Please compare, and you'll know what I mean.

Thanks in advance.

Regards,

Raymond

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42s dispaly

*Message #1 Posted by **jr ...Italy** on 6 June 2003, 10:10 a.m.*

greetings,

my 42s took a nastey fall from an anteena tower and the led is damaged. can anyone give me a source of repair or where i can get replacement parts. will the display from a 17bii work or any other hp. any suggestions are appreciated.

best regards

Re: 42s dispaly

*Message #2 Posted by **Paul Brogger** on 6 June 2003, 11:13 a.m.,*
in response to message #1 by jr ...Italy

A 17bII display will work fine.

Changing the display is a bit difficult. Seen the notes on "Pioneer Repairs" and Article # 199 in this Museum for some detail & recommendations.

Feel free to ask any more questions you may have, and good luck!

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Woodstock Slide Switches

*Message #1 Posted by **Trent Moseley** on 5 June 2003, 3:41 p.m.*

I've been reading posts about lubricating Woodstock slide switchs with "Tri Flow". I have a 25C that is working fine, but I'm wondering if it would be a good idea to oil them. Can this be done without taking it apart?

tm

Re: Woodstock Slide Switchs

*Message #2 Posted by **hans brueggemann [ger]** on 6 June 2003, 11:25 a.m.,*
in response to message #1 by Trent Moseley

trent, the lubricant deposit in and around the switches is normally sufficient for a lifetime. the switches must not be 'oiled', but 'greased'. mineral oils may 'brittle'or deteriorate the plastics over time. teflon grease especially made for plastic parts worked fine for my -67. it is always a good idea to remove the residues of old lubricants completely before applying new lubricants, just in order to prevent mixing (with unpredictable long time results) of different blends.

cheers, hans

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Metakernel install on 48gx

*Message #1 Posted by **David F** on 5 June 2003, 9:49 a.m.*

Hi, I have read all the readmes and install.txts, but I still do not understand how to install metakernel. I have the expansion card (how do I know if my hp48 recognizes it?). Could someone post a brief "what to do". Thanks!

Re: Metakernel install on 48gx

*Message #2 Posted by **R Lion** on 5 June 2003, 10:34 a.m.,*
in response to message #1 by David F

This is the way:

1-Merge port1: MERGE1

2-Transfer MKRAM.KER and store it: B STO

3-Transfer RECV.KER and store it: A STO

4-Put the name 'B' inthe stack and run A (push key A)

Mail me if you find any problem

Raul

Edited: 5 June 2003, 10:35 a.m.

Re: Metakernel install on 48gx

*Message #3 Posted by **David F** on 5 June 2003, 12:57 p.m.,*
in response to message #2 by R Lion

nice....in a language i can understand ... THanks~!

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How widely available is the HP 12C?

*Message #1 Posted by **Stan (Sg)** on 5 June 2003, 8:23 a.m.*

Has anyone seen the HP on sale in the US? The HP press release states the following:

"The HP 12c Platinum calculator is now available at retailers throughout the United States and Latin America and also can be purchased online at hpshopping.com"

It finally showed up as "in stock" on HP's website, but I can't find it on any of the web sites that HP refers to... The Educalc website in Singapore has it... anywhere else?

Re: How widely available is the HP 12C?

*Message #2 Posted by **Ellis Easley** on 5 June 2003, 9:21 a.m.,*
in response to message #1 by Stan (Sg)

A few days ago (Sunday), I tried all three US retailer websites that the HP website "located" for me - Office Depot, Officemax, and Staples. None of the websites had the 12C Platinum, one didn't even have the 12C. Then I called the local stores of all three chains - they never heard of the 12C Platinum.

Re: How widely available is the HP 12C?

*Message #3 Posted by **adem ordna** on 5 June 2003, 2:57 p.m.,*
in response to message #2 by Ellis Easley

look at

http://store.yahoo.com/calculatorsource/hp-12c-platinum.html

Re: How widely available is the HP 12C?

*Message #4 Posted by **Roger** on 6 June 2003, 11:17 p.m.,*
in response to message #3 by adem ordna

The 12C Plat IS AVAILABLE! WWW.HP.COM and either going to the Home/Home Office area and chosing calculators which is HP Shopping.Com OR going to the small medium business (SMB) and then buy direct(upper right) and chose the software and peripherals (new) area. The HP calculators are under 'handhelds'. There is stock available, please feel free to BUY! Here are a couple URL'S. SMB is http://www.smb.compaq.com/sp_Main.asp?oi=E9CED&BEID=19701&SBLID= and look under handhelds then hp calculators and Hp Shopping.com URL is http://www.shopping.hp.com/cgi-bin/hpdirect/shopping/scripts/generic_store/generic_category_view.jsp?BV_SessionID=@@@@1278558680.1054955603@@@@&BV_EngineID=ccdeadcihllkejfcfngcfkmdflldfgf.0&landing=computers&category=calculators then look for the 12c Plat under the Financial ones.

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Matrix Convolutions

*Message #1 Posted by **Valentin Albillo** on 5 June 2003, 6:10 a.m.*

Here's another little HP-15C Quiz/Challenge to try your hand with this weekend. Despite being focused on the HP-15C, the techniques used in the intended solution may be applied to many other models, such as the 42S, 41C/Advantage, etc. Also, it's not just a *theoretical* quiz but the solution is *very useful* as well, in the spirit of that wonderful book, "Calculator Tips & Routines", by John Dearing.

The question is, as you may know the Identity matrix is defined as a square matrix with ones on the main diagonal and zeros elsewhere, like this example, particularized for a 3x3 square matrix:

```
1  0  0
0  1  0
0  0  1
```

The HP-71B/Math can assign the Identity matrix to any square matrix using just one command:

```
MAT A = IDN
```

but there's no such operation in the HP-15C instruction set, so the challenge is:

Write a subroutine (LBL A, ..., RTN) which will convert matrix A, of arbitrary dimensions from 1x1 to 7x7, into the Identity matrix. The subroutine may assume that matrix A has already been dimensioned as a square matrix (1x1 to 7x7). The subroutine must be as short and fast as possible.

By the way, this *exact* topic is covered in the amazing "HP-15C Advanced Functions Handbook", page 119, under the title "Constructing an Identity Matrix". There, the very creators of the HP-15C microcode software give their attempt at constructing the Identity Matrix. However, though most of the programs and routines in that book are extremely optimized, that's not so in this case. Their published routine, particularized for matrix A, is 12 steps long (including LBL and RTN), and takes 32 seconds in the case of a 7x7 matrix.

On the other hand, my solution is 2 steps shorter (i.e.: 10 steps long, including LBL and RTN) and some 10 times faster (i.e.: 3 seconds for a 7x7 matrix). Let's see yours !! :-)

Edited: 5 June 2003, 9:24 a.m. after one or more responses were posted

Re: Matrix Convolutions

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2003, 7:09 a.m.,*
in response to message #1 by Valentin Albillo

Hi Valentin, folks;

This is my suggestion. It is 10 steps long when counting program body only (not counting LBL 0) and runs fast. I tested with a 5×5 matrix and it took aprox. 4 seconds. I took the advantage of recalling row number an storing it as line number instead of testing if both are equal. That's the key for speed and size.

Thanks for the challenge; I had to stop and think of it carefully. Hope you like it.

Solution: enter matrix descriptor in X-register and press [GSB] 0

```
001 [f] LBL 0
002      0
003      ×
004     STO I
005 [f] MATRIX 1
006 [f] LBL 1
007     RCL 1
008     STO 0
009     EEX
010   ᵘ STO (i)
011     GTO 1
```

Obs:

1) steps #2 and #3 ensure matrix is cleared and may be suppressed if you are using only recently created matrices
2) step #4 sets descriptor in X-register as index
3) step #10 must be keyed in in USER mode

Best regards.

Luiz C. Vieira - Brazil

Edited: 5 June 2003, 1:38 p.m.

Re: Matrix Convolutions

*Message #3 Posted by **Patrick** on 6 June 2003, 10:55 p.m.,*
in response to message #1 by Valentin Albillo

I have been trying my hand at your latest quiz, Valentin, but I have so far been stumped as to how you get the speed you claim!! Hats off to Luiz for a very credible solution. Luiz, between us we have to beat this guy's time somehow!?

I have an idea for a solution which, alas, does not work for a matrix when all you have is the descriptor in the X register (I call this a paramterized matrix). I think it will work easily enough for, say, matrix "A", but not for a parameterized matrix.

I will describe my algorithm in the case of a 3x3 identity matrix, without providing a corresponding keystroke program:

1. First, create a 1x3 matrix and store all ones in it:

```
A = [ 1 1 1 ]
```

2. Resize this matrix to 4x3. The 15C will automatically supply zeroes for the new elements.

```
A = [ 1 1 1 ]
    [ 0 0 0 ]
    [ 0 0 0 ]
    [ 0 0 0 ]
```

3. Transpose into a 3x4

```
A = [ 1 0 0 0 ]
    [ 1 0 0 0 ]
    [ 1 0 0 0 ]
```

4. Resize to 3x3. When this happens, the 15C will read the elements from the current matrix in "book" order and place them into the new matrix in "book" order. Excess elements are discarded. This gives you:

```
A = [ 1 0 0 ]
    [ 0 1 0 ]
    [ 0 0 1 ]
```

Voila!

Most of this can be done easily with a parameterized matrix and I suspect that this would operate very quickly since most of the functions are native 15C MATRIX functions and not very complex ones at that (not like matrix inverse).

The part that is hard in the parameterized case is to store all 1's into the original 1x3 matrix. You can do this easily with a known matrix but not so simply when the target matrix is parameterized. For some reason, you cannot say [STO][(i)] when X is an integer and I is a matrix descriptor. Of course, you could always multiply the matrix by zero and then add one to it, but that is totally inelegant and I won't go there! ;-)

Try this listing

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 7 June 2003, 1:34 a.m.,*
in response to message #3 by Patrick

Hey, Patrick;

Thank you for your words, but you know what? Your solution is a lot clever. I implemented it, but I used a large number of steps. Maybe you can reduce it.

```
001 f LBL any
002   STO RESULT
003   STO I
004   0
005   ×
006   1
007   +
008   RCL DIM I
009   1
010   x<>y
011 f DIM I
012   +
013   x<>y
014 f DIM I
015 g R^
016 f MATRIX 4
017   Rv
018   ENTER
019 f DIM I
```

The program will take the number of rows as a reference and consumes a lot of time filling matrix with ones (lines 4 to 7). I tried using these steps when indexed matrix was a single-line matrix, after step #11, but it would increase stack manipulation and a few extra steps, so I decided for a "shorter" routine instead of a faster one.

Again, if step #2 is removed, step #5 (×) returns the matrix descriptor defined as result. Default definition for RESULT is matrix C and I forgot to add STO RESULT in my first listing, so step #5 (in fact, #4 if step #2 is removed) returned [C 3 3] in the display.

I hope this is what you had in mind.

Hey, Valentin, your turn now...

Best regards.

Luiz C. Vieira - Brazil

Edited: 7 June 2003, 3:11 a.m.

A faster, longer version

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 7 June 2003, 8:08 a.m.,*
in response to message #3 by Patrick

Hey, Patrick;

I tried a faster (and it is) instead larger (2-bytes "plus") version for your algorithm and got this one:

```
001 f LBL any
002   STO RESULT
003   STO I
004   RCL DIM I
005   ÷
006 g LSTx
007 f DIM I
008   RCL I
009   0
010   ×
011   1
012   +
013   Rv
014   +
015 g LSTx
016 f DIM I
017 g R^
018 f MATRIX 4
019   Rv
020   ENTER
021 f DIM I
```

The program will take a square matrix in X-register. Filling a single-line matrix with ones (lines 9 to 12) is somewhat fast (faster than mine), but this routine is 2-steps longer than previous version. Maybe you can still reduce it (I did not try that hard to shrink it...)

Best regards.

Luiz C. Vieira - Brazil

Matrix Convolutions: no one else?

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 8 June 2003, 1:11 p.m.,*
in response to message #1 by Valentin Albillo

Hey Valentin, Patrick;

It seems it's only us in this party. To be honest, I posted to keep it for two more days... Sorry, Dave :)

Patrick, I want to know if you tried the programs I posted. Any comments? I found no other way but the "unelegant" (you called it so...) *0 × 1 +* to fill the indexed matrix with "ones". Have you seen how fast is your solution? Except for feeling the matrix (an internal loop), the absence of "user" loops makes it faster.

Best regards.

Luiz C. Vieira - Brazil

Edited: 8 June 2003, 2:09 p.m. after one or more responses were posted

Re: Matrix Convolutions: no one else?

*Message #7 Posted by **Patrick** on 8 June 2003, 2:03 p.m.,*

in response to message #6 by Vieira, Luiz C. (Brazil)

Hey Luiz

Thanks for your great implementations. I particularly liked the way you used divide to get the value 1 you needed in the second version. Quite clever stack manipulations.

I did key in your program and tried it in SST mode. Quite cool.

I've had another idea overnight that might make things better, although I haven't thought things through yet this morning. The idea is to overcome the difficulty of setting the parameterized matrix to all one's by using a second, non-parameterized matrix. You set, say, matrix "E" to all ones, then you do some sort of operation with E, with RESULT set to your parameterized matrix. It could turn out that "E" is the very same matrix as the parameterized one, but I don't think that matters.

What I don't like about this solution is the fact that you have to use another matrix. On the other hand, you can just barely fit all this into memory. If you think about memory usage you get:

Max size of parameterized matrix = 7x8 = 56 elements. Max size of temporary matrix = 1x7 = 7 elements.

Total = 56+7 = 63 elements out of 64 available. This doesn't leave you much program space, though! This leads me to believe we are on the right track. Unfortunately, Valentin has not been forthcoming on his incredibly optimized solution. We'll just have to wait for the master to educate us!!

If the HP15C has more memory...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 8 June 2003, 4:01 p.m.,*
in response to message #7 by Patrick

... we'd be claiming for more! Human beings are not easy to satisfy as for their (our) needs...

About the HP15C memory: if we look at the 2×2^n growing ($64 = 2^3 \times 2^3$), than the next step would be a 16×16 maximum matrix, that would lead us to 256 registers and 1792 bytes of memory, what is equivalent to the HP41's Quad Memory Module. Cool!

Back to business: thanks for your comments. I try to keep low-profile, stack-mostly solutions, but there is always a limit. When you have fixed-partition memory (HP65, HP55, HP67/97, HP25, HP33... any others?), using registers is up to you, but when movable partition is the case (HP34, HP38, all Voyagers, Coconuts, HP42... others?) then using numbered registers mean at least nine extra bytes. Yes, nine: the seven bytes used by the register itself and both STO / RCL to access it's contents. A lot of people forget about that: what is a register good for if you do not store something there for later retrieval? The best case is when you manually store something in a register before running a program, so you'll use only one RCL, meaning eight bytes. I thought an article about Stack Manipulation × Storage Registers would be a good reading, but I didn't got through it so far.

In my first version, I considered any matrix descriptor in X-register, so I could not use the

```
   ÷
[f]LSTx
```

trick: X- and Y-register contents might be different, and I mentioned I used column numbers as reference, remember? As it was not an orthodox maneuver, I thought considering a square-matrix in X-register should not be accomplished. In the second version, this is mandatory to reduce program steps. Also, I could use the remaining "1" in LASTx (step #7):

```
001 f LBL any
002   STO RESULT
```

```
003   STO I
004   0
005   ×
006   1
007   +
008   RCL DIM I
009 g LSTx
010   x<>y
011 f DIM I
012   +
013   x<>y
014 f DIM I
015 g R^
016 f MATRIX 4
017   Rv
018   ENTER
019 f DIM I
```

provided matrix in X-register is a square matrix. Anyway, final listing has the same number of steps (I did not check for bytes).

As you mentioned, let's wait for Valentin's final words. I'm curious a lot to see his version.

You know, I tell my students that the best thing in a math problem is the fact that each math problem, in most of the cases, accepts many, many solutions. There are rare math problems with only one solution and others with no solution. Then we can use a human solution that, in most cases, is a simple behavioral change so the original math problem no longer exists and the new one has a solution, now.

Best regards.

Luiz C. Vieira - Brazil

Re: Matrix Convolutions

*Message #9 Posted by **Valentin Albillo** on 8 June 2003, 6:43 p.m.,*
in response to message #7 by Patrick

Hi, Patrick, Luiz, & everyone else following this thread:

First of all thank you very much for your interest in my humble 15C quiz, I've found your solutions and ideas very interesting and imaginative, to say the least. You both certainly are accomplished 15C programmers, knowing every hook and cranny.

However, may I point it out that interesting as your code is, it is trying to find a solution under *extended conditions* not originally asked for (such as starting from a matrix descriptor in the X register), which are not required in my original challenge. May I bring to your attention the fact that the only condition explicitly mentioned and required is that the routine expects a square matrix A to have been previously dimensioned (from 1x1 to 7x7). That's the solution the quiz is asking for.

So, you don't need to rack your brains for a general solution which will work for any matrix the user cares to pass in the X-register or I-register or whatever. Just make it work for a square matrix called 'A', which is passed *nowhere*: the subroutine simply assumes it has been previously dimensioned and works with it. Of course, the solution can then be easily altered to work with an arbitrary matrix, but that's not the point.

Under that original condition, I can state that there is a solution in *10 steps* (including LBL and RTN, i.e: 8 steps for the body of the subroutine) that can construct the Identity matrix for any matrix A ranging from 1x1 to 7x7, and taking *3 seconds* for the 7x7 case. (Your routine *must* include a final RTN, as you may not assume it can be placed right at the end of the program, there may be other subroutines as well and not all of them can be placed at the very end)

Luiz's first solution is a worthy first attempt, taking 12 steps (including LBL and RTN) and some 8 seconds for a 7x7 matrix. But you can do better ! Just stick to the original specifications, right ? :-)

I'll wait for any and all improved solutions under the condition given, and in any case will post my own next Tuesday. It really shows just how well all of HP-15C's command set instructions work together, complementing each other incredibly nicely.

Again, thanks for your interest and best regards.

[P.S.] Patrick, I did send you a second batch of documents, but never received your confirmation. Did you get them ?

This must be it!?

*Message #10 Posted by **Patrick** on 9 June 2003, 3:37 p.m.,*
in response to message #9 by Valentin Albillo

I think I have it, Valentin. Here is a 10 step solution which runs quite fast. I think the speed is in the same ballpark as yours, approximately 3.6 seconds for a 7x7: it took exactly 6 minutes to execute 100 iterations, including the timing loop's control code.

Here it is, written specifically for matrix A:

```
001    LBL A
002    0
003    STO MATRIX A     // zero out the matrix
004    f MATRIX 1       // set R0, R1 to 1
005    x<>0             // set R0 to 0, X to 1
006    LBL 1
007    STO + 0          // bring R0 up to the same value as R1
008 u  STO A            // store 1 in next diagonal element
009    GTO 1
010    RTN
```

The small "u" on step 008 means to code this program step in User mode so that the values in R0 and R1 are automatically incremented. This also ensures that step 009 will be skipped at the end of the matrix.

The operation of this routine is quite simple. After storing zero into all elements of the matrix, it steps through just the diagonal elements setting them equal to one. Step 007 is used to make sure the row number keeps up with the (automatically incremented) column number.

It took me a long time to go from a previous 11 step solution to this one, the trick being step 005 which replaced two previous instructions.

Once again, thank you Valentin for providing such an entertaining challenge! Much enjoyed.

P.S.> Valentin... yes thanks for your second mailing. Will respond to you about it shortly.

Re: This must be it!? (parameterized)

*Message #11 Posted by **Patrick** on 9 June 2003, 4:23 p.m.,*
in response to message #10 by Patrick

The solution for the parameterized case is much less elegant, but executes in about the same amount of time.

Assuming a matrix descriptor for a square matrix is in X:

```
001   LBL A
002   STO I          // need to use indirect matrix calls
003   RCL DIM I      // get original dimensions into X,Y
004   0
005   f DIM I        // deallocate target matrix
006   STO 0          // prepare R0 for later iteration
007   Rv             // original dimensions --> X,Y
008   f DIM I        // restore original matrix dimension
009   1
010   STO 1          // prepare R1 for iteration
011   LBL 1
012   STO + 0        // make R0 equal R1
013 u STO (i)        // store 1 into diagonal element
014   GTO 1
015   RTN
```

The loop LBL 1 is pretty much the same as before. What is different is all the kafuffle in getting the matrix to be initially equal to zero. I chose to redimension the matrix to zero and then restore it rather than multiplying the matrix by zero. The latter technique would require fewer program steps but longer execution time -- the traditional tradeoff.

It is really too bad you can't say [STO][MATRIX][I] (or perhaps [STO][MATRIX][(i)]) with a scalar in X. This is just a strange quirk in the 15C's instruction set. Other very similar commands allow the use of the indirect register. Maybe the 15C Plutonium will fix this quirk!

Congrats, Patrick!

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2003, 5:21 p.m.,*
in response to message #10 by Patrick

Hi, Patrick;

if this is not the answer, than Valentin has another solution. Congrats! Great programming.

And Valentin, about this post: your comments are perfectly correct. I just should add "In a math analysis..." at the beginning.

I second Patrick in his words. This was teasing.

Best regards.

Luiz C. Vieira - Brazil

Re: This must be it!?

*Message #13 Posted by **Valentin Albillo** on 10 June 2003, 4:34 a.m.,*
in response to message #10 by Patrick

Hi Patrick, Luiz, and everyone following this thread:

Patrick posted:

"This must be it !? I think I have it"

Yes ! Congratulations !! :-) My original solution was:

```
    LBL A
    CLX
    STO MATRIX A
    MATRIX 1
    X<> 0
    LBL 0
    STO+ 0
```

```
"u" STO A
    GTO 0
    RTN
```

so, as you can see, yours is identical but for the trivial change of "LBL 1" instead of my "LBL 0", and yours using "0" instead of my "CLX". "CLX" executes *faster*, as it doesn't have to roll up the stack, etc, as "0" does.

I think this solution is unique and can't be bettered. Matter of fact, it relies on two happy 'coincidences':

- the fact that the "0" used to blank the matrix is precisely the value needed to initialize the index
- and the fact that the "1" needed to fill up the main diagonal is also the exact value required to sync up the row index with the column index !

Where it not for those two 'coincidences', the routine would be longer.

Now you can also see why I 'insisted' in a specific matrix A, instead of a parameterized, arbitrary matrix in the X or I registers: there's *no* STO MATRIX I or STO MATRIX (i) instruction, so the solution would be longer, less elegant. :-)

As a final remark, if this routine were to be used repeatedly in an actual program, it could be made *one step shorter and somewhat faster* by making use of the rarely seen *rapid reverse branching* technique: the main program would store the proper line number, then it would call the routine, like this:

```
      ...
36    92
38    CHS
39    STO I
      ...
47    GSB A
      ...
63    GSB A
      ...
87    LBL A
88    CLX
89    STO MATRIX A
90    MATRIX 1
91    X<> 0
92    STO+ 0
93"u" STO A
94    GTO I
95    RTN
```

The "GTO I" would branch to step 92, "STO+0", so the loop consists of only three steps, and runs faster. Besides, the GTO itself is *much faster as well*, as it goes *directly* to step 92, without performing a very time-consuming search through memory for "LBL 0".

Very glad that you liked my little quiz, congratulations again for finding the correct solution, and thanks for your kind comments and keen alternate techniques, the transposition trick is really neat.

Best regards.

Edited: 10 June 2003, 5:07 a.m.

To go where no one has gone before....

*Message #14 Posted by **Patrick** on 10 June 2003, 3:02 p.m.,*
in response to message #13 by Valentin Albillo

You know, I already had a program to do this very thing written down in my programming notebook before I read your challenge. Looking back on it now, I shudder at its awkward and inefficient algorithm. However, it was only when I read your challenge that I was inspired to improve upon it.

In fact, it is a common trait of problem solving that it is much easier to find an optimized solution when one is *known* to exist. It is much, much harder to find that solution in the first place, when failure and doubts are your constant companions.

Congratulations to you, Valentin, for deriving such a great piece of code without having the benefit we had of knowing such a thing even existed.

To say the least, I look forward to your next challenge.

Re: Matrix Convolutions: no one else?

*Message #15 Posted by **hugh** on 9 June 2003, 9:24 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

i had a go, but couldnt come up with anything to beat your original posting.

i thought maybe i could divide the matrix by itself. eg DUP / as a cockey answer, but firstly, it doesnt give exactly the identity and secondly you cant set the result to the original.

.. im still wondering if there a mat op that might avoid a loop altogether.

Re: Matrix Convolutions: no one else?

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2003, 12:06 p.m.,*
in response to message #15 by hugh

Hi, hugh;

the ENTER / is actualy a solution, based on identity matrix definition and divide actual operation, that is 1/x × (times the inverted matrix). I thought about it first as a guess, but we have two extra problems:

1 - memory space (only up to a 5 × 5)
2 - running time

And for the HP15C, as you mentioned, the need to define a RESULT matrix. If you do'n't do that you'll get an error message.

Thanks; it's always good to hear from others. When I have no adequate or "competitive" answer, I seat and watch, too.

Luiz C. Vieira - Brazil

Re: Matrix Convolutions: no one else?

*Message #17 Posted by **Valentin Albillo** on 9 June 2003, 1:04 p.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

Luiz posted:

the ENTER / is actualy a solution, based on identity matrix definition and divide actual operation,

that is 1/x × (times the inverted matrix)

Actually, regardless of the horrible timing (more than 1 minute for a 7x7 matrix, if it were possible) and accuracy (rounding errors while inverting and multiplying), it's not a solution at all, because:

- Obviously, filling a matrix with the elements of an Identity matrix must be independent of the actual matrix contents when the routine is called. Else, if the matrix happens to be singular (or nearly so), or even more commonly, has just been dimensioned and thus all its elements are zero, this procedure will fail and will not produce an Identity matrix at all. Matrix inversion is not defined for singular square matrices (analogous to division by zero), and though the HP-15C doesn't give an error and inverts instead a slightly changed matrix, the final result after multiplying is not an Identity matrix in that case.

- The HP-15C only allows the "division" operation between two matrices placed in X,Y if X is *not* the result matrix, so either it won't work at all or else you would need another temporary matrix of the same dimensions and specify the result matrix accordingly.

Best regards.

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$66 already? This HP-22S may be going places on ebay!

*Message #1 Posted by **Gene** on 4 June 2003, 10:43 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3028066081&category=11713

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HP-45 VS HP-67

*Message #1 Posted by **Frederic** on 4 June 2003, 9:21 p.m.*

Hi, i'm not a collector but like led calculators and i'm looking for a HP-65 OR a HP-67 on eBay. I know the HP-67 is newer and more powerful than the HP-65 and were two popular selling market. So when looking at prices on eBay, i saw that the 65 fetch about 50% more than the 67 for the same condition. Today a 65 fetch twice a 67 for same condition! Why? They look like the same quality no? Appart that the 65 is the first programmable on the market, what is driven the price up of the 65?

thans you for answering my newbies question on this Forum

Fred from Canada

Re: HP-45 VS HP-67

*Message #2 Posted by **Ernie Malaga** on 4 June 2003, 11:04 p.m.,*
in response to message #1 by Frederic

> Quote:
>
> Appart that the 65 is the first programmable on the market, what is driven the price up of the 65?

That's your answer, Fred. The HP-65 is one of the Great Originals in the HP calculator line, while the HP-67 (while more powerful, versatile, etc.) is just a sequel.

Of course, we're talking about sensible people here. Ebay, however, is an entirely different matter. Just about any crazy price you care to imagine has been asked for just about any piece of trash -- and what depresses me -- there's always someone who pays for it.

"There's a sucker born every minute," some cynic once said. I wish I could remember who it was: he was right on the button.

-Ernie

Re: HP-65 VS HP-67

*Message #3 Posted by **Michael F. Coyle** on 5 June 2003, 1:37 a.m.,*
in response to message #2 by Ernie Malaga

> Quote:
>
> "There's a sucker born every minute," some cynic once said. I wish I could remember who it was: he was right on the button.

P.T. Barnum, American showman, 1810-1891, a master at separating suckers and their money.

- Michael

Re: HP-65 VS HP-67

*Message #4 Posted by **Ernie Malaga** on 5 June 2003, 3:52 a.m.,*
in response to message #3 by Michael F. Coyle

Thank you!

-Ernie

Re: HP-(6?)5 VS HP-67

*Message #5 Posted by **db(martinez,california)** on 5 June 2003, 1:43 a.m.,*
in response to message #2 by Ernie Malaga

my guess is that there were more 67's sold. it was in production longer and was cheaper too. it is also possible for a 65 to be almost ten years older than a 67, so the 65 had a lot more time to be thrown away or run over or whatever. being more rare can't hurt the price of the 65.

me, i have fond memories of my favorite boss, good old john lopez, banging out the horizontals on his 67 and copying them by hand onto my 41/thinkjet printout of the elevations. we really felt hi-tek, well hood of the truck hi tek anyway. and back then we were.

i never even held a 65 till i found one at the sal (the writer grins luridly) for three bucks.

Re: HP-(6?)5 VS HP-67

*Message #6 Posted by **Ernie Malaga** on 5 June 2003, 3:56 a.m.,*
in response to message #5 by db(martinez,california)

My only contact with an HP-65 was in college. A friend of mine borrowed one from one of his friends, and I got to teach him how to program the machine. My previous experience with HP calculators was with an HP-25 only, but I had read plenty about the 65.

That machine was already old, and the card reader made the whole calculator vibrate when engaged -- but it still worked. This was 1977, so the 65 couldn't have been more than 5 years old, right?

Shortly afterward I sold my 25 and bought a 67, brand new, which sounded like a baby rattle whenever I shook it. But hey -- at least the card reader was healthier! 8^)

-Ernie

Re: HP-65 VS HP-67

*Message #7 Posted by **David Ramsey** on 5 June 2003, 11:47 a.m.,*
in response to message #1 by Frederic

As others have noted, the 65 was the first handheld programmable calculator, and thus is more interesting to a collector.

But you said you're not a collector, which implies you might actually want to USE the calculator. The 67 is much more powerful than the 65 and is definitely the one to get in that case.

Be aware that in either case you should check to make sure the card reader functions. The rubber roller that pulls the cards through the reader disintegrates in about 20 years and virtually all of the old card reader calcs

you see will have this problem. It's repairable, though.

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HP95lx prototype pictures and short commentary

*Message #1 Posted by **Edwin Herdman** on 4 June 2003, 9:10 p.m.*

(Note that the pictures here average ~300K in size, and all are wider than the average PC monitor resolution. Originally posted at the Digital Press Forums, just a few minutes ago.)

http://home.attbi.com/~edoscuro/hp95lx_reboot.jpg

Welcome to Jaguar! I've managed to score a Hewlett-Packard 95lx, one of the pioneering handheld devices that started the "handheld computing craze" in 1991. I made a promise a long while back to post pictures at the web's foremost HP portables museum, and I've finally made good on that promise.

http://home.attbi.com/~edoscuro/hp95lx_sys_settings.jpg

This system prototype dates from summer 1990 at earliest, when the specifications for this system were changed from 512K ROM and 128K RAM and a target price of $595 to a whopping 1MB ROM and 512K RAM, with the target now $699.

http://home.attbi.com/~edoscuro/hp95lx_back.JPG

The apparently ad-hoc nature of the prototype number on this unit (P148) leads one to suspect that this was the 148th prototype from the whole series--not the 148th unit of this type, but the 148th of the whole series. However, according to [url=http://www.palmtoppaper.com/ptphtml/12/pt120055.htm]this page[/url] (alt+w) there were no actual system prototypes made before this point--if March 1990 was the date of the first breadboard's setup. For the moment, the exact meaning of this marking is a mystery to me.

http://home.attbi.com/~edoscuro/hp95lx_sliders.jpg

There is no question, however, that this unused, well-preserved unit is not a normal HP-95lx, as seen above. There's a few quirks--within a few minutes of first recieving the unit, I'd managed to freeze up the unit by messing with the RAM/RAM disk memory slider and had to pull the batteries. There are a number of strange files inside the ROM, but the two most interesting are the PCX images that are usable as a replacement for the "business card" layout you can select to display when you first turn the machine on (since it's an instant-on machine, programs are always loaded into memory and the RAM disk faintly hums even when it's powered off).

http://home.attbi.com/~edoscuro/hp95lx_topcard_pcx.jpg

TOPCARD.PCX is an oddity--a rather poorly constructed screen, with obvious scaling problems in the left hand side icons, and a stray pixel. The next image is a much more pleasing idle screen named ICONS.PCX:

http://home.attbi.com/~edoscuro/hp95lx_icons_pcx.jpg

All files on ROM are dated, so one more look at the system's contents should give me a fairly accurate idea when the system was actually made.

http://home.attbi.com/~edoscuro/hp95lx_jaguar.jpg

Welcome to Jaguar!

Proof of ownership:

http://home.attbi.com/~edoscuro/hp95lx_owner_settings.jpg

Here's a few other pictures that didn't fit in with the text, but are among the best I've got available:

http://home.attbi.com/~edoscuro/hp95lx_open.jpg

When in use, the 95lx would be opened partway to look something like this. As a 95lx owner will notice, the keyboard is identical (I believe in every way) to those in the final production run.

http://home.attbi.com/~edoscuro/hp95lx_top.jpg

The unit's top cover as seen from an angle. Quite a good picture; that lens cover in the background is from my digital camera.

Re: HP95lx prototype pictures and short commentary

*Message #2 Posted by **Raymond Del Tondo** on 6 June 2003, 10:43 a.m.,*
in response to message #1 by Edwin Herdman

Hello,

nice pictures!

Only one small correction: http://home.attbi.com/~edoscuro/hp95lx_back.JPG

should be:

http://home.attbi.com/~edoscuro/hp95lx_back.jpg

at least for my browser;-)

Regards,

Raymond

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Dave, a guy bought your CDRs, printed and is selling a copy of HP-15C manuals on ebay !!!

*Message #1 Posted by **Emmanuel, France** on 4 June 2003, 5:39 p.m.*

Please visit: http://cgi.ebay.fr/ws/eBayISAPI.dll?ViewItem&item=2733924784&category=17008

Are you sure that's what he's offering?

*Message #2 Posted by **Dave Hicks** on 4 June 2003, 5:57 p.m.,*
in response to message #1 by Emmanuel, France

The alta-vista translation of that page is a little rough. I see mention of CDs and print-outs but I can't tell if he's offering the original CDs with the calculator which would be OK or only the print-outs. Can you tell or is it ambiguous in the original language too?

Re: Dave, a guy bought your CDRs, printed and is selling a copy of HP-15C manuals on ebay !!!

*Message #3 Posted by **bill platt** on 4 June 2003, 6:06 p.m.,*
in response to message #1 by Emmanuel, France

Dave,

My translation (from college french--not a native speaker) which I am quite confident of:

{} are my comments

"This calculator is suitable for a collector {or is good enough to be a collector's item etc}. The keys work well {to the touch...I forget what 'frappe' means but think it is 'to strike' so OK here}. She functions very well. The batteries are OK. No French manual, but have included a cd {printout of--imprime means print but maybe the french use this to mean make cd also} is included in English."

Seems many auctioneers include copies of your CD. Since they bought it to get it (presumably) and are selling the calculator, not hte manual alone, seems ok?

Regards, and thanks to you for the amazing site--actually resource, watering hole, obsession....

Bill Platt

Re: Dave, a guy bought your CDRs, printed and is selling a copy of HP-15C manuals on ebay !!!

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 4 June 2003, 8:24 p.m.,*
in response to message #1 by Emmanuel, France

Hi, folks;

as a native Portuguese speaker and understanding some of French (both languages share the basic struture), also having Emmanuel's post as from a native French speaker, I'd like to add that the seller has been at least honest when he mentions hat he does not have the original manuals but he includes a printout of the ones available at the MoHPC CD's:

Je n'ai pas le manuel en français - I don't have the french manual

mais j'ai acheté le cd du site hpmuseum - but I bought the CD from the HPMuseum site

et j'ai imprimé et relié proprement - and I printed and properly bound (added, attached)

les 2 manuels en anglais - both English manuals.

By both manuals he means basic User's Manual and Advanced Functions Handbook. I'm not sure how Dave can deal with this; the fact is that manuals are copyrighted, and he is including a copy of them. Should HP claim it is not right? Is it up to Dave?

My thoughts go beyond these ones, but I was affraid of the French text actual meaning.

My 2¢.

Luiz C. Vieira - Brazil

Edited: 4 June 2003, 8:27 p.m.

Re: Dave, a guy bought your CDRs, printed and is selling a copy of HP-15C manuals on ebay !!!

*Message #5 Posted by **Michel Beaulieu** on 4 June 2003, 8:34 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi Luiz, your translation is ok, the guy is selling the manuals but not the CD that come from here...

Re: Dave, a guy bought your CDRs, printed and is selling a copy of HP-15C manuals on ebay !!!

*Message #6 Posted by **James M. Prange** on 5 June 2003, 9:26 p.m.,*
in response to message #5 by Michel Beaulieu

I inherited a 16C, and since the manual was missing, I simply printed out a copy of the manual from the Museum CD. If I were to sell (perish the thought!) or give away my 16C, would I be allowed to include the printed copy of the manual without including my Museum DVD?

Regards,
James

Re: Dave, a guy bought your CDRs, printed and is selling a copy of HP-15C manuals on ebay !!!

*Message #7 Posted by **Dave Hicks** on 5 June 2003, 9:53 p.m.,*
in response to message #1 by Emmanuel, France

Thanks everyone. I still can't quite be sure what he's doing. As long as he's selling the original CDs, it's OK for him to include the print-outs too.

Someone mentioned auctioneers selling *copies* of my CDs. If you happen to see that, please let me know. Reselling *originals* is fine of course.

Re: Dave, a guy bought your CDRs, printed and is selling a copy of HP-15C manuals on ebay !!!

*Message #8 Posted by **James M. Prange** on 7 June 2003, 1:37 a.m.,*
in response to message #7 by Dave Hicks

> Quote:
>
> Someone mentioned auctioneers selling copies of my CDs. If you happen to see that, please let me know. Reselling originals is fine of course.

But I take it *not* ok to sell my no longer needed original CD set that I've upgraded to the DVD!

Re: Dave, a guy bought your CDRs, printed and is selling a copy of HP-15C manuals on ebay !!!

*Message #9 Posted by **Dave Hicks** on 7 June 2003, 10:04 p.m.,*
in response to message #8 by James M. Prange

Yes - good point!

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Another 12c platinum bug from c.s.hp48

*Message #1 Posted by **Gene** on 4 June 2003, 4:47 p.m.*

I can confirm this happens on my beta unit. Tony's 12cp is a production unit (I believe). This is not a good sign. Very strong indication of very little beta testing to have this type of thing happen. Once you go beyond 253 program steps, no GTO in the first 253 steps work any longer.

I only got the unit 8 weeks before it was live, so it's not my fault. :-)

Gene -- * These statements and opinions are mine alone and do not reflect my employer's views. *

"Tony Hutchins" wrote in message > > Hi Veli-Pekka Nousiainen ! > > > Hi, Tony! > > Seems like "a byte=maximum line address" -bug to me. > > Are you sure about the 253? could it be 254 or 255? > > Program lines are made available in bunches of 7 at a time. > My i-solver is 250 lines long. That leaves lines 251 and 252 > and 253 with GTO 000 in. The first instruction in the new > program starts at line 252, then I type the second at line > 253, and if I type the third then a new bank of 7 lines from > 254-260 become available. Once this happens then all GTO in > the first program don't work. > > I changed a GTO in the first program and found that all GTO up > to GTO 255 didn't work (except GTO 000 still works I think<G>) > but GTO 256 and over does. > > This new bank of lines cannot be > "deleted" - the only way to fix things is clear the program > and re-type, only go up to line 253, and buy another 12C for > the second program<G>

Bugs? Rejoice!

*Message #2 Posted by **Patrick** on 5 June 2003, 1:24 a.m.,*
in response to message #1 by Gene

In 20 years, these early Platinums with the bugs will be highly sought after collector's items!

Re: Bugs? Rejoice!

*Message #3 Posted by **Scuba Diver** on 5 June 2003, 9:01 p.m.,*
in response to message #2 by Patrick

20 years? If these new units last 20 years, then I'm Bill Clinton!

Monica...can you come back in a few minutes? I'm busy right now!

B.

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Leather Case for Voyagers

*Message #1 Posted by **Grant Goodes** on 4 June 2003, 3:50 p.m.*

I know that HP made a (real) leather case for the voyager series calculators. The hp-partsurfer website lists the part number as 92169A/B/C (different colours), but doesn't let you order it, saying that it is available from another site, but not saying which. Is this part still available, and if so how can I order it? I no longer have the shitty little slip-case for my HP-16C, and since I use it every day, could use a nice case.

Thanks for any information on price/availability.

Re: Leather Case for Voyagers

*Message #2 Posted by **james (UK)** on 4 June 2003, 4:04 p.m.,*
in response to message #1 by Grant Goodes

Hi Grant I don't know about new availability but one went for $72.11 at the weekend

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3026802928

Re: Leather Case for Voyagers

*Message #3 Posted by **Mark** on 4 June 2003, 10:45 p.m.,*
in response to message #2 by james (UK)

Yes, as the seller that price surprised me as well, too bad I don't have any more!

But the case was rather nice, very soft cowhide (despite my title which erroneously said it was vinyl), and in great shape too. It was the cherished cover for my HP-16C, which all too soon alas must find its way to the auctioneer's block along with the rest of my HP collection.

So how difficult would it be to make something like this, sans the HP logo of course? Anyone have any leather-working skills / equipment? I'm sure there would be a market for good working (non-logo) leather cases for the old machines.

Museum Quality Voyagers

*Message #4 Posted by **Patrick** on 7 June 2003, 1:49 p.m.,*
in response to message #3 by Mark

Mark

Do you mind my asking *why* are you giving up such wonderful devices on eBay?

Please don't tell me you need the money to gamble is Las Vegas!!!!

Re: Leather Case for Voyagers

*Message #5 Posted by **db(martinez,california)** on 5 June 2003, 1:56 a.m.,*
in response to message #2 by james (UK)

i didn't know they made one for the voyager too. it looks exactly like the one that fits the clamshell models.

Re: Leather Case for Voyagers

*Message #6 Posted by **James M. Prange** on 5 June 2003, 4:55 a.m.,*
in response to message #5 by db(martinez,california)

According to http://partsurfer.hp.com/cgi-bin/spi/main, 92169A/B/C are for the Voyagers, 92169D/E/F are for the Clamshells, and 92169G/H are for the 82240A/B IR printers.

Regards,
James

Re: Leather Case for Voyagers

*Message #7 Posted by **ToddG** on 5 June 2003, 10:20 p.m.,*
in response to message #6 by James M. Prange

Yes, I have several of these cases, in various colors (brown, black, and cordovan). The cases for the Voyagers were harder to find. The one for the IR printer is really neat, and has a leather handle.

I got a bunch of these about 6 years ago from a nice old fellow in California who just gave them to me for free. (I'm not selling any, so please don't ask). He told me he was the one who originally designed them for HP.

IIRC, Educalc also sold a version for the clamshells. Not sure about the Voyagers, though.

Re: Leather Case for Voyagers

*Message #8 Posted by **Trent Moseley** on 5 June 2003, 11:07 p.m.,*
in response to message #7 by ToddG

I got leather cases for two of my Voyagers from Educalc, one black and one cordovan. That was so long ago I have no idea what I paid for them.

tm

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I email HP about need a 41CX...

*Message #1 Posted by **Michel Beaulieu** on 4 June 2003, 3:40 p.m.*

I email HP (my email is lower this post) and they send me this answer. I think they have some good stuff comming soon they still "Invent"!

Subj: Re: FW: [USCN EDU WEB FEEDBACK Rv3.0] Date: Wed, 04 Jun 2003 12:07:55 -0600 From: HP Calculator E-mail Support Graphing <calculatorgrph_support@am.exch.hp.com> ---------- Dear ValuedCustomer

We received your mail over the past few days. First of all, let me extend a warm "thank you" for your very loyal and unwavering support for HP calculators and in particular, our RPN technology.

Secondly, it is very important that we reassure you that HP will continue to offer a full line of both RPN and Algebraic calculators. We have currently, under development, an enhanced, new range of financial, scientific and graphing calculators to replace the following: HP17BII, HP32SII, HP19BII, HP38G, HP39G, HP40G, HP48G, HP48GX and the HP49G. Many of you have expressed a strong preference for some of the above products and it is important that you receive this reassurance. Please note, however, that some of these products have been discontinued but will be replaced over the next 6 -12 months, a few as soon as this summer and fall. You should be also made aware that you might encounter difficulty with buying products being replaced, depending on your geographic region.

Sincerely, HP Consumer e-Support

Our advice is strictly limited to the question(s) asked and is based on the information provided to us. HP does not assume any responsibility or liability for the advice given and shall not be liable for any direct, indirect, special, incidental or consequential damages in connection with the use of this information. Always back up your data. For more information, including technical information updates, please visit our Web site at http://www.hp.com/go/support.

OriginalMessageFollows:----------

This message has been rerouted to you by the HP.COM email router. If this message has been sent to you in error, please forward back to the email router mailbox at REROUTER,HPCOM per HP email directory or HPCOM REROUTER per CPQ email directory. Original message follows: ----------

-----Original Message----- From: geologie@hotmail.com [mailto:geologie@hotmail.com] Sent: Saturday, May 31, 2003 6:29 PM To: educationweb@hp.com Subject: [USCN EDU WEB FEEDBACK Rv3.0]

Formname: Feedback

your_name: Michel Beaulieu company: Rivers School job_title: Teacher city: Forestville state: Quebec country: Canada phone: fax: 418-587-2697 email: geologie@hotmail.com question_1: Hi, i'm a math and sciences teacher. I know that you were doing some really good RPN calculators in the 70 and 80. I still use my HP-41CX on a daily base but it is slowly going... Will you release for person like me and possibly for students a RPN SCIENTIFIC calculator NON GRAPHING calculator that have the equivalent of keystroke programmability with comm ports (like my HP-41). I know that some of my coworker spend hundreds of $ for a used HP-32SII and even more for a

HP-42S of a HP-41CX like mine. I read about your HP-30S and some of my students have one. I think these calculators are good but are not quality that we are use to with HP; don't you agree? I also see a HP-49G but i don't like the keyboard feeling; what happened to the legendary enginering behind the HP-41 series? I have a lot of HP products at home (computers, printer, drive, oscilloscope) and beleive that i can change my HP-41CX with a new release calculator that fits the place left by it without any pretendent for over 15 years; don't you remember these line found in a HP calculator user's manual written by your own father?

"The success and prosperity of our compagny will be assued only if we offer our customers superior products that fill real needs and povide lasting value, and that are supported by a wide variety of useful services, both before and after sale."

Thanks for an answer! Michel Beaulieu Math ans sciences teacher question_2: C question_3: C question_4: B question_5: A question_6: Hi, i'm a math and sciences teacher. I know that you were doing some really good RPN calculators in the 70 and 80. I still use my HP-41CX on a daily base but it is slowly going... Will you release for person like me and possibly for students a RPN SCIENTIFIC calculator NON GRAPHING calculator that have the equivalent of keystroke programmability with comm ports (like my HP-41). I know that some of my coworker spend hundreds of $ for a used HP-32SII and even more for a HP-42S of a HP-41CX like mine. I read about your HP-30S and some of my students have one. I think these calculators are good but are not quality that we are use to with HP; don't you agree? I also see a HP-49G but i don't like the keyboard feeling; what happened to the legendary enginering behind the HP-41 series? I have a lot of HP products at home (computers, printer, drive, oscilloscope) and beleive that i can change my HP-41CX with a new release calculator that fits the place left by it without any pretendent for over 15 years; don't you remember these line found in a HP calculator user's manual written by your own father?

"The success and prosperity of our compagny will be assued only if we offer our customers superior products that fill real needs and povide lasting value, and that are supported by a wide variety of useful services, both before and after sale."

Thanks for an answer! Michel Beaulieu Math ans sciences teacher Referrer: -- SysDate: Sun Jun 1 1:29:16 GMT 2003 Submit Domain: unknown

Re: I email HP about need a 41CX...

*Message #2 Posted by **Michel Beaulieu** on 4 June 2003, 8:30 p.m.,*
in response to message #1 by Michel Beaulieu

HP send me another message telling me the HP-32SII will be remanufactured in about 8 months and all the calculators they wrote me in their previous email!

Re: I email HP about need a 41CX...

*Message #3 Posted by **Erik Ehrling (Sweden)** on 5 June 2003, 2:24 a.m.,*
in response to message #2 by Michel Beaulieu

It's scary to see that the HP-42S is not mentioned at all in their email...

Re: I email HP about need a 41CX...

*Message #4 Posted by **HrastProgrammer** on 5 June 2003, 2:29 a.m.,*
in response to message #3 by Erik Ehrling (Sweden)

Well, they haven't mentioned HP-41C/CV/CX, HP-42S and HP-71B :-(

Re: I email HP about need a 41CX...

*Message #5 Posted by **J.Manrique Lopez de la Fuente** on 5 June 2003, 4:45 a.m.,*
in response to message #4 by HrastProgrammer

Should they?

It seems that hp41 had been updated by hp42 and this, had been updated by hp48, but last maybe it is not true, because hp42 is not "as graphic" calculator as hp48.

But hp32sii hasn't been updated by a new model, so, yes, if HP is redoing all its calculator lines, hp32sii will be updated. I hope this update will be a more like a hp42sii than hp32, but who knows. Seeing new hp12c platinum I have started to think that maybe, they will do a mix between hp32sii and hp20s (rpn/alg mode on a scientific calc).

We should have patience... next course seems to be "intense"...

Best regards,
J.Manrique López de la Fuente
Users Club from Gijón
1077 HPCC Member
AsturLiNUX & HispaLiNUX Member

Re: I email HP about need a 41CX...

*Message #6 Posted by **Håkan Thörngren** on 5 June 2003, 5:10 a.m.,*
in response to message #5 by J.Manrique Lopez de la Fuente

A HP42 is not a replacement for a HP41, it lacks I/O. HP48 is not a replacement for either, it uses RPL, not RPN.

I refused to get a HP42 when they existed on the market due to the lack of reasonable I/O.

Recently I have obtained two spare HP41CXs, one spare HP48GX (all new) and a couple of used Voyagers. I think I will manage for a long time without having to buy any more calculators. But, should HP start producing a new high end RPN/RPL calculator that interests me, I will probably find it hard to resist it...

Håkan

Re: I email HP about need a 41CX...

*Message #7 Posted by **Erik Ehrling (Sweden)** on 6 June 2003, 3:00 a.m.,*
in response to message #6 by Håkan Thörngren

> A HP42 is not a replacement for a HP41, it lacks I/O. HP48 is not a replacement for either, it uses RPL, not RPN.

That is exactly my point!

Keep the HP-42S the way it is but add serial I/O and increase the RAM size to 32K... What they definitely *not* should do, however, is to start adding an algebraic mode etc!

I have previously thought that another drawback of the HP-42S is that you cannot call MCODE programs (well, except from entering the debugger) - but I am now seeing it rather as an advantage: as HP is migrating to another CPU platform it is actually still possible to create a 100% compatible version using the new CPU.

Best regards, Erik Ehrling (Sweden)

Re: I email HP about need a 41CX...

*Message #8 Posted by **Robert** on 6 June 2003, 9:24 a.m.,*
in response to message #7 by Erik Ehrling (Sweden)

Guy's It's my opinion that the 42S was more than a replacement for the 41C, at the time of production. Do I like the 41C?.....yes, love it, at it's time the 41 was a lab engineer's dream. It has a good feel and is strait forward to use. Something important happened around the time of the 42S, PC's! It became easy to bring a PC to the problem. This limited the use of all those peripherals.

The 42S had to be smaller, lighter and more powerful than it's replacement. It is. I do not agree with all this IO business for non-graphics, it complicates the machine, and adds cost. Real world users would not use it, in my opinion.

Don't get me wrong, the 41 deserves a place in history. I love mine. The 42S was a perfect replacement. That 42 chewed up matrix based orbital dynamics problems easily, that much I know.

Re: "42s was replacement for 15C"

*Message #9 Posted by **Ron Ross** on 6 June 2003, 9:47 a.m.,*
in response to message #8 by Robert

The 42s was a replacement for the 15c. Hp said so in their advertisements, often. The 42s was supposed to have a an sx version, that is why 32K can be addressed. I/O was also going to be available, but was never finished. The reason none of this happened, "It would rob sales from the Hp48 line and be an extra support item." Marketing made the call, as usual.

Re: I email HP about need a 41CX...

*Message #10 Posted by **Johnny Billquist** on 7 June 2003, 5:51 a.m.,*
in response to message #8 by Robert

The lack of I/O in the 42 is a serious drawback. Saving and transferring programs, as well as doing backups is not possible in the 42, and I'm sure everyone would agree that this is important.

Also, functional expansion is rather important too. The 41 had modules. The 48 was functionally expandable by downloading libraries.

Either way is acceptable, but the 48 solution can gobble up lots of user memory.

The 42 is useful in lots of ways, but I do miss time functions, and you could always come onto a problem where a few new functions would be wonderful.

The 41 is a totally wonderful machine, but I doubt they'd make a similar machine again. (But I would buy it)

Time fuctions in the 42S

*Message #11 Posted by **R Lion** on 7 June 2003, 6:46 a.m.,*

in response to message #10 by Johnny Billquist

> Quote:
>
> The 42 is useful in lots of ways, but I do miss time functions

I succesfully ported this program to the 42S. It was not very difficult.

Unfortunately I never wrote the 42S version in paper and the calc, w/o batteries!!, is crossing the Atlantic in these days...

If I could, anyone can do it.

Raul

Re: Time fuctions in the 42S

*Message #12 Posted by **Erik Ehrling (Sweden)** on 7 June 2003, 12:21 p.m.,*
in response to message #11 by R Lion

> If I could, anyone can do it.

You are being modest! But the simplicity of RPN programming is in my opionion a very good argument for a high-end RPN programmable calculator. If it in addition to this would be backwards compatible to the HP41/HP42S then, bingo!

I am not stating that the HP41/HP42S could not be improved upon, but these high-end RPN programmables do still today represent a state of the art that has not been improved much upon since they went out of production - so using them as a starting point would seem very logical to me. And would probably also make business sense as well!

It could be brought to market relatively quickly and without much design work - as the HP42S is already designed! (Just add memory and I/O). It *must* be much cheaper to migrate a winning concept than starting it all over again!

Best regards, Erik Ehrling

RPL after RPN; what comes next?

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 7 June 2003, 1:30 p.m.,*
in response to message #12 by Erik Ehrling (Sweden)

Hello, Erik;

I think I got your point here, but i wonder about RPL and RPN. When I got into contact with an HP28 for the first time, I found everything I wish to find in an advanced scientific calculator plus a lot more. I know many RPN-addicted will disagree with me, but I found RPN to RPL transition as a painless process. I still keep programming both styles. I have not yet delve into SYS-RPL and HPCALC Machine code, but I intend to.

Again, I wonder what comes next. If, despite flames and blames, RPL is an RPN evolution form (Pokemon's?), what should we expect if HP and ACO have gonne further and further?

Hard to guess, I think.

Luiz C. Vieira - Brazil

Re: RPL after RPN; what comes next? (O.T.?)

*Message #14 Posted by **R Lion** on 7 June 2003, 3:18 p.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

> Quote:
>
> but I found RPN to RPL transition as a painless process

Certainly RPL is not as intuitive as RPN but I've ever thought that the RPL is not as difficult as many says.

I have the Manual and the AUR to hand when programming my 48 and this is not necessary to me when programming in RPN, but this is not a big problem.

I use them both as well...

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 7 June 2003, 4:26 p.m.,*
in response to message #14 by R Lion

Hi, Raúl;

I use them both as well, mostly to enhnace and optimize HP48 programs. I think the highest level the language is, the bigger is its documentation. I started to use CLEAN and ML about four years ago for post-graduation purposes and I missed C/C++ straight directives. I do not even remember how CLEAN structures are defined, but I can write a C/C++ program without using a programming guide or a C/C++ related book.

I wrote some user RPL programs last year, my own and someone else's use, and it took me more time to refine them than to write them. And I want my programs to be as small and efficient as possible, so I go for it fiercely. And I use manuals all time. I have more calculator related documentation, original press, than calculators themselves, maybe more than 50 publications amongst books and manuals. Once, when I was translating a big HP41 program to an HP48, I counted more than eight books and manuals opened.

And I felt amused!

I thouhgt about posting a message with the title: "Now that your calculator is working fine..." to propose programming techniques to be posted, then I remembered that there is already a Software

Library and a Programming-dedicated page.

Best regards, my friend.

Luiz C. Vieira - Brazil

Re: I use them both as well...

*Message #16 Posted by **Richard Garner** on 8 June 2003, 4:57 a.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

"Once, when I was translating a big HP41 program to an HP48, I counted more than eight books and manuals opened."

This is exactly the point those of us that would prefer RPN calulators are trying to make. RPL may be a much more advanced and powerful OS for calculators, but if you have to have 8, 10, 15 different manuals open to just write a simple program, it does not lind itself to being something that can be done on the fly out in the woods where you need to have a quick answer to a problem. You can't pull it out at a board meeting and in 5 minutes have a quick program that shows what the change in cost for a project is if your cliant decides they want to play the what if game. RPN calculators are much better at these sort of things because the programing is much simpler and more intuative. I have a 41CX, 42S & 48GX, and if I have to do something fast on the fly, I always go for the 41 or 42. The 48 just takes too much time and is too awkward to do what needs to be done a hurry in turms of programing.

Re: I use them both as well...

*Message #17 Posted by **Erik Ehrling (Sweden)** on 8 June 2003, 8:34 a.m.,*
in response to message #16 by Richard Garner

> This is exactly the point those of us that would prefer RPN calulators are trying to make. RPL may be a much more advanced and powerful OS for calculators

That is in my opinion exactly where UserRPN excels over UserRPL - when writing small programs to solve a problem in the field! And this is bearing on a philosophical question, but isn't the "field" (i.e. any place where you don't have immediate access to a computer) the real home for a calculator?

Note that I am not mentioning systems development (e.g. all larger projects aiming at extending the functionality of the calculator) which would probably benefit from a more structured language. It might just as well be that the best solution would be to use UserRPN for user programs and SysRPL for the development of libs?! (i.e. the right tools for the right task)

Best regards, Erik Ehrling (Sweden)

RPN or RPL?

*Message #18 Posted by **R Lion** on 8 June 2003, 9:11 a.m.,*
in response to message #17 by Erik Ehrling (Sweden)

> Quote:
>
> UserRPN for user programs and SysRPL
> for the development of libs

Perhaps you are right.. but I repeat because I'm convinced: I think that to write *small programs* on the fly in the 48 is easy (although RPN is easier)

Raul

Clearing facts and a challenge (long)

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 8 June 2003, 1:05 p.m.,*
in response to message #15 by Vieira, Luiz C. (Brazil)

Hi, folks; let's go again.

It's a "big guy" and I'd ask you please: read it all before getting to a conclusion, O.K.?

Focussing over a particular problem sometimes leads to a leak of specific information that may be interpreted as general case.

I mentioned: *a **big** HP41 program.* There are programs written for the HP41 that take lots and lots of memory and are many steps long. A few days ago, Valentin mentioned Othello, a 1,000 steps long program for the HP41... It is RPN. I do not know what Otlhello does, but porting it to an HP48 might reduce part of its structure in order to use enhanced HP48 features, although enhancing functionality might also cause it's RPL version to be a lot longer than the original RPN one.

Not to extend the subject any farther than it should go, in my case I had to identify what was going on the HP41 program so I could reproduce the same thing in the hP48. And I believe a single translation is sometimes trivial, so I decided to do what is supposed to do: enhance functionality. I rebuilt all loops, I used HP SOLVE instead of custom RPN loop control (by far, the worst part of all), I created a new, friendly in/out interface that used the LCD to show the complete (six values) answer at once, impossible to be done in a single-line LCD. And I did not mention it, but the about eight books were three manuals (HP41CX, HP48 UG and AUG) plus four or five specific books, subject related (surveying).

What for? I'm a teacher, if I can't do the thing or if I don't understand the thing I cannot explain how to do the thing. The only book I wrote (at least so far) and published is titled "From the HP41 to the HP48" (Da HP41 para a HP48), and I wrote because I think if I can do the thing, I can explain how to do the thing and go further: allow others to be able to do the thing, too. That's what teachers are primarily for.

I explain to my students that programming and using a program language are related tasks, instead different ones. You first learn how to program, like communicate, and improve your own programming skills and methodology and this goes with you forever. Some languages come and go, learning them is up to each one of us and the task we're performing. There are some situations where RPN programs need specific structures to be created, while RPL *may* already have them. And this eases the job.

We're dealing with calculators, but we can extend this "analysis" to computers and their O.S. Let's be honest and think both as users and programmers: whom of us would gladly and spontaneously migrate "back" to plain, old text interface instead of graphical one? Some "classical" programmers would gladly accept the task of getting back to their own roots and do magic with assembly language, plain C/C++ and Pascal. I would (I still have two 586 desktops and one 386 laptop to cry over when I'm nostalgic). But as a user I would not like to get rid of high-quality graphics environment, and I have already seen "today's" programmers that are not even aware of what's going on inside their boxes for as long as they command and the box obey.

C'mon, let's face it: there was a time when first computers and handheld calculators were "cool". Many of us lived those days, some did not. I read here that, in some cases, calculators do not even call for curiosity anymore, and we come from a "time" (twenty, twenty five years ago?) when RPN users and programmers were reverenced. Today, youngers do not have the feeling for it anymore. Calculators are no longer "cool", being able to understand problems and solve them is not "cool", survive against tech challenges is neither "cool"...

The HP41 series showed a drastic claim for their own "cool" inner parts when HP decided to call them computers instead of calculators. Coconuts and Voyagers where the last Hewlett-Packard "calculators" made by human hands; Clamshells, Pioneers and 48/49 series were CAD/CAE assisted, they have no "soul" to be maintained. I think Xpanders had passion in their design, and their disastrous hammered finale could not be avoided: they were not part of HP's plans for "the future", whatever it is. In time: I have a feeling that Xpanders would not find their place amongst RPN/RPL addicted, I don't know.

I wrote too much.

My challenge is: write the smallest program in any RPN/RPL calculator that computes interception coordinate P(x,y) of two lines L1 and L2 given line's angles Ø1 and Ø2, both related to the same reference (bearing, trigonometric, clockwise, whatever) and coordinates of two points P1(x1,y1) and P2(x2,y2) belonging to each line, respectively. I found my own solution in an HP48 using matrices and linear system solution, but the program has to handle original values a bit before "building" final matrices. When I tried direct values manipulation I found some "gaps" when lines were parallel to each other and when angles were closed to 90 or 270 degrees (PI/4 or 3*PI/4), so my program does not use any conditional structures. If you already have your own solution let me know it, I'd like to see what others are doing.

Finally, when I pointed out that I used eight books I intended to show that using books is always a good practice. I also want Richard Garner, Erik Ehrling, Raúl Lion and anyone else reading not to take this post as anything but a clearer exposition of the same thoughts expressed in this post. I agree with all views based on personal, particular, professional experiences and analysis. I just thought I should improve the way I expressed my own.

Thank you and forgive me writing too much. I'll accept and read all comments, suggestions, flames, blames without complaining... too much. d;^)

Luiz C. Vieira - Brazil

Edited: 8 June 2003, 4:14 p.m.

Othello

*Message #20 Posted by **Ellis Easley** on 10 June 2003, 11:49 a.m.,*
in response to message #19 by Vieira, Luiz C. (Brazil)

I'll bet that program was an implementation of the board game "Othello". It is played on a board about the size of a chessboard with black and white discs. You flip lines of discs over by playing a disc at the end of the line ... I forget all the rules. In the 1980's I worked with someone from France who told me many people there competed to write programs to play the game.

Re: Othello

*Message #21 Posted by **Valentin Albillo** on 10 June 2003, 1:25 p.m.,*
in response to message #20 by Ellis Easley

Hi, Ellis:

You're right, Othello is just the game you described, but the name 'Othello' is a modern trademark. The real name of this ancient game is 'Reversi' (as in 'reverse', 'flip', I guess), and it's quite challenging to play. It's very near to be completely solved by computers, if not already so.

As for Luiz's comments, my Othello program, in its RPN incarnation, was far from 1,000 lines long. I can't check it out now but I'd say it was some 300-350 lines long at most.

I don't know how many 'lines' it would take if written in RPL, but I can say that its conversion to HP-71B's BASIC takes just 10-15 lines of quite simple code.

Best regards.

Re: Othello [OT]

*Message #22 Posted by **R Lion** on 10 June 2003, 2:11 p.m.,*
in response to message #21 by Valentin Albillo

I used to play Othello with my brother or my father in the last 70's and first 80's. Now I play with my 7 y.o. son.
I enjoyed playing "Reversi" in my Spectrum in 1984. Actually it was almost the only game I played.
Finally, Quick Reversi (Leon Paulov 1992) is installed in my 48 (although is difficult to find time to play now).
Great game, isn't it?

Raul.

Edited: 10 June 2003, 2:35 p.m.

Re: Othello

*Message #23 Posted by **Valentin Albillo** on 11 June 2003, 4:46 a.m.,*
in response to message #22 by R Lion

Raul posted:

"Great game, isn't it?

Indeed ! I've always liked it very much since I read an article by Martin Gardner in Scientific American, and then another one in Byte magazine, circa 1980.

That article inspired me to write a version of

Othello for the then new HP-41C, as I felt it had the necessary RAM and peripherals (i.e: card reader, printert) to even attempt it. Afterwards I wrote versions of it for the HP-85 and other Series 80 computers, the HP-71B, and further ones for the wonderful SHARP PC-1211 Pocket Computer (known is the US as TRS-80 PC-1) and other newer SHARP pocket computers.

I still play against those programs occasionally. The one I play the most is my version for the Sharp PC-1350, because due to its large graphic screen (150x32) the program can show the whole 8x8 board at all times (no printer needed) while displaying piece counts, prompts and messages in several fonts. It even allows the user to input moves using either algebraic coordinates or better still, moving a graphic cursor on the screen. It can also play for you, suggest a move, and will recognize draws automatically, among other features. Besides, you can select several strategies to play against, including a randomized one which ensures no two games are alike.

Should HP ever come with a new calculator with enough RAM and a suitably large graphic screen, I would definitely write a version for it as well, it's become my standard test for testing a new machine's capabilities, ergonomics, and ease of programming.

Best regards.

Valentín, please:

*Message #24 Posted by **R Lion** on 11 June 2003, 12:36 p.m.,*
in response to message #23 by Valentin Albillo

could you want send me that Sharp PC 1350 version?
Look here and guess why I want it...(and with a RAM card of 16Kb!)

> Quote:
>
> Should HP ever come with a new calculator with enough RAM and a suitably large graphic screen, I would definitely write a version for it as well, it's become my

> standard test for testing a new machine's capabilities, ergonomics, and ease of programming

Not in the 48? ;-)

Raul

Re: Othello vs. Reversi

*Message #25 Posted by **Ellis Easley** on 18 June 2003, 4:19 p.m.,*
in response to message #21 by Valentin Albillo

I remembered the name "Reversi" but I thought it might be a modern trademark! I think I saw it on a game cartridge for a home computer. I'm sure my first experience of the game was the ~1970's set with plastic discs, probably made by Parker Brothers, and called "Othello".

Valentin, your HP-41 Othello program is here!

*Message #26 Posted by **Gene** on 18 June 2003, 4:49 p.m.,*
in response to message #21 by Valentin Albillo

http://www.rskey.org/gene/calcgene/othello.htm

This is your "Othello2" program from the PPC Journal with the only changes that I made all the data storage internal to the program (to remove the need for a data card).

I really love playing this game on my 2X speed HP-42S. Moves by the 42s at that speed dont' take too long!

Re: Valentin, your HP-41 Othello program is here!

*Message #27 Posted by **Valentin Albillo** on 19 June 2003, 6:08 a.m.,*
in response to message #26 by Gene

Gene posted:

"This is your "Othello2" program from the PPC Journal with the only changes that I made all the data storage internal to the program (to remove the need for a data card). I really love

playing this game on my 2X speed HP-42S. Moves by the 42s at that speed dont' take too long! "

Thanks for your interest and for hosting it. I'm glad you still like it and play it. The original "Othello" (version 1, say) was quite a sensation when it was published in the legendary Australian magazine "PPC Technical Notes" an eternity ago. I had previously sent it to Richard Nelson's PPC, but he never published it, actually.

Eventually, copies of the program reached australian HP's people, who were equally amazed that it could be done in an HP-41C at all and used it a lot for demo purposes (demonstrating everything: the 41C itself, Memory modules, card reader, and most specially, the printer, with that neat, likeable 'graphic' board output !) with very good results (sales).

They promptly sent copies to HP's headquarters at Corvallis, who were equally amazed, to the point that some person in charge sent me a letter telling me the whole story, and asking for my permission to use it for a number of purposes, which I gladly conceded for free. Nevertheless, they later sent me a prize for 'my efforts', which made me feel great indeed ! :-)

So you see, quite a story behind that "Othello" progam ... By the way, though "Othello 2" features two levels of play and is a much more complex program, I actually prefer "Othello 1", which is much shorter and neater, and thus more 'elegant' from a programming point of view, IMO.

Best regards.

Edited: 19 June 2003, 6:09 a.m.

Imagine that!

*Message #28 Posted by **Paul Brogger** on 19 June 2003, 9:26 a.m.,*
in response to message #27 by Valentin Albillo

. . . a company that paid attention to what its customers were doing with its products;

a company that showcased customers' best efforts to increase sales;

and *further*, a company that recognized and rewarded customers for their contribution!

I wonder which management theory book that came out of?

(By the way, are Reversi and Othello related at all to "Go"?)

Re: Imagine that!

*Message #29 Posted by **Eduardo** on 19 June 2003, 11:06 a.m.,*
in response to message #28 by Paul Brogger

I doubt there's any connection between Othello and Go. Go is a millennia-old Chinese game (though it's Japan's national game nowadays). I think I read somewhere that Reversi is European dating back only a few centuries. Other than that the two games are very very different.

Eduardo

Re: Imagine that!

*Message #30 Posted by **Valentin Albillo** on 19 June 2003, 11:06 a.m.,*
in response to message #28 by Paul Brogger

Paul posted:

"Imagine a company that paid attention to what its customers were doing with its products; a company that showcased customers' best efforts to increase sales; and further, a company that recognized and rewarded customers for their contribution!"

The HP I admired and loved was exactly that way. That's why it made of me a die-hard customer, who bought many, many products from them, who would recommend their products to everyone, and who placed much larger orders for much costlier items later on life, at the corporate level. And it all began with a tiny, premium-quality calculator.

Their tiny calculators, service, and philosophy of superb, state-of-the-art

quality and commitment really amounted to many, many thousands of dollars earned from me, my friends, and my corporations.

Needless to say, that old, beloved HP is a thing of the past and I'll never ever buy another item from HP again, and will discourage anyone asking me from doing so, as long as it maintains the abysmal levels of quality and service they boast today. I'm too grown-up and knowledgeable to let those wimps take my hard-earned money in exchange for some crap korean or taiwanese piece of junk just because it carries their formerly prestigious badge, now reduced to a dangling carrot in front of the donkey.

"(By the way, are Reversi and Othello related at all to "Go"?)"

Not at all. "Go" is a much more complicated game, I know of no satisfactory program to play against, even for large computers.

Best regards.

Re: Clearing facts and a challenge (long)

*Message #31 Posted by **bonnie** on 13 June 2003, 10:24 p.m.,*
in response to message #19 by Vieira, Luiz C. (Brazil)

Hi, folks; let's go again.

It's a "big guy" and I'd ask you please: read it all before getting to a conclusion, O.K.?

Focussing over a particular problem sometimes leads to a leak of specific information that may be interpreted as general case.

I mentioned: a big HP41 program. There are programs written for the HP41 that take lots and lots of memory and are many steps long. A few days ago, Valentin mentioned Othello, a 1,000 steps long program for the HP41... It is RPN. I do not know what Otlhello does, but porting it to an HP48 might reduce part of its structure in order to use enhanced HP48 features, although enhancing functionality might also cause it's RPL version to be a lot longer than the original RPN one.

Not to extend the subject any farther than it should go, in my case I had to identify what was going on the HP41 program so I could reproduce the same thing in the hP48. And I believe a single translation is sometimes trivial, so I decided to do what is supposed to do: enhance functionality. I rebuilt all loops, I used HP SOLVE instead of custom RPN loop control (by far, the worst part of all), I created a new, friendly in/out interface that used the LCD to show the complete (six values) answer at once, impossible to be done in a single-line LCD. And I did not mention it, but the about eight books were three manuals (HP41CX, HP48 UG and AUG) plus four or five specific books, subject related (surveying).

What for? I'm a teacher, if I can't do the thing or if I don't understand the thing I cannot explain how to do the thing. The only book I wrote (at least so far) and published is titled "From the HP41 to the HP48" (Da HP41 para a HP48), and I wrote because I think if I can do the thing, I can explain how to do the thing and go further: allow others to be able to do the thing, too. That's what teachers are primarily for.

I explain to my students that programming and using a program language are related tasks, instead different ones. You first learn how to program, like communicate, and improve your own programming skills and methodology and this goes with you forever. Some languages come and go, learning them is up to each one of us and the task we're performing. There are some situations where RPN programs need specific structures to be created, while RPL may already have them. And this eases the job.

We're dealing with calculators, but we can extend this "analysis" to computers and their O.S. Let's be honest and think both as users and programmers: whom of us would gladly and spontaneously migrate "back" to plain, old text interface instead of graphical one? Some "classical" programmers would gladly accept the task of getting back to their own roots and do magic with assembly language, plain C/C++ and Pascal. I would (I still have two 586 desktops and one 386 laptop to cry over when I'm nostalgic). But as a user I would not like to get rid of high-quality graphics environment, and I have already seen "today's" programmers that are not even aware of what's going on inside their boxes for as long as they command and the box obey.

C'mon, let's face it: there was a time when first computers and handheld calculators were "cool". Many of us lived those days, some did not. I read here that, in some cases, calculators do not even call for curiosity anymore, and we come from a "time" (twenty, twenty five years ago?) when RPN users and programmers were reverenced. Today,

youngers do not have the feeling for it anymore. Calculators are no longer "cool", being able to understand problems and solve them is not "cool", survive against tech challenges is neither "cool"...

The HP41 series showed a drastic claim for their own "cool" inner parts when HP decided to call them computers instead of calculators. Coconuts and Voyagers where the last Hewlett-Packard "calculators" made by human hands; Clamshells, Pioneers and 48/49 series were CAD/CAE assisted, they have no "soul" to be maintained. I think Xpanders had passion in their design, and their disastrous hammered finale could not be avoided: they were not part of HP's plans for "the future", whatever it is. In time: I have a feeling that Xpanders would not find their place amongst RPN/RPL addicted, I don't know.

I wrote too much.

My challenge is: write the smallest program in any RPN/RPL calculator that computes interception coordinate P(x,y) of two lines L1 and L2 given line's angles Ø1 and Ø2, both related to the same reference (bearing, trigonometric, clockwise, whatever) and coordinates of two points P1(x1,y1) and P2(x2,y2) belonging to each line, respectively. I found my own solution in an HP48 using matrices and linear system solution, but the program has to handle original values a bit before "building" final matrices. When I tried direct values manipulation I found some "gaps" when lines were parallel to each other and when angles were closed to 90 or 270 degrees (PI/4 or 3*PI/4), so my program does not use any conditional structures. If you already have your own solution let me know it, I'd like to see what others are doing.

Finally, when I pointed out that I used eight books I intended to show that using books is always a good practice. I also want Richard Garner, Erik Ehrling, Raúl Lion and anyone else reading not to take this post as anything but a clearer exposition of the same thoughts expressed in this post. I agree with all views based on personal, particular, professional experiences and analysis. I just thought I should improve the way I expressed my own.

Thank you and forgive me writing too much. I'll accept and read all comments, suggestions, flames, blames without complaining... too much. d;^)

Re: RPL after RPN; what comes next?

*Message #32 Posted by **Ernie Malaga** on 7 June 2003, 7:02 p.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

Luiz:

I must be one of those who found the transition from RPN to RPL painful and difficult; I haven't completed the transition yet (16 years, off and on), and I don't feel inclined to while I have two RPN calculators that still work perfectly well.

Still, HP may come up with a Forth calculator/computer for its next generation. That certainly would be the "next step" in a logical "let's get everything backwards" trend.

Unless, of course, they put the LCDs upside-down on all future machines...? 8^)

-Einre Agalam

Yours is a "must read" post... <8^D

*Message #33 Posted by **Vieira, Luiz C. (Brazil)** on 7 June 2003, 7:43 p.m.,*
in response to message #32 by Ernie Malaga

Hey, Ernie;

I'm still laughing at you upside-down LCD.

And I'm the one to be called crazy by my pupils...

Best regards!

Luiz C. Vieira - Brazil

Edited: 8 June 2003, 2:04 p.m.

Re: RPL after RPN; what comes next?

*Message #34 Posted by **Les Bell [Sydney]** on 7 June 2003, 11:57 p.m.,*
in response to message #32 by Ernie Malaga

And of course, for hard copy printout, an infra-red Postscript printer.

The existence of HP PCL laser printers is a slap in the face to all RPN purists. <g>

Best,

--- Les [http://www.lesbell.com.au]

Re: RPL after RPN; what comes next?

*Message #35 Posted by **Erik Ehrling (Sweden)** on 8 June 2003, 8:41 a.m.,*
in response to message #32 by Ernie Malaga

> That certainly would be the "next step" in a logical "let's get everything backwards" trend.

:-)

I just hoped that they would use a "zero development, take anything we've already got" approach - and in that case I could not really see why they should make a "HP32SII Platinum" instead of a "HP42S Platinum"!?

Current state of the matters: Let's hope for status quo :-)

Best regards, Erik Ehrling (Sweden)

Re: RPL after RPN; what comes next?

*Message #36 Posted by **Mark Ordal** on 13 June 2003, 2:44 p.m.,*
in response to message #32 by Ernie Malaga

[quote]Still, HP may come up with a Forth calculator/computer for its next generation.....[\quote]

If I recall correctly, HP made a Forth module for the HP-71B.

Re: RPL after RPN; what comes next?

*Message #37 Posted by **Paul Brogger** on 8 June 2003, 5:53 p.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

I found the 28s and RPL to be a logical extension of RPN, and had a lot of fun with it.

Now that I do only the simplest programming on any calculator (and infrequently at that), I find RPN with clear mnemonics (rather than key coordinates) to be most accessible. Hence my appreciation for the 32s and 42s. IMO, they just can't be beat for simple, on-the-fly programming. (I suppose the 41 should be mentioned here as well, but I've never used one of those.)

In a calculator designed for ready accessibility, but with gobs of memory for programs of greater complexity, I wonder whether the 32s/42s-style of keystroke programming should be extended by some sort of machine language capability and a PC connection. That way, the larger, more complex applications could be written & tested on a PC with an emulator, then downloaded for final testing & use. (There again, I'm probably talking about a 41!)

Re: RPL after RPN; what comes next?

*Message #38 Posted by **Johnny Billquist** on 8 June 2003, 8:49 p.m.,*
in response to message #37 by Paul Brogger

Yes, you're talking about the 41. The whole thing was invented back in '79 already. Nothing new and better under the sun since then. :-)

Keep smiling.

And for those that complain about RPL. It's not hard. You just have to understand functional programming instead of imperative. That's the big leap. I actually much prefer Lisp (and similar languages) over C, but I can understand that it takes some getting used to.

Get some good book on functional programming, and learn that first, and *then* go for RPL. You'll be amazed how much easier it will be.

Re: Time fuctions in the 42S

*Message #39 Posted by **Johnny Billquist** on 8 June 2003, 8:51 p.m.,*
in response to message #11 by R Lion

That's a nice and neat program. On my 41 I have DATE+ and DDAYS already, so I don't need it. :-)

But if I want to time something, start something at a specific time, or play around in other ways, it will become more difficult with the 42.

Which 41 is yours?

*Message #40 Posted by **Vieira, Luiz C. (Brazil)** on 8 June 2003, 9:11 p.m.,*
in response to message #39 by Johnny Billquist

Hi, Johnny;

Just curiosity: a CX or a C/CV with time module?

For the records, only...

Thanks.

Luiz C. Vieira - Brazil

Re: Which 41 is yours?

*Message #41 Posted by **Johnny Billquist** on 9 June 2003, 6:44 p.m.,*
in response to message #40 by Vieira, Luiz C. (Brazil)

It's a CX. I first bought a CV a long time ago. When the CX came out I lusted for it for over a year before I bought one. Sold my CV at the same time.

S/N: 2519S40501

I've built in my two X-MEM modules as well as my ZENROM. I have the magnetic card reader, Advantage, HP-IL, video interface,

casette recorder, extended I/O and an MLDL. Just about the only thing I really still miss is an RS-232 interface...

I haven't bought a thing except for batteries for a long time. Perhaps I should spend some money on it... :-)

Hmm, I think I'm about my 20th anniversary with a 41... :-)

Re: Which 41 is yours?

*Message #42 Posted by **Johnny Billquist** on 9 June 2003, 6:48 p.m.,*
in response to message #41 by Johnny Billquist

Oh, and I can't help being a bit proud of the old bugger. Everything on it still works fine.

One other modification I have been tempted at times is to speed it up. But I haven't, yet...

And I own a 48SX as well. Not as fun at all, now that the initial fascination have passed. (I've owned that one slighty over 10 years now).

I have Coconut and P41 on my Palm as well. :-)

New 32-SII's

*Message #43 Posted by **Michael Meyer** on 7 June 2003, 2:37 a.m.,*
in response to message #2 by Michel Beaulieu

If so, I'd better sell mine now! <grin>

If not.... I'd better keep mine now!

Michael

Re: I email HP about need a 41CX...

*Message #44 Posted by **James M. Prange** on 5 June 2003, 9:16 p.m.,*
in response to message #1 by Michel Beaulieu

I'm glad to see that they mentioned the 48G and 48GX and not just the 49G for RPL models.

I wonder whether the replacement for the 32SII will be suitable for carrying in a shirt pocket.

Regards,
James

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9114 power requirements

*Message #1 Posted by **andy** on 4 June 2003, 3:23 p.m.*

What are the Volts/Amps required to power a 9114.

It seems to me I remember them being 6V and 1.5A

Thanks,

Andy

Re: 9114 power requirements

*Message #2 Posted by **Tony Duell (UK)** on 4 June 2003, 5:41 p.m.,*
in response to message #1 by andy

That sounds about right. It's certainly 6V, and I remember measuring the current as being always less than 2A in normal operation. I made up a cable with a 2 pin mini-Jones socket on one end and a pair of 4mm plugs on the other so I can power one of my 9114s off my bench PSU.

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Want something to laugh?

*Message #1 Posted by **Raymond Del Tondo** on 4 June 2003, 2:33 p.m.*

Sorry if this has been posted, but the description '...excellent working condition...' made me laugh.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3028226986&ssPageName=ADME:B:RECO:US:2

Some years ago I made a similar experience. The seller said nearly exactly the above, and I got an 11C which was in the same trash condition. The difference was I paid more than 100 Euros for it... Later I got a NEW 11C for less money.

Raymond

Re: Want something to laugh?

*Message #2 Posted by **james (UK)** on 4 June 2003, 3:44 p.m.,*
in response to message #1 by Raymond Del Tondo

It's certainly been well used! Bidders aren't exactly queing up. Still, doesn't look as if any dogs have bitten chunks out of it!!

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hp 15c

*Message #1 Posted by **GS Leong** on 4 June 2003, 1:51 p.m.*

There was a 15c listed as new underneth the one in mint condition it had a buy it now for $300. Does anyone know if it got bought or did the owner remove it?

Thanks

Re: hp 15c

*Message #2 Posted by **Dan** on 12 June 2003, 1:35 a.m.,*
in response to message #1 by GS Leong

Actually, I bought it with "buy it now" after getting a better photo from the seller. I'm expecting it in the mail in the next couple of days.

HP-15CP ? HP-32P ??

*Message #3 Posted by **Norm** on 12 June 2003, 3:27 p.m.,*
in response to message #1 by GS Leong

anybody hear any rumors about maybe there would be an HP-15C platinum later on?

Anybody hear anything about a follow-on HP-32Sii maybe a platinum, later on?

U know, for steady production again .

Re: HP-15CP ? HP-32P ??

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 12 June 2003, 4:33 p.m.,*
in response to message #3 by Norm

Hi;

When I saw a USER annunciator in the HP12C Platinun LCD but saw no GRAD, I kinda lost my hopes. Unless they use the old-fashion and a lot better Voyagers "classic" LCD (shapes of the digits' segments are simply the best!), I cannot imagine a scientific without RAD and GRAD angular mode.

But I only "kinda" lost my hopes, I'm not hopeless, if you understand me...

Time will tell.

Luiz C. Vieira - Brazil

shape of the digits

*Message #5 Posted by **Norm** on 12 June 2003, 5:48 p.m.,*

in response to message #4 by Vieira, Luiz C. (Brazil)

Thanks Luiz,

I thought I saw a ho-hum shape of the digits on the newer models.

Well well well, the old classic ones had proper LCD design and the new ones don't.

And with a bank account and ordering power of HP, like they couldn't have the LCD made exactly how it is supposed to be.

I smell an MBA .....

You bet, Norm :)....but

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 12 June 2003, 8:14 p.m.,*
in response to message #5 by Norm

... do not take it as a general rule! There are brainy MBA's, some of them contribute here.

I wonder about reasons: what for? "Classic" Vouager's LCD are so easy and pleasant to read... Why changing?

They were kept the same till the HP12cP, and I'd never buy an HP15CP (Platinum, Plutonium, Polonium, Petroleum, whatever...) if it does not have the "classical" Voyager's digits. For me, that's a big difference.

Best regards.

Luiz C. Vieira - Brazil

Luiz, a photograph ?

*Message #7 Posted by **Norm** on 14 June 2003, 4:38 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Hi Luiz, if there are 2 shapes of digits, I wonder if you could supply us with photos to show the difference? While it displays all 8's ??

And maybe then the photographs could be included in the 15C description of HP Museum.

Here they are...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2003, 3:15 p.m.,*
in response to message #7 by Norm

Hi Norm, guys;

the first image is from a classic Voyager (any except HP12CPlatinun). There were minor changes in annunciator's layouts for the Chinese HP12C, but the digits kept their shape.

http://www.logeng.com.br/images/LCD_class.jpg

This image was taken from a picture posted by Gene (Thanks, Gene). You can compare the shape. I did not have the time to refine final image...

http://www.logeng.com.br/images/LCD_plat.jpg

At least I think it helps giving an idea. I surely, 100% prefer the classic digits.

Luiz C. Vieira - Brazil

Edited: 14 June 2003, 3:16 p.m.

while I admire that

*Message #9 Posted by **Norm** on 14 June 2003, 3:46 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

while I admire that you are able to spot a difference, and to document it with photographs, the difference does not seem very large.

Perhaps the word indicators are a little smaller on the newer one.

I think they should just add a few digits to it, the display should have more places.

C and GRAD indicators

*Message #10 Posted by **Nenad (Croatia)** on 14 June 2003, 4:00 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Interesting: in the 12CP display indicator of complex numbers (C) has been forseen, though there is no GRAD indicator any more.

Supposing that this display design covers the future scientific platinums, it is not that easy to imagine a scinetific calculator with complex numbers and without the possibility of calculating trigonometrics in radians.

C annunciator is used by the HP12C...

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2003, 5:47 p.m.,*
in response to message #10 by Nenad (Croatia)

Hi, Nenad;

the C annunciator (indicator?) is used in the HP12C to indicate that an odd period (less than a hole period) will be considered in compound interest computations. If you press [STO][EEX] in an HP12C, the C annunctiator toggles its state.

Best regards, my Croatian friend.

Just my 2¢.

Luiz C. Vieira - Brazil

Edited: 15 June 2003, 1:51 a.m. after one or more responses were posted

Re: C annunciator is used by the HP12C...

*Message #12 Posted by **Nenad (Croatia)** on 15 June 2003, 1:32 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

Thank you Luiz Claudio. I really did not know this. I tried it on my HP12C and it works as a switch: pressing STO EEX turns the C on. After just a few seconds wondering how to turn it off (once it took a lot more time with my HP15C), I found out that pressing STO EEX again turns the C indicator off ...

Always welcome, Nenad!

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 15 June 2003, 1:58 a.m.,*
in response to message #12 by Nenad (Croatia)

Hi, Nenad;

these babes have their secrets... Sometimes it is a good surprise knwing something new, ahn? Anyway, did you get the meaning of the "C" in the HP12C? This feature was not available in the HP38C/E.

You know something I also noticed in the HP38C/E? If I am not wrong, it was the first HP programmable calculator to offer PRGM/RUN mode selection by toggle key, too, instead of a sliding switch. Even the HP34C has a PRGM/RUN switch. Advantage? It alwys switch to ON in run mode. All RPN programmable LCD's have a toggle key are like this, but some of the new ones (after Pioneers) switch back to ON in the same state they were when switched to OFF (I know you know that; just illustrating :).

Best regards, my friend. Be well.

Luiz C. Vieira - Brazil

Edited: 15 June 2003, 2:05 a.m.

Re: Here they are...

*Message #14 Posted by **Gordon Dyer** on 14 June 2003, 6:27 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hi Luiz, thanks for the pics, and I do prefer the classic voyager display, BUT... were you very naughty and took the platinum pic at a much lower resolution??? Maybe it wasn't deliberate, but it is one of those advertiser's tricks I look out for. Lets's see a comparison of both at the same high resolution and no .jpg compression

Re: Here they are...

*Message #15 Posted by **Vieira, Luiz C. (Brazil)** on 14 June 2003, 6:42 p.m.,*
in response to message #14 by Gordon Dyer

Hello, Gordon;

thank you for your comments, my friend. And you are bloody right (is it a dirty expression in English or a reinforcement?) about pictures' quality, but it was not intended.

Unfortunately, the only picture I have showing Platinun's [ON]/[×] final result is the one Gene posted about a month ago. I tried to enhance resolution, but it would reduce readability and fidelity.

I thought about comparing digit's shape and look, instead. Did I accomplish this, at least?

Best regards.

Luiz C. Vieira - Brazil

Edited: 14 June 2003, 8:03 p.m.

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SOLUTION FOR NOT WORKING KEYS.

*Message #1 Posted by **Jon** on 4 June 2003, 1:45 p.m.*

I had read some solutions for this problem all based on “sandpaper”. As I didn´t like it I tried using isopropilic alcohol. The problem was how to apply it. May be it is already reported, but I haven´t read it. Just in case I make an small description of my procedure. ¡¡ It works every time!!. Three keys in my HP-67

Take a piece of thin cloth and cut a 5mm x 30 mm. strip. Slide it under the springy metal's stretched area. Do it pushing with the screwdriver, slowly, be patient, it takes time. When you see it going out pull it with small tweezers. Impregnate the outside cloth with isopropilic alcohol (I used an small paintbrush to apply it to the cloth). Press the key metal down to some degree in the center (but not hard, just enough to catch the cloth) and make several passes. Flip the cloth over.

I hope it can help to somebody

Jon

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hp web site - may be it's just me but...

*Message #1 Posted by **Tom (UK)** on 4 June 2003, 1:16 p.m.*

Is that it for HP calcs?? Or has HP got it in for me today (I have had this feeling for several months!) I did a search for 'calculator' from the page at:

http://welcome.hp.com/country/us/eng/welcome.html

ALL the links listed jump to the following page:

http://www.hp.com/country/us/eng/js/hpwpc_utilities.js

Saying:

"we're very sorry!

The page you requested can not be found.

If you typed the URL yourself, please make sure that the spelling is correct.

If you clicked on a link to get here, there may be a problem with the link.

Try using your browser's "back" button or the "return to previous page" link below to choose a different link on that page, or use search to find what you are looking for.

We apologize for the inconvenience!"

P.S.

I _DID NOT_ add the exclamation mark at the end.

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Excitement about my new HP34C

*Message #1 Posted by **Larry Corrado, USA (WI)** on 4 June 2003, 11:35 a.m.*

My sister keeps her eyes open for HPs and TIs for me at rummage sales. She recently found and bought, at a typical rummage sale price, an HP-34C in near-perfect condition, with manuals, adapter, and case. I powered the unit up when I got it home, and it seems to work perfectly. The keys feel good, and the display is bright and clear. The most serious problem is a couple of tiny corrosion spots on one of the battery clips. Now I'll have a chance to see firsthand if what Luis, Norm, and db (and others) have been saying about the 34C is true.

The box that came with the unit also contained a near-mint TI-30. There was also a second spice adapter and case, but no sign of the machine they might have come with originally. Maybe if my sister had arrived 10 minutes earlier...

Larry :-)

Enjoy it!

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 4 June 2003, 4:18 p.m.,*
in response to message #1 by Larry Corrado, USA (WI)

Hey, Larry!

Thanks for mentioning my name this way. I keep whatever I posted about the HP34C and I have actualy an image of it when I was at the university, at the Library. The owner bought an HP41CV later, and kept it's old fella. What called my attention was the fancy [f], [g] and [h] prefix keys and the white + gray keyset intead of white + black in all other spices.

The HP34C is a must! I like much because of memory amount, continuous memory, RPN (of course) and both SOLVE and numerical integrate.

Enjoy it!

Luiz C. Vieira - Brazil

Hey Larry,

*Message #3 Posted by **Norm** on 4 June 2003, 9:41 p.m.,*
in response to message #1 by Larry Corrado, USA (WI)

Hey Larry,

How much you want for it ??

analogee@gte.net

I was just kidding. HP-34C is old klunker. Not worth very much. You gonna hate it. Can't see RED LED's in the bright sunlight. Batteries will be dead in 20 minutes. You'll hate it so I can take it off your hands.

Did you read my post in the 'memories' forum.

Look for this title: "HP-34C Better than S*X".

If you understand how to take the case apart (dont try if you dont know how!) then lube the slide switches with a few drops of "Tri Flow" (the teflon version of WD-40).

After 3 months, my unit seems to have accepted that very well as a slide-switch lubricant. They feel silky and smooth.

You dont want to run the slide switches w/o a lubricant, you'll wear out the various surfaces.

I just bought a pair of Photo Lithium AA batteries for $6.00 . I think thats the best way to keep an HP-34C fed. Of course, you could go the rechargeable route also.

Have fun !

Norm, please...

*Message #4 Posted by **R Lion** on 5 June 2003, 11:51 a.m.,*
in response to message #3 by Norm

just curiosity: how do those batteries last in your 34c?

Raul

Batteries (Hi R Lion)

*Message #5 Posted by **Norm** on 5 June 2003, 1:22 p.m.,*
in response to message #3 by Norm

Hi R. Lion,

Well, ideas that sound good, dont necessarily turn into good results. Let me provide battery information, in response to your query.

The idea that I described, is a disposable battery that lasts much longer than Alkaline, and then just reload the batteries when they fail, and to heck with the charger. The cost of such reloading is just the luxury tax on enjoying RED LED's on demand.

OK, well, the idea isn't panning out so far. YESTERDAY I bought Photo Lithium AA batteries. They were "Energizer". Today, as I reached for the package, it felt disturbingly light. It felt like I'd been sold a bunch of air.

I looked for lifespan estimates on the MBA/Marketeer prepared slick chrome-colored packaging, and found none.

I called the 1-800 number, and a stammering and hesitant technical rep finally said this: that Alkaline AA batteries provide 2850 mA*Hr and the Lithium AA that I hold in my hand provide 2900 mA*Hr. What I sense here (but cannot prove yet) is another 'Carly Conspiracy'. They are packaging air into the cells.

FACT, not conjecture: Energizer does this with their "lantern batteries". You know the ones, the big square/rectangular batteries from 'Brady Bunch' era when everybody took their kids camping and roasted marshmallows and sang songs (now they just stay home and listen to rap music and watch 120 channels of Cable TV for $50 a month) Those lantern batteries are supposed to be made of FOUR E CELLS. "E" cells

are bigger than "D" cells.

But Energizer just packs them with "D" cells like for your flashlight, and fills the rest of the casing with cardboard. If you compare the weight, by hand, between a Duracell lantern battery, and an Energizer lantern battery, the difference is immediately apparent. Duracell builds them to original specification and doesn't sell you cardboard instead of a battery.

Back to the conjecture, I speculate that they carefully trimmed the Lithium cell to deliver 2900 mA*Hr so that their marketing MBA advertising can state "delivers more power than Alkaline" (yeah, 2% more). Then they charge $6.00 for these batteries, instead of the 0.70 they would get for a pair of Alkaline.

So, I smell a rat. The only way to fight the Carly types, is to not patronize their junk. So I still have the receipt and I didnt open them, so these go back to the big-box merchant.

THIS IS NOW IN THE DOMAIN OF LEARNING..... can anybody fairly state what the energy density is of Lithium vs. Alkaline, and whether a Lithium cell should fairly deliver more mA*Hr than Alkaline for equal volume ??

I always thought that Lithium did have more energy density. If not, I need to learn this. As to the ripoff on the lantern battery, that is not conjecture, that's established fact.

Re: Batteries and toilet paper :-)

*Message #6 Posted by **R Lion** on 5 June 2003, 1:40 p.m.,*
in response to message #5 by Norm

At least here in Spain you can get that info only in rechargable batteries, but not with normal batteries: I have ever wonder why they are not required by law to put the total charge in the package. I can't understand why the customer must to buy "eyes shut".

The same applies to toilet paper: why don't they say the total length??!!

Raul

Edited: 5 June 2003, 1:42 p.m.

Re: Batteries (Hi R Lion)

*Message #7 Posted by **Ron Ross** on 5 June 2003, 1:44 p.m.,*
in response to message #5 by Norm

Li ion batteries do indeed have a higher energy density. But there are two issues to consider. Lithium is much lighter than other metals, so the energy per weight is much greater (not the same as density). But they also DO HAVE a higher energy density, just not the dramatic improvement you were led to believe. Factor in the weight AND volume and you get your great stats (and THAT IS EXACTLY HOW MARKETING DOES THE CALCULATIONS).

But there is one last kicker with Li ion. It is TOXIC and hazardous, hence much better (thicker) packaging. All that adds to cost, without giving you much in way of size advantages for a AA or AAA package (actualy Li ion also have a different natural charge rate and voltage than a typical 1.2-1.5 Volt cell (something like 3.8V). All this adds up to problems to marry older electronics to newer battery technology.

lithium AA replacements

*Message #8 Posted by **Ellis Easley** on 5 June 2003, 1:55 p.m.,*
in response to message #7 by Ron Ross

I don't know if these are lithium ion cells - they are not rechargeable and the voltage is 1.5V. When I first heard of them I wondered if they might contain a small 3V cell and a DC-DC convertor to generate 1.5V! Or just diodes to waste the extra voltage. But David Smith is familiar with them and he says they are a different lithium chemistry that produces 1.5V.

lithium vs alkaline

*Message #9 Posted by **Ellis Easley** on 5 June 2003, 1:47 p.m.,*
in response to message #5 by Norm

I don't know about the energy density but I thought the main attribute of lithium batteries as drop-in replacements for other types of common batteries was the shelf life. I remember ads saying to use them for important things like smoke and carbon monoxide detectors, and I found a lithium 9V rectangular battery in a smoke detector when I moved into my house. But Dr. Mike, who likes to use lithium batteries in his calculators, seemed to indicate that he liked them because of the long operating life. I found what may have been his first post on the subject, and he talks about the long shelf life being one reason for using them, but also states:

> Quote:
>
> These batteries have about 5 times the life of alkaline batteries

I don't know if he means capacity or shelf life. Here is a link to the thread:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv008.cgi?read=20196

9 volt Lithium has 5x life?

*Message #10 Posted by **Norm** on 5 June 2003, 3:24 p.m.,*
in response to message #9 by Ellis Easley

Hi,

Saying that a 9 volt Lithium has a 5x longer life sounds very, very familiar to me. If this were a democracy, I would vote agreement, until somebody gets me a databook.

Remember that such a battery has got 6 little cells inside of it, at 1.5 volts each.

It may be that the marketeers didn't get much of a profit win by changing to 6 microscopic little cells in (and leaving the rest air) they may be 6 full-size Lithium cells inside that 9 volter,so its got more capacity.

Since the "AA" comprises of only a single-cell, they may have said 'ka-ching' and dollar signs lit up in their retinas, and they cut down the cell-size so that it was the same power output as an AA Alkaline.

the display consumes everything in a SPICe

*Message #11 Posted by **Norm** on 5 June 2003, 3:28 p.m.,*
in response to message #10 by Norm

Hi, you were wondering what uses the most power in the unit, like was it the display.

It IS the display. The display consumes a ton of power. The way to see this, is watch the behavior of the "low battery" indicator when its marginally coming on.

It goes out when the display has few segments lit, glows brightly when the display is well-lit.

Sometimes when I have my HP-34C on, and I'm sort of "in-between" calculating things, but I dont wish to shut it off, I just absent mindedly hit a "1" so that the display is relatively off.

When your running a program all day, the display is substantially off.

When it just sits displaying a number to 4 decimal places, that's actually when your using a fair amount of juice.

IMAGINE the fine displays that could be made nowadays using large chunks of diced silicon wafer, and, the technology of high-efficiency LED's. Can't be doing things like that, after all, 'innovation' is a naughty word.

Re: the display consumes everything in a SPICe

*Message #12 Posted by **Dave Shaffer** on 6 June 2003, 12:12 a.m.,*
in response to message #11 by Norm

Norm,

"I just absent mindedly hit a "1""

To save even more juice, just hit a decimal point - I used to do that with my '35 for the same reason. (Saves wear and tear on the on/off switch - I think I should try some of that lubricant you mentioned the other day - can you get less than a pint of it at a time?!)

that Tri-Flow lubricant

*Message #13 Posted by **Norm** on 6 June 2003, 4:15 a.m.,*
in response to message #12 by Dave Shaffer

Hi Dave, that sounds good, to hit the "." instead of a "1" to extend battery life.

However, with the spice HP-34C, I get a "0." so its still best to hit the "1".

About TRI-FLOW.... its generally superior to WD-40 because it contains teflon powder that clings to the metal after the oils have evaporated. In the case of the electric switch of a 34C, the teflon lubricates it, BUT, the particles dont apparently interfere with making electrical contact. At the molecular level, I find that easy enough to accept.

WD-40... know what that stands for ?? It is a military product and a military spec, last I heard. It stands for "Water Displacement 40". Basically, after the soldier has waded across the rice paddy, he is supposed to shoot WD-40 into the rifle mechanism to clear the water out. That oil has absolutely nothing special about it, its cheap and runny and a lousy lubricant, except it is semi-compatible with water and displaces the water.

So is WD-40 a good lubricant really? No, try some SAE 30 motor oil, or some grease, or some Tri-Flow, if you want to keep something well-lubricated.

Because Carly has cousins who are in charge of Home Depot, you can't go to a place like Home Depot and buy Tri-Flow. They only sell cans of WD-40, because its cheap

and makes a lot of profit, and because it doesn't solve your problems, which is very important to them from a strategic standpoint (they want you to drive back & forth to their store over and over, not solve your problems. If they solved your problems then you wouldn't come back... with a home, that is.)

TRY A BICYCLE SHOP. Try a smaller hardware store, like a "True Value" (maybe). Those in the know like Tri-Flow. Its a lasting lubricant, thanks to the teflon powder, for serious mechanisms, like guns, doorlocks, carkeys. I'd use it in a pinch over WD-40 for a cardoor hinge, although, foaming aerosol spray-grease is the best there. (you can get it from your local underground network of "amsoil" fanatics).

I'm just saying that a minute quantity was just super for the spice 34C slide switches, they are very silky smooth now. I applied with a Q-tip, rubbed it into the circuit board, and the metal contacts. Allowed a little onto the plastic surfaces also. It's very very silky smooth, and because of the teflon particles should stay that way for awhile.

Of course, there may be other good lubricants for that also.

Re: that Tri-Flow lubricant

*Message #14 Posted by **Trent Moseley** on 6 June 2003, 2:23 p.m.,*
in response to message #13 by Norm

Norm-

Can "Tri Flow" be applied externally with a Q-Tip? I have a 25C and a 67.

tm

Nope !!

*Message #15 Posted by **NH** on 6 June 2003, 8:21 p.m.,*
in response to message #14 by Trent Moseley

Nope, you cannot lube the slide switches w/o opening them up.

This is an aerosol can like WD-40 .

Now, if you have a doorlock, or a rifle mechanism, you can stick the wand in there and blast it and you dont really care what happens to the excess. It fizzes and it foams and some of it spills out and some of it runs in.

You can't treat your calculator like that.

You would take it apart, get a drop of the lubricant onto a Q-tip, and carefully apply it to the metal contacts. And also, to the plastic surfaces that guide the switch.

I am friendly to the notion of other lubricants. I dont know that this choice is the best, only that it works. And that you must keep the slide switches lubricated with SOMETHING or you will wear them out.

Re: Nope !!

*Message #16 Posted by **Trent Moseley** on 6 June 2003, 11:25 p.m.,*

in response to message #15 by NH

NH THANK YOU.

I don't use the old 25C that much so I'm just going to be very gentle when I use the old ON-OFF switch. It's working OK so there is no way I'm going to open that baby up for a lub job.

tm

Re: that Tri-Flow lubricant

*Message #17 Posted by **Ellis Easley** on 6 June 2003, 11:22 p.m.,*
in response to message #13 by Norm

> Quote:
>
> Of course, there may be other good lubricants for that also.

David Smith recommends Radio Shack "Lube Gel" - well, he says it is "surprisingly good" - he mentions it sometimes when switches are being discussed, but he might mean on toast. I kind of thought he said it was teflon based, but the tube doesn't say so. I have a tube, haven't used it yet, but this thread had motivated me to open up my 34C and lube the switches with it. Only one thing bothers me - at the bottom of the text on the back of the tube, it says "Product may vary from depiction"(*). Since there are no pictures, just a lot of words saying it is the best lubricant ever made, I guess this disclaimer means it might be no damn good. I worked for Tandy once, and I know some of Carly's cousins work for Radio Shack!

(*) maybe it only works below -45F and above +450F, reacts with salt and fresh water, attracts dust, won't stay in place - it slides, drips off and breaks down, especially under normal temperature and humidity conditions. It might be corrosive and toxic and it might not work on anything.

BTW, they actually refer to it as an "adhesive lubricant".

I'm going to try it anyway!

Re: 9 volt Lithium has 5x life?

*Message #18 Posted by **Ellis Easley** on 5 June 2003, 6:16 p.m.,*
in response to message #10 by Norm

But Dr. Mike was talking about AA cells. Maybe it's like you said about the lantern batteries, maybe some brand lithium AA's have more capacity - well, his post says he's using Eveready.

(completely unrelated) - You know, just change two letters and "eveready" becomes "overeasy".

And on the 9V batteries - they could have three 3V cells in them, couldn't they?

I've got a feeling the 3V chemistry is the one that has long shelf life AND high energy density (seems like it should have a step up just for having 3 volts!)

bad news for lithium battery lovers???

*Message #19 Posted by **glynn** on 6 June 2003, 9:01 a.m.,*
in response to message #18 by Ellis Easley

Hi! Sorry I got into this forum thread late.

Dr. Mike was *(note the use of past tense as a possibility)* perfectly accurate when he stated that his Eveready/Energizer Lithium AA batteries lasted 5 times longer. Norm, you used some and they worked, didn't you? And the weight of the NEW ones tipped you off that there was some difference?

I worked at a battery store for a bit over two years. The Eveready Lithium AA's were a great innovation, and we sold quite a number of them. The chemistry, NOT "Lithium-Ion" but Lithium dioxide, had been around for some time and is at the heart of cr2032 coin cells and 123a photo batteries. It is light and powerful, and-- up until the Eveready innovation-- was a 3v cell (it is the potential difference in the electrodes that determines the cell voltage difference, the chemicals in between are the storage medium).

Eveready did a great thing by creating special electrodes so that they coud make it in a standard form factor, the 1.5v AA. By doing this, they had a battery that would run a digital camera with display about 3-4 times longer. In some devices, like calculators etc., the difference was 5x, and Eveready was not afraid to trumpet this loudly. They had a lock on the patents, and so would be the only source for these 1.5 Lithiums.

We were looking forward to AAA and C and even D 1.5's. As Eveready became "Energizer Corp", what was promised seemed to be always a few months away.

I've left the battery world, but it does NOT surprise me to hear that SOMETHING has changed in the AA. Law-enforcement was warning us to alert them when selling bulk quantities of them, as they found certain home drug-labs were opening them to get at the lithium inside, using it as a catalyst in a reaction for making household "speed". Consumers were reluctant to buy the lithiums because of the price-point of them compared to akalines. And retailers were insufficiently equipped to inform consumers that the particular chemistry involved was classed as "household waste", just as alkalines are, and not a particular hazard unless concentrated considerably (lithium occurs naturally in similar concentrations).

So, has Energizer corp changed the AA Lithium? From the answer given Norm over the phone, it would appear so.

Energizer has slick but confusing packaging. They sell many lines, with "platinum" versions etc... and I would ask Norm to carefully check his packaging for the claims made. But if they have STOPPED saying that it lasts "up to 5 times longer than Alkalines", BE VERY AFRAID.

This may well be a case of Innovate, then Switch.

2900 mA*Hr

*Message #20 Posted by **Norm** on 6 June 2003, 1:34 p.m.,*
in response to message #19 by glynn

The only hard numbers I've got is the 2900 mA * Hr on the "Lithium Energizer AA".

A standard AA Alkaline is 2850 mA * Hr.

I can't prove that I smell an MBA, errrr, a rat,

but it sure looks that way. I am going to look around for a Lithium AA cell that really would have triple capacity (or more) which means it should be above 10,000 mA * Hr .

Let U know if I ever find any.

- Norm

Re: 9 volt Lithium has 5x life?

*Message #21 Posted by **Michael Meyer** on 7 June 2003, 2:14 a.m.,*
in response to message #10 by Norm

Hi.

If you read in this old, and other old threads, these are Lithium Maganese cells, and they do put out 1.5V. Some of the more technically savvy members have described these in detail.

They are lighter, and also have at least a 10 year shelf life.

I can't vouch for the marketers, but if you doubt the "5x's" more energy, try seeing how many photos you get out of your digital camera with the best alkalines you can find vs. the lithium cells. I swear: I don't sell these things. I do buy them: 4 packs are $8.99 at Office Depot, and with coupons, even less. I bought a bunch when they had a buy one, get one free sale.

I can take over 300 flash photos on my trusty old Olympus 3030 camera. Again, I only get a quarter as much out of alkalines.

And even in "high drain" calculators such as my 19C, I'm still on my original sets in all of them. (I'll admit, I don't use most of my calcs more than a few minutes at a time. That's why I like these cells.... I can pick up any calculator from my collection and have it work without having to worry about charge status. I should be able to pick one up in 5 or 10 years and STILL have it work.)

Hey, I don't care what others do. And I still have a stack of freshly NiCd celled packs I can put back in the calcs. But for me, I just really like these lithium AA's.

Michael

Re: 9 volt Lithium has 5x life?

*Message #22 Posted by **Ellis Easley** on 7 June 2003, 2:52 a.m.,*
in response to message #21 by Michael Meyer

I wonder if what we are dealing with here is the same problem with alkaline batteries in the 41C when using the card reader. The battery life is effectively shortened because after some of the charge is used up, the voltage drops under a load that used to receive full voltage. My little digital camera has this problem, I think. When it says alkaline AA's are too low, I can still use them for a long time in a radio - plenty of Amp-hours left but the resistance has gone up. This exact same problem would apply to a 67 (for instance) because of the card reader motor. I don't know how the 34C compares to a radio in terms of current consumption.

Re: Batteries (NiCd)

*Message #23 Posted by **Paul Brogger** on 5 June 2003, 2:53 p.m.,*

in response to message #5 by Norm

I just bought a pair of NiCd soldertab AA's at Radio Shack and rebuilt my 34c's battery pack. I charged 'em up, and have been running a program loop all day (as in over 7 hours so far). Still chugging away. I'll report the final duration if & when the thing ever quits. (No, it's not plugged in!)

So, it seems to me that NiCd batteries will work just fine. Why bother with anything else? (Worried about the recharger damaging the calculator?)

(Say, which should run the thing down faster: entering "all eights" and letting it sit, or running a program?)

By the way, I took most of two of the solder tabs off (one "plus" and one "minus") by bending 'em back & forth a few times. The other two I simply intertwined at the "connected end" of the pack. I made sure the polarity was correct, added some vinyl tape, replaced the battery pack label/sticker, and it seems as good as new.

Re: Batteries (NiCd) -- nearly nine hours run time

*Message #24 Posted by **Paul Brogger** on 6 June 2003, 9:05 a.m.,*
in response to message #23 by Paul Brogger

FYI, the first charge lasted nearly nine hours running.

Today I'm going to punch in all eights & let it sit. Should make for a dramatic comparison.

Re: Batteries (NiCd) -- ~ 5.5 hours "display time"

*Message #25 Posted by **Paul Brogger** on 6 June 2003, 3:32 p.m.,*
in response to message #23 by Paul Brogger

FYI, I punched in all eights and **CHS** ("**-8,888,888,888.**") and noticed the low power indicator at about the 5:15 mark. At about 5:30 I noticed the low power indicator had gone out, but the display otherwise looked normal. At about 5:50 I noticed the display had blanked.

I suppose the other thing to test (given other comments in this thread) is entering "**1.**" and seeing how long *that* lasts . . . Maybe next week.

Re: Batteries (NiCd) -- ~ 5.5 hours "display time"

*Message #26 Posted by **Ellis Easley** on 6 June 2003, 11:29 p.m.,*
in response to message #25 by Paul Brogger

Are those regular NiCads, and not NiMH?

Re: Batteries (NiCd) -- ~ 5.5 hours "display time"

*Message #27 Posted by **Paul Brogger** on 8 June 2003, 5:41 p.m.,*
in response to message #26 by Ellis Easley

NiCd -- I decided against the NiMH because the package specifically recommends a charger made for NiMH batteries. That may be a Tandy ploy to sell chargers, but I didn't want to take a chance. (I suppose that issue has already been addressed in this Forum at some other time, but I didn't take time to look it up.)

NiMH in an HP classic.....

*Message #28 Posted by **Norm** on 9 June 2003, 2:00 a.m.,*
in response to message #27 by Paul Brogger

I wuz wondering about that also, can you just shove a NiMH into the HP classic (25C, 34C, etc) and extend the charge/discharge times w/o a care in the world,

or.....

does the NiMH require a special charger.

I would certainly vote for just shoving them in there and trying it. However, making them leak would not be very encouraging. I am very curious but I too did NOT take the time to look up what's already been said about that.

NiMH powering an HP82143A

*Message #29 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2003, 2:27 a.m.,*
in response to message #28 by Norm

Hi, Norm;

I'm using a rebuilt pack with NiMH cells taken from a Motorolla® battery pack. As you know, NiMH cells have a higher voltage, close to 1.5Vcc, and I noticed that the printer is running fine. What I would like to discuss here, and I thouhgt Captain Zener :) would also like it a lot, is that discharging curve for NiMH cells is different, so I think we would have a longer O.K. working time but a shorter not-O.K. end-of-curve, causing the equipment to fade-out quickly after the first low-batt signalling. I'm still waiting to see.

My first concerns are about voltage. If all HP P.S. designs are based on battery voltage as a reference, than I'll add two diodes, crossed-parallel, in series with batteries, packs of four units. This would lead a .6 to .7 drop when both discharging and charging procedures are taking place. What do you think of it as a safety precaution? I did not use the HP82143A for long printing activities mostly because of this. I just printed a few CAT listings and followed one program in TRACE mode, and it worked fine.

Have you seen my post about batteries a few weeks ago? If not, it's here:

Battery Question (and my e-space is back).

I'd like to further discuss this subject, if you and others want to. I'ts the "heart and soul" of our beloved calcualtors and I think this subject demands special attention always. Discussing power supplies is something to be done for as long as Electronic Equipments exist.

Thanks.

Luiz C. Vieira - Brazil

Edited: 9 June 2003, 2:32 a.m.

Re: NiMH powering an HP82143A

*Message #30 Posted by **Norm** on 9 June 2003, 9:55 a.m.,*
in response to message #29 by Vieira, Luiz C. (Brazil)

Hi Luiz,

I guess the thing I dont understand, is that I thought the manufacturers of NiMH had meant it to be a batter that would upgrade equipment designs using NiCd .

That is, the cell voltage was about the same, charging methods are similar, its just the storage capacity was higher ?

I would be trying a direct swap, i.e. a simple upgrade to NiMH without modifying anything.

But I've never tried it, nor did I check mfr. data sheets.

NiMH powering an HP82143A (brief)

*Message #31 Posted by **Vieira, Luiz C. (Brazil)** on 9 June 2003, 10:02 a.m.,*
in response to message #30 by Norm

Hi, Norm;

the NiMH four-cells pack measures 5.8 Vcc when resting a few hours after fully charged. When charging, it reaches about 6.5 Vcc and falls to 6.2 when fully charged with 15mAH charging current.

For the records.

Luiz C. Vieira - Brazil

Re: NiMH powering an HP82143A (brief)

*Message #32 Posted by **Chan Tran** on 12 June 2003, 3:26 p.m.,*
in response to message #31 by Vieira, Luiz C. (Brazil)

Luiz, I power my HP82143A printer with 4 AA NiMH cells. It works fine and longer per charge compares to the original sub C cells. I charge them overnight using the original charger. Eveready said that the one think to watch for is not to overcharge NiMH. Otherwise everything should be fine.

Thank you for your feedback!

*Message #33 Posted by **Vieira, Luiz C. (Brazil)** on 12 June 2003, 4:26 p.m.,*
in response to message #32 by Chan Tran

Hi, Chan Tran;

my 82143A is still being powered by a NiMH pack. I did not put it to charge yet because there is no low BATT signaling so far. I removed the pack yesterday and measured 5.3Vcc after about 1 hour operation (spare use). This pack had their cells fully charged separately in a "smart" charger.

I'll keep everybody updated when I have more news. After David's warning about NiMH being too close to NiCad as for their operating voltage, I'm reviewing a lot of concepts, notes and mostly I'm finding a way to recalibrate my instruments and to fine-tune my load resistors.

Best regards ant thank you again, Chan Tran.

Luiz C. Vieira - Brazil

Re: Thank you for your feedback!

*Message #34 Posted by **David Smith** on 12 June 2003, 5:52 p.m.,*
in response to message #33 by Vieira, Luiz C. (Brazil)

I would just use high capacity NiCad cells in the 82143A (and especially the HP97). HP's original packs were 1100-1300 maH. AA NiMH cells and modern sub-C NiCad cells are around 1800maH. These units put a pretty good slug of current into the batteries... they charge the cells in about 5 hours. That is why the machines gets so warm. It is also why the HP97 battery packs don't last so long. I think the AA NiMH cells may heat up too much if you left the charging continuously and their life would be shortened. An 8 hour charge should be just fine though.

Sub-C NiMH cells (3200+ maH) should be just fine though. They are rather hard to find and VERY expensive.

Re: NiMH in an HP classic.....

*Message #35 Posted by **David Smith** on 9 June 2003, 10:52 a.m.,*
in response to message #28 by Norm

As long as the charge circuit is a slow trickle charge (like the HP calculators), you can drop NiMH cells into it without modification. I verified this with an apps engineer from one of the major battery manufacturers. If your cells have three times the old capacity, you need to charger them for three times as long. But since NiMH cells do not have nearly the "memory effect" of NiCad cells, you can partially charge/discharge them without affecting their life. 1800maH AA cells are standard these days. 2100-2200maH are available.

I have noticed that different machines sense the battery-low condition a bit differently. My HP67 turns on battery low about 30 minutes before cutting off. Some spice machines indicate battery low for a few minutes after full charge with m odern batteries (NiMH or NiCad).

Re: Batteries (NiCd)

*Message #36 Posted by **David Smith** on 7 June 2003, 2:48 p.m.,*
in response to message #23 by Paul Brogger

My 1800 maH NiMH cells run spice machines for over 15 hours. I have not tried the 2100 maH cells that are just now appearing in public.

One interesting thing about newer batteries in Spice machines. The low battery light can flicker on

for up to half an hour of use after a full charge. Seems modern cells put out a slightly higher full charge voltage than the old ones. The reduced duty cycle of the DC-DC converter pulses seems to fool the low-battery circuit.

Re: NiCd vs. NiMH -- What about Leakage and Corrosion?

*Message #37 Posted by **Paul Brogger** on 9 June 2003, 2:03 p.m.,*
in response to message #23 by Paul Brogger

As I consider replacing NiCDs with NiMH in an infrequently-used collectible, their relative costs, total power capacities, and even the memory effect are of little import. (I don't suppose that everyone will agree with this . . .)

More important is the direction this thread has taken: whether voltage differences can adversely affect the calculator's electronics.

Another aspect is chemical leakage and resultant corrosion. Certainly, NiCDs are capable of causing damage. Does anyone know whether NiMH are more or less likely to spill their guts inside a battery compartment?

Also, are there other trade-offs associated with the various battery options which should be considered?

Re: NiCd vs. NiMH -- What about Leakage and Corrosion?

*Message #38 Posted by **David Smith** on 9 June 2003, 3:58 p.m.,*
in response to message #37 by Paul Brogger

The voltage of the NiMH cells is almost identical to NiCad. Fully charged they output around 1.33V bs 1.42V for NiCads. They both ouckly drop to 1.2V nominal. At 1.0V per cell they are considered fully discharged. The shape of the voltage vs time curves are fairly similar.

Most modern batteries are sealed fairly well, but given time any seal will leak. Most of the battery leakage problems encountered in old machines were caused by the calculator being tossed in a drawer for a dozen years with the battery left in it... you wouldn't do that now... would you?

I think that most of the HP41 alkaline cell leakage problems on the far left terminal were caused mainly by one major manufacturer's cell designs. I think there were only two people who made the "N" cells at the time. Again if you remove the batteries when they are dead or for long term storage you should nt have any problems.

NiCd vs. NiMH -- 2 different stories

*Message #39 Posted by **Norm** on 9 June 2003, 9:18 p.m.,*
in response to message #38 by David Smith

Well, between Luiz and the other guy, there's 2 different stories.

Luiz says the NiMH voltages are higher, the other guy says that the voltage curves are the same.

I had heard the curves are pretty much the same.

But never compared either one.

Re: NiCd vs. NiMH -- 2 different stories

*Message #40 Posted by **David Smith** on 11 June 2003, 1:38 p.m.,*
in response to message #39 by Norm

Rest assured that the NiMH cells are a slightly (0.1V) lower voltage than NiCads thoughout most of their discharge curve. I've designed numerous rechargeable instruments over the last 25+ years and am intimately familiar with their characteristics.

Time to re-evaluate and listen

*Message #41 Posted by **Vieira, Luiz C. (Brazil)** on 11 June 2003, 6:50 p.m.,*
in response to message #40 by David Smith

Hi, David;

again, it's time to re-evaluate whatever I've been doing and measuring on batteries. 25+ years is something I cannot face.

Thanks. I'll redraw and reassemble my battery-related measuring devices (a few components and metters). I'm surely getting into mistaken procedures.

Luiz C. Vieira - Brazil

0.1 V Lower ??? no way, gotta be higher

*Message #42 Posted by **Norm** on 11 June 2003, 9:00 p.m.,*
in response to message #40 by David Smith

Your post said NiMH is 0.1V lower than NiCd.

Tell me you meant the other way around. I dont want exact graphs and a science lesson, but just a gut feel. I mean, is the Piper cub faster than the Lear Jet, or is it the other way around. I just need to know which outperforms, not the actual speed data.

I thought for sure that NiCd had too low a cell voltage (the stinkers always wound up at 1.25 V or so, classic 'dim flashlight' appearance which is why nobody likes them and it would be IMPOSSIBLE to go 0.lV lower than NiCd or nobody will want them. I thought NiMH was higher if anything.

- Norm

Re: 0.1 V Lower ??? no way, gotta be higher

*Message #43 Posted by **David Smith** on 12 June 2003, 5:41 p.m.,*
in response to message #42 by Norm

Nope, NiMHs are just a touch lowere than nicads. A fully charged nicad starts off at 1.44V per cell, the NiMH around 1.35V.

This drops to a constant value around 1.2V for most of the discharge cycle for NiCads. The central part of the NiMH cell discharge curve is more highly sloped.

Near the end of the charge both cells drop to 1.0V where they are considered fully discharged.

bleccch

*Message #44 Posted by **Norm** on 12 June 2003, 5:46 p.m.,*
in response to message #43 by David Smith

blecchhh.

I believe you . The NiCd has more voltage than NiMH.

Hard to get excited about a battery that delivers less voltage than NiCd. Display would probably be significantly dimmer for red led's.

Wouldn't be very good with a flashlight either.

my nicad/NiMH uses

*Message #45 Posted by **db(martinez,california)** on 12 June 2003, 8:48 p.m.,*
in response to message #44 by Norm

i think that NiMH are good for peorle who can't be bothered deep cycling their batteries like they should, and/or applications where giving a full cycle is not usually practical like a digital camera. in a camera the battery cycle is usually not in line with the dump-the-card-and-start-over cycle. so they have their place but i would rather use the cheaper, higher capacity, longer lived nicad in a calcer or radio or camping light.

i did get a 4 pack of AA & AAA nimh cells for a song once at the flea and they are great. however, i still deep cycle them out of habit. i should give the AA's to my sweetie for her camera. taking the nicads out and putting them through my smart charger each time she uses it here is a drag.

Display Brightness vs Battery Type

*Message #46 Posted by **Michael F. Coyle** on 12 June 2003, 10:57 p.m.,*
in response to message #44 by Norm

Hi.

> Quote:
>
> The NiCd has more voltage than NiMH.
>
> Hard to get excited about a battery that delivers less voltage than NiCd. Display would probably be significantly dimmer for red led's.

I doubt there'd be any difference at all. The LED's are driven from a constant-current circuit (as far as I can tell), so the display brightness will be constant until the battery reaches end-of-charge.

And while on the subject of different battery voltages, a 0.1V difference in a 2.5V battery pack is just 4%. I can't imagine any circuit in a

calculator that would be that sensitive to the difference. (Besides, the 6V and -12V supplies are regulated.) Except maybe for the low-battery circuit.

So by all means, use NiMH batteries. I am.

- Michael

Re: bleccch

*Message #47 Posted by **David Smith** on 13 June 2003, 4:50 p.m.,*
in response to message #44 by Norm

The difference is totally unnoticeable. The machines up convert the battery to a regulated constant voltage for the electronics and display.

Re: Batteries (Hi R Lion)

*Message #48 Posted by **Michael Meyer** on 7 June 2003, 2:29 a.m.,*
in response to message #5 by Norm

Oh, NO!!

Don't tell me they've changed my favorite batteries! Those bastardos... I mean, those battery-retardos!!!

I'd go stock up on them, but I'd probably get arrested. I'd better stick with powering my calcs with anhydrous ammonia. (Just kidding!)

My only hope is this: if they've really changed the capacity of the lithium AA's, they'll clearly show it in the digital photography arena. Then it's back to the new ultra-capacity NiMH cells. (I hate how they're dead in just a few days rather than a few decades for the lithium ones...)

Michael

P.S. I did get a major "score" on alkaline AA's. A local "one hour photo" store was about to permanently close when I happened to walk in. I asked if they had any boxes of old parts: transformers, etc. They said no. "But we do have this big box of batteries we don't know what to do with..." These were the cells they pulled from disposable cameras before sending them back to be recycled. I must have been given over 500 nearly "full" AA industrial alkaline batteries. For the next few years, it'll be "use and throw!"

Refrigerate

*Message #49 Posted by **Norm** on 7 June 2003, 12:58 p.m.,*
in response to message #48 by Michael Meyer

If you have 500 AA batteries, put them in the refrigerator.

For batteries and film, it effectively stops their aging process, if they are put in the fridge.

Re: Refrigerate IN PLASTIC, KEEP DRY

*Message #50 Posted by **glynn** on 7 June 2003, 3:12 p.m.,*
in response to message #49 by Norm

Before refrigerating, fold some paper towels to put around them in a plastic bag or tupperware.

Moisture (from the air) condenses on the batteries, rusts them. That you don't want.

and also Refrigerate

*Message #51 Posted by **Norm** on 7 June 2003, 5:57 p.m.,*
in response to message #50 by glynn

and also refrigerate pills, medications, and SUNSCREENS i.e. outdoor tan lotions.

Ever got a nasty sunburn from "expired" Sunscreen? After about 3-4 years it loses all effectiveness. I had this happen once. Kept rubbing it on, but kept getting a feeling like "K19 Widowmaker". Had a million blisters by the end of the day. Thanks Johnson & Johnson.

Carly has cousins at Johnson & Johnson, where Sunscreen is made. They don't elaborate on the issue of expiration; and the date-codes typically are so tiny that you dont notice them.

If you refrigerate sunscreen then it becomes a non-issue.

OT and also Refrigerate

*Message #52 Posted by **Randy Sloyer** on 8 June 2003, 8:35 p.m.,*
in response to message #51 by Norm

Hi Norm,

With all that stuff in your refrigerator, where do you keep the beer? :^)

I keep a single bottle

*Message #53 Posted by **Norm** on 9 June 2003, 1:58 a.m.,*
in response to message #52 by Randy Sloyer

I keep a single bottle of beer in between all the boxfuls of batteries, 35mm film, suntan lotion, and bottles of aspirin.

No room for a block of cheese however. Have to do without.

:o)

Luiz and Norm -

*Message #54 Posted by **Larry Corrado, USA (WI)** on 5 June 2003, 2:36 p.m.,*
in response to message #3 by Norm

Luiz, thanks for your note and, in general, for your always-interesting and knowledgeable postings.

Norm, I appreciate your offer to take this antique off my hands, but I think I'll pass. Thanks for the reference to your "Memories" article. I like calculators, but I don't get quite that worked up about them: I still prefer s*x over solving a third-degree polynomial. However, I do think I'm going to like the 34C better than the Woodstocks I used for 25 years.

Thanks for the tip abut the switch. The switches on the 34C are very smooth; however, I have a 38E and 38C that I'll check. I've never had a Spice apart, so I'll read up on what others say about disassembly before doing anything drastic.

Regards, Larry

(O.T.) A necessary acknowledgment

*Message #55 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2003, 5:01 p.m.,*
in response to message #54 by Larry Corrado, USA (WI)

Hey, Larry;

I'm the one to thank you.

You know, I like dealing with technology and my fellow country mates will tell if I am wrong when I say Brazil is not an R&D place, and if you deal (or want to deal) with toptech you'll find many difficulties here. I deal with HP calculators since the 80's and in 2000 I found MoHPC. At that time I had my eight working HP calculators simply spending a few microAmps from their batteries to keep their (empty) memory contents. After the first contact with the MoHPC folks, I put them (the calcs) all back to work. First I was only "listening" (reading). Then I dared writing here and there, I made some mistaken statements and learned that all posts must have a password... Anyway, I found an enjoyable e_place.

You know what? At that time I had no HPIL (thank you, D.M.), I was not aware of HP41 internal modifications, I was not told about CCD, PPC, HEPAX and PANAME modules... I felt as Johnny Castaway after rescue. I got into touch with some sort of information that further extended my own. I know I learn fast, and if the subject is technology, I put my heart on it... my daughter, healthy relationship and s*x come first, of course...:)

I learnt a lot here, and I tried to deserve being amongst the giants, even if I do not consider myself this tall. And believe me, when I open the Forum's page I feel as meeting old friends for the best chat ever. And I know I'm understood, even when my English knowledge fails.

Your words make me think I'm not in the wrong direction.

That's why I'm thanking you.

Best regards.

Luiz C. Vieira - Brazil

(Dave; please, forgive me using this space for a personal relief... I felt as if I could.)

Edited: 5 June 2003, 5:27 p.m.

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Do you want your HP-32sII back???

*Message #1 Posted by **Paul Brogger** on 4 June 2003, 10:33 a.m.*

Some years ago, while looking into the interiors of Pioneer calculators and sharing my findings, someone offered me the use of a broken HP-32sII. It had been damaged slightly, and at the time wasn't especially valuable.

Since then, HP-32sII values have skyrocketed on eBay, and I've wondered whether the provider has ever second-guessed his generosity. Unfortunately, I don't remember who it was that sent it.

After dismantling and reassembling it, I'd gotten the thing working, and it was my glove-compartment calculator for years. Just lately, it seems to have died again. New batteries haven't helped. If I can't get it working on its own, I think I may replace its circuit board with that from a newer model. (It's an older model with double-shot keys, and is cosmetically in pretty good shape.)

But before I try a repair, I thought I'd give the original owner a chance to recover it. If you can describe the unique details of its condition as delivered and would like to have it returned, I encourage you to take the "NoHormel" out of my email address (above) and drop me a line.

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HP45

*Message #1 Posted by **Viet Vu** on 4 June 2003, 8:44 a.m.*

Hello: It has been more than 10 years and if I remembered it correctly, someone had loaned me an HP-45 manual, in which I saw lots of actual business formulas like the mortgage monthly payment, ect... Could someone tell me if HP-45 manual contains these formulas? Thank you, Viet

Re: HP45

*Message #2 Posted by **Howard** on 4 June 2003, 10:46 a.m.,*
in response to message #1 by Viet Vu

I don't know if it came with the original HP45 or is an optional extra. I think the book you are referring to is called - "HP45 - Applications Book". HP part number - 00045-66001. (Delete "spam" from my email address if you are going to contact me).

Re: HP45

*Message #3 Posted by **james (UK)** on 4 June 2003, 3:59 p.m.,*
in response to message #1 by Viet Vu

Hi Viet

As Howard says, there are some finance sections in the HP45 Applications Book - the contents show the following under Finance - Bonds, Discounted Cash Flow Analysis, Depreciation Amortization, Compound and simple interest, Loan repayments and sinking funds.

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I have an HP-01(complete)... what is the value?

*Message #1 Posted by **Michael Miller** on 4 June 2003, 6:07 a.m.*

I have recieved this HP-01 watch from my father-in-law and am curious as to the worth. He worked as a contractor for HP in the '70's and picked two of the watches up. One he lost over time and the other he has given to me. I am allowed to sell it if I choose. The watch comes with a outer box and an inner container. Inside the container is a warranty registration card, a promotional brochure, a gold pen that still writes, an HP-01 instruction book and the watch. All the paper items are exceptional, not written upon or torn. The watch is gold-tone with a gold band, has the stylus and is in excellent shape with no visible wear. The batteries have been removed from the watch and the crystal is perfect. The outer box has some scuffs from sitting on a shelf for years, but other than that everything looks new. I should be able to get some digital pics if needed for valuation, please email me and I will send them at the soonest. I appreciate any and all help with my questions. Please email me at yoaders@aol.com Thanks again!

Michael Miller

Edited: 4 June 2003, 6:09 a.m.

Re: I have an HP-01(complete)... what is the value?

*Message #2 Posted by **Matthias** on 4 June 2003, 6:46 a.m.,*
in response to message #1 by Michael Miller

Short answer.. It depends on it's condition and accessoires...

steel: $0 (run over by a car) - $1100 (new from the seller, all included [manual, envelope, battery holder, pen, quick reference card, box, paper box], absolutely mint condition..)

steel: $1 (run over by a car) - $1500 (new from the seller, all included [manual, envelope, battery holder, pen, quick reference card, box, paper box], absolutely mint condition..)

Re: I have an HP-01(complete)... what is the value?

*Message #3 Posted by **David Smith** on 4 June 2003, 3:11 p.m.,*
in response to message #2 by Matthias

I think that Matthias's values are reasonable may be a bit on the low side. I have never seen one sell for less than $300 (dead, eaten by a goat, then run over by a truck) to over $2500 - gold (not plated), new-in-box condition.

Re: I have an HP-01(complete)... what is the value?

*Message #4 Posted by **Fred** on 4 June 2003, 9:32 a.m.,*
in response to message #1 by Michael Miller

Not very much, just send it to me and I'll see it gets a good home. (ha ha)

Re: I have an HP-01(complete)... what is the value?

*Message #5 Posted by **Michael Miller** on 4 June 2003, 8:23 p.m.,*
in response to message #4 by Fred

Thank you for your responses, the information is appreciated. Where would I get the best price for this item, this forum in the Want-ad section, on eBay or on a website built specifically for the selling of this watch? Your thoughts on this would be of great value to me. Again, thank you for your time.

Michael Miller yoaders@aol.com

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Did You See Carly on Kudlow & Cramer: MSNBC?

*Message #1 Posted by **Trent Moseley** on 3 June 2003, 10:48 p.m.*

I don't see any scientifics after watching this interview.

tm

Re: Did You See Carly on Kudlow & Cramer: MSNBC?

*Message #2 Posted by **Robert** on 4 June 2003, 1:11 p.m.,*
in response to message #1 by Trent Moseley

Didn't see it, what was the message?

Re: Did You See Carly on Kudlow & Cramer: MSNBC?

*Message #3 Posted by **Trent Moseley** on 4 June 2003, 1:50 p.m.,*
in response to message #2 by Robert

She told the hosts that things are looking up in the computer and printer business. No mention of the new 12cPlatinum or caculators in general.

tm

Are Carly & Hillary Clinton

*Message #4 Posted by **Norm** on 4 June 2003, 9:43 p.m.,*
in response to message #3 by Trent Moseley

Are Carly & Hillary Clinton best friends ??

They seem like they learned a lot from each other.

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Predictions on where this good-looking HP-70 will end up on ebay?

*Message #1 Posted by **Gene** on 3 June 2003, 10:07 p.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3028444334&category=11712

This one looks nice. $500? $600?

Re: Predictions on where this good-looking HP-70 will end up on ebay?

*Message #2 Posted by **Bob** on 4 June 2003, 8:33 a.m.,*
in response to message #1 by Gene

I don't know about the HP calc, since my tastes run towards the 41 series and 42S, but the little date and time curser "follower" was pretty cool.

Does anyone know where to get the "follower" ?

clock

*Message #3 Posted by **Ellis Easley** on 4 June 2003, 8:57 a.m.,*
in response to message #2 by Bob

I'm no expert on Java or HTML but I looked at the page with View, Source and then searched for "clock" and found a block of code starting near the middle of the file that looks like it is the clock.

It's neat but things like that or MIDI files attached to auction listings irk me. I just don't appreciate having my computer's response time slowed down. Do they help or hurt sellers? Ultimately I'm sure it's the value of the item on auction that really matters but annoying things like that must drive away some bidders.

Re: clock

*Message #4 Posted by **David Smith** on 4 June 2003, 3:16 p.m.,*
in response to message #3 by Ellis Easley

I can tell you for a fact that they hurt bidders. ANYTHING that has a chance to annoy anybody or that places a restriction on who can bid or how they can pay will drive bidders away. I may be just one bidder, but than can make the difference between an outrageous price or a so-so price.

clock

*Message #5 Posted by **Ellis Easley** on 4 June 2003, 9:47 a.m.,*
in response to message #2 by Bob

I copied everything from:

```
<SCRIPT language=JavaScript>
dCol='red';//date colour.
```

to:

```
if (ns||ie)window.onload=Delay;
</SCRIPT>
```

and pasted into a simple HTML page that I happened to have, and it worked. It worked offline so it isn't downloading anything to run. I put the code just before:

```
</BODY>
</HTML>
```

at the end of the HTML file. I just used Notepad, which is invoked when you select View, Source in Internet Explorer. After selecting and copying the code, I loaded the simple HTML file into Notepad, pasted the code, and saved the HTML file.

Re: clock

*Message #6 Posted by **Dave Shaffer** on 4 June 2003, 11:59 a.m.,*
in response to message #5 by Ellis Easley

re: " It worked offline so it isn't downloading anything to run"

It seems to pick up the time from the PC's internal clock. The display in the ad and my PC time are within a fraction of a second of each other - and several minutes from the correct time.

clock

*Message #7 Posted by **Ellis Easley** on 4 June 2003, 10:29 a.m.,*
in response to message #2 by Bob

I tried changing this line (which I found by searching for "speed" which is used in several lines at the end of the code):

speed=0.6;

It controls the speed at which the clock moves to its new location when you move the mouse. 1.2 makes the clock move quickly but overshoot and then take a long time to settle into its new location - the clock "rings". 0.3 makes the clock move slowly but without overshooting or ringing - I guess it is "overdamped".

You could try this by saving the auction listing on your computer, then loading that copy into your browser, Viewing the Source, searching for "speed", changing the value, saving the file from Notepad, then going back to your browser and clicking on Refresh. But I think that auction listing is probably pretty big! It would save a lot of files along with the HTML. The file I pasted the code into is a free-standing HTML file.

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IS 48G+ discontinued ??

*Message #1 Posted by **Norm** on 3 June 2003, 7:55 p.m.*

Is 48G+ discontinued ?????

I bought one and then sold it to my buddy Clive over in the UK. Now it sounds like they are genuinely gone ???

Anybody know if this model was discontinued while people were still wanting them ??

If people value them, maybe I would get more on the cheap from a retailer I know of.

Sure, I can check eBay. I thought I'd ask the true enthusiasts first, about the situation with 48G+ . Are they worth $200 ?? Or are they just fill-dirt.

Re: IS 48G+ discontinued ?? (long)

*Message #2 Posted by **DougT** on 3 June 2003, 9:09 p.m.,*
in response to message #1 by Norm

Norm,

Sad to say, everything I've read says that all the 48 models (G+, GX) have been discontinued [insert favorite HP is clueless rant here]. Some vendors are still clearing out their stock, so I went ahead and bought a GX last month. You can find them for $139.95 at CalcPro and Samson Cables. I think Samson still has some G+ models for $99.95. No matter what model you get, be sure to pick up a serial cable ($15) and the Advanced User's Reference ($30) while you're at it. Even though the 128K of the G+ will be plenty for the foreseeable future, I had that nagging feeling of "what if I want more memory?" and sprung for the GX.

Being a long-time HP RPN calculator owner, I thought long and hard about buying one of them fancy graphin' calculators, especially since my 15C still works fine. To me, the graphing capability of the 48 is bells & whistles, but that big screen is awesome for matrices and looking at a bunch of the stack all at once. I'm sure you've visited hpcalc.org; the number of programs available for the 48 is amazing. Overall it's simply a fun machine to play with. For sh*ts and giggles I installed a "Personal Information Manager", with a calendar, address book, etc. My wife threatens to buy me a PDA, but I insist: "Honey, that may be the easy way, but it wouldn't be the Toolie way..."

Doug

Check discontinued

*Message #3 Posted by **Ted** on 4 June 2003, 4:00 a.m.,*
in response to message #1 by Norm

To see if something is discontinued is really simple: just go to http://www.hp.com/calculators/ You won't see anything of the 48 series there. Of course some satellite sites might not be updated in other countries, but this is the official HP site. When HP deletes products from their site- you know what time it is!

48 discontinued AND MBA's (long)

*Message #4 Posted by **bill platt** on 4 June 2003, 7:22 a.m.,*
in response to message #3 by Ted

I am not so sure that the website http://www.hp.com/calculators/ means much in regards to anything meaningful. In fact, the 48 series has been discontinued for quite a while--at first, you just couldn't buy any accessories, and then, the calculators. Further, there were other conflicts:

About 3 months ago, I decided to give our HP small business sales rep a call, regarding calculators (we have too many HP printers in the office). Just to add fuel to the fire about the Carly thing, I will note that not only did he know absolutely nothing about the calculator line (and told me so) he did try very hard to obtain info for me. He called me back a couple of times (he tried really hard to find a 32sii) and in the end the result was interesting:

On the small business website, the 49g was still listed, and the price was actually very good--$156 US or so, and a discount could be applied. And they had a bunch in stock at the time. I didn't buy one. Reading comp.sys.HP48 lead me to believe that although the 49 is more powerful, it is not always worth the pain and suffering. And the small business website did not list the 48--only the 49g.

But on the main HP calculators page, the 49g was nowhere to be found in the listing, and the 48 was listed, even though we can be certain that the manufacturing had ceased (all accessories, manuals and support had been discontinued).

So, HP/Compaq's head rarely knows what it's tail is doing. The company is a chaotic jumble of divisions, squabbles, territories, duchys, and confusion.

HP/Compaq is clearly a corporate behemoth with no direction. Sure, Carly might be a media darling, and she is certainly intelligent, and might even have good ideas (just not about calculators) but I think at this point she (or any leader) will have a tiger by the tail, and the tiger is winning, to it's own demise.

As an aside: The MBA question really has nothing to do with MBA's but rather with an importatnt division in general business philosophy: There are technology driven business models (which actually include insurance, but that is another story) and then there are merchandising business models (Coc-cola). Trouble starts when one mixes up the philosophies. Merchandising attracts a horde of selfish, greedy, short-term thinkers who's only dreams are getting rich quick with as little original effort as possible. These people think in dollars and moving this or that to milk dollars. (Technology people dream of technical ideas, and how to improve the world. There is a real philosophical difference and the types are incompatible in business.) But truly successful long term merchandising geniuses do not think that way--they think lon-term--it is jus that technology looks generally scary to the greedy short-termers--but this does not stop them from trying occasionally, when a technology company starts to look like a cash cow! This happened to HP because the name became too "valuable" (greedy short-termers put too much emphasis on brand names--remember when www.bank.com sold for $30 million US!?) The problem is obvious though: a technology driven business model must maintain and rely on its technology thinkers (not business ideas but true technical advancement) to move forward, succeed and stay competitive. HP is no longer a technology driven company. It is a merchandising company overlaid on earlier technology.

Although it might seem that we aught to "keep our chins up" as it were, I think we might as well formally recognize that HP (the company, culture, etc)is dead. And this is a good thing, as this is a Calculator Museum, right? Isn't a Chippendale chair, or a Van Gogh painting just as interesting now that those "makers" are dead?

We should stop bashing Carly. We should stop worrying about it. It is over. It was over 2 years ago. It might have really been over the moment they released the 6s (I had a sinking feeling when I saw that thing...)

-Bill

Re: 48 discontinued AND MBA's (long)

*Message #5 Posted by **Iqbal** on 4 June 2003, 7:57 a.m.,*
in response to message #4 by bill platt

I am not sure if the GX was discontinued because I just got a set with serial numbers indicating thy were manufactured this year [ID30601737 for example] Also, I spoke to an HP dealer and he said that the GX will be in production for a while.

Re: 48 discontinued AND MBA's (long)

*Message #6 Posted by **Bill Platt** on 4 June 2003, 8:39 a.m.,*
in response to message #5 by Iqbal

Interesting!

And I guess it makes sense, along the lines of my hypothesis that HP is fragmented and in bureaucratic chaos.

In other words, accurate information is hard to come by.

By the way, was your new 48gx manufactured in China or Indonesia? Does it have the green screen, or the higher contrast black screen? What ROM?

Regards,

Bill

Re: 48 Manufacture and ROM Info

*Message #7 Posted by **DougT** on 4 June 2003, 12:54 p.m.,*
in response to message #6 by Bill Platt

The 48GX I recently bought was made in 2003 in Indonesia, and it's got ROM Version R. Rumors of its demise may or not be premature, depending on who in HP you talk to, but if you want one don't wait!

Re: 48 Manufacture and ROM Info

*Message #8 Posted by **Bill Platt** on 4 June 2003, 1:27 p.m.,*
in response to message #7 by DougT

Black screen, or Green?

Re: 48 Manufacture and ROM Info

*Message #9 Posted by **DougT** on 4 June 2003, 4:54 p.m.,*
in response to message #8 by Bill Platt

Sorry to forget that, Bill - it's a nice black screen.

Well stated Mr. Platt (long)

*Message #10 Posted by **Norm** on 4 June 2003, 1:42 p.m.,*
in response to message #4 by bill platt

Well stated Mr. Platt "I think we might as well formally recognize that HP (the company & culture) is dead. We should stop worrying about it. It is over".

I think this is a good way to look at it. You can't get a Heathkit from Heathkit, they are dead. You can't get an HP calculator from HP, they are dead. You are right, a 'merchandiser' is just a grubby greedy grabby little shoe salesman. They can't think about what the customer really wants in visionary fashion. They only open their store at the beginning of the day and shutter the doors at the end of the day and push their wares arbitrarily during the day. They dont think ahead.

I wonder if it might've worked out better, if Agilent had taken the calculator line. Agilent retains the technology part of HP, most of the goodies (instruments, etc) got put over at Agilent. Calculators should have been no different. They are a technology instrument like a spectrum analyzer. Not Carly's cheap chinese throwaway toy.

My plan is obvious, now that Carly has killed the goose that laid the golden eggs..... keep expanding my growing fleet of HP-34C's. I want a whole squadron of them before I feel "safe".

I was thinking about what to give a kid who is starting to learn his math (algebra, trigonometry). Actually you could darn near give him a 34C. Amazing, I have specimens that are 25 years old, and they are rugged and like brand-new and ready to serve a whole new generation.

I think I'd start with a 32Sii and offer the 34C to the extent that the earlier unit intrigues the younger generation. The 32Sii would be primary, the 34C would be a secondary interest. He can set his own balance between the two. In his lifetime the supply of 32Sii will be adequate, 34C may get ever more impractical to obtain.

One thing I'm sure of.... any kid who knows every button of a 34C (or a 32Sii or a 41C) would have far more reality-knowledge than a kid who knows every button of a graphing calculator (because that would be simply impossible, that any kid will learn more than a few features on those things). Graphing calculators are for kids who watch beevis & butthead, 32Sii calculators are for kids who listen to Mozart.

Hey, 42S with the double display might be a super way for newcomers to learn first-time how RPN works. Other than that, I dont like a double display. Distracting, like when you walk up to the cash machine and its trying to sell you coupons for your groceries. Huh ? Only in a Bill Gates world.

Some of the older pop music (Abba, Boston) was so good that it is now attracting a whole new generation of young listeners... because the crap available right now is so bad (Eminem rap).

I was alive and kicking (a teenager) in the era of Boston, Fleetwood Mac, Abba, and HP-34C / 41C / 25C .

How was I supposed to know it would be like living in Vienna when all the great symponies were written, and the whole culture to disappear leaving only its accomplishments as fond memories. When I was in the 70's, I thought it would stick around for awhile, i.e. the attitude of fresh technological achievement. We should have moon colonies by now. Instead all we have is tilt-up big-boxes full of chinese blow-molded trash (at high prices). Thank you ruling class.

Well better stop rambling, thx Mr. Platt for analogy up top.

Role of Agilent

*Message #11 Posted by **Patrick** on 4 June 2003, 2:53 p.m.,*
in response to message #10 by Norm

I was not an HP watcher during the days when Agilent came on the scene, so I don't really know much about them. From the discussions here, I take it they were either an offshoot of HP or they were an existing company who bought rights to various products from them.

In any event, even if they didn't get calculator technology from HP, if they are an independent company now, surely they have the option to design and build calculators themselves. No, they wouldn't be HP branded, but they could, if they wanted, put every bit as much engineering quality into them as they liked (and we would hope).

What I suspect is that they're not building them because they also don't consider it to be a profitable business.

Re: You are Wrong!

*Message #12 Posted by **Ron Ross** on 4 June 2003, 3:34 p.m.,*
in response to message #11 by Patrick

Agilent sells IC's and other parts to its sister company and probably cannot compete due to marketing contracts, not because it is not profitable. I believe Agilent makes (or made) the IC to the Hp12c.

When the two companies split Hp kept the name, PC, Palmtop, Printer, software, and calculator divisions or groups.

Agilent kept EVERYTHING ELSE: Instrumentation, testers, IC manufacturing, and PATENTS.

That is a big reason Hp cannot continue to produce new products. This happened as Carly came aboard. Actually Lew Platt had arranged for the split and had worked out the details, Carly came in and (new on the job and blindly) rubber stamped the deal.

Can she be blamed? Not entirely, any of us would have jumped at the opportunity to rule Hp. That she isn't a techy, isn't her fault. The powers that be felt she was qualified for the job. To be sure, all of us feel much different about the calculator division than her (not even worth her breath to mention the word).

She is basically a (knowledgable, considering she was a History major) bean counter, who lives off a PDA or laptop (if she uses any computing device). She definitely doesn't feel that the Hp calculator is needed to represent Hp to the up and coming generation. These kids can see the Hp logo on printers and that enough. She is into selling software and service support to high end systems and networks.

However, neither Hewlett nor Packard would have let the riegns of the company rest with someone with so little technical background (moot point, I know). But CEO's look at revenue and the bottom line in the short term (sometimes, very short term). Any thing past 24 months is long term and costs money and R&D and doesn't contribute to any of this years quarters.

Since Hp lost is real R&D to Agilent, no new processors could be developed in house and the older Saturn stock is all that is available (new stock could probably be produced). Therefore, the best you could get is an Hp 49g. Any new calculators will have to be developed on an industry standard CPU (not all that bad, the Ti-89 is a good example). Faster clock cycles will certainly be a plus with low power usage.

Enough of my rants, I will shut up.

How many were made?

*Message #13 Posted by **Dave Shaffer** on 4 June 2003, 5:30 p.m.,*
in response to message #10 by Norm

with regard to Norm's hope "In his lifetime the supply of 32Sii will be adequate, 34C may get ever more impractical to obtain."

Maybe this has been asked and compiled previously, but do we know haw many of the various models were ever made?

I know that in the first year or so, HP sold several hundred thousand HP35s. They generated several per cent of their total revenue in 1973 from this one product. I don't know what the total 35 production run was, and I have no idea what the totals are for the later products. Overall, it must be millions of units.

This might help us decide whether we really need to stock up now, or can wait until the need arises to replace our favorite working (as opposed to "collectible") calc. I'm within a few years of retirement, and have half a dozen functioning calcs (11C, 41C, 41CX, 32SII, 42S, and 48GX, as well as my ancient, somewhat functional 35). Guess I don't need to buy any more. (But, I'd buy a new 15C(P)!)

Re: Well stated Mr. Platt (long)

*Message #14 Posted by **Iqbal** on 5 June 2003, 12:00 a.m.,*
in response to message #10 by Norm

Boston, ABBA, Fleetwood Mac, Wow that was when music was music and an HP calculator was really a work of art.

Can you imagine how it's gonna be in twenty years time? I guess we're living in a disposable world. Nothing is being designed to be repaired again. Simple economics. So blaming Carly or anyone for that matter is irrelevant in my opinion. How long would a 41CX last? I have had mine since 1987. 16 years without any major repairs [except two OEM I/O contacts]. If repair wasn't possible, I would have had to buy another one. So looking at it as a business manager, better make it disposable. That would mean at least I would have had to buy three over 16 years as opposed to one for that period.

Re: Well stated Mr. Platt (long)

*Message #15 Posted by **Bob,** on 5 June 2003, 1:02 p.m.,*
in response to message #14 by Iqbal

They could always try to make it up by selling parts and components at inflated prices like car manufacturers !

That way you could fix it if you wanted and retire it for the memories, just fix it and use it, or buy a new one.

How about a new, slide-in PCB with a faster processor that doesn't require a case cracking to install. (Like 48GX memory cards ?)

Discontinued, but 48GX still being sold..

*Message #16 Posted by **Matt Kernal (US)** on 4 June 2003, 12:25 p.m.,*
in response to message #3 by Ted

here (I realize it's not the 48G+ :-)

Matt

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MBA Bashing in this forum

*Message #1 Posted by **Mark** on 3 June 2003, 6:39 p.m.*

I am a degreed electrical engineer with 15 years of experience in the hands-on development of embedded systems (hardware, firmware, and software).

I'm a major fan of all the old HP engineering calculators, classic LED, scientific and graphing.

Five years ago I maxxed out my salary in engineering management and went back to night school for an MBA. Let me tell you those three years were no picnic; not a tenth as difficult as getting an engineering degree but still a lot of work. Now as a side benefit, I command a bigger salary with increased responsibility, but I also (more importantly) get to fully understand and enjoy the old HP financial calcs.

Please, let's cut the MBA bashing. Really bad decisions can be made by any moron in a position of power, including morons without an MBA. Remember the Peter principle applies to all organizations, and it is blind to academic degree.

Re: MBA Bashing in this forum

*Message #2 Posted by **Jim L** on 3 June 2003, 7:21 p.m.,*
in response to message #1 by Mark

I don't think that telling engineers that an MBA program isn't even 1/10th as hard yet leads to more money is any way to get them to stop bashing. :-)

That said - I don't think you're the kind of "pure MBA" the bashers have in mind. You're more of an engineer with just a hint of evil. :-)

MBA vs. Engineer

*Message #3 Posted by **Norm** on 3 June 2003, 8:00 p.m.,*
in response to message #2 by Jim L

The best people have deep strength in at least one career area, along with knowledge and respect of other career areas also.

Therefore, the best boardroom people will have knowledge of both Engineering and Business. We might safely say Mr. Hewlett and Mr. Packard very nicely fit the need.

The current crop of MBA's disdain engineering. This is why you get Ford/Firestone deaths, or NASA/Dittermore deaths, or an Enron balance sheet.

I would suggest that the MBA's in power stop disdaining engineering. Engineers did not throw the first rock. Engineers have every respect for proper management of profit, loss, investment, risk, and the balance sheet. It is the MBA's who snicker when somebody says 'lets talk about load margin vs. tire pressure and temperature'.

Mark is not the type of MBA who is the problem, because he has knowledge of both engineering and business. I'll guarantee you Carly doesn't and Dittermore doesn't.

Re: MBA vs. Engineer

*Message #4 Posted by **Gene** on 3 June 2003, 9:54 p.m.,*
in response to message #3 by Norm

Well, my undergrad was computer science, then an MBA in Finance - 60 graduate hours.

Now I work for Ford Credit. Use my 12c everyday, but still dig out my trusty HP-41c.

Dumb decisions are made by people. Period.

Re: MBA Bashing in this forum

*Message #5 Posted by **James Stephens** on 3 June 2003, 10:15 p.m.,*
in response to message #1 by Mark

Perhaps this very reasonable commentary can serve as a nice segue into all-purpose calculators. An hp-12c with the addition of scientific functions should appeal to the lucrative financial calculator market, as well as providing an RPN scientific.

HP has produced an all-purpose calculator or two in the past. If the market does support financial calculators of professional quality, but the scientific and engineering market is too small to justify the models we like, maybe this would be a solution that would make all of us happy.

James... disagree

*Message #6 Posted by **Norm** on 4 June 2003, 1:50 p.m.,*
in response to message #5 by James Stephens

Hi James, there is no reason why they need to keep shaking up the milkshake. They already had their models. They dont need a hybrid of 12C and 15C .

12C is a completed design. 15C is a completed design. Build the 15C on the same production line as the 12C.

Committing to such a project would be trivial. They could call it "15C Classic" and charge $175 a pop and make good money. Then the MBA's and the engineers aren't in disharmony over what buttons to put on the calculator

MBA would say: "derrr, what's this "LOG" button, I am not a logger, I am an MBA" .....

Engineer says: "Hey, why is there a 'fraud estimation' button on my scientific calculator, I never had anything like that on my slide rule".

Better each group get their own calculator, the designs are already completed, they could build them and make money if they choose to.

Why dont they ??

What Gene said "People make dumb decisions. Period."

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HP Calculator Webzone

*Message #1 Posted by **Martin** on 3 June 2003, 2:35 p.m.*

THe HP Calculator WebZone page at www.hp-calculators.com appears to have gone! This address now links you to the standard US site for HP calculators and all those links for manuals, downloads etc that were on the WebZone site are no longer available. Anyone have any idea why this short lived but quite useful site has been killed?

Re: HP Calculator Webzone

*Message #2 Posted by **lee-khuan** on 4 June 2003, 11:16 a.m.,*
in response to message #1 by Martin

The Calculators Webzone has a new url:

http://www.hp.com/calculators

Re: HP Calculator Webzone

*Message #3 Posted by **Ellis Easley** on 5 June 2003, 6:41 a.m.,*
in response to message #2 by lee-khuan

Well that's good, considering that is the address molded into the backs of some of the newer calculators including the 30S and the Chinese-made 3 volt (not the 3 button) 12C.

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12c Platinum in Investor's Bus Daily

*Message #1 Posted by **RB Jones** on 3 June 2003, 1:51 p.m.*

No electronic version available without a subscription but it's on Page A4 in hard copy today, "HP's 12C Calculator Has Pluses, Minuses for Corporate Parent" Subhead: "After 22-year success, any changes carry risks of riling devoted users"

RB

Re: 12c Platinum in Investor's Bus Daily

*Message #2 Posted by **Rick** on 3 June 2003, 5:38 p.m.,*
in response to message #1 by RB Jones

anyone who wants a copy of the article let me know.

Re: 12c Platinum in Investor's Bus Daily

*Message #3 Posted by **Rick** on 3 June 2003, 9:47 p.m.,*
in response to message #2 by Rick

I was mistaken, I cannot send the article. Sorry about the offer. The material is protected from copying.

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Need source for HP ScanJet 3C files

*Message #1 Posted by **bowdoin davis** on 3 June 2003, 1:50 p.m.*

I have a scsi scanjet 3C model C 2520A. I got error messages that scanner wasn't installed so I deleted the deskscan II 2.9 from win 98 2ndEd system. I need to download the folders to reinstall it, and can't figure which or where they are on any site, and whether they are on the european site. I don't want to junk the scanner for it used to work, and I haven't given up yet. I don't have a CD, and originally it was installed with diskettes, so long ago, I can't find them. Have you a specific source to suggest either for a CD, and what I should ask for, or for a specific download? Do European site downloads work? I don't know where to start and the technician at HP told me I was unsupportable (too old a machine, but on Soc Sec., I can't run right out and buy another. Thanks, B. Davis.

Re: Need source for HP ScanJet 3C files

*Message #2 Posted by **Vassilis Prevelakis** on 3 June 2003, 4:02 p.m.,*
in response to message #1 by bowdoin davis

From this question and your previous one about ISA/MCA I think that you have got the wrong forum.

This forum is about HP *calculators*, not HP computers/printers/scanners.

Although people here are happy to answer questions on just about any subject (:-), I think that if you submit your questions to a more appropriate forum you are likely to get better/faster answers

**vp

Re: Need source for HP ScanJet 3C files

*Message #3 Posted by **Mark** on 3 June 2003, 6:21 p.m.,*
in response to message #2 by Vassilis Prevelakis

I think the problem is that the heading on this page says "HP Forum." Maybe it should say "HP Calculator Forum" instead?

Re: Need source for HP ScanJet 3C files

*Message #4 Posted by **John C** on 3 June 2003, 10:28 p.m.,*
in response to message #3 by Mark

Of course - looking up and to the left where it says "Museum of HP Calculators" might be a clue. ;-)

John

Re: Need source for HP ScanJet 3C files

*Message #5 Posted by **Ellis Easley** on 4 June 2003, 2:57 a.m.,*
in response to message #4 by John C

I'm sorry if I encouraged him by answering his first post (although apparently it didn't mean anything to him), but I couldn't pass up a chance to drop a Tandy-ism, in this case the fact that Tandy (and as far as I know nobody else other than IBM) built a MicroChannel system! One of my bigger projects was designing a diagnostic board to plug into the MicroChannel bus and exercise all the signals.

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Ir ... I have an HP Ir question ...

*Message #1 Posted by **Randy** on 3 June 2003, 1:38 p.m.*

Now that the HP82240B is long gone, compatible printers are still available new, manufactured by Martel Instruments of England. At martelinstruments.com, check out the MCP8850 and MCP9850 which are versions built to the HP Ir calculator interface. These calculators are available at a US distributor at 800-578-9021 (Current Components Incorporated) for about $170. The print speed and clarity is supposed to exceed that of the old HP printers. Martel also makes versions of these printers with multiple interfaces built in and with different power supply options, but I have not yet found a US distributor of such (MCP8830's). But here's my question: Wouldn't it be nice to use the HP Ir calcultor output to send data directly to a PC? Has anyone done this? Is the little HP Ir to RS232 adapter by Aegis (IR-HP5) for about $40 the answer? All this was probably covered by previous questions and answers here or in those old user groups (or is that groups of old users?), but I thought I would ask again because this forum is such a great brain trust. Any observations on HP Ir issues would be appreciated, especially on an HP41 with the Ir module. I see one site discusses building an Ir receiver linked to a parallel port error line using cheap Radio Shack parts, but I wonder if someone knows of a stock PC Ir receiver for either USB or serial that can take in data from an HP calculator Ir transmitter. Thanks.

Re: Ir ... I have an HP Ir question ...

*Message #2 Posted by **James M. Prange** on 4 June 2003, 2:11 a.m.,*
in response to message #1 by Randy

Ok, I see them, at http://www.martelinstruments.com/cased.html#MCP8800. I'd probably go for one of the models that includes RS-232 wired input, if I felt that I could spare the cash. Partly because the 49G, and I think at least one of the algebraic only models, lacks IR output but does have RS-232. The other thing is that the calculators always transmit IR at only 2400 bits per second, but by using wired connections, you can print at 9600 bps. Well, actually, I think that you can transmit by IR at higher speeds by using assembly languge code or perhaps SysRPL, but since the 82240A/B only receives at 2400bps and I can connect to the other calculators by wire, I've never tried that out.

If anyone tries one of these, please do report on your experience.

Yes, I've heard of using the IR to transmit/receive to/from a PC. I've never tried it myself, but the key is that your adapter needs to use plain "Serial IR" (SIR), not the more elaborate IrDA protocols. And making a receiver for the "Red Eye" IR format used for printing sounds quite complicated, and not worth the trouble.

I don't know about the other calculators, but on the 48G series, if you set the flags to print by wire (a mislabeled flag) and I/O by IR, then it prints by IR in the SIR encoding encoding rather than Red Eye encoding.

More information on the 82240A/B Red Eye encoding can be found at http://www.hpcalc.org/details.php?id=4742, and on the 48 series I/O (both wired and IR) at text: http://www.hpcalc.org/details.php?id=1722 or PDF: http://www.hpcalc.org/details.php?id=4741. These last two are for the 48 series of course, but I'd expect the other calculators to share a good deal with them.

Regards,

James

Re: Ir ... I have an HP Ir question ...

*Message #3 Posted by **Christoph Giesselink** on 4 June 2003, 1:45 p.m.,*
in response to message #1 by Randy

> But here's my question: Wouldn't it be nice to use the HP Ir calcultor output to send data directly to a PC? Has anyone done this?

The protocol information is available at http://www.hpcalc.org/details.php?id=4742.

> Is the little HP Ir to RS232 adapter by Aegis (IR-HP5) for about $40 the answer?

No it isn't, the IR-HP5 is a "normal" IR to wire converter for the normal RS232C protocol. Reason, the product is advertised with max. 57600 baud, the HP Red Eye printer protocol has a fixed baudrate somewhere around 600 baud.

> All this was probably covered by previous questions and answers here or in those old user groups (or is that groups of old users?), but I thought I would ask again because this forum is such a great brain trust. Any observations on HP Ir issues would be appreciated, especially on an HP41 with the Ir module. I see one site discusses building an Ir receiver linked to a parallel port error line using cheap Radio Shack parts, but I wonder if someone knows of a stock PC Ir receiver for either USB or serial that can take in data from an HP calculator Ir transmitter. Thanks.

I wrote a DOS program to decode the data for a dumb IR->Wire hardware interface, something like the Radio Shack one, in the early 90'ties. Therefore I used one of the modem status input lines of the serial interface. But this solution caused several problems:

- Making timing is a big problem because of different speed of PC's
- Only works in real DOS mode, because only here you have real time control to the hardware
- Non standard (but very simple) IR receiver hardware
- Don't worked on all PC's (unknown reason)

But who has nowadays real DOS machines? So my solution and IMHO the only realistic solution nowadays is an intelligent hardware converting the HP-Redeye protocol into another more useable (Serial RS232C, USB, ...) one. My solution for RC232C is very simple from the hardware aspect. A microcontroller, an integrated IR-receiver chip (Temic TSOP1833), inverting the TXD signal, and a very simple power logic. But the software is the expensive part and in my case I haven't the rights to publish them.

Regards

Christoph

Re: Ir ... I have an HP Ir question ...

*Message #4 Posted by **James M. Prange** on 5 June 2003, 6:07 a.m.,*
in response to message #3 by Christoph Giesselink

> Quote:
>
> > Is the little HP Ir to RS232 adapter by Aegis (IR-HP5) for about $40 the answer?
> >
> > No it isn't, the IR-HP5 is a "normal" IR to wire converter for the normal RS232C protocol. Reason, the product is advertised with max. 57600 baud, the HP Red Eye printer protocol has

a fixed baudrate somewhere around 600 baud.

I stand corrected. I was thinking that the HP Red Eye printer protocol was 2400 bps, but it's actually much lower, and when you consider that the Red Eye protocol includes 4 error correction bits with each byte, then it's effectively about the same as 600 bps RS-232.

I don't know which calculators Randy has in mind, but with the 48 series, you can indeed send and receive in "Serial IR" (SIR) protocol. This is always at 2400 bps. SIR is very similar to RS-232, except that an IR pulse (nominally 52 microseconds, about an eighth of a bit width) represents a 0 bit, and the absence of an IR pulse represents a 1 bit (or idle condition). I don't know for certain, but the IR-HP5 might be suitable for this.

Since IR I/O is half-duplex (because of the likelyhood of reflected signals), XON/XOFF serial flow control isn't available. But of course, if you use the built-in Kermit protocol, then you don't need XON/XOFF.

If you set flag -33 ("I/O directed to IR port"), and set flag -34 ("Printer output directed to serial port if flag -33 is clear"), then your printing will be in SIR protocol instead of Red Eye protocol. The "Fine Manual" leaves a bit to be desired here. Such things as print delay pacing, line termination string, and ASCII translation behave the same when print by SIR as when printing by wire.

See the documents mentioned earlier in the thread for more information.

Regards,
James

Edited: 5 June 2003, 6:14 a.m.

Re: Ir ... I have an HP Ir question ...

*Message #5 Posted by **Christoph Giesselink** on 5 June 2003, 2:25 p.m.,*
in response to message #4 by James M. Prange

> I stand corrected. I was thinking that the HP Red Eye printer protocol was 2400 bps, but it's actually much lower, and when you consider that the Red Eye protocol includes 4 error correction bits with each byte, then it's effectively about the same as 600 bps RS-232.

This isn't correct, you can't compare the 416us (2400 baud) bit time of the Serial InfraRed protocol with the 427us _half_ bit time of the HP REDEYE HP82240B printer protocol. Both protocols use a complete different framing. The original question from Randy was asking for a receiver to capture the HP82240B printer protocol (HP REDEYE) data and not for a Serial InfraRed (SIR) reader.

The ~600 baud of HP REDEYE HP82240B printer protocol mentioned in my prior posting is calculated by

baud = 1 / ((pulse/freq) * d * hframes) * bitsperbyte

with

- pulse = 7 = no. of IR pulses per half bit
- freq = 32768 = frequency of IR pulses
- d = 2 = pause after IR pulses
- hframes = 30 = no. of half bit frames = 3 + 2*(4+8) + 3 = 3 sync pulses + 2 half bits * (4 error bit + 8 data bits) + 3 half bits pause after each packet
- bitsperbyte = 8 = relevant data bits per byte to make it comparable, you can also use 10 here

when you're thinking about 8 data bit + start and stop bit of the SIR protocol

the final baud rate is

baud = 1 / ((7/32768) * 2 * 30) * 8 = 624

Randy though about the HP17B, HP17BII, HP18C, HP19B, HP19BII, HP27S, HP28C, HP28S, HP41 with Ir printer module, HP42S calculators (hopefully I forgot none) which all only can send data in the HP REDEYE HP82240B printer and **not** the Serial InfraRed protocol.

But these 624 / 8 = 78 bytes/sec are only theoretically, the transmitter routine has to disable interrupts and has the calculate the 4 error correction bits and a little bit more at runtime so you have at least about 70 bytes/sec on these calculators.

> I don't know which calculators Randy has in mind, but with the 48 series, you can indeed send and receive in "Serial IR" (SIR) protocol. This is always at 2400 bps. SIR is very similar to RS-232, except that an IR pulse (nominally 52 microseconds, about an eighth of a bit width) represents a 0 bit, and the absence of an IR pulse represents a 1 bit (or idle condition). I don't know for certain, but the IR-HP5 might be suitable for this.

This is correct, but wasn't asked. Further information about connecting a HP48 over Serial InfraRed protocol to a PC can be found at http://www.hpcalc.org/details.php?id=4856.

Best Regards,

Christoph Giesselink, Homepage

Re: Ir ... I have an HP Ir question ...

*Message #6 Posted by **James M. Prange** on 5 June 2003, 8:48 p.m.,*
in response to message #5 by Christoph Giesselink

Hi Christoph,

> Quote:
>
> This isn't correct, you can't compare the 416us (2400 baud) bit time of the Serial InfraRed protocol with the 427us _half_ bit time of the HP REDEYE HP82240B printer protocol. Both protocols use a complete different framing.

Apparently we basically agree on a lot of this, but perhaps I don't understand the definition of "baud". I think of "baud" as "bits per second" or "1/bit time". By "effectively about the same as 600 bps RS-232", I meant that either would send about the same number of bytes per second. The comparison was intended to be a very rough one.

For the RedEye encoding used for the 82240A/B: "A bit time is defined as precisely 28 cycles of an exact 32768 Hz reference, about 854.5 microseconds." Thus, slightly over 1170 bits per second. A 1-byte frame consists of a "start bit", which is 3 half-bits, plus 4 error correction bits, plus 8 data bits, for 27 half-bit times. A delay of at least 3 half-bit times is needed before the next frame begins. Thus, there are at least 30 half-bit times, or 15 bit-times, per 1-byte frame. So 15*28=420 cycles of a 32768 Hz reference, or about 12.8 ms, is needed to transmit one byte. Looking at it another way, 32768/420 yields slightly over 78 bytes per second. Of course, the operating system will no doubt add delays because it has a lot of work to do, but perhaps 78 bytes per seconds might be achieved within bursts. Surely we can expect each individual byte to be transmitted in about 1/78 second.

For 2400 bps RS-232, a bit-time is of course 1/2400 second, or about 417 microseconds. A 1-byte frame (sending from an HP 48 series) is 1 start bit, plus 8 data bits (or 7 data bits plus 1 parity or pseudo-parity bit), plus 2 stop bits, and a 3/16 (0.1875) bit-time delay is added before the next frame can begin. Thus, 11.1875 bit-times (about 4.66 ms) are needed for each byte. Looking at it another way, 2400/11.1875 yields slightly over 214 bytes per second. Of course, when using a file transfer protocol, numerous delays are involved, so you can't expect to achieve an average of 214 bytes per second as the transfer rate. But when using XMIT, without transmit pacing, I've experimentally found that a 48 really does transmit at about the theoretical maximum rate.

Of course the 48 doesn't allow for 600 bits per second. But if it did, then the maximum rate would be about 54 characters per second.

> Quote:
>
> Randy though about the HP17B, HP17BII, HP18C, HP19B, HP19BII, HP27S, HP28C, HP28S, HP41 with Ir printer module, HP42S calculators (hopefully I forgot none) which all only can send data in the HP REDEYE HP82240B printer and not the Serial InfraRed protocol.

Sorry, I didn't read Randy's mind, but just what he'd actually written in his post. What came to my mind was the 48 series, where data and file transfers are routine, and I've read that someone has very successfully used a relatively simple SIR to RS-232 adapter, without any need to connect a cable to the calculator.

Even if what I've written doesn't help Randy, perhaps it will help others. Not having to connect a cable might be sufficient compensation for having to use 2400 bps instead of 9600 bps, particularly for short transfers. Apparently, HP felt that this was the case for transfers between two 48 series calculators.

Of course a RedEye to RS-232 adapter could be built, but it would be considerably more complicated than an SIR to RS-232 adapter.

Best Regards,
James

James & Christoph, Thanks!

*Message #7 Posted by **Randy** on 9 June 2003, 4:06 p.m.,*
in response to message #1 by Randy

James & Christoph: Thanks for taking the time to share some of your knowledge base. Your insights have been very helpful. A redeye to serial adapter would be perfect because what I use now is HPIL to serial to send ASCII strings to be captured by a PC. I add coma delimeters in the RPN program which I then import into Excel, then into AutoCad because part of the ASCII string generation calculates geographic coordinates. I don't mind having the wire, but it would be nicer without. The HP 41 acts as a paperweight as I move it around on large maps to analyze and collect the data. It's like a very smart mouse I guess. A very smart wireless mouse would be nice. I'm hooked on pure RPN and the just-right feel of the HP classic case, so I remain a couple decades behind in parts of my technology, but the system is productive. I don't think I'll go much further with redeye thinking because the range is so limited. At one website it was said that HP deliberately kept the redeye range low so students wouldn't send cheat sheets back and forth during exams -- an interesting theory. It's fun to visit this site to learn more, and thanks again! - Randy

Re: James & Christoph, Thanks!

*Message #8 Posted by **Christoph Giesselink** on 10 June 2003, 12:25 p.m.,*
in response to message #7 by Randy

> I don't think I'll go much further with redeye thinking because the range is so limited. At one website it was said that HP deliberately kept the redeye range low so students wouldn't send cheat sheets back and forth during exams -- an interesting theory.

Only one minor comment. The website is right, when you compare the possible IR distance between HP products.

The possible distance over IR are normally between

- HP48<->HP48 are some centimeter
- HP48->HP82240B < 0.5m
- HP42->HP82240B < 0.5m

The reason of this limitation is the IR receiver hardware. My REDEYE receiver using the receiver IC Temic TSOP1833 without any cover (placed behind a hole in the case). I made some distance tests with this reiceiver and my HP48SX and I got possible transmitting distances between some millimeter up to 8 meter indoors (the room wasn't bigger, so the possible receiving distance maybe greater)! So the distance is no limitation IMHO.

Hope one of your HP's is working to transfer the European length units into your favorite ones. :)

Regards

Christoph

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Re: To José...

*Message #1 Posted by **jose goncalves** on 3 June 2003, 12:58 p.m.*

Thanks for your opinion and advice. My point is that I have 2 HP41 and 2 HPIL modules, so I would like to test this connection.

Jose

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HP41C: High current consumption

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 12:23 p.m.*

Hi, folks.

I have an HP41C in hands (top keys, not mine) with a dimmed display. I tested another mainboard on it and the display is happily clear and crispy. I brought the original maninboard back and measured current consumption in this unit and in another one with a better behavior. These are the figures:

Operation	41C High-curr	Normal 41C
calc OFF	40 µA	40 µA
calc ON	6.88 mA	760 µA
key pressed	11.20 mA	6.38 mA

I just want to know where to start looking for "bogus". As the display is dimm, I firstly thought about the LCD driver, but with these figures, maybe someone has a better starting point.

Thanks for any guidance.

Luiz C. Vieira - Brazil

Re: HP41C: High current consumption

*Message #2 Posted by **WAG** on 6 June 2003, 3:45 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Very wild guess.... leaky electrolytic capacitor?

Re: HP41C: High current consumption

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 6 June 2003, 9:47 p.m.,*
in response to message #2 by WAG

Hi, WAG;

thank you! Not so wild, could be. I thought about this:

1 - NUT processor is running low-power O.K., RAM/ROM too; at least, 40µA tells me so.
2 - LCD module works fine with other mainboard (I measured the O.K. values with this module).
3 - I'd guess the LCD drive RAY-xxxx (or something like this) is messing up because it's one of the only "guys" that's not running when the calculator "hybernates" in low-power condition.

I want to listen the sort of clever guesses like yours. If there is any capacitor that's short-circuited then I must search for it. Oh, yes; the board is completely clean, it's a beauty! No corrosion or leakage signs! It's an orginal HP41C's board with RAM 1LA701 to 1LA705, in perfect condition, and I think it's owner wants to keep it this way. I have newer boards to replace, but I'll try to fix it.

Thanks a lot!

Luiz C. Vieira - Brazil

Edited: 8 June 2003, 9:59 p.m.

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PC/MCA and PC/ISA How do I know which I have?

*Message #1 Posted by **bowdoin Davis** on 3 June 2003, 10:51 a.m.*

HP software download distinguishes between PC/MCA & PC/ISA for downloading choices. I am using a Scanjet 3C (SCSI) and have no Idea which software to order/download for deskscan II 2.9 since I have already deleted the prior version's files and thus I can't check. Can anyone tell me which I need to download to use with a SCSI device? Thanks B. Davis

Re: PC/MCA and PC/ISA How do I know which I have?

*Message #2 Posted by **Ellis Easley** on 3 June 2003, 11:07 a.m.,*
in response to message #1 by bowdoin Davis

ISA means Industry Standard Architecture, or the IBM PC/AT expansion bus as ultimately specified by a third party (the EISA group - E for Extended). MCA means MicroChannel Architecture, the expansion bus that IBM introduced with the PS/2 computers and quickly abandoned. Unless you have an IBM model 80 (and 70? 60? maybe even 50?) or a Tandy 5000, you don't have MicroChannel.

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Memory cards for 48 series

*Message #1 Posted by **unspellable** on 3 June 2003, 10:51 a.m.*

Does any one know if the 85700A (28KB) or 85792A (128KB) cards, intended for the 8590 series spectrum analyzers will work in the 48SX or 48GX calculators?

They lack the sliding pin cover.

I need a fast answer.

Re: Memory cards for 48 series

*Message #2 Posted by **R Lion** on 3 June 2003, 11:11 a.m.,*
in response to message #1 by unspellable

I can't answer your question, but here you have RAM cards without cover. And they are good and cheap (IMHO) RAM cards from Klotz

Raul

WOW: Memory cards for 48 series

*Message #3 Posted by **Bill Platt** on 3 June 2003, 1:19 p.m.,*
in response to message #2 by R Lion

WOW! These are really inexepensive! Are tehy still making tehm, then? How come so much more hp 48 activity seems to come out of germany?

-Bill

Re: Memory cards for 48 series

*Message #4 Posted by **DougT** on 3 June 2003, 2:00 p.m.,*
in response to message #2 by R Lion

I'm looking to get a RAM card or two for my 48GX. Used HP (or "HP Approved") cards are very expensive, but I did notice a number of German aftermarket vendors listed on www.hpcalc.org. Nice to hear that there's a satisfied customer of at least one brand!

Re: Memory cards for 48 series

*Message #5 Posted by **Wayne Brown** on 3 June 2003, 6:36 p.m.,*
in response to message #4 by DougT

I'm also a satisfied customer. I have a Klotz 2mb card, and I'm planning to order another one plus a couple of 128k cards in the near future.

Re: Memory cards for 48 series

*Message #6 Posted by **Ellis Easley** on 4 June 2003, 3:22 a.m.,*
in response to message #2 by R Lion

I'm a little confused about something. The website shows the products priced in Euros but the information about how to pay says the credit card will be charged in DM. Is that old info or do the old currencies still exist "under the surface"?

Re: Memory cards for 48 series

*Message #7 Posted by **R Lion** on 4 June 2003, 9:27 a.m.,*
in response to message #6 by Ellis Easley

All the currecies pre-euro have died. It's only old info in the web (actually I wrote him about it more than a year ago...)

Raul

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HP collectible on Ebay

*Message #1 Posted by **Ellis Easley** on 3 June 2003, 10:36 a.m.*

Youth oriented:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3525256961&category=2512

Looks like nobody is willing to spend $25 on it!

How far back does the "HP invent" slogan go? At what point did they find the need to remind themselves of what they did? What's the joke I'm trying to remember about the dumb guy who labels things and leaves himself notes so he won't get the simplest things wrong? (might be bawdy!)

Am I still the only RPN fan who feels personally insulted by the new HP advertising campaign that ends with a large equals sign?

more (think speed doesn't matter now?!!!)

*Message #2 Posted by **Ellis Easley** on 3 June 2003, 10:58 a.m.,*
in response to message #1 by Ellis Easley

this one is repeated many times:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3525301872&category=36506

this one mentions "new HP sponsorship":

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3524644164&category=223

this one is higher priced for some reason:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3524996626&category=2512

only one with bids right now ($11):

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3525805170&category=16482

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Question about HP-9114 disc drive

*Message #1 Posted by **HrastProgrammer** on 3 June 2003, 8:55 a.m.*

I am just finishing HP-IL emulation for my HP-71X MicroCode Emulator for HP-48GX and HP-49G (some details are on http://hrastprogrammer.tripod.com) and now I have a question about HP-9114 disc drive:

What is the real capacity of this device? From the manual, it has 2 surfaces, 80 tracks per surface, 16 sectors per track and 256 bytes per sector. This gives 2*80*16*256=655360 bytes as the total capacity. But LIF files extracted from the HP-9114 drive are 630784 bytes in size. What happened with the missing 24576 bytes ?!?

Best regards.

Re: Question about HP-9114 disc drive

*Message #2 Posted by **Ellis Easley** on 3 June 2003, 9:07 a.m.,*
in response to message #1 by HrastProgrammer

HP says in the 9114B manual (page B-1 in the manual on the Museum CD-ROMs #3) that they reserve some tracks for spares - actually it says all HP computers do. The stated capacity works out to be 77 cylinders so I guess they reserve the remaining 3 cylinders (6 tracks) for spares.

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PPC Rom Manual Addendum

*Message #1 Posted by **james (UK)** on 3 June 2003, 8:42 a.m.*

I have just started working my way through the PPC ROM Manual on the CDs. In the forward it is mentioned that it was planned to produce an addendum to the manual. Was this ever produced? My apologies if it is on the Cd - I majored in missing the obvious!

Re: PPC Rom Manual Addendum

*Message #2 Posted by **Ellis Easley** on 3 June 2003, 10:10 a.m.,*
in response to message #1 by james (UK)

I have a skinny (90 pages) PPC book published in 1983 called "HP41 HPIL System Dictionary". I got it from EduCalc years ago. It has a graphical chart of synthetic tones that says it corrects some timings in the synthetic tone table in the PPC ROM manual. Other than that, I don't think it is the addendum that was mentioned. It is an alphabetical list, with brief descriptions, of the most common HP41 terms and functions in the mainframe and some ROMs, plus some additional info like the synthetic tone chart and some PPC Journal reprints. It has more information about synthetic programming than HPIL, IMHO. Both were new at the time.

Re: PPC Rom Manual Addendum

*Message #3 Posted by **james (UK)** on 3 June 2003, 4:30 p.m.,*
in response to message #2 by Ellis Easley

Ellis, Thanks for the info - I agree it doesn't sound like the addendum - to quote from the forward to the manual

> Quote:
>
> A proportion fo the ROM fund is being held in reserve for a follow-up addendum that will include:
>
> Corrections for the errors found
>
> Description of any BUGs that may be found
>
> Additional examples
>
> Additional Applications Programs
>
> Suggestions for ROM or Manual improvement
>
> Review of project
>
> Conclusions and recommendations for future "user community" software development projects

Re: PPC Rom Manual Addendum

*Message #4 Posted by **Jake Schwartz** on 3 June 2003, 10:22 p.m.,*
in response to message #3 by james (UK)

No PPC ROM manual addendum was ever produced. It might have, had the PPC club not self destructed in the 1983 timeframe due to the board basically ousting Richard Nelson from the club. Nobody I know ever found out what happened to the quarter of a million dollars in the club kitty when Richard left.

Re: PPC Rom Manual Addendum

*Message #5 Posted by **james (UK)** on 4 June 2003, 8:37 a.m.,*
in response to message #4 by Jake Schwartz

Thanks Jake - I had a feeling that that was the case.

PPC self destruction

*Message #6 Posted by **John Smith** on 4 June 2003, 12:16 p.m.,*
in response to message #4 by Jake Schwartz

> Quote:
>
> It might have, had the PPC club not self destructed in the 1983 timeframe due to the board basically ousting Richard Nelson from the club.

It didn't self destruct, it was plainly, simply, killed, assasinated, murdered, butchered by a bunch of s**s, for lack of a more graphic name.

> Quote:
>
> Nobody I know ever found out what happened to the quarter of a million dollars in the club kitty when Richard left.

Go ask Emmett Ingram or Mr. Kennedy, that may shed some light. Emmett always insisted that PPC should be run as a business. It certainly was. At least for him and the rest of the gang. Does the title of a certain Woody Allen movie ring a bell ? The one with the soap gun.

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11c Voyager

*Message #1 Posted by **Ted** on 3 June 2003, 8:05 a.m.*

Well, I'm new here after years of my (continuing) love affair with my HP41C. And I know you guys are all going to yawn at this posting, but anyway here goes:

I just got my first Voyager series: an 11c from 1986. Via eBay. Quality turned out far better than I could have dreamed. Although I had once seen a Voyager type (probably a 12c) years ago, this is the first one I have ever owned- spurred on by the threads here and in archives.

Why this posting: just to comment on the fact that this series seems to be just fantastic for me as a newbie- I now understand completely why so many people are so enthusiaistically loyal. It's layout is wonderful, keys well spaced with secure solid movement, extremely compact, and the screen is very high contrast under all conditions. I truly don't know what you could make 'better' than the Voyager series for a calculator without whistles. And all that in 1986. If any original developers are around, then hats off to you all!

If I may, welcome to the "Voyager" gang...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 8:41 a.m.,*
in response to message #1 by Ted

Hi, Ted;

I'm an unconditional Voyager Fan; the other one I know is a declared fan is Valentin Albilo, that claims to love them. I take it as honest as almost all (if not all) of his proposed "quizzes" are voyager-related. As he, I prefer the HP15C: think of an HP11C with 2.5 × memory space (448 program steps), complex numbers handling, matrices handling, and the HP34C's like numerical integrate and Solver (AKA root finder). The HP11C is something, too.

Except for the HP10C, I have all others. And use them as well.

Best regards.

Luiz C. Vieira - Brazil

Don't you know more fans, Luiz? :-)

*Message #3 Posted by **R Lion** on 3 June 2003, 10:30 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

> Quote:
>
> the other one I know is a declared fan is Valentin Albilo, that claims to love them

Umm... thimk a little more: sure you know more Voyager fans...

Raul

Of course, my friend...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 11:12 a.m.,*
in response to message #3 by R Lion

... I just mentioned Valentin because he posted, at least twice here, the words: "I love Voyagers!".

I'm confident many others, you and I included, that have them as preferable ones. I know good mentionings are harmless, but they lead to responsabilities... ;^) As you posted now, I feel releaved.

Thank you.

Luiz C. Vieira - Brazil

(I'm still worried about your HP15C; I sent you an e-mail a few minutes ago)

Voyagers rule ! [LONG]

*Message #5 Posted by **Valentin Albillo** on 3 June 2003, 1:00 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz's right, I've always loved Voyager series calculators since I was presented with a beautiful HP-11C by my good friend Fernando del Rey (hi, Fernando !) some 22 years ago.

I was the proud owner of a fully fledged HP-41C at the time, yet was impressed with the sheer quality of that early, USA model 11C. I found it utterly amazing, elegant, stylish, cool, it transpired overall quality, so much so that I took it with me for a year in the military, out there in the desertic sands of some African region.

It withstood incredibly hot weather, dust, everything, always working and looking perfectly. I wrote several programs for it during my stay, and everyone there (not the most knowledgeable people on calculator matters, to be sure, though they were amenable) was most impressed with it, to the point that I had to *very politely* decline the request of a certain top brass who wanted to purchase it from me. It still is with me, looking mint and working flawlessly, with its recently installed third set of batteries.

Now, if the HP-11C is amazing, the HP-15C is simply unbelievable, the best pure calculator in the world, hands down. It has everything the HP-11C has, and much, much more. Would you believe it has more than 150 different STO (store) instructions, for instance ? Even though the Voyager series were released as a stopgap series while work on the HP-71B continued, to the point of not having any internal codename, the HP-15C was much more powerful than the mighty HP-41 in many ways.

For instance, its batteries would last forever, no NiCd's to corrode contacts. It was better built, its display was much more readable. It had more memory for programs or data than the basic HP-41C, and further most of the instructions took only 1 byte. It had a tremendous instruction set, including all 12 conditional tests and recall arithmetic, hyperbolics, gamma, random numbers, linear regression, 7 levels of subroutines. And to top it all, it had fast, microcode matrix operations, including system solving, full support of complex numbers including a parallel RPN stack and all arithmetic and trascendental functions, and last but certainly not least, Solve and Integrate.

In a word, I could do things with it that would be impossible to do in a basic HP-41C, and would requiere lengthy programming to achieve and a lot of money for extra RAM (no HP-41CV/CX then, no Quad RAM module, no Advantage ROM) to try and achieve them somehow, even if by means of slow and lengthy user code programs. It's no wonder that I would admire and treasure the HP-15C, then. Further, everything was

so well thought in its design that you would normally find several ways to do the same difficult thing with it. You felt there were no arbitrary limitations at all. If some combination would make sense, most probably it was available. All features were integrated and complemented each other perfectly, most served for several apparently unrelated purposes.

There's never been anything like the HP-15C, there never was before, and there never will be in the future, as long as replicators do not enter the scene. I've said it before and I'll repeat it once more: get yourself one before the prices are impossible. Now, they're just very expensive. Soon, they will be unaffordable. And time is *not* on your side.

Re: Voyagers rule !

*Message #6 Posted by **Bill Platt** on 3 June 2003, 1:43 p.m.,*
in response to message #5 by Valentin Albillo

Valentin,

Now you are making such a good case for the 15c that the price will probably double in the next week;)

But seriously, the 15c was the model that I really wanted to get, back in my college days, but the 11c was good enough for my relatively simplistic needs.

It is absolutely true that the layout of the 15c, and also the 11c, is just about perfect--in the sense that the locations of functions are logical, and complementary.

But I have found the 32sii to be nearly as logical--though the menus sometimes still give me consternation (it is so much more straightforward when all functions are on keys). I do not use matrix calcs much, and never complex numbers, and so that is why I am happy with the 32sii. But I really like the 48G for its list operations.....that is another topic. And the menus there *really* consternate...it takes a lot of practice.....

I am very curious about your thoughts on the design and effectiveness of two other calculators---in fact the ones that, I suppose, inherited the 15c market position: the 42s and the 48 series. What are your thoughts?

It seems that HP carried out a major consolidation in their RPN line in the late 80's throug hthe 90's--as they added Algebraics to the mix.

At the beginning of the 80's (correct me if I'm wrong) we had scientifics, simultaneously, 34c, 41C, 10c, 11c, 15c, 16c (sort of a scientific) ,and of course 41v/x later, and 28c/slater and no 10c initially, and dropped 34c. But the point is that they maintained 11c, 15c, 41 simultaneously, then had 32s, 42s, 41 simultaneously, and then we end up with just the 32sii and 48---no "middle ground" or really, no high end pure calculator anymore. Yet all those algebraics proliferated, 20s 21s 22s 27s 10b 17b 19b.

So entering the 80,s there were 4 simultaeous scientific models, and in the mid 90's just 2 (or 1.5, to account for the graphing).

regards,

Bill

Re: Voyagers (also) Rule!

*Message #7 Posted by **Michael F. Coyle** on 3 June 2003, 7:14 p.m.,*
in response to message #6 by Bill Platt

Hi Bill,

I just posted a message in another thread singing the praises of Woodstocks, but I don't think there's a requirement that I be monogamous to one calculator, or even to one product line, so I guess it's okay. Since you also wanted to know how the 48 fits into the big scheme of things, I'll also include my comments on that too, at no extra charge :)

My day-in, day-out machine is an 11C. (I also have a 16C but use it less.) It is actually my third 11C (I lost the first and the second one died). I have never tried the 15C; my work never needs complex numbers and I don't do matrix math very often, so the 11C is all I've ever needed.

The reliability is fine, battery life approaches the infinite, and I find the key layout intuitive. I also like the ability to stuff it into a short pocket.

A few months ago, I decided to get a 48GX, for two reasons: I wanted to leave the 11C safe at home, and I wanted to play with something new and advanced. RPL looked interesting. I decided against the 49G due to its rubbery keys and regretable color scheme. I figured I had better buy now. I was worried that HP might replace the 48 with something of poorer quality, and then I'd be stuck trying to by a used 48. But if HP did replace the 48 with something better, I could always upgrade.

My feelings about the 48 are mixed. I have really enjoyed owning and using it. RPL is a very good language, with good structured programming concepts and support for powerful data types, such as lists. Recently, I had to spend a day at the doctor's office with my father. I used the 48 to compute and plot Fourier transforms of some data relating to a project. I can't think of any other platform this small that would have been as easy to use.

But...the 48 is big. Since it doesn't come with a cover to protect the LCD, I had to buy a hard case. It still fits into my briefcase, but takes up a lot more room than the 11C. It also takes more keystrokes to get simple jobs done. This is a real pain -- on the 11C no function was more than two keystrokes away.

So I'd say that for me, the 48 is a qualified success. It's very powerful and easy to use for large problems but too big and cumbersome to be a truly satisfactory 11C replacement. I don't think that it's just a toy, suitable for students but not real engineers, as some here have suggested. (Though for me, it scores very highly as a truly educational toy -- and here I mean "toy" in it's best sense.)

Fred A. Valdez, HP's head honcho calculator guy, promises new scientific calculators that "...will be offered at *several different price points* in order to give our customers *more options* and more value." (Italics mine.) I sure hope so. Graphing calcs are fine, but we desparately need a simpler high-quality shirt-pocket RPN machine. Hopefully they have something good in the pipeline. (And maybe someone from HP is reading this and will make me a beta tester!)

- Michael

Do you have a dead HP11C?

Message #8 Posted by ***Vieira, Luiz C. (Brazil)*** *on 3 June 2003, 11:29 p.m.,*
in response to message #7 by Michael F. Coyle

Hi, Michae;

You wrote:

> Quote:

> It is actually my third 11C (I lost the first and the second one died).

What happened to it? If it is still with you, aren"t you interested in gioving "the girl" a second try?

If so, let us know. Let's rock this babe up!

Luiz C. Vieira - Brazil

Re: Do you have a dead HP11C?

*Message #9 Posted by **Michael F. Coyle** on 4 June 2003, 1:04 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Hi Luiz,

No, I don't have the dead 11C. When it stopped working I sent it in to HP; they sold me a replacement 11C. (Made in Brazil, S/N 2908Bxxxxx, with painted-on key legends. Has worked fine for >= 10 years now.)

I don't have any broken calculators here but I'll try to fix that in the future :)

- Michael

Re: Voyagers rule ! [LONG]

*Message #10 Posted by **Valentin Albillo** on 4 June 2003, 7:02 a.m.,*
in response to message #6 by Bill Platt

Hi Bill & everyone reading this thread:

Bill posted:

*"I have found the 32sii to be nearly as logical -- though the menus sometimes still give me consternation [...] I really like the 48G for its list operations [...] and the menus there *really* consternate"*

That's the problem: I do not want to be *consternated* by my chosen calculator, but *awed*, delighted. Nothing in the HP-15C causes consternation. On the contrary, you feel *awed* by how everything fits and how complete the instruction set is, by the lack of arbitrary restrictions and senseless nuisances imposed not by any sound engineering principles but for the sake of questionable marketing ideas and cost reductions.

"I am very curious about your thoughts on the design and effectiveness of two other calculators---in fact the ones that, I suppose, inherited the 15c market position: the 42s and the 48 series. What are your thoughts?"

Well, answering questions like yours is bound to upset a number of people if they happen to disagree with my views about their beloved calculators, but keeping in mind that *this is just my own, personal, humble opinion and I make no pretense to be the one who is right*, here it is:

Reusing the formerly expressed concept, I find that both models, the 42S and the 48 series do *consternate* me. Big time.

Take for instance the 42S. It could have been a terrific, worthy successor for the 41CX. It has

nearly full compatibility and lots of well-conceived extensions. But then lightning did strike and we were left with much cause for consternation, both minor and major. Among the minor, the dreadful menus, most noticeably the alpha menu, forcing you to press several keystrokes for a single alpha character in a machine that so badly needs to have a quick way of spelling function names to avoid navigating menus all the time.

Among the major, the fact that it has relatively large RAM (7Kb/32 Kb) but *no I/O* is a BIG consternation, if there ever was one. It's such a letdown as to render the machine unsuitable for most of the uses the HP-41C was put to. With my 41CX, I had lots of card holders, and felt comfortable with the thought that I could load any of those wonderful programs in the machine in seconds. No fast changing of batteries. No dread of memory lost when playing with synthetics. No problem erasing a 1,000 line Othello program in order to fit something new, I could reload it most easily. All that is lost with the 42S, and that does consternate me. Also, the fact that its internals uselessly mimic 41CX codes makes it far slower than it should, and it's maddening to know that it's a *completely pointless degradation*, as there's no use in mimicking internal 41C codes if there's no way to load a 41C program recorded on cards, tapes, disks, or some other mass storage devices.

So, the 42S is useless to me. For use as a calculator, I still feel the HP-15C can easily hold against it. For use as a 'program runner', I'll never feel confident painfully keying in a large program or programs, to see them turn into thin air when changing batteries or for some other reason, or having to remove them to make room for data or other programs, at the cost of having to key them again. This is not an issue for 448 bytes of RAM, but certainly *is* for 7,000 or 32,768 bytes for that matter.

And as far as specifications and features go, if I ever need more pocketable computing power than my HP-15C has, I never resort to the HP42S, but to my trusty HP-71C, which together with its 160 Kb RAM, Math ROM, and Forth/Assembler ROM can run rings around anything the 42S can offer in terms of functionality, programmability and ergonomics, not to mention I/O.

As for the 48/49 series, there the consternation reaches epic proportions, but as this message is already way too long, I'll leave that for another suitable occasion. Let me say just one thing: the 48 series is RPN/RPL's "Peter's Principle" come true. Nuff said ! :-)

Best regards.

Edited: 4 June 2003, 7:28 a.m.

Re: Voyagers rule !

*Message #11 Posted by **Ellis Easley** on 4 June 2003, 9:16 a.m.,*
in response to message #10 by Valentin Albillo

It might mean something that the 15C has the highest "list price" at the "hpcalcman" web site (a retail outlet of used HP calculators that is advertising in the Museum classified ads right now).

I agree in almost all...

*Message #12 Posted by **R Lion** on 4 June 2003, 6:34 p.m.,*
in response to message #10 by Valentin Albillo

I agree with you in the 15c!!: the best "pure" calc.

The 42s is a great machine but I agree with you in the big consternation of no I/O with so large RAM. (and it is ugly, isn't it? :-P)

...but I can't feel the same about the 48: be patient with RPL and the menus and you'll be

rewarded with one of the most powerful and incredible machines...

Sure Voyager rules,...and the 48 with good software... wow!

Raul

(as you said: *just my own, personal, humble opinion and I make no pretense to be the one who is right*)

Re: 11c Voyager

*Message #13 Posted by **james (UK)** on 3 June 2003, 8:48 a.m.,*
in response to message #1 by Ted

I've been impressed by the feel and look of the Voyagers as well. I picked up a 12C a week ago to try one out - has a nice quality feel to it but I miss the <-R from my 41, not to mention the letters. Of course, having used the 12 I now lust after a 15C, but not at $300 upwards!

Re: 11c Voyager

*Message #14 Posted by **Ron Ross** on 3 June 2003, 9:53 a.m.,*
in response to message #13 by james (UK)

The 12c is a poor comparision to the 11c or 15c as THEY DO HAVE number delete and NOT X register delete. The 12c would substitute for Stats and is a good financial, BUT IT IS NOT A scientific!

I am a big fan of the 15C also. I actually like the layout of the Voyager's best, nice size, etc.

Re: 11c Voyager

*Message #15 Posted by **David Ramsey** on 3 June 2003, 11:16 a.m.,*
in response to message #14 by Ron Ross

OK, what's so great about the Voyagers?

Fortunately, I started collecting HP handhelds about 20 years ago (triggered by stumbling across my 19C in my garage), and my collection now is pretty much complete. To rub it in I'll note that I was able to simply walk into stores and buy th 10, 11, 15, and 16C off the shelf, and except for the 16C they've never really been used. Wish I'd kept the boxes, but who knew? At the time I didn't even _know_ anyone else collected the things!

The Voyagers are tiny and fit well in a shirt pocket, but I find their "sideways" format less satisfying to hold in the hand. I'd grab almost any "vertical" HP calc first for real use.

Re: Why

*Message #16 Posted by **Ron Ross** on 3 June 2003, 12:08 p.m.,*
in response to message #15 by David Ramsey

First, if you do use a calculator with one hand, the Voyagers will never work that well for you.

But when I carried the 15c, it was in my pocket while I carried my books to class. Then it went onto a desk, either at a library or class or lab. Since it was my first Hp, I grew to love that paticular layout. It is very intuitive and the calculator is better made than anything Hp ever released afterwards (actually, better made than any before as well, and they were made to be repaired, though I suspect they weren't).

However, for power and ease of use, the 42s does blow it away. I use the 42s much more and it is a big step up. However, if all I needed was an RPN scientific, I would go back to the 15c (okay, it really is all I need, but I like my security blanket).

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Am I going nuts???

*Message #1 Posted by **Naim** on 3 June 2003, 5:55 a.m.*

I programmed my HP 42S. Then I ran a program [very long 450+ lines]. Then it gives me wrong answers, in fact the calculator doesn't even stop for the last prompt. I ran this program no less than five times looking through the program after each answer. No typos in the program listing. Then without making any changes to the program it starts to work, and give accurate results. Is this possible?

Re: Am I going nuts???

*Message #2 Posted by **Erik Ehrling (Sweden)** on 3 June 2003, 7:51 a.m.,*
in response to message #1 by Naim

Sure you didn't change an modes (e.g. polar/rect, size etc.)?

Best regards, Erik Ehrling (Sweden)

Re: Am I going nuts???

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 8:55 a.m.,*
in response to message #2 by Erik Ehrling (Sweden)

Hi;

Based on Erik's clever question, I'd add this one: the program itself, doesn't it wrongly change any flag?

I'd like to have a look at it; can't you cpollect it through an HP48 and send me the listing? I'd gladly try to find what's going on.

Do you have any HP48 (G/G+/GX/S/SX) with INPRT program? Or even an image of the program listing?

If you want to give it a try, be my guest.

Luiz C. Vieira - Brazil

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BatteryLife_your record

*Message #1 Posted by **bill platt** on 2 June 2003, 10:23 p.m.*

There have been some posts recently about battery life. Let's see what sort of records we can break!

Mine is my wife's Elsi Mate (not an HP, oh well). 1981 and still going strong

22 years.

A picture is at:

http://home.earthlink.net/~plattdesign/

More records see:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=35281

Re: BatteryLife_your record

*Message #2 Posted by **Trent Moseley** on 2 June 2003, 10:53 p.m.,*
in response to message #1 by bill platt

I have an Elsi Mate (Sharp EL-8061E) serial #06014759. It used up so many batteries that it's been in the drawer unused for ten years!

tm

Re: BatteryLife_your record

*Message #3 Posted by **hugh** on 3 June 2003, 7:19 p.m.,*
in response to message #1 by bill platt

it will be early LCDs that still used AA zinc carbon cells. after the early 80's they quickly figured out the madness and changed to button cells.

casio fx82 (all 6 of them) and the fx180p were like this. ah, but younger than '81.

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Hey Dave! HP Museum Bandwidth Theft

*Message #1 Posted by **Mike** on 2 June 2003, 9:40 p.m.*

Not only did this person take an HP photo, he didn't even host it anywhere else. He is just using HP Museum bandwidth for his eBay auction.

There is only 15 hours left but maybe Dave wants to play some tricks in the next 15 hours.

HP-12C auction (bandwidth theft) (unless goldcoaster is from HP Museum :-)

Edited: 2 June 2003, 9:44 p.m.

I dunno

*Message #2 Posted by **Dave Hicks** on 2 June 2003, 10:56 p.m.,*
in response to message #1 by Mike

It looks like more than "very minor" wear to me...

Edited: 4 June 2003, 1:22 a.m. after one or more responses were posted

Re: I dunno

*Message #3 Posted by **Don Davis** on 2 June 2003, 11:22 p.m.,*
in response to message #2 by Dave Hicks

Awesome - the best response of all!!

Don

Re: I dunno

*Message #4 Posted by **James M. Prange** on 2 June 2003, 11:54 p.m.,*
in response to message #2 by Dave Hicks

It'll be interesting to watch and see whether any bids are cancelled.

Regards,
James

ROTFLL - Where is my acrobat writer ?

*Message #5 Posted by **Renato** on 3 June 2003, 1:37 a.m.,*
in response to message #2 by Dave Hicks

Gosh, no acrobat writer here at home. If it is still there when I get to work tomorrow I will save this page - it sure deserves to be saved.

Dave - YOU ARE AWESOME. This is even more hilarious than the paper calc of weeks ago.

Renato

HA HA HA HEEE HEE HEE HO HO HO

*Message #6 Posted by **Norm** on 3 June 2003, 1:57 a.m.,*
in response to message #5 by Renato

Dave you are the best!!!!!!!

Outstanding humor. Everybody here at HP Museum is just tops, when it comes to technical excellence, accomodation of wild ideas, and good humor all around.

Dave, PLEASE KEEP IT THAT WAY for at least one week. I just forwarded a bulletin to all of MY buddies and I want that auction to stay posted just like it is for awhile.

I e-bay-mailed the seller!! With a 'question to seller' !! The thing is, how am I supposed to add and subtract if the dog chewed the buttons off ?

I asked him if he had the missing chunk and whether I could glue it back onto there ?????

MORAL OF THE STORY:

"DO NOT STEAL PHOTOGRAPHS FOR YOUR EBAY AUCTION

UNLESS YOU ARE POSITIVE YOU WILL GET AWAY WITH IT".

- Norm

I have made a copy of the full page

*Message #7 Posted by **Mike** on 3 June 2003, 2:00 a.m.,*
in response to message #5 by Renato

I used MSIE and made a full copy of the page, as it is now. It is preserved for posterity :-)

How many Kill-O-Bites

*Message #8 Posted by **NH** on 3 June 2003, 12:54 p.m.,*
in response to message #7 by Mike

How many Kill-O-Bites does that calculator have anyway?

It looks like its a ONE kill-o-bite calculator.

Plus a few other bits also.

Re: I dunno

*Message #9 Posted by **james (UK)** on 3 June 2003, 8:36 a.m.,*
in response to message #2 by Dave Hicks

ROTFLMAO - Fantastic, absolutely fantastic

Re: Hey Dave! HP Museum Bandwidth Theft

*Message #10 Posted by **Ted** on 3 June 2003, 1:43 a.m.,*
in response to message #1 by Mike

Thanks for making making my day! I almost spilled my morning coffee laughing at this one ! Fantastic !

Four hours to go and...

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 8:49 a.m.,*
in response to message #1 by Mike

... the "original" picture is still there.

Poor soul...

Re: Four hours to go and...

*Message #12 Posted by **James M. Prange** on 4 June 2003, 1:25 a.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

It's over. Is US$36.00 a good buy for a 12C "with only very minor show of wear"? If so then the "winning" bidder should perhaps send Dave a big Thank You, if he knows what happened.

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HP41CY???

*Message #1 Posted by **Ellis Easley** on 2 June 2003, 8:35 p.m.*

Ebay auctions are frequently discussed here (to the dismay of some!), what about a Museum Classified Ad?

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/adforum.cgi?read=10080

What in the world is an HP41CY?

Re: HP41CY???

*Message #2 Posted by **Gene** on 2 June 2003, 10:41 p.m.,*
in response to message #1 by Ellis Easley

It was an HP-41c that had undergone surgery to have a 2X speed up installed. Was switch selectable, I think. Had one once...was fairly unstable.

Sorry, completely wrong ! [Was: Re: HP41CY???]

*Message #3 Posted by **Raymond Del Tondo** on 3 June 2003, 6:11 a.m.,*
in response to message #2 by Gene

Hello Gene,

an HP-41CY is an upgraded HP-41CX. These were only available from W&W Software Products.

It has the 'Turbo' switch, of course, which nearly doubles it's CPU clock speed.

But the most important fact: It has a 64K RAM box built-in.

And about stability: Many years ago I helped making some Baustatik (civil engineering?) programs especially for the HP-41CY. Some of the programs forced bank switching to call routines from the other 32K block, and vice versa.

The machines and programs worked very well, and very stable.

Regards,

Raymond

About W&W: another fact

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 9:04 a.m.,*
in response to message #3 by Raymond Del Tondo

Hi;

W&W is the same German co. that produced the desirable CCD ROM (Computer Club Deutschland).

Just a small comment...

Luiz C. Vieira - Brazil

Edited: 3 June 2003, 9:05 a.m.

Re: About W&W: another fact

*Message #5 Posted by **james (UK)** on 3 June 2003, 9:06 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Damn! Another ROM to lust after!

Re: About W&W: another fact

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 11:16 a.m.,*
in response to message #5 by james (UK)

Hi, James;

Haven't you been told about it? From CAT'1 to CAT'F to matrix operations, synth instructions and extended ALPHA characters included, brief report... Amazing module. Some contributors are fortunate owners...

Luzi C. Vieira - Brazil

Re: About W&W: another fact

*Message #7 Posted by **David Smith** on 3 June 2003, 3:45 p.m.,*
in response to message #5 by james (UK)

Aye, lust mightily ye must. They are VERY hard to find and VERY expensive when you do. The last couple sold brought over $400 each... and worth every penny.

Re: About W&W: another fact

*Message #8 Posted by **Raymond Del Tondo** on 4 June 2003, 5:01 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Yes, IMHO the CCD ROM is one of the most important HP-41 modules, besides X-Functions, HP-IL and HEPAX, of course;-)

Raymond

Re: Sorry, completely wrong ! [Was: Re: HP41CY???]

*Message #9 Posted by **Gene** on 3 June 2003, 9:46 a.m.,*
in response to message #3 by Raymond Del Tondo

Oops! :-) Then I didn't have a 41CY. I had one with a built-in 2X switch, but not that lovely beast. :-)

Re: HP41CY???

*Message #10 Posted by **Juergen (CH)** on 3 June 2003, 3:04 a.m.,*

in response to message #1 by Ellis Easley

Matthias Wehrli has one:
http://www.hp-collection.org/Rechner/hp-41cy.htm

Re: HP41CY???

*Message #11 Posted by **Howard** on 3 June 2003, 7:31 a.m.,*
in response to message #1 by Ellis Easley

I would say Klaus is thanking you all as you have most probably doubled the price of his HP41CY calculator.

Re: HP41CY???

*Message #12 Posted by **Raymond Del Tondo** on 3 June 2003, 7:54 a.m.,*
in response to message #11 by Howard

However, I think we're supposed to give serious comments, aren't we? Ok, apart from some nice jokes, of course;-)

Raymond

Re: HP41CY???

*Message #13 Posted by **John Kercheval** on 7 June 2003, 1:59 p.m.,*
in response to message #1 by Ellis Easley

I have a 2X speed machine. Where can I get the 41CY name plate as shown in the photo?

John

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Connecting 2 HP41 thru HPIL

*Message #1 Posted by **jose goncalves** on 2 June 2003, 7:08 p.m.*

Is it possible to connect 2 HP41 thru HPIL ? If possible, which one will be the controller ? What type of data exchange is possible ?

Re: Connecting 2 HP41 thru HPIL

*Message #2 Posted by **Juergen (CH)** on 3 June 2003, 3:07 a.m.,*
in response to message #1 by jose goncalves

Jose,

this question was discussed some times ago on this forum. Try to search the forum archive.

Regards, Juergen

Re: Connecting 2 HP41 thru HPIL

*Message #3 Posted by **Christoph Klug** on 3 June 2003, 5:18 a.m.,*
in response to message #2 by Juergen (CH)

Hi Jose,

connecting two HP41 by HP-IL is possible with two IL-RS232 interface or two HP82166A IL-Converter units. Exchange of data and programms would be possible.

Today a much better solution would be working with the full version of EMU41 which also includes HP-IL support. Also interfacing a real HP41 to EMU41 is possible - including exchange of data, programms and any type of files (ASCII, matrix, NNN´s...).

Upload data from HP-41 to EMU41 - than change the handheld and download data to the second HP-41. For this you only need the IL-Module and HP-IL/PC Interface Card - that is all. Furthermore this solution gives you much advanced features like emulator, barcode plott, exchange to PC world and web, mass storage, printer....

More about this you read in HP-museum article forum item 311 "HP41/PC gateway & emulator".

Best wishes from Germany - Christoph Klug

Re: Connecting 2 HP41 thru HPIL

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 8:59 a.m.,*
in response to message #3 by Christoph Klug

Hi, José;

the biggest problem is that the HP41 cannot be anything but a controller in its own loop, i.e., two HP41 will conflict if connected with the same "wiring". That's why it's needed extra "logical isolation" through the proposed converters.

I have never testes an emulator becasue it needs that expensive and rare IL board for the PC.

Regards.

(I'm waiting for your package)

Luiz C. Vieira

Edited: 3 June 2003, 9:08 a.m.

Re: Connecting 2 HP41 thru HPIL

*Message #5 Posted by **HrastProgrammer** on 3 June 2003, 9:49 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I have never testes an emulator becasue it needs that expensive and rare IL board for the PC.

Hi Luiz,

Just be patient a few weeks and I think you will be able to test HP-41X with HP-IL support - without need for any external hardware: just your HP-49G and a PC :-)

Best regards.

That's Great!

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 3 June 2003, 10:56 a.m.,*
in response to message #5 by HrastProgrammer

Hi, Hrast;

great news!

I'm sending you an e-mail right now about other subjects.

Best regards.

Luiz C. Vieira - Brazil

Re: HP-IL/PC Interface Card

*Message #7 Posted by **Christoph Klug** on 4 June 2003, 7:50 a.m.,*
in response to message #5 by HrastProgrammer

Remember :

It is easy to get the rebuild HP-IL/PC interface card from me - and the price is absolutely fair - because you are not able to complete a pcb plus exotic electronic parts by yourself for this price. The great idea behind this project is to interface the HP41 to PC world - and some HP enthusiasts from Germany, France, Great Britain and USA helped to realise this nice project....

Best wishes from Germany - Christoph

Re: HP-IL/PC Interface Card

*Message #8 Posted by **HrastProgrammer** on 6 June 2003, 1:12 a.m.,*
in response to message #7 by Christoph Klug

Do you have a driver for Windows or Linux? If so, I would consider buying the card.

Best regards.

Re: HP-IL/PC Interface Card

*Message #9 Posted by **Christoph Klug** on 6 June 2003, 4:13 a.m.,*
in response to message #8 by HrastProgrammer

Hallo HrastProgrammer,

TRANS41 and EMU41 are DOS solutions and running also under WIN-98. For WIN-XP/2000/NT exist a special sopftware tool for addressrouting...

Best wishes - Christoph Klug

Re: HP-IL/PC Interface Card

*Message #10 Posted by **HrastProgrammer** on 6 June 2003, 4:43 a.m.,*
in response to message #9 by Christoph Klug

DOS applications and Emu41 aren't of any interest to me.

I am thinking of adding the capability to communicate with external HP-IL devices from my Windows (or Linux, in the future) HP-IL client for HP-71X emulator. So, I need to access HP-IL card from Windows (or Linux) application. Would it be possible? Is the documentation about internals of the card (registers, etc.) available (and where)?

Regards ...

Re: HP-IL/PC Interface Card

*Message #11 Posted by **Christoph Klug** on 11 June 2003, 5:26 a.m.,*
in response to message #10 by HrastProgrammer

Please contact Jean-Francois Garnier....

Best wishes from Germany - Christoph Klug

Re: Connecting 2 HP41 thru HPIL

*Message #12 Posted by **The Professor (local joke)** on 6 June 2003, 9:14 a.m.,*
in response to message #1 by jose goncalves

If you can find the book published by Osborne / McGraw-Hill with the Title "The HP-IL System: An Introductory Guide to the HP Interface Loop" you may find enough information to assist you along the way. I may have another reference somewhere in my collection. I will let you know. It won't be in the next day or two but some time late next week. Hank

Re: Connecting 2 HP41 thru HPIL

*Message #13 Posted by **Massimo Gnerucci (Italy)** on 6 June 2003, 9:49 a.m.,*
in response to message #12 by The Professor (local joke)

Hrast, I have this book. Let me know if you need it.
Massimo

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$$$$$$ WOW !! $$$$$ HP-15C

*Message #1 Posted by **Norm** on 2 June 2003, 3:33 p.m.*

I was just saying I would take a 32S over a 15C, but look at these wild animals paying the moon for one, on eBay:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3028175897&category=11713

****

The auction has got 6 days to go, and the bid is already at $305 for an HP-15C that is mint. Think it will set a record ?? I encourage everybody to go over and bid. See how high it can go. Lets set a record for eBay mania here. Lucky dog, found it at a garage sale. Like a winning lotto ticket. (Well, I did the same just recently.)

Wow that Carly sure was smart to get rid of all the engineers calculators like this one. Can't have the company making sales and profits, no sirree, when it comes to making money, use stock swindles, not profits from customers. Customers are the worst way to make a buck. they are so whineeyy . They want their 15C 's, they want their 32Sii, they want their 42S, why, they can just go away, lousy old customers. Carly wants $50M right now. Give it here. Customers dont have that kind of dough, gotta find a faster way.

Those customers are so annoying, why, Carly throws the dog a bone, lets them have a 12C. Now the customers say a 12C is not the same as a 15C??? What a bunch of pests, give 'em an inch and they take a mile.

Hey, did they get rid of that HP-15C sticker on the back in the later models? The sticker that talks a little about mathematics? I mean, its probably a 30 cent sticker, I doubt they would want to spend the money on that, owing that it just goes to some stinkin' rotten paying customer. Bet they got rid of it when the production hit full stride.

Re: $$$$$$ WOW !! $$$$$ HP-15C

*Message #2 Posted by **Bill Platt** on 2 June 2003, 4:07 p.m.,*
in response to message #1 by Norm

hi Norm,

That really is mint, though. Like, virtually every other listing is *missing* something--either the box, a manual, a rubber foot, has a scratch, etc.

I would say that it looks flawless and you have to remember, we are now into the collectible phase of the HP--not just the utilitarian.

It is the powerful pull of "I GOTTA HAVE IT!!!"

Also, someone else posted here with an important economics point: Yes, the prices soared when the 32sii went out of production, etc, which would lead you to believe that further manufacturing is justified. But it is not that simple, because if the distribution of potential buyers' prices is gaussian, then a relatively small number of real buyers can drive up the price to a high value. Yet, manufacturing efficiency requires volume, or a certain minimum production per shift etc, and so at some point the "curves cross" as it were and voila, no more manufacturing, yet high trade prices.

I think about this frequently, as this dynamic seems to affect almost all the products I like to use--not just collect. The same thing seems to have happened to classic Campagnolo bicycle pedals.....

Regards,

Bill

Re: 15C and Carly bashing (long)

*Message #3 Posted by **Randy Sloyer** on 2 June 2003, 7:43 p.m.,*
in response to message #1 by Norm

Norm,

While I dislike the current situation with RPN calculators as much as the next person, I just don't understand your Carly rants. What the heck does she have to do with it? I'd be willing to bet a paycheck she personally didn't make the decision to scuttle the calculator business. She was hired by Hp's board of directors to do one thing: MAKE MONEY. Calculators didn't make enough money, it was a economic decision that meshed with their reduction in manufacturing capacity, just like every other business in the world today. Outsource it if you can. Calculators became a casualty of modern business. Her job is to make money for the shareholders of HP and make it she must, based on her salary. If she didn't make it, she wouldn't be earning it. She would be gone in a flash if she didn't produce. Yes, she represents a change in corporate culture and I suspect that is what she was hired to do. If the Board of Directors and the shareholders don't like it, they have the power to change it. Buy just one share of stock so you can go to the meetings and voice your opinion.

Since this opened about a 15C at $300 at counting, a good question is why can't you buy a new 15C today? Because they didn't sell. Period. Ugly truth. Just because they would sell here, today to most of us, does not mean they sold well enough fifteen years ago. They were victims of technology. The 42S, the same thing. When the 48 series was introduced, it replaced all previous models of the same or lesser capacity. Makes sense, doesn't it? Faster, more functions, more memory, cheaper, better battery life, etc,etc. Just as you malign your 32S for collecting dust under the lens, don't forget how it came to be. It was a lower cost, aka disposable model that represented advancements from the previous ones. You know, the ones that glow red in the dark. Every calculator series had its advancements and improvements with the normal trade-offs. It's just that calculator technology advanced to the point of missing the point. It went full circle to where some people felt they were no longer needed. You can get an RPN emulator for a PDA right? Why do we need a silly little calculator. That's something you balance your checkbook with, or figure out how much a mortgage will cost. That still keeps the 12C going. Advanced calculators were far eclipsed in power by a lowly PDA. It made sense to the product and marketing people. Kill the calculator. One only needs to look to a typewriter for a similar evolution. Go try to buy one today. It is ironic that my first HP came from a company that also sold typewriters and office equipment.

I have come to feel the reason for the rarity of new RPN calculators is because HP missed the boat. Not the boat of new, better and lower cost models, but because of the belief that RPN is better. You can't argue the differences in color with a blind man, the same way you can't argue RPN is better when the person only understands what an equals key does. All they want is an answer. Where is the key for that? It's the adding machine mentality. If they had built a dual mode unit years ago, and they could easily have done so, they would have been, in many cases, selected for their higher quality. I'll bet with a good manual, many people with a dual-mode unit would have explored RPN, had the eureka and never looked back. RPN could have been an extra credit course in schools.

I've really gone off topic here with the calculator history as seen by me. I guess all I wanted to say was, enough of the Carly bashing, alright? Sure, you're entitled to your opinion, but I for one, grow tired of the same mantra post after post. Sure, vent it a couple of times, it's good for the soul. But after that, what purpose does it serve?

I enjoyed the adventures of Captain Zener and would prefer it over this kind of stuff.

Re: 15C and Carly bashing (long)

*Message #4 Posted by **bill platt** on 2 June 2003, 9:16 p.m.,*
in response to message #3 by Randy Sloyer

Randy,

Good point, and also: if only Apple Computer had marketed their Macintosh GUI dually onto their own hardware, and onto 8086 platforms.....

Carly Bashing: Justified

*Message #5 Posted by **J.C. Randerson** on 3 June 2003, 12:20 a.m.,*
in response to message #3 by Randy Sloyer

Whether in the military, royalty or a large corporation, the chief sets the tone. Here, the bean counting of Her Majesty Queen Carly was excessive, in order to pay for the acquistion of Compaq. Most HP old timers, along with the relatives of Bill and Dave, were vehemently opposed to the buying of Compaq. Many old HP traditions and departments, including calculators, were sacrificed to do this. She has started a new bad tradition: an art history major mismanaging a technology based company. She doesn't have the slightest notion of gadgetry, probably uses a Casio to balance her checkbook, sigh...

J.C. Randerson

Re: Carly Bashing: Justified "I second it"

*Message #6 Posted by **Ron Ross** on 3 June 2003, 8:24 a.m.,*
in response to message #5 by J.C. Randerson

It is indeed justified! If you had any dealings with Hp Corporate today vs ten years ago, you would definitely notice a different philosphy now compared to the past. While many may say Hp had to evolve to continue to be profitable (and no company can stand still), it SHOULD NOT have stepped into a 5& 10 direction.

Hp's calculators were more than a profit vehicle. The Hp calculator introduced me to their whole company on a positive note. When I went into the real world (I worked in R&D and process controls for much of my career), I favored HP instruments, because I KNEW they were the BEST.

Now all Hp really sells (they buy clones) is PC's and printers (yeah, they do make those, yet). And, oh, I forgot, Kingpo calculators! And they sell services (software and support).

Back to my point. Is CARLY wholy responsible? No, But she is a major reason why.

I agree with Randy

*Message #7 Posted by **Larry Corrado, USA (WI)** on 4 June 2003, 10:52 a.m.,*
in response to message #3 by Randy Sloyer

I think the Carly bashing is undeserved, and detracts from the Forum.

Larry

Why bash Carly if we can sink her

*Message #8 Posted by **Norm** on 4 June 2003, 9:58 p.m.,*
in response to message #7 by Larry Corrado, USA (WI)

i was just watching Das Boot for my 5th time

(cool movie. Do not make the mistake of watching the German U-boat speaking in a dubbed English. Watch it with subtitles (!) while they speak in natural German. This is one movie where the subtitles do NOT detract from the experience, they contribute to it. 'Das Boot' with subtitles is awesome. 'Das Boot' with dubbed English is a total bore.

So, Carly is a big lumbering fat rusty old tanker. "HP Museum" is a German U2 boat..... We don't 'bash' things, we sink them !!!

LOAD TORPEDO TUBES ONE AND TWO !!

Re: an RPN might-have-been

*Message #9 Posted by **Paul Brogger** on 5 June 2003, 11:32 a.m.,*
in response to message #3 by Randy Sloyer

On the subject of where HP might have gone "right" with RPN, imagine if they'd put ***TWO*** LED sticks in their early models, including a lower-cost (and hence, lower quality) entry-level unit.

Two lines of display would have gone a long way toward simplifying entry-level use of RPN -- the behavior of the stack would have been substantially demystified. Two displays would have been perfectly adapted to RPN, but wouldn't have added as much to an Algebraic interface. (So the competition wouldn't have been able to match the increased value by simply duplicating the hardware.) (To minimize battery consumption, perhaps the "y" display could have been switched off by experienced users.)

And (irrespective of the two-display idea) an inexpensive entry-level model would have enabled head-to-head competition on price in the educational market.

. . . ahhh, if they'd only asked me. (As if I could/would have recommended such in the 1970's . . .)

??? Already at $305 ???

*Message #10 Posted by **Mike** on 2 June 2003, 9:12 p.m.,*
in response to message #1 by Norm

You say **already at $305**, as if there are 40 people bidding it up.

The first bid (minimum bid) was $299.99 so $305 is nothing but two minimum bids. But I can tell you one thing. An HP-15C that is mint with a mint manual, will get $300 by itself, even without a box.

You can take a 15C and hit it with a hammer and it'll still get $100.

This is not a big deal bid.

Edited: 2 June 2003, 9:13 p.m.

Why not sit back and enjoy this?

*Message #11 Posted by **Ted** on 3 June 2003, 2:00 a.m.,*
in response to message #10 by Mike

Guys, I know, I know. We can all get heated up about this. But it would be much more fun to take bets on the fianl price. We all know how it works. Maybe one of you can donate some unusual or interesting file or pic that could go to the winner:) I'll go first: my guess is $560.00 Don't forget, this won't be used, but kept as a showpiece. Which ain't so bad- means there'll be more working machines left in the world of 2100 to show the great great grandchildren someday. Who's next?

Randy----don't agree

*Message #12 Posted by **Norm** on 3 June 2003, 2:20 a.m.,*
in response to message #11 by Ted

Hi Randy,

Dont' agree. There is little justification to discontinue the product AFTER it is already designed, built, being manufactured, and selling if only modestly, to create profits. 12C and 15C could co-exist on the same production line. I can tolerate deleting some of the engineer's calculators, but not ALL of them. Keeping an old design like 12C running for the MBA's, to me, is the smoking gun of proof, that the boardroom can build anything but has disdain for the engineering department.

Saying Carly should just 'make money' as you say, is true, but she should do it by continuing to ship products people are buying. "People" by definition includes engineers. We were buying those items such as engineering calculators. If 15C was discontinued, 42S (or 32Sii) should not have been. The larger issue here is a malicious attitude to force 'graphing calculators' onto all the kids in high school / college. They come home saying 'daddy daddy buy me this TI (HP) graphing calculator, teacher said so'. Daddy ponies over the money, Carly gets rich, kid learns nada zero zilch, genuine and functional calculators aren't available, only graphing monstrosities. They are pursuing a corrupt agenda. Just like when the boardroom annihilated Heathkit in the blink of an eye, this quest to take money from children is wrong, and they are side-swiping the mature adult engineering community at the same time as they make their quest to get the money from the parents of schoolkids.

You mentioned that HP's error is maybe they should not have stuck by RPN for so long. Don't agree, don't follow.

I know a kid who is going to be learning his algebra and trigonometry soon. I intend to introduce him to the 32Sii . Not that it was the best (it wasn't) but in the next 30 years, he'll have best odds of his own unit(s) still working, also eing able to find used items to keep himself supplied. Not that 32Sii was best, it wasn't but it does embody the spirit of the genuine HP calculator (it is a clear descendent of 34C actually... but I prefer the real McCoy).

You mentioned that we can substitute an 'emulator' on a PDA for a genuine calculator. You mean, emulate a 32S, a 34C ?? on a PDA? Man, I'm convinced, send it over (not) !

Randy you are keeping better track of my viewpoints than I am, dude, I mean, you even remembered I got dust underneath the lenses of my 32S, and you remembered the posts of Captain Zener. I am flattered you keep track, sorry, I can't shut off the symphony of noise I make, just because you asked. But I'll try a little bit. If I post too much be assured it bothers me too. I'm a little on the loud side.

IN SUMMARY, I am more with "JC" ------- Carly bashing is justified. Or more generally, a real mean and non-engineering spirit (non technically competent spirit) emanates from many boardrooms so it should be stated as such. You dont need to stick up for Carly. That sour attitude in the boardroom is doing a lot of damage (Enron, Ford/Firestone, NASA) its burnt up 2 of our 5 space shuttles, and its not getting better because its getting worse. All they care about is getting that 15,000 square foot beachfront-home with the showers that have got 6 showerheads. I think that's pretty darn selfish of these MBA's in comparison to the people who gave us the moonshot in '69 (there was a lot of humble living, but a lot of national pride and spirit). This selfishness in the boardroom needs to be challenged.

I will challenge it, with the only weapons I have got: my spending money, and my mouth. I wont buy their stuff I dont want, and will say what I think about these bad decisions.

I know I have to keep it down to a dull roar. I can't shut up completely though. Mr. Hicks has final control over acceptable message content..... the posts are within the passband of the bandpass filter for HP Museum, and I will try to stay in band.

Thanks for chatting, suggest anything further go direct?

Click on blue above to get email address.

Re: Randy----don't agree

*Message #13 Posted by **Randy Sloyer** on 3 June 2003, 9:30 a.m.,*
in response to message #12 by Norm

Norm,

Thank you for thoughtful response. It's nice to have some dialog, that's what keeps all this interesting. It's not just about calculators.

A couple of points. One, you say

> Quote:
>
> The larger issue here is a malicious attitude to force 'graphing calculators' onto all the kids in high school / college. They come home saying 'daddy daddy buy me this TI (HP) graphing calculator, teacher said so'. Daddy ponies over the money, Carly gets rich, kid learns nada zero zilch, genuine and functional calculators aren't available, only graphing monstrosities.

While I don't care for the form factor of, nor do I need a graphing calculator, I don't think there was anything at all malicious about this. It was a natural evolution in calculators that began in the early nineties, long before Carly was on the scene. One fact that should be considered is that HP currently has no graphing calculator in the product line. Nobody gets rich that way.

I do agree with you and JC that the person at the top sets the tone. I don't think HP is an engineering based company any longer, nor do they want to be. Just look at what has been going on in the last three years or so. Perhaps living off previous engineering efforts like ink-jet and laser printing technologies, yes, but where is anything new? What is the R&D budget compared to ten years ago? Just like the AT&T split, some good things happened for a while, but the end result was anything but good. Know anybody working for Lucent today? Why doesn't anyone ever mention the management team at Agilent Technologies? They seem to be doing okay. If they had gotten the calculator lines, I'm sure we would not be having these discussions. We would all be happy with calculators for engineers designed by engineers. That's what made them so good.

I liked your mention of the situation with Heathkit; I think a lot of similar things went on in their evolution, same as HP. I would be interested to hear what you think caused the demise of Heathkit, other than just an executive decision to kill off a 40+ year old company with a great legacy.

Did it have more to do with boardroom shenanigans or just plain old good business smarts? Don't you think the progress in electronics packaging and manufacturing technology left them building buggy whips when the horses were in the barn and cars were everywhere?

100% Correct!

*Message #14 Posted by **J.C. Randerson** on 3 June 2003, 9:45 a.m.,*
in response to message #13 by Randy Sloyer

"I don't think HP is an engineering based company any longer, nor do they want to be."

This one sentence correctly sums it all up. HP has abandoned what made it a success. As far as being a service company, you've hit another nail on the head. Their extended service contracts for pcs are outrageous, $100 a year!

Who knows, maybe HP will be buying old McDonald's franchises. Imagine the scenario: "Hey guy, you want some fries while you're reading the quickstart manual?"

J.C. Randerson

Hi again, Randy, Heathkit,

*Message #15 Posted by **Norm** on 3 June 2003, 12:44 p.m.,*
in response to message #13 by Randy Sloyer

Randy wrote:

> While I don't care for the form factor of, nor do I need a graphing calculator, One fact that should be considered is that HP currently has no graphing calculator in the product line. Nobody gets rich that way.

Hi Randy, I dont understand, There is a 48G+ a 48GX and also something called a "49" . I dont think they were discontinued. I think HP therefore has several models of HP graphing calculator.

Randy wrote:

> I would be interested to hear what you think caused the demise of Heathkit, other than just an executive decision to kill off a 40+ year old company with a great legacy.

Hi Randy, I dont have all the facts, except that Heathkit was built by hard work of decent people going back into the 50's and 60's, it was completely and totally profitable. Then some kind of space aliens sat down in the boardroom, and within a space of about 3 years they destroyed the company, leaving a great gaping hole in a key part of the 1969 'moonshot America' national-cultural landscape.

That's all I really know, so anything else i say is a speculation:

They sat down in the boardroom, said, "here we are, the MBA monstrosities, the takeover kings of a 30 year legacy of people's hard work, hopes and dreams. We have taken over what other people built, consuming their entire lives to build this company, its profits, and its bank account, and we took it over and own it and it cost us not a dime. Thanks to our clever boardroom stock swindles. So now we are millionaires countless times over. We have plenty of profits and plenty of customers and a balance sheet in the black, SO, GENTLEMEN, what do you say we see how quickly we can incinerate this thing.

They did this in three quick ways:

(a) They decided they would compete against the already dominant Microsoft Intel PC consortium, with their "Heath Zenith" computers,and they blew a ton of money on computers,

for the laughable intention to dominate over Microsoft.

(b) With the company pretty well ruined by that decision, they decided to completely and totally eliminate the sale of all kits (apparently, a simple hatred of those types of people who buy them..... like when Carly eliminates all classic engineers' calculators, but retains the 12C for MBA's, this is just stereotypical hate-bias of MBA against engineer) so apparently the management didn't like people who build kits.

(c) With the kits eliminated, the retirement account raided, the customers scattered to the 4 winds (F U all you stinking rotten customers) they morphed the company into something entirely unrecognizable,where it exists to this day. Kind of like when in "X-men" they turned the Senator into a mutant? You start out with a Senator, you finish with nothing but a sploosh of water. Similarly, the MBA mutants mutated Heathkit into something completely unrecognizable to the customers and employees who built it. They set it up to milk community college funds (gov't public school funds) to sell their ho-hum little 3-ring binder educational books.

Similar to TI and HP trying to milk students with their useless graphing calculators. Well, I think those courses might be tolerable or adequate. Even those are goint to be somewhat dated. I saw a community college student using one very recently, in a course. The material is a little dated..... they were explaining how to use glue logic, like 8-bit shift registers. That's cute but the only problem is, who is going to do that anymore. So I think they are just milking whatever remains from the least interesting of an old ancient product line that profitable when it was destroyed, and could have continued to be profitable.

In all my years of enjoying Heathkit (70s, 80s) the 3-ring binder courses were the LAST THING I would ever look at. Hey, I wanted to build a giant clock, or build my own calculator, or my own stereo receiver, etc etc. They got rid of that stuff because it was fun. They kept the 3-ring binder stuff because it was stupid and dull and boring. Classic MBA stuff... MBA's are stupid and dull and boring so their decisions reflect this (they are also very very very selfish, very very very greedy, "gimme my 25,000 square foot home with showers that have 8 showerheads") so that gives you 4 major adjectives for MBA's.

So all that customer goodwill earned over 30 years was incinerated in an instant. Tektronix did the same thing by annihilating all their analog scopes w/o exception, apparently in a simple stereotype-based dislike of the people who used them. HP now does the same thing with engineer's calculators. The country is in a recession and it does not surprise me. This is not an "Osama recession" this is an "MBA Recession". The MBA drunkards scr*wed anybody who invested into stocks, they eliminate products we want to buy, they bring in cheap chinese throwaway trash by the boatload and stock the shelves with it, and charge us like it was made of solid gold. If I want something as simple as the preferred Japanese built calculator watch, I have to import it directly thru eBay, because the merchants wont sell what I want to buy. Helllo recession !

People are now 'hunkered in their bunker' and the economy stinks, but with the foul stink from the boardroom, does it really surprise anybody. Thank you MBA's.

You asked, Randy, so I have answered. This is my opinion about Heathkit (and Tektronix and HP) all destroying some of the most charming products I have ever seen in my life to this day. If my opinion is wrong you are welcome to correct me.

To reduce chat board clutter suggest direct e-mail.

Heathkits and Calculators?? (long)

*Message #16 Posted by **Randy Sloyer** on 3 June 2003, 6:24 p.m.,*

in response to message #15 by Norm

You're right, sort of, as only the 48GX is available through HpShopping.com. The G+ and 49 have been gone for some time. My mistake.

Well, it's clear we agree to disagree. Good fun actually. IMO, I see the demise of the calculator market having several parallels to Heathkit. In the end, it wasn't marketing, or some evil MBA's trashing the hard work of the generations before them. No, not the way I see it. It was technology. It never stops advancing which means things have to change. Sometimes not always for the good from where we stand.

It is very ironic that Zenith was one of the last owners of Heathkit. The last company in the United States that built television set with hand wiring. Remember "Works in a drawer"? But, just like through-hole technology build-it-yourself kits, hand built proved to be loser in the days of mass-produced electronic products. Do you really think the computer kits they sold with increasing complexity could be built by Joe Six Pack with a $5 el-cheap-o soldering iron? It was tough enough to get people to build kits loaded with 0.1" center dips, it was a just matter of time until they had to start including pre-built logic boards due to the density and let Mr. JoeSP put it in the case and build the power supply. This was back in the days before FCC regs. Where would they be today with the required EMI testing? Packaging technology made the kit concept an impossibility.

By 1985 or so, nobody wanted to build their own color TV or stereo when they could buy it cheaper, pre-built. Their audio equipment by 1980 was very limited by what people could build. Nobody wanted a nifty digital clock or thermometer anymore for $100. Sure, a few of us hams would build our own rig, but even that was not enough to keep them in business. They had hurt their ham reputation with the SB-104 and the HW-2026 in the seventies. More birdies in those rigs than a pet shop. How many lamp dimmers did they need to sell to keep hundreds of people working in Benton Harbor? In the end, it was like so many Internet business plans of the nineties, it just didn't work.

Near the end, the three-ring binder kits you refer to made more money being sold into the educational markets than all the kits. It was an 80-20 deal with new kits costing 80% of the budget and generating 20% of the revenue. It didn't take an MBA to make a decision on that one. Enough about Heathkit. Yes, it was fun while it lasted, but now it's over. Time to move on.

My way of simple thinking does not find fault with the MBA's, they were hired by management teams to help companies make money. Not always the old fashioned way through hard work and good business practices, I agree there. They do make an easy target, on that I agree. I also 110% on the boardroom deception, greed and general ugliness with the likes of Enron. Not the kind of companies that we need to build a strong economy. How that gets turned around I'm afraid is in the hands of the lawmakers which is complete topic unto itself. Don't want to go there for now.

Mass marketed consumer products is what HP is about today, our segment of the specialty calculator market is just about off their radar screens. I just see it in simple terms and sum up all the technological advances and what happened to our scientific calculators this way:

As early automotive engineering advanced, the demise of the harness makers followed, the aeronautical engineers while perfecting civil air transport, pretty much decimated the railroads and passenger ship lines. The computers on our desktops that enable us to post these messages from far-far away places make advanced calculators seem unnecessary. Heck, I even have a cheesy calculator in my cell phone, the junkie ones are everywhere.

Just as there are still a few harness makers that survive, there is an opportunity for some company out there to give the customers what they want in the way of a next generation hand-held calculating device. What it is and who makes it remains to be seen.

Heathkit (long)

*Message #17 Posted by **Michael F. Coyle** on 3 June 2003, 5:00 p.m.,*
in response to message #13 by Randy Sloyer

I remember Heathkit's demise very well. It was even reported in the Wall Street Journal and/or the Times.

Heath based their pitch on two claims: 1. You'll learn more about your equipment if you Do It Yourself, and 2. You'll save money if you Do It Yourself. I never bought into the "learn electronics" claim -- all building Heathkits ever taught me was electronic construction technique. (How to solder, how to identify components, etc.) I had to learn my electronics elsewhere. As for saving money, that may have true in the early days, back in the 50's and 60's when manufactoring was labor-intensive but not later, when IC's and automated manufacturing reduced the labor content of consumer electronics.

The plain fact of the matter is that while Heath made good audio equipment (to pick one example), by the late 1970's better, cheaper gear was available from Sony, Panasonic, and other Japanese suppliers. The stuff from Heath was behind the times because they had to limit themselves to designs and components that could be assembled by the average person with simple tools and little skill. Witness the pre-built and pre-aligned fromt ends for the "kit" TV sets -- "building" a Heathkit had become an exercise in final assembly of pre-built pieces.

In the end, the only people likely to buy Heathkits were those who got satisfaction from building them. But this has been a diminishing customer base. No one seems to be interested in tinkering with electronics anymore. The reduction in shelf space for components at Radio Shack and the demise of Heathkit are symptoms of this -- not the cause. There's probably a good long discussion to be had concerning the younger generation's tendancy to buy stuff and be passively entertained rather than open up the boxes and *learn*.

In one of the news stories back in 1992, a Heath Company executive said that their old customers, who had built kits when they were younger, weren't coming back and buying new kits. I recognized myself in that statement -- for whatever reason, uninspired kits or more competition for my leisure time, I had not built a Heathkit in a long time.

I somehow wish that Heath could have found a way to stay in the kit business, but given changes in technology and the marketplace, I guess it wasn't to be. Tradition is nice, but the marketplace is unkind to companies who stick with tradition to the point where sales suffer.

- Michael

Re: Why not sit back and enjoy this?

*Message #18 Posted by **james (UK)** on 3 June 2003, 8:37 a.m.,*
in response to message #11 by Ted

If Therwil is around I reckon, oh say, $910.

If anyone pays $900

*Message #19 Posted by **Mike** on 3 June 2003, 2:13 p.m.,*

in response to message #18 by james (UK)

They are are way overpaying, by double, what eBay normally brings. There is absolutely nothing special about this 15C. Nothing special about having an average box.

I have seen bazillions (ok, a few less than a bazillion) that are in just as nice. I doubt a week can go by without 2 or 3 mint 15C on ebay (without box). Think the box is worth $700? **Hardly!**

This, with box, shouldn't fetch more than $400, but you never know.

A mint or near mint 15C by itself can be had for less than $300, even on eBay.

Here's one that seems just as nice (**$335**)

or

Just missing box, papers and manuals (**Think those are worth $900?**)

Re: Why not sit back and enjoy this?

*Message #20 Posted by **David Smith** on 3 June 2003, 3:59 p.m.,*
in response to message #18 by james (UK)

It takes a minimum of two people who really want an item (and who probably don't know what it is really worth) to generate those astronomical bids.

Really nice and complete 15C's (and all the other voyagers for that matter)are rather common. A 15C that passes for mint-in-box probably shows up every couple of weeks. They almost always fetch in the $300-$400 range... not much more than the $250-$300 dollars that a typical used one brings. A 15C that has been eaten by a dog/goat/troll/yeti/etc does indeed bring at least $100... probably to scrap for parts to fix one or more nice looking corpses.

Re: ??? Already at $305 ???

*Message #21 Posted by **R Lion** on 3 June 2003, 2:54 a.m.,*
in response to message #10 by Mike

> Quote:
>
> You can take a 15C and hit it with a hammer and it'll still get $100.

See this

Raul

Re: $$$$$$ WOW !! $$$$$ HP-15C

*Message #22 Posted by **hugh** on 3 June 2003, 7:14 p.m.,*
in response to message #1 by Norm

hmm. back in '82 i paid over $150 for mine (europe costs more) and thats gotta be over $400 in today's money. it was worth it. the machine is on my desk even today and works fine.

however, i expected it to last. which, if they had it remade by kinpo nowdays, it might pop after 18 months. and it probably wouldnt even have that lemony new hp smell. you know the one :-)

Re: $$$$$$ HP-15C

*Message #23 Posted by **Paul Brogger** on 6 June 2003, 2:16 p.m.,*
in response to message #1 by Norm

Well, it seems it's going for a bit more than $300.00 . ..

Re: $$$$$$ HP-15C

*Message #24 Posted by **David Smith** on 6 June 2003, 3:49 p.m.,*
in response to message #23 by Paul Brogger

By the way, it does not appear to be truly a complete set. It needs that little pink electostatic protection foam bag that the calculator was packed in.

Re: $$$$$$ WOW !! $$$$$ HP-15C

*Message #25 Posted by **R Lion** on 6 June 2003, 2:40 p.m.,*
in response to message #1 by Norm

> Quote:
>
> did they get rid of that HP-15C sticker on the back in the later models?

What sticker? Do later models have a sticker instead a metal back?

Raul

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HP12cP available at EduCalc: US$... <8-O

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2003, 6:25 a.m.*

Hi, folks;

I was searching EduCalc for HP12C Platinum and I found this:

HP12C Platinum: US$ 175.00 + shipment

I also had a look at hpshopping and found this:

HP12C Platinum: US$ 79.95 (out of stock)

It seems EduCalc is following e-Bay tendencies...

Luiz C. Vieira - Brazil

Edited: 2 June 2003, 6:55 a.m.

Re: HP12cP available at EduCalc: US$... <8-O

*Message #2 Posted by **Frank B. (Germany)** on 2 June 2003, 7:05 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Isn't it S$, i.e. Singapore Dollars? 1.00 SGD Singapore Dollar = 0.579262 USD

Frank.

Re: HP12cP available at EduCalc: US$... <8-O (Singapore dollars?)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2003, 8:11 a.m.,*
in response to message #2 by Frank B. (Germany)

Hi, Frank;

I thought Singapore Dollars shoul be written SG$ instead of S$. Anyway, you got a point, here.

Thank you very much.

Luiz C. Vieria - Brazil

the new EduCalc

*Message #4 Posted by **Ellis Easley** on 2 June 2003, 7:30 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I realize no law has likely been broken, but I wonder how Jim Carter feels about them using his company name! Or did he move out there to be closer to the source, and have another go at it?

Re: HP12cP available at EduCalc: US$... <8-O

*Message #5 Posted by **db(martinez,california)** on 2 June 2003, 9:20 p.m.,*
in response to message #2 by Frank B. (Germany)

yes, there seems to be a couple of singapore connections. i don't think this is jim carter & co anymore toto. i hope this company provides half the service to the customer that it's namesake did.

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HP 32S versus HP 32Sii

*Message #1 Posted by **NH** on 2 June 2003, 5:44 a.m.*

I have a question..... are people starting to favor the earlier 32S, over the newer 32Sii ??

I was comparing them today and found myself liking the 32S better than 32Sii (various small reasons). Then I go to eBay and there are NO 32S for sale. But theres a lot of 32Sii for sale.

So are people concluding that the 32S is the one worth hanging onto ? Or is there some other reason.

HP 32S: fewer, rare units

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2003, 6:52 a.m.,*
in response to message #1 by NH

Hi, Norm;

I'm not sure about usage, but one thing for sure: the HP32S was replaced by the HP32SII soon after being released. I saw an HP32S and it was a lot used. The girl using it was not aware of [ENTER] and was only able to perform DEG, GRAD, RAD, ->DEG, ->RAD, R->P and P->R with it. I tried to show her how to use it and she was always stuck (the girl, not the calculator). I tried to buy it, offer another one, but she resisted fiercely: it was her father's preferred, and he was only able to switch it ON and perform the self test. It was a gift... to ungifted people.

What to do? I offered a new HP32SII and she refused! And she was not even known about the fact it was a rare calculator.

I know it's an isolated case, but many HP32S owners know it is rare and will not give it up easy.

My thoughts...

Luiz C. Vieira - Brazil

Edited: 2 June 2003, 6:54 a.m.

Re: HP 32S versus HP 32Sii

*Message #3 Posted by **Randy Sloyer** on 2 June 2003, 12:59 p.m.,*
in response to message #1 by NH

IMO, it's not a question of favorites. There are far more 32Sii's out there than the 32S. It became the only shirt-pocket RPN in HP's line for at least 6 years after they killed the 42S in '95, resulting in more sales for the one model than any other. Being half the price of a 42S didn't hurt, either.

If you want the best of both models, look for a later 32S with the stepped bezel (without the LCD cover) and you'll get the nice, single shift key and the larger LCD digits of the later 32Sii.

Re: HP 32S versus HP 32Sii vs. HP-34C.

*Message #4 Posted by **Norm** on 2 June 2003, 3:14 p.m.,*
in response to message #3 by Randy Sloyer

How 'bout that. Original 32S is more collectible. I've got 4 of them lying around here. I bought them new, all at the same time around 1989. They are my 'thrasher' calculators. The cats walk on them, I throw junk on them until they are buried. Then I dig them out from under and start over.

Couldn't treat a 34C like that !!

When I compare the 32S to the 32Sii, I definitely find the 32S preferable. Why? Because its a clean elegant appearance. It looks like something where you can master all the functions, rather than spend years studying it and still not know what half the keys do. The single orange-shift key is advantageous to present a cleaner simpler appearance. It looks like a calculator a person can live with. Dont get me wrong, its not awesome. I think the brown color (with orange highlights) looks boring. But its a calculator I can live with.

To me the 32Sii looks cluttered and uninspired. Take one example. THE SQUARE ROOT BUTTON (top left) It's supposed to have the reciprocal (X SQUARED) as its compliment. OK, it does. But can you see it? Just barely. What you see mainly is a big label called "PARTS".

So the button says "square root" and "parts" rather than "square root, and x squared"

The "x squared" is buried. in the very corner, almost invisible. Not clear. Not clean. Not elegant. Looks cluttered instead.

So if I am forced to select calculators I would choose

first place: HP-34C second place: HP-32S third place: HP-32Sii Fourth place: HP-15C

Never liked the horizontal layout of 12C or 15C. It is better to size the width of a calculator to its display. This makes them tall and skinny, not fat and wide. The short display on a very wide calculator looks un-inspired.

So if you force me to live on a desert island and I can only have 4 calculators, those are the ones. ALL discontinued. What would I take from the current production? Nothing. Give me a few extra coconuts instead.

Re: HP 32S versus HP 32Sii vs. HP-34C.

*Message #5 Posted by **Bill Platt** on 2 June 2003, 4:24 p.m.,*
in response to message #4 by Norm

Hi Norm,

I am responding to all your posts today!

Here is a topic that I think is 100% personal style preference, and 0% subtantive or productive.

While I appreciate the "streamlined," "elegant," etc beauty of the 32s and the 27s, I must say that for me, to have as many functions as possible directly accessible on the keys is a tremendous advantage.

!. It means that you can know what you have available for functions--especially valuable when you are doing something you haven't done in a while but really need now, and

@. Direct keyboard access reduces keystrokes, which is to me the Holy Grail of efficient calculation. It

is also very common among other engineers.

I once worked for an international shipbuilding company, and the German guys (our hosts) were teaching us all the fancy ship design programs the company was moving up to, which ran on a UNIX mainframe. It was funny to see how the best engineers there did everything they could to avoid typing --- the unix GUI had two clip-boards--a middle button and a right button clipboard---so you hardly had to type at all!

So anyway, it is fun to discuss the merits/demerits of the cluttered vs uncluttered keyboard, but in the end, I think it is a style question.

Regards,

Bill

horizontal layout

*Message #6 Posted by **Ellis Easley** on 2 June 2003, 7:37 p.m.,*
in response to message #4 by Norm

When my boss handed me my company 16C to use in 1985, he showed me how you can operate it with two thumbs - it's almost like touch typing!

Re: horizontal layout

*Message #7 Posted by **Renato** on 3 June 2003, 3:30 a.m.,*
in response to message #6 by Ellis Easley

When my dad bought a 21 in mid-70s, I learned to use it with only one thumb ;-p

BTW, while we are at this useless thread : I FIND THE WOODSTOCKS AWESOME. THEY ARE THE BEST.

I used a 21 last week. This week will be a 27. My 17BII is resting at the desk drawer.

Renato

Woodstocks

*Message #8 Posted by **Michael F. Coyle** on 3 June 2003, 3:36 p.m.,*
in response to message #7 by Renato

Quoth Renato,

> Quote:
>
> I FIND THE WOODSTOCKS AWESOME. THEY ARE THE BEST.

Glad to see someone else here who is as jazzed up over Woodstocks as I am! I love the way their curved shape fits right into your hand.

I never cared for the Spice design. To me, the 34C is a nice machine in an uninspiring package. (Not that that will stop me from trying to get one.) I love the Voyagers too, and will never give up my 11C or 16C for anything.

I used to own a 25, now I have a 21 and I'm looking for more. Woodstock Rules!

- Michael

Re: Woodstocks - Single Thumb

*Message #9 Posted by **Renato** on 3 June 2003, 4:33 p.m.,*
in response to message #8 by Michael F. Coyle

Crunching numbers with left hand, pressing keys using only left-hand thumb, while taking notes with the other hand.

I used to do this in the 80s - it is still productive in the millenium, and it makes me feel good :-)))

Re: Woodstocks - Single Thumb

*Message #10 Posted by **Bill Platt** on 4 June 2003, 9:44 a.m.,*
in response to message #9 by Renato

it also works as crunching numbers with right hand, taking notes with left hand :-)

Re: Woodstocks - Single Thumb

*Message #11 Posted by **Renato** on 4 June 2003, 8:15 p.m.,*
in response to message #10 by Bill Platt

Hmm, so you must be one of those folks that live on the wrong side of the mirror... or is that the right side ?

Renato

Re: Woodstocks - Single Thumb

*Message #12 Posted by **Bill Platt** on 4 June 2003, 9:46 p.m.,*
in response to message #11 by Renato

The Left Bank---of the the Connecticut, that is :--} For me, there is no wrong; only right, and left;) Uh-oh, that could be a pun.....

regards,

Bill

Re: HP 32S versus HP 32Sii vs. HP-34C.

*Message #13 Posted by **Paul Brogger** on 4 June 2003, 9:35 a.m.,*
in response to message #4 by Norm

Norm sure is consistent!

Actually, I just got my first HP-34c, and can almost agree that it's the best of the bunch. It's got that red LED thing going, and its classic-like keyboard and overall solid feel are compelling attributes. (Unfortunately, its Roll Down is a shifted function, but that's a relatively minor complaint -- and not surprising, given the complexity of its keyboard . . .)

For everyday use, I vote the 32s first overall, and notably superior to the 32sII (for all the reasons Norm cites). But as a sheer pleasure to hold, the 34c is hard to beat. (Certainly, I can now better understand Norm's outspoken fanticism!)

I admit it Paul, I'm a fanatic

*Message #14 Posted by **Norm** on 4 June 2003, 9:54 p.m.,*
in response to message #13 by Paul Brogger

I admit it Paul, I'm a fanatic. I'm starting the church of the Holy HP-34C.

HEY, you guys are finally seeing it my way..... the nice triple-color keys, the 3 shift functions, AND, that nice heavy "paperweight" feel of the unit. And its nicely sculpted. I think it also accomplishes the most with the fewest physical keys (due to the 3 shift buttons).

The solderless ones are really heavy. Like little battle tanks. But the soldered ones are going to be more reliable, even though they dont feel as good in the hands.

Probably my biggest mistake is not paying more attention to the junior cousins in the same product line..... some of those are just as nice but not as heavily in demand.

- Norm

HP-34C: At the first sign of trouble

*Message #15 Posted by **Norm** on 4 June 2003, 10:08 p.m.,*
in response to message #14 by Norm

Along with using tri-flow on the slide-switches, here's one other important suggestion I can offer:

HP-34C: At the first sign of trouble, stop using it.

If its a solderless unit, then the solderless joints will eventually get unreliable. You can try freshening them 'Luiz Viera' stle by carefully cleaning the whole interior.

If you have a solderless unit and you keep running it while the solderless joints have gone intermittent, my impression is that the main chip gets partially damaged.

Then even freshening up the contacts may not save it.

If it works great then fine, but if it acts flakey then its time to take it to the doctor, if you want it to last another generation.

- Norm

Re: 34c Demand . . . And solderless connections

*Message #16 Posted by **Paul Brogger** on 5 June 2003, 8:41 a.m.,*
in response to message #14 by Norm

Norm, I suspect no single person has done more to increase demand for the 34c than has you. Your impassioned plea for its recognition made me take my first serious look. I'm sure there are others out there who reacted similarly. (We'd better watch what we rant about!)

With regard to solderless connections, I've been thinking . . . I recently used a conductive paint

(an alcohol-based solution of suspended copper powder or filings) to repair a flakey LCD connection in a TI-30XA for my son. This stuff was from a Permatex "rear window defroster repair kit" I found at an auto parts store. I wonder whether this (or something like it) might be used to make the the Spice series' solderless connections more reliable and less susceptible to corrosion? Anyone got any ideas on this? Would introduction of copper between the chip/PCB contacts create an electrolysis situation? (My limited understanding of that phenomenon suggests the answer is "no".)

I haven't taken my 34c apart, but suspect it's a soldered unit, as it's hefty, but not brick-like. Is there any way to tell externally? (Its serial # is 2301S30306.)

I was told this unit would "turn itself off randomly", but after replacing the NiCads, it seems to be working flawlessly. It's a little ironic that I (who will rip Pioneers apart without thinking twice) hesitate to venture inside, but I don't see any need to mess with success.

Key feeling...

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2003, 10:42 a.m.,*
in response to message #16 by Paul Brogger

Hi, Paul;

my best reference for soldereless and soldered units (Spices) is the key feeling. Solderless units have a bubble-like keyboard with cooper trails on it (I don't like to think they can break sometime...) and the soldered units use metal caps that are bent when keys are pressed. If you have the opportuniy to "feel" both types at your fingers, you'll never forget the feeling: solderless units sound as knoking in hole wood, if I expressed myself correctly. Also, they are heavier because there is a generous metal plate to maintain structural balance.

Soldered units are lighter and keys correspond promptly (their movement towards the spinning axle is shorter than the one observed in solderless units) and they "sound" metal touching each other.

I hope my English is well used here so you can understand.

Best regards.

Luiz C. Vieira - Brazil

Re: Key feeling...

*Message #18 Posted by **Norm** on 5 June 2003, 1:29 p.m.,*
in response to message #17 by Vieira, Luiz C. (Brazil)

This is interesting Luiz. Thanks for describing that the keyboards feel different.

Which is your favorite? You didn't really say which is "better". Sounds like the later version probably has a "snappier" i.e. quicker to press feeling.

I have an old version right now, I will confess that the keys are a little bit long in the stroke. This makes a guy feell like he's running on a sandy beach, rather than running down a cement sidewalk.

Re: Key feeling...

*Message #19 Posted by **Vieira, Luiz C. (Brazil)** on 5 June 2003, 1:50 p.m.,*
in response to message #18 by Norm

Hi, Norm;

for me, both key-feelings are fine, I have no particular choice.

Anyway, the soldered-type Spices have a more reliable keyboard, to be honest. The metal caps are the same ones used in Voyagers and HP41's.

There are many Woodstocks that have broken trails in their bubble-type keyboards, although I have not seen this particular problem in any Spice.

New keyboards, like Pioneers', are also bubble-type, but they do not have cooper trails; instead, they have only a circular carbon "spot" and an interlaced "fork-like" contact right below them. These keyboards are reliable, too.

I prefer Spices' solderless (sandwich type) for maintenance and daily use (you'll be in trouble if you have to remove the LED display or the big µP), but soldered Spice's keyboards are better.

Hope this helps.

Best regards.

Luiz C. Vieira - Brazil

Edited: 5 June 2003, 1:53 p.m.

Hello Paul, one other VERY important

*Message #20 Posted by **Norm** on 5 June 2003, 1:45 p.m.,*
in response to message #16 by Paul Brogger

Paul wrote:

> Norm, I suspect no single person has done more to increase demand for the 34c than has you.

Yeah, now I am losing all the auctions and can't afford one !! Oh well, its not good to keep a fine thing all to yourself, and in the end, I can't own ALL of them

:o(

If you guys are chasing after them now, in your later years, you still can't have the total fun of getting one brand-new back in 1980, for high school calculus. That was really 7th heaven. Gotta feel sorry for all the public school kids nowadays who will never learn to even add 2+3 .

As to how to bring a solderless unit back to fullest performance (if the connections go intermittent) I dont have all the answers there, only some of the problems.

I tried cleaning up one by soldering it with a controlled temperature precision iron

Firstly, the pins themselves build up a blue oxide, esp. on the 3 small memory chips.

So they weren't accepting solder. The only way to fix that was flip the chip on its backside, and rub it for awhile with the iron.

Secondly, even with the lowest controlled temperature, there was tendency to melt the plastic underneath the connection.

Thirdly, you can never undo this type of work, so if a chip blows you can't replace it and the supply of parts rapidly dwindles.

I would favor the Luiz approach..... pull it apart and clean up the contact surfaces with a cleaner. Then use some type of light-oil that would keep the surfaces more corrosion resistant (dont know what oil).

The chips themselves, well, flip them upside down, and look for cleanliness of each pin. Probably a bit of scraping with a jewelers screwdriver is all that's needed. I think Luiz was using a bit of emery paper, which might be OK if followed by a squirt of aerosol degreaser.

A low-power stereozoom microscope is just dynamite for this. You can see exactly what's going on with each pin. I have one..... although they are $800 new, it can be such a fine tool that I say its totally worth the money.

THE LAST THING is ESD. I dont think you stand a snowballs chance in Hell of being able to clean up all the pins on an ancient CMOS chip without frying it. The only way this will work is if you ground yourself out, ground the jewelers screwdriver out, and work on a piece of anti-static plastic or even a piece of aluminum foil while you work each pin of a chip on its backside.

Anyway, clean all these boundaries where the contacts are occurring, a bit of oil on everything, put it back together and cross your fingers.

That's the Luiz approach, and its better than what I tried, or, the thing about 'painting' that you were describing.

Do recommend lubrication of the switches, or they will grind flakey bits of metal where the contacts are sliding. And these are antiques that there's no turning back (unless this whole country gets more traditional in its thinking, from the boardroom on down). So we really need to cherish these items. I think we can take a line from the antique radio crowd..... "you are dealing with a nostalgic item that goes beyond just your personal ownership. Later it will be owned by another person. Do any work so that it will last and ould please the future owners also".

Still recommend "Tri Flow" for slide switches (from the black aerosol can, shake well, but only one drop of the liquid onto a Q-tip and then rub it onto there.)

HEY one OTHER VERY IMPORTANT IDEA about SPICE calculators (dont think people have bought into this yet, but Luiz is starting to). Starting with the extraordinarily difficult case-halves, and continuing with the inner plastic clips that retain the electronics module, this plastic was mis-designed and you have to bend it TOO MUCH to get the plastic ratchets to spring away.

In these situations, get out a fresh X-Acto blade, and trim away just .010 or .020 of that plastic. Do it manually. THEN, the ratchet action comes apart easier, for future service.

If we don't get into doing some of that, the clips will simply break off in future servicings. I know because I'm already seeing bust-offs of these clips inside.

Try it sometime and you will be well-pleased.

Regards,

- Norm

Re: Thanks for relaying your experience!

*Message #21 Posted by **Paul Brogger** on 5 June 2003, 3:02 p.m.,*
in response to message #20 by Norm

Norm, you need to flesh your last few posts out as a "Spice Maintenance" article.

Thanks for all the info. I suspect mine is soldered, based upon its short-throw and relatively quiet keyboard, and its "reasonable" heft. But lubricating the switches is certainly sufficient reason to open it up, so I'll find out soon enough.

Thanks again!

dont know how

*Message #22 Posted by **Norm** on 5 June 2003, 3:32 p.m.,*
in response to message #21 by Paul Brogger

Hi, I dont know how to post technical material as permanent repair postings, but i agree with you.

Good ideas should go into a database for each calculator.

Clearly a few of the ideas I bring up about SPICE HP-34C units, based upon genuine effort and trials and mixed results, are worthy of going into a long-term data base.

I dont know the plan for such postings and figure if anybody is putting it into a big database, they will do it for me.

Maybe it should be pointed out to dgh@hpmuseum.org

Re: dont know how

*Message #23 Posted by **Paul Brogger** on 5 June 2003, 6:21 p.m.,*
in response to message #22 by Norm

Send a Word or HTML document to Mr. Hicks. He'll (almost surely) mount it and link to it under "Repairs", as his time permits.

(You might want to first post a draft here and solicit comments.)

Re: dont know how

*Message #24 Posted by **Dave Hicks** on 5 June 2003, 6:47 p.m.,*
in response to message #23 by Paul Brogger

The easiest and quickest way to do it is to click on **Articles** at the top of this forum and then **Post A New Message**. Then you bypass the middleman (me) and can edit your article any time you want. Instant gratification.

Let me know when it's up and I'll place a link from the repairs page.

Thanks Norm!

*Message #25 Posted by **Dave Hicks** on 6 June 2003, 2:24 a.m.,*
in response to message #24 by Dave Hicks

I've linked your new articles forum post into the repairs page.

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OK, the HP12cP, what _is_ it?

*Message #1 Posted by **JasonG** on 2 June 2003, 4:31 a.m.*

I've been keeping an eye on the forum lately and have seen much discussion about the 12cP but I'm still a bit confused..

...is it a new piece of hardware that emulates a 12c or is it actually a redesigned 12c with new internals? If it's the former, then I'm hopeful for a 15cP. :-)

regards

JasonG

Re: OK, the HP12cP, what _is_ it?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2003, 5:23 a.m.,*
in response to message #1 by JasonG

Hi;

One of the contributors in here, Gene, had a Beta version and took some pictures showing the HP12cP inside. There is a small resine bubble where probably rests the CPU (I called it a peanut...) and it does not resemble any of previous Voyager, Chinese HP12C included.

So, Platinum is nothing like any other exisiting Voyager when internals are the issue.

As I find Gene's post I'm posting again (if someone else does it, better).

Luiz C. Vieira - Brazil

Gene's post with picturs

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2003, 6:34 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi;

this is the link to Gene's post where he offered us an HP12cP internal view (third picture).

If you have already seen any Voyager's internals before, you'll "see what I mean"...

Best regards.

Luiz C. Vieira - Brazil

Bad news Jason,

*Message #4 Posted by **Norm** on 2 June 2003, 5:23 a.m.,*
in response to message #1 by JasonG

HP-12cP would refer to as an HP-12C that is 'platinum'. This is supposedly the greatest newest thing HP ever thought of (kind of like that burning brilliance of re-releasing 'charlies angels' instead of making a more interesting movie), worthy of the cheering of millions, ticker tape parade, coverage by all major TV networks, etc.

So anyway, bad news Jason, I think it will be a cold day in Hell before you get an hp-15C manufactured by HP again. (and on a cold day in Hell, then all the MBA's will be shivering ??)

Nice thought about HP-15C, I would like that also of course. Best of all would be for them to release an HP-34CG (golden HP-34C). With red LED's. Nice bright glowing RREEDD LED's. Such a calculator is like a glass of finest red-wine.

If you dont see any of these models, go to Wal Mart and buy an HP-9G . You can find it in the 'toys' section of the store, children ages 12 and under.

Re: Bad news Jason,

*Message #5 Posted by **Robert** on 2 June 2003, 10:13 a.m.,*
in response to message #4 by Norm

Norm, Still holding out for the LED's eh?

I really like the idea of a 15C Plat, gold, titanium, or whatever. It would not be so hard, as it shares mechanicals with the 12CP. Tooling is paid for. I would bet that it would run like gangbusters until all us RPN diehards had one.

However, I think that we're looking at a new graphing model. 49GII, in stylish color? No LED's, sorry Norm.

Re: Bad news Jason,

*Message #6 Posted by **NH** on 2 June 2003, 2:59 p.m.,*
in response to message #5 by Robert

I'd settle for a 15C also. However why dont they keep selling HP-32S or 32Sii.

This thing about "platinum" being better than "gold". I never agree'd with that. Gold is an attractive and lustrous color. Platinum, thats just a silver color, yawn, like cheap aluminum.

The fact that Platinum is triple the price of Gold isn't the issue. The issue is that Gold looks coolest of all.

If they want high-priced metals, why dont they make an HP-12C "Iridium". Pretty sure that Iridium metal is more expensive than Platinum and way more expensive than Gold.

Re: Bad news Jason,

*Message #7 Posted by **Patrick** on 2 June 2003, 4:57 p.m.,*
in response to message #6 by NH

How about the best of both worlds? How about a 15C Uranium? You wont need LEDs or LCDs.

Well, you wont need them *eventually*, that is.

Re: Bad news Jason,

*Message #8 Posted by **Trent Moseley** on 2 June 2003, 5:58 p.m.,*
in response to message #7 by Patrick

I thought they would glow in the dark!

tm

LOL HP-12C plutonium

*Message #9 Posted by **NH** on 2 June 2003, 6:13 p.m.,*
in response to message #7 by Patrick

LOL,

HP-12C Uranium. How about Plutonium, even more toxic. All the MBA's can have HP-12C Plutonium.

Soon the boardroom will be a much quieter place.

Historically, there was an incident of somebody poisoning somebody by putting radioactive material into their office chair. Dont recall the details.

Re: Bad news Jason,

*Message #10 Posted by **Ellis Easley** on 2 June 2003, 7:41 p.m.,*
in response to message #6 by NH

Gold is nice, and maybe it's sour grapes, but I think copper is the most beautiful metal.

Most beautiful metal + "hello!" + teeny RANT

*Message #11 Posted by **W. Bruce Maguire II** on 3 June 2003, 12:03 p.m.,*
in response to message #10 by Ellis Easley

Gold is nice, and maybe it's sour grapes, but I think copper is the most beautiful metal.

WOW! And I thought *I* was the only one...

I can speak *definitively* on this subject, and declare once-and-for-all, unquestionably, authoritatively, that **copper** *is* the most beautiful metal!

;-)

Bruce.
[a.k.a. W. B. Maguire II]
[a.k.a. maguire@AnalyticInvestments.com]
[**EX-** maguire@ti.com --- sell your TI stock! ;-)]

p.s. **Hello everyone!** I just haven't had the time to read the MoHPC in the last six months, but I saw an ad for the 12Cplatinum in the Wall Street Journal this morning, and I *had* to see what my ol' buddies on the Museum Forum had to say about it! Thanks for all the great news and discussions, guys! (And thanks, Gene, for the high-res. picture for which I was looking all over this morning!)

p.p.s. The depressingly **PATHETIC** revelation that the "new" 12Cp takes **twice** as long to solve for *%i*, **and doesn't even use initial-guesses (!?!what the #$%&*?!?)**, has this EE red-faced with anger! No matter how hard I try, I still seem to *care* when HP slaps me---an ex-loyal-HP-fan---in the face. I'm sure that Carly couldn't care *less* how the thing actually *functions*, but rather just what the focus groups said about the color! Make sure that it has good "blister-pack appeal", boys!

p.p.p.s. Hopefully in a few months I'll be able to read and contribute to the Forum again. I miss it.

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Repair questions

*Message #1 Posted by **David Ramsey** on 1 June 2003, 8:13 p.m.*

Going over some of the 9x series desktop calculators in my collection, I've come up with a couple of questions. First, the easy one:

I fired up my HP-91 for the first time in a few years. Many of the keys are VERY bouncy-- that is, if I press "5", it will enter from two to four "5"s in the display. If I press "X", the result is almost always zero since it registers multiple times.

Some of the keys seem to get better if I press them repeatedly. But I've never seen this problem on a 9x keyboard before. I assume the problem is bouncing key contacts...any ideas? Is it fixable?

The second is harder. I've successfully repaired several card readers and am familiar with the mechanism. It's a simple recipe: disassemble the reader, remove the drive wheel, scrape the gunk off, make sure there's no gunk elsewhere in the mechanism, put on a couple of rubber O-rings from a bag I bought on eBay some years back, and it just works.

But this 97 card reader is giving me fits. Everything seems to work, but the card will not pull through. I can see the drive wheel spinning, but the O ring is stationary, the shaft of the wheel spinning beneath it. OK, I've never needed to do this before, but I applied a touch of glue to the shaft and reinstalled the rings. After a few hours they seem firmly affixed.

But the card still doesn't go through. The motor loads down and eventually the glue broke and the shaft spun under the rings again.

If I remove the motor I can feed the card manually and the wheel turns. However, turning the wheel by hand will not move the card through.

I've had the reader apart all weekend and can't figure out why the drag on the card is so high. Any suggestions for this one?

Re: Repair questions

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2003, 9:44 p.m.,*
in response to message #1 by David Ramsey

Hi, David;

a few days ago, Katie Wasserman called our attention to one fact I was aware about and forgot because I never needed to use it. Maybe this is not a solution for your particualr case, but why not to give it a try?

If you take a look at the gear where you built the O-rings, you'll see its axe has an extension with a slot. If you use a small screw driver, you can (gently) turn the axe and, as it is asymmetrical, you'll adjust pressure over the O-rings. If it is not correctly settled, cards will not be pulled.

Just look through the mechanism and you'll see if the o-rings are touching the small "free-wheel" over them or

not.

Best regards and success.

Luiz C. Vieira - Brazil

Edited: 1 June 2003, 9:45 p.m.

Re: Repair questions

*Message #3 Posted by **David Ramsey** on 1 June 2003, 11:04 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

I never knew that axle did that! I assume the o-rings should just barely be touching the free wheel?

Re: Repair questions

*Message #4 Posted by **Ellis Easley** on 1 June 2003, 11:16 p.m.,*
in response to message #3 by David Ramsey

Are you sure the free-wheel (the little white roller) is free to turn and not glued in place by old goo? The eccentric shaft on the rubber roller didn't make that much difference on my 97 - I couldn't turn it and cause the motor to essentially stall like you are describing - but I used the silicone rubber tubing and not the O-rings. One thing I've wondered about using O-rings - any O-rings that I've seen have had mold flash sticking out from the outer perimeter. Does that rub off right away when you use them in the card reader?

Re: Repair questions

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 2 June 2003, 5:22 a.m.,*
in response to message #3 by David Ramsey

Hi, David;

and yes: if the O-rings are touching the free whell, than the card itself will do the rest, because of its own thickness. As you mentioned you have already used these O-rings, I thought about the possibility of having different external diam. in some of them, but it seems not.

If you read Ellis post, you'll see another and very important issue there. I used a very, very small amount of silicon glue before "pushing" the O-rings in their assembly shaft. This way, they will not slick off. Anyway, using fuell tubbing seems to be a better choice but I believe tube must be precisely and linearly pushed into the shaft so there will be no irregularities. I have a working card repaired with O-rings and they are not glued, neither they slick (so far). I used silicon glue in another one and, as long as I know, it's still working fine.

Hope this helps, and thanks, Ellis!

Luiz C. Vieira - Brazil

Edited: 2 June 2003, 7:00 a.m.

Re: Repair questions

*Message #6 Posted by **David Ramsey** on 2 June 2003, 11:00 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

The card is feeding now, but at an uneven pace-- you can see the card slow, apparently when it hits the second set of ball switches just after it engages the read/write head. This always produces an ERROR on the display.

The edge of these o-rings is very smooth and I think I'll look for some fual tubing today. I have had these O-rings for several years; perhaps the rubber is hardening and becoming less "sticky".

I need to resolve this soon-- these self-tapping screwings into plastic posts things weren't meant to be taken apart as many times as I've been doing it!

screws

*Message #7 Posted by **Ellis Easley** on 2 June 2003, 7:46 p.m.,*
in response to message #6 by David Ramsey

Those screws in plastic work fine over and over if you take two precautions: always drop the screw into the existing thread by turning counter-clockwise at first until you feel it drop in, and never over-torque (that's the hard one for me to remember).

Re: screws

*Message #8 Posted by **Randy Sloyer** on 2 June 2003, 7:49 p.m.,*
in response to message #7 by Ellis Easley

Ellis,

Just remember what they say in Detroit:

"Fully driven and seated and not stripped".

Re: Repair questions

*Message #9 Posted by **David Smith** on 2 June 2003, 3:23 p.m.,*
in response to message #1 by David Ramsey

I have found most people use size 006 O-rings. These ARE too big (and too hard). The proper size is 005 (15/64 OD). Also the two O-rings tend to slip apart and rub on the sides of the reader well. Fuel line is a MUCH better solution.

Also the shaft coupling between the worm gear and motor shaft sounds like it is loose or broken. I use a rubberized super glue called IC2000 tire cement available at many hobby shops. I dip a 1N4148 diode lead in the stuff and put a drop in the worm gear hole. Too much and you cannot push the motor shaft on all the way. Keep it out of the motor bearings.

Re: Repair questions

*Message #10 Posted by **David Ramsey** on 2 June 2003, 10:59 p.m.,*
in response to message #9 by David Smith

I did use some adhesive to reconnect the worm gear to the motor shaft-- it had spun off. That part seems fine.

I found some tubing I think will work and installed it on the drive wheel.

Unfortunately the end of the ribbon cable that plugs into the card reader module has delaminated to the point where it can no longer be inserted-- the metal connectors are separate from their backing, and the

backing's disintegrated enough so that several of the metal connectors no longer have any support.

I see three options:

1. Solder it together. Ick.

2. Find a suitable replacement cable. Unlikely.

3. Use a fairly stiff adhesive film to "relaminate" the end of the cable.

Anyone with any experience here?

Replacement cable

*Message #11 Posted by **Renato** on 3 June 2003, 1:27 a.m.,*
in response to message #10 by David Ramsey

David,

Ribbon cable should be removed with aid from a tool. HP 97 service manual describes a connector tool. I remember that someone mentioned using a brazilian pay phone card (Luiz - was that you ?).

I saw a catalog with samples of ribbon cables for replacement - mostly for microwave oven and other appliances. I was amazed at the quantity - more than 30 types, starting at 5 wires, up to 40 (I guess), with many lengths available. Maybe one would fit the 97. I have a 97, but it is working perfectly, so if you can describe the cable - #of wires, length, width - I can check the store next time (saturday probably).

Also, if I were in your situation, I would consider repairing the cable with adhesive foil. Chomerics and 3M manufature foil (EMI shielding purposes) - useful for 41 battery contacts.

I guess you are having a good time working on the 97 - I had a great time with mine.

Best regards and good luck.

Renato

Re: Replacement cable

*Message #12 Posted by **David Ramsey** on 3 June 2003, 11:34 a.m.,*
in response to message #11 by Renato

I don't think removing the cable hurt anything-- it just pops right out. It's re-inserting it that wears it.

I've taken a photo of the cable with a tape measure against it, but although I know posting photos is possible here I can't seem to figure out how to do it...

Re: Replacement cable

*Message #13 Posted by **Ellis Easley** on 3 June 2003, 11:52 a.m.,*
in response to message #12 by David Ramsey

This is another message in the same thread that deals with what Renato is talking about:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv012.cgi?read=33007

The connectors come with or without the barbs. HP might have used both at different times.

HP97 card reader flat tlex cable

*Message #14 Posted by **Ellis Easley** on 5 June 2003, 8:49 a.m.,*
in response to message #11 by Renato

Renato,

See if they have a cable with 13 conductors, 0.1" between conductors, at least 2.75 inches long - with both stripped areas on the same side of the cable.

I´ll look for the cables

*Message #15 Posted by **Renato** on 7 June 2003, 5:01 a.m.,*
in response to message #14 by Ellis Easley

Not this saturday, as I expected, but maybe next.

Renato

replacing flat flex cable

*Message #16 Posted by **Ellis Easley** on 3 June 2003, 9:20 a.m.,*
in response to message #10 by David Ramsey

Here's an idea I had a while back. I haven't actually done this to my 97 but I intend to next time I have to open it up. (Skip the first part about Molex connectors, the screw machine contact IC sockets are the better idea):

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv012.cgi?read=33029

If you are familiar with this kind of high-quality IC socket you will know what I mean. They come with different diameter pins (that go into the PCB hole) but the 0.020" diameter size pins fit perfectly in the sockets. Make sure you mate gold with gold or tin with tin - never gold with tin.

Re: replacing flat flex cable

*Message #17 Posted by **David Ramsey** on 3 June 2003, 11:37 a.m.,*
in response to message #16 by Ellis Easley

Hmmmm...replacing the cable connectors shouldn't be too hard. I've replaced groups of LEDs in the displays of some of the classic calcs before. Looks like single layer circuit boards...I'll look into that this weekend....hope I can find a usable socket!

Re: Repair questions

*Message #18 Posted by **David Smith** on 3 June 2003, 4:13 p.m.,*
in response to message #10 by David Ramsey

HP recommends that use use the tool for both removing and inserting the flex cable. I made my tool out of a picece of 0.006 inch thick spring stainless steel. I cut one end so it is the proper width for doing HP97 reader cables and the other for doing print head cables.

The delamination of the reader cable is a VERY common problem. I never unplug my cables unless I absolutley must do it. I have fixed some of the cables using IC2000 tire cement (black rubberized super glue used to glue RC model race car tires onto their hubs). The more tracks that have popped loose, the less satisfactory the experience.

I also fixed one unit that was missing a cable by removing the connectors and soldering in a piece of ribbon cable.

Re: Repair questions

*Message #19 Posted by **David Ramsey** on 3 June 2003, 6:34 p.m.,*
in response to message #18 by David Smith

On my cable, _all_ of the contacts have delaminated.

Soldering a ribbon cable sounds like an easy fix...if I used a long enough cable, future card reader repairs shouldn't be hard.

Re: Repair questions

*Message #20 Posted by **David Smith** on 4 June 2003, 3:34 p.m.,*
in response to message #19 by David Ramsey

If I have to do it over again, I think I will go down to the local surplus store and try and find some ribbon cable connectors of suitible size. If they are standard dual row, you can always cut off one row of pins. I think the hard part would be clearances with the case.

Before you go soldering, etc it may be worth trying to glue down the conductors. I have also though of using RTV. A very thin layer, cover the exposed conductor end with teflon sheet, and clamp gently in a vise until set. Hopefully the glue wont ooze all over the conductors.

Re: Repair questions

*Message #21 Posted by **David Ramsey** on 4 June 2003, 7:01 p.m.,*
in response to message #20 by David Smith

The cable's useless as is, so I have nothing to lose by trying to repair it.

A hardware friend thinks I can probably get a replacement cable from DigiKey, but I need to know exactly what to order-- they don't have pictures (with tens of thousands of components, how could they?)

Case clearance shouldn't be a problem-- it can be folded, after all!

flat flex cable ideas - last might be best!

*Message #22 Posted by **Ellis Easley** on 5 June 2003, 8:43 a.m.,*
in response to message #21 by David Ramsey

It shouldn't be hard to specify the cable. It is a standard pitch, 0.1", and has 13 conductors. Just measure the total length and make sure you get something at least that long - I measure 2.75". It might be possible to get them in different "phases" by which I mean whether the stripped part is on the same side at both ends, but I don't think so. The two outer layers are different, the thicker and tougher side isn't meant to be stripped - notice how it is flat and the other side follows the contours of the conductors. I've seen

applications where the stripped portion of the cable is folded over to put the exposed conductors on the other side.

Now that I've measured the cable, I'll post the dimensions as a response to Renato, he said he saw some cable assemblies in a shop.

The only thing I find in the DigiKey online catalog is 500 foot rolls of 0.1" flat flex cable, on the first page of these two (I'd like to know the proper way to strip the cable - I think a vendor once told me they use something like a grinder or a wire brush):

http://dkc3.digikey.com/pdf/T032/0041-0042.pdf

On the second page they have prepared cable assemblies but only in 0.5 mm and 1 mm pitches. These might work via redundancy, like zebra strips, except the widest they have is 31.15 mm (30 conductor, 1 mm pitch). The first page shows the overall width of 13 conductor, 0.1" pitch is 1.4" or 35.56 mm. You might have success with two 36 conductor, 0.5 mm pitch cables (18.5 mm wide overall), letting them overlap a little in the middle - or trimming the extra insulation on the inside edges - with two equal width cables, and an odd number of "destination conductors", the gap in the middle falls right on conductor #7. 0.5 mm pitch has 5 conductors in the space of 1 in a 0.1" pitch cable, so it might work.

I tried one more thing on the DigiKey website - I did a keyword search for "flat flex cable". The search results were divided into categories, I chose " Cable Assemblies - Flat Flex(1194 items) ". That took me to a page with a sort of nomograph - you choose " Contact Termination "," Length "," Number of Contacts " and " Pitch ". For Termination I chose " Solder Tab/Solder Tab " which I assume means just stripped ends [turns out I was wrong - see below]. For length I chose 3", for number of contacts 13. For pitch, the only choices were 0.05" and 0.1", which I chose. Then I clicked on "Apply Filters". It came back with a part number, A9AAT-1303F-ND, and a price, $2.52 for one piece. It also said " Quantity Available 0 - Value Added Item " which tells me DigiKey will make it (or have it made) to order. Electronics parts dealers love this kind of thing - since years ago when TV's and radios were repaired, and a parts shop could build you a potentiometer with switch, multiple sections, etc.

I can't give you a link to the final page, you'll have to start here and make the same choices:

http://www.digikey.com/Scripts/US/DKSUS.dll?KeyWordSearch

Make sure you don't click on " Items in Stock " on that page!

OOPS! They had highlighting on that part number, it took me to a catalog page - these aren't just plain stripped ends, they have flat terminals crimped onto the ends which are about the size of DIP IC pins. Here is that page:

http://dkc3.digikey.com/PDF/T032/0039.pdf

I've seen these before - Tandy used a long one about 1" wide to carry some signals across a board but I can't remember exactly what product it was. But I think this kind of termination is supposed to be an improvement over the stripped ends, because it doesn't have the problems of delamination and "smiling" sockets. They are made to plug into a SIP (Single Inline Plug) socket - like what resistor packs plug into for SCSI termination. They might mate with the existing sockets in the calculators.

I tried some other paths from the "flat flex cable" search results - I zeroed in on the 0.5 mm and 1 mm cable assemblies and the 500 ft roll of 0.1" cable.

Here's an idea - order the terminated cable (maybe a little longer, like 4", in case you try my final idea). If you don't like the way it fits in the existing sockets, you could get some SIP sockets (or cut a DIP socket in half) or you could cut off the ends and try your hand at stripping the insulation from the ends. The more I look at the cable from my 97, I think a Dremel with the 1" diameter wire brush would probably strip it pretty well (bristles moving toward the cable end). I would try to keep the brush just over the conductors and not try to remove the insulation between the conductors.

Re: flat flex cable ideas - last might be best!

*Message #23 Posted by **David Ramsey** on 5 June 2003, 12:03 p.m.,*
in response to message #22 by Ellis Easley

Ellis,

Thanks for that enormously informative message!

Re: flat flex cable ideas - last might be best!

*Message #24 Posted by **David Smith** on 6 June 2003, 3:42 p.m.,*
in response to message #22 by Ellis Easley

I think you can just cram those crimped on pins into the HP sockets. I found a long 8 conductor at a surplus store and tried it a while back. The pins seemed to hold just fine. Certainly is worth a try.

BTW, I have two SR-60 calculators with serial numbers around 100 apart. One has the bare flat flex cables inside, the later one has the pin style. The bare cables have problems staying put, etc.

Re: flat flex cable ideas - last might be best!

*Message #25 Posted by **David Ramsey** on 7 June 2003, 11:11 a.m.,*
in response to message #24 by David Smith

Hmmm..lemme know if you want to get rid of one of those SR-60s...

In the meantime I'll continue looking for a replacement for the cable.

Re: flat flex cable ideas - last might be best!

*Message #26 Posted by **David Smith** on 7 June 2003, 2:42 p.m.,*
in response to message #25 by David Ramsey

Alas, one of the SR-60 machines is well and truly dead. And the CPU board is not the same. Even though most of the parts are socketed (!) most of the custom chips are different so swapping parts does not help much. Rather strange in a machine that had a production run of probably less than 500 units.

Re: flat flex cable ideas - last might be best!

*Message #27 Posted by **Tony Duell (UK)** on 7 June 2003, 6:49 p.m.,*
in response to message #22 by Ellis Easley

My HP97 came in a pretty beat-up state, and my aim was to get a working machine, rather than one that was 'perfect'. Of couese the reader cable was dead. What I did was desolder the connectors from the logic board and reader and replace them with 13 pin (I think) right-angle pin headers. I then used a piece of 26 way IDC cable and a couple of 2*13 pin IDC sockets to make a replacement cable -- of course I had to thread the cable through the chassis plaate before I crimnped one of the connectors to it. I also had to be careful that I used the right row of holes in each connector (using the wrong one would have made no connections, of course. Works fine, even if it's not as HP did it.

Re: Repair questions

*Message #28 Posted by **Ellis Easley** on 5 June 2003, 2:21 p.m.,*
in response to message #20 by David Smith

Quote:

> If I have to do it over again, I think I will go down to the local surplus store and try and find some ribbon cable connectors of suitible size. If they are standard dual row, you can always cut off one row of pins. I think the hard part would be clearances with the case.

Yes, that opening in the middle plastic is a big limitation on what connectors you can use. There's no way a dual row plug will fit through it. The red (or white - means made in Japan - 2.5mm instead of .1") Molex connectors for single wires are too thick also. The black connectors that you see in generic PC cases for the wires from the front panel that plug into the motherboard will fit through the opening. Molex C-Grid is one brand but I think AMP made them first.

I've studied this a lot (but haven't actually implemented any new ideas yet) but my favorite idea is using strips of screw-machine IC socket contacts with .020" diameter solder tails, which mate perfectly with their own sockets. I'm going to do this but right now I only have a 24 pin socket so I can only make two 12 pin strips. But starting with a 28 pin DIP socket, I will cut it in half ad cut off one pin from each half - or find two 13 pin single row strips - and solder one into the main circuit board (bent to a right angle) as a socket, and connect the other one to the card reader as a plug with 13 wires.

Re: Repair questions

*Message #29 Posted by **David Ramsey** on 5 June 2003, 5:15 p.m.,*
in response to message #28 by Ellis Easley

Quote:

> Yes, that opening in the middle plastic is a big limitation on what connectors you can use. There's no way a dual row plug will fit through it. The red (or white - means made in Japan - 2.5mm instead of .1") Molex connectors for single wires are too thick also. The black connectors that you see in generic PC cases for the wires from the front panel that plug into the motherboard will fit through the opening. Molex C-Grid is one brand but I think AMP made them first.

Well, heck, it's just a slot in a piece of plastic. A little Dremel work is all that's needed...

Dremel work ...

*Message #30 Posted by **Ellis Easley** on 5 June 2003, 6:35 p.m.,*
in response to message #29 by David Ramsey

Speaking of Dremel work - if I'm right, and a Dremel wire brush will strip flat flex cable - I can make 2181 of these cables from a 500 foot roll which costs $465 so my material cost per unit would be $0.213 - I wonder how many I could sell?

Re: Dremel work ...

*Message #31 Posted by **David Ramsey** on 5 June 2003, 10:18 p.m.,*
in response to message #30 by Ellis Easley

> Quote:
>
> Speaking of Dremel work - if I'm right, and a Dremel wire brush will strip flat flex cable - I can make 2181 of these cables from a 500 foot roll which costs $465 so my material cost per unit would be $0.213 - I wonder how many I could sell?

Heck, I'd buy 5 of 'em at $10/each!

I think I'd try a razor blade, myself, rather than a Dremel tool (to strip the cable)...

Re: Dremel work ...

*Message #32 Posted by **Ellis Easley** on 5 June 2003, 11:01 p.m.,*
in response to message #31 by David Ramsey

Only thing about the bulk flat flex cable and the terminated assemblies with 0.1" pitch - according to the descriptions the copper conductors are not tin plated. The metric cable assemblies (without pins crimped on them) are tin plated.

Re: Repair questions

*Message #33 Posted by **David Smith** on 6 June 2003, 3:46 p.m.,*
in response to message #28 by Ellis Easley

Ellis,

Try Tanner Electronics in Carrolton. He has (had?) lots of single row screw machine pin sockets up to at least 20 pins.

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HP Forum Archive 13

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Need guidance! HP12cP: where to buy?

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2003, 3:55 p.m.*

Hi, folks;

I have the chance, this very week, to get in contact with an HP12cP. Avoiding detailed information, I need to know where it can be bought on-line, I mean, an e-address so it can be ordered in the USA.

I know this information has already been available in this forum, and I received an e-mail by Jorgi Hidalgo where he mentions an e-place where it can be ordered, but I cannot retrieve such information.

Please, I have only till Tuesday to confirm the e-place so I can be able to have one. My interest is not specifically in having an HP12cP, but having the chance to know it and how do its new features work in order to develop a professional activity.

If there is anyone that can help me pointing out an e-place where it can be bought on line, I'm extremely thanked.

Luiz C. Vieira - Brazil

Re: Need guidance! HP12cP: where to buy?

*Message #2 Posted by **J.Manrique Lopez de la Fuente** on 1 June 2003, 6:10 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

As I've told you, I've bought it on EduCalc

Best regards,
J.Manrique Lopez de la Fuente
Users Club from Gijon
1077 HPCC Member

Re: Need guidance! HP12cP: where to buy?

*Message #3 Posted by **Ellis Easley** on 1 June 2003, 6:26 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

HP's website, the page that was posted here a few days ago, will find dealers for you:

http://www.hp.com/calculators/financial/12p/

See the button marked "locate a reseller>>". For the United States, it lists three:

Office Depot http://www.officedepot.com

Office Max http://www.officemax.com

Staples http://www.staples.com

They also list Chile, Colombia, Peru and Venezuela - what happened to Brazil? Argentina? HP only likes the west side of South America?

links maybe no good

*Message #4 Posted by **Ellis Easley** on 1 June 2003, 7:12 p.m.,*
in response to message #3 by Ellis Easley

I hope I didn't jump the gun with those links! Office Depot hides calculators under "Office Machines". Here is a direct link to the page of "Business/Scientific Calculators", but it doesn't include the 12cP:

http://www.officedepot.com/ddMain.do?level=SC&id=1002001&location_info=SG_3_DV_10_SC_1002001

Office Max doesn't list the 12c let alone the 12cP - but they do have the 10BII (on the second page):

http://www.officemax.com/max/solutions/product/thumbnail.jsp?BV_UseBVCookie=yes&expansionOID=-536879774

Staples also puts them under office machines and they don't have it either:

http://www.staples.com/Catalog/Browse/class.asp?
PageType=3&ClassID=140514&bcFlag=True&bcSCatId=3&bcSCatName=Technology&bcCatId=9&bcCatName=Office+Machines&bcDeptId=900&bcDeptName=Calculators

That's one of the longest URL's I've ever seen! They must have been taking those pills that are always being offered by email!

Then I called all three local stores - they never heard of it.

Re: links maybe no good

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2003, 9:17 p.m.,*
in response to message #4 by Ellis Easley

Hi, Ellis;

I was told by someone in USA that both Office Depot and Office Max are not aware of the HP12cP, too.

HP is taking desperate measures: announcing sale offices that do not know they are selling.

Funny.. if it was not tragic.

Thanks a lot!

Luiz C. Vieira - Brazil

Edited: 2 June 2003, 6:29 a.m.

Re: links maybe no good

*Message #6 Posted by **Dean** on 4 June 2003, 7:34 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

I called 1.888.GO.DEPOT to order a 12C platinum and they told me that had them. So, I order two. They arrived the next day - lo and behold - they were regular 12C's :-(

So, I called and bitched and they are picking them up tomorrow. They sales guy I got said he know nothing about them.

I called CA, PA, IL, and emailed Austrailia - nobody knew anything. So, I thought, "What the hell is HP doing?" It seemed to me that the 12C might be crap and they are tring to create mystery and "demand" to get as many out the door as they can before it's known how junkie they really are.

However, I still wanting to get one at least to find out for myself.

Finally, today (June 4th) HP's website has them for $79.95 ea. It's supposed to arrive tomorrow.

I'll let you know what I find...

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HP Forum Archive 13

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HP 200C Audio Oscillator

*Message #1 Posted by **Joe McGerald** on 1 June 2003, 1:15 p.m.*

I acquired one of these today from the earliest days of Hewlett Packard. It seems to be complete and in relatively good shape. Does anyone have an estimate of the value and/or know where I might be able to find information about it. A Google search yields a museum in Japan and HP's own web site museum.

Also interested in info about the number manufactured, etc.

Thanks in advance for any information.

Joe

Re: HP 200C Audio Oscillator

*Message #2 Posted by **Andreas Stockburger** on 1 June 2003, 2:43 p.m.,*
in response to message #1 by Joe McGerald

Hi,

here you can find prices

http://www.vaxxine.com/phil/scopes/HP$.htm

perhaps this helps

Andreas

Re: HP 200C Audio Oscillator

*Message #3 Posted by **Joe McGerald** on 1 June 2003, 3:08 p.m.,*
in response to message #2 by Andreas Stockburger

Thank you Andreas. Joe

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HP12C Platinum Observations

*Message #1 Posted by **Stan (Sg)** on 1 June 2003, 9:28 a.m.*

I decided to go ahead and purchase an HP12 C Platinum. After using it for a short time, here are my thoughts (in no particular order):

* Looks: The HP12CP looks better "in person" than in the pictures that I have seen. After using it for a little while and setting it beside my HP12C, the 12C looks old fashioned. I will give it a thumbs-up on looks.

* Case: The case (leather?) that it comes with the calculator looks nice – much better than the original 12C vinyl case. Thumbs up on this also.

* Speed: Solving a typical TVM problem it is very quick with everything but i (I used PV=100,000, FV=0, n=360, i=6). Solving for PMT takes only a second or two. If I store zero in i and solve for i with the payment calculated above, it takes about 30 seconds. Solving for i again takes another 30 seconds, which implies it does not use the prior solution to start the next problem. For reference my 49G takes <2 seconds to solve for i, the original 12C takes 16 seconds (first time) and 4 seconds (second time) and my 42S takes 5 seconds (first time) and 3 seconds (second time). Note, I programmed the TVM equation into the 42S, so it is subject to my programming skill or lack thereof. I tried some quick programs on the 12CP and it seems faster than the original. Thus, I will call this even.

* Display: The 12CP numbers are taller and thinner than the original and are easy to read.

* Keyboard: The keys feel okay and have more of an audible click than my other HPs. The real test of the keyboard will be its longevity (so time will tell). Regardless of how it compares to older HP models, the keyboard is better than any other brand on the market (IMHO).

* Mistakes on the back label: The mistake on the 31/5/1998 example on the back label has been corrected (5 changed to 05), but two others have appeared. The 1998 and 1999 from the original 12C examples remain, even though the examples have been updated to 2003/2004. Thus, it instructs you to enter 6.0320041999 instead of 6.032004. Oh well. Perhaps these will be corrected in later production models.

In my opinion, this is a good calculator and a step forward from the latest 12C. I applaud HP for producing new models. I would like to see more frequent incremental updates on the new models - how about a 12CP+ with trig functions for 2005 release????

Re: HP12C Platinum Observations

*Message #2 Posted by **Wayne Brown** on 1 June 2003, 9:46 a.m.,*
in response to message #1 by Stan (Sg)

> Quote:
>
> * Looks: The HP12CP looks better "in person" than in the pictures that I have seen. After using it for a little while and setting it beside my HP12C, the 12C looks old fashioned. I will give it a thumbs-up on looks.

That's exactly my problem with the "new" 12C. For me, "old fashioned" is almost a synonym for "classic." I'm not interested in any "new" Voyagers unless they look just like the old ones.

Re: HP12C Platinum Observations

*Message #3 Posted by **R Lion** on 1 June 2003, 9:47 a.m.,*
in response to message #1 by Stan (Sg)

> Quote:
>
> how about a 12CP+ with trig functions for 2005 release????

...better a *real* scientific: 15CP with 2x memory and 2x speed.

Raul

Re: HP12C Platinum Observations

*Message #4 Posted by **Stan (Sg)** on 1 June 2003, 10:14 a.m.,*
in response to message #3 by R Lion

I agree completely. I would love to see a 15C platinum (or titanium, etc...). My comment was regarding what happens after the new scientifics are released later this year. I am hoping that HP wont stick with that line up for 10 years. Adding a few incremental features each year will help satisfy users and add to sales. eg. how about selling a 15c "as is" next year (for those that didn't get one the first time around), then a platinum version in 2005 (with more memory / faster processor) and a platinum+ in 2006 with I/O capability?

12CP and other (Long)

*Message #5 Posted by **bill platt** on 1 June 2003, 11:35 a.m.,*
in response to message #4 by Stan (Sg)

Stan, R.Lion etc,

First, one of the most fascinating aspects of this newsgroup is that there is a constant (healthy) tension between two worldviews here--the collecting worldview, and the "what should be happening now" worldview in terms of calculators. And even more fascinating, most of the personalities here are living in both worldviews!

I agree that incremental improvements are imoprtant to product sales. This is precicely what has kept microcomputers selling all these years. Except that with calculators, a large part of the market (how large, we do not really know) does not want or need new features--the product has sort of reached a plateau in that respect. It's kind of like knives---good designs have been around for 1000's of years and so the choice of appropriate design is more a matter of taste and specific application, rather than getting a better one.

Second point is that the speed of the older calculators is noticably inferior, and in my opinion unacceptable. I feel this way because of my viewpoint:

I used an 11c for 12 years, until I lost it in'96. Bought a 32sii--and the transition was so absolutely seamless--I barely had to read the manual. And the 32sii had a bunch of new features--which was nice, and I was glad to have them, becasue they did not "interfere" with my core understanding or needs, but they were right on the keys, and handy, and I use them!

Then, recently, like 3 months ago, I finally bought a 48GX. That was also a pretty good transition for basics, though it took a significant amount of time (about 16 hours) of reading the manual and using it, to understand even the basics of the whole new system. And while the speed for the calculations is good, the menus are slow--they feel slower than my 1 Ghz pc. And it really is not as convenient for gneral use, as there are almost always more keystrokes than the 32sii, when looking for handy calculator features.

Finally, I got crazy and bought an old 41cv. Now that gives perspective. Having been in 32sii land, and then 48 land, I can see that there is Never a reason to reintroduce that venerable 41c. Never. It is cool, to be sure; it is easy to program--being regular rpn, but my god, it is clumsy, like an ALpha Register?! That is clumsy, in retrospect. But necessary, when you have not invented sysRPL yet, I guess. And the solve times are slower. And there are no built-in handy functions on the keyboard. But it really was not a calculator--it was a proto-PC sort of--or better yet a blank fully customizable tool. You can see how, (I admit, even today) by using overlays and USER mode, you can make a custom tool for some specific application--like you hand the tool to the guy on the line and say, "now you just do this and that, and then bring the machine in and plug it over there at the end of the day..." But today, you would rather build that onto a pocket pc or a palm tungsten T? or W? (the one with the key board).

I also recently found an old 11c. So nicely made. But having been on the 32sii, I find that it runs REALLY slow---almost unbearably after having gotten used to the modern world. And I have really come to like having the alphanumeric, rather than keycode, programming, and the equation editor/solver. I suppose that if i were an "EE and used complex math, then I would not even consider the 11c (it would have been 15c anyway).

Products do have to keep up with the times. They *must* work faster than old ones. Speed is really important, for the user to accept the product as being up to date.

It seems to me that the new 12CP is headed for failure, if it is taking 30 seconds to solve for the interest rate, on a TVM computation. Like, I could do that faster by hand!

Just my $50. wrth ;)

-Bill Platt

Re: 12CP and other (Long)

*Message #6 Posted by **Ernie Malaga** on 1 June 2003, 11:57 a.m.,*
in response to message #5 by bill platt

> Quote:
>
> Products do have to keep up with the times. They *must* work faster than old ones. Speed is really important, for the user to accept the product as being up to date.

I wish someone would explain to me, using babytalk if necessary, why speed is so important. Even an HP-65 (a really slow calculator) performs calculations a hundred times faster than pencil and paper -- or, perhaps, even abacus.

IMHO, speed is not an important issue. It's nice, yes, but not vital. More important issues are ease of use and physical sturdiness.

Sorry, but I find that I cannot agree with you.

-Ernie

Re: 12CP and other (Long)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2003, 1:30 p.m.,*
in response to message #6 by Ernie Malaga

Hi;

I'm not daring to explain others, instead I'm posting my own view to "the need for speed".

IMHO, speed is important when new features need more and more system cycles to compute final "result", being this result manifested as, for example, a higher-resolution screen. We all, at least most of us, use some sort of graphical O.S. in our computers. Chances are (and we have one of our contributors as an example) we may face a text-only access through a dummy terminal, what would be extremely desirable about fifteen years ago. To support such high-quality images, enhanced O.S. and to handle large amount of memory, speed must be increased so we do not have to pay with "waiting time" for the new enhancements.

Imagine the HP48 with the same clock available in the HP41. It would run as a turtle! There are lots of instructions in an HP48 being performed after each keystroke that simply did not even exist in an HP41. Also, the new enhancements lead to more memory so new data may be stored. And new O.S. are more software dependant, demanding more and more cycles to accomplish each task.

I see the HP12CP as an enhancement in a way it "emulates" an old system in a new design. And this is something some of us (I included) are trying to do. As this old system is partially hardware dependant, I mean, many instructions in the HP12C's original O.S. were based on its internal architecture and had to be "translated" to the new one, the "emulated" system had part of this code adapted to the new HW and part of it was completely rewritten. It could be avoided if the new system emulated the original HW completely, as a virtual machine, what would allow the original HP12C O.S. to be entirely used. In this case, which processor would they use in the HP12cP? I imagine the best cost × performance was chosen. At least when HP's new staff viewing is considered. and if we have the same set of resources being offered by a newer equipment, let's enhance it's performance so we can "see" results almost instantly. At least it is enough to justify the upgrade.

Not that I agree with it, but I cannot deny the fact.

Suggestions, comments, flames...

Luiz C. Vieira - Brazil

Re: 12CP and other (Long)

*Message #8 Posted by **Ernie Malaga** on 1 June 2003, 2:44 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz:

> Quote:
>
> Imagine the HP48 with the same clock available in the HP41. It would run as a turtle! There are lots of instructions in an HP48 being performed after each keystroke that simply did not even exist in an HP41. Also, the new enhancements lead to more memory so new data may be stored. And new O.S. are more software dependant, demanding more and more cycles to accomplish

> each task.

But Bill's post was not about newer, more advanced machines. He was talking about a HP-12CP. What's the rush, that a 15-second computation is intolerable? That's what I'd like to know.

Next, we'll be using holographic displays and 8 GHz Pentium XII chips on a 4-function calculator that needs no keyboard because it reads your mind. Yeah, yeah, I know -- I'm taking it to an unacceptable extreme. 8^)

-Ernie

Re: 12CP and other (Long)

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2003, 3:16 p.m.,*
in response to message #8 by Ernie Malaga

Hi, Ernie;

you wrote:

> Quote:
>
> What's the rush, that a 15-second computation is intolerable? That's what I'd like to know.

For human beings delving into an whatever design, no matter at all! A coffe break, why not! What bothers people is that if someone gives an answer faster than the others, its a wrong analysis to consider him the best; he's been the fastest, at least at that particular moment. But some mannagers (not all of thenm) cannot see this way.

> Quote:
>
> Yeah, yeah, I know -- I'm taking it to an unacceptable extreme. 8^)

You're talking about today, right? If you said "2GHZ microprocessor for home and office application with 80GBytes HD and 512 MBytes RAMM, 266 MHz RAM clock", say, ten years ago, you'd add: *Yeah, yeah, I know -- I'm taking it to an unacceptable extreme. 8^)* too.

Right?

Best regards.

Luiz C. Vieira - Brazil

Speed and the TVM equation

*Message #10 Posted by **Karl Schneider** on 2 June 2003, 4:22 a.m.,*
in response to message #6 by Ernie Malaga

I agree with Bill Platt that higher computational speed is important in calculators (though not as much as for PC's), and that updated number-crunching products should keep improving their speed of execution in order to stay modern and competitive.

Slow computational speed is my only criticism of the Voyager series, and it may have been a result of the CMOS technology of the time. The HP-15C takes almost a full second to calculate a trig function -- a minor annoyance. The 32Sii and 42S are about 4x as fast as the 15C, and it shows.

Faster computational speed helps to eliminate this "annoyance factor", makes programs run faster, and makes graphing practical.

Those of you familiar with the TVM equation know that, of the five variables, only %int must be iteratvely solved by numerical methods; direct equations can be written for the other four.

Re: Speed and the TVM equation

*Message #11 Posted by **Valentin Albillo** on 2 June 2003, 7:07 a.m.,*
in response to message #10 by Karl Schneider

Karl wrote:

"Slow computational speed is my only criticism of the Voyager series, and it may have been a result of the CMOS technology of the time."

On the other hand, you get an utterly incredible battery life, lasting several (many) years from a single set, even using the machine a real lot. I'm still in the third battery change for my 22+ years-old HP-11C, and it has seen very heavy, daily use all the time. Try that with any other calculator at all, past or present.

"The HP-15C takes almost a full second to calculate a trig function -- a minor annoyance."

Very minor. I don't mind at all that it takes 1 second to compute a trig function to 10 places, instead of 0.01 second or 0.000000001 second, I'm never in such a hurry to get my trigs. If I were, I would be using my 2.4 Ghz PC.

On the other hand, wasting time changing batteries which happen to be low when least expected or when most necessary (Murphy's Law) would really amount to a lot of seconds wasted, not to mention the fact that if you're running such complex programs on your calculator that time is paramount, just think how much time you've already used writing, testing, and debugging said programs in the first place. Perhaps the running time amounts to just a fraction of the grand total.

"The 32Sii and 42S are about 4x as fast as the 15C, and it shows."

If running speed were the main concern, you might as well use most any vintage SHARP pocket computers instead, they can run rings around any 32S or 42S. But it isn't, don't you think ?

Best regards.

Re: Speed and the TVM equation

*Message #12 Posted by **Ernie Malaga** on 2 June 2003, 7:29 a.m.,*
in response to message #11 by Valentin Albillo

Valentin:

> Quote:

> I'm still in the third battery change for my 22+ years-old HP-11C, and it has seen very heavy, daily use all the time. Try that with any other calculator at all, past or present.

Yeah! I have a HP-32S that I bought in 1988 (give or take a year) and is **still** on its original batteries.

> Quote:
>
> Very minor. I don't mind at all that it takes 1 second to compute a trig function to 10 places, instead of 0.01 second or 0.000000001 second, I'm never in such a hurry to get my trigs.

My point precisely. What's the big rush? I think the "I can't wait" opinion comes from not putting things in perspective. I remember using log tables to calculate trig functions, and **that** was time-consuming. Then I used a slide rule, and although it was somewhat faster, precision wasn't good enough. So what if the calculator takes one second?

-Ernie

Re: Speed

*Message #13 Posted by **Ellis Easley** on 2 June 2003, 8:16 p.m.,*
in response to message #12 by Ernie Malaga

A comedian named Joan Rivers made the following joke when Elizabeth Taylor first gained weight and microwave ovens were new:

" Elizabeth Taylor is the only person I know who stands in front of the microwave yelling 'Come on!' "

The joke isn't as funny now that microwaves are the norm.

Re: Speed and the TVM equation

*Message #14 Posted by **David Smith** on 4 June 2003, 3:28 p.m.,*
in response to message #12 by Ernie Malaga

If you just need one, a one second trig is no problem. If you need a zillion of them when running a program they begin to add up really quickly.

I just don't believe it should get SLOWER

*Message #15 Posted by **Gene** on 2 June 2003, 9:06 a.m.,*
in response to message #11 by Valentin Albillo

There is no real excuse for a product made 20 years after the original to solve %i with half the speed.

None. Period.

:-)

Gene

Re: OH YES THERE IS! A sorry excuse! (no text)

*Message #16 Posted by **Ron Ross** on 2 June 2003, 9:43 a.m.,*
in response to message #15 by Gene

.

Battery life. Was Re: Speed and the TVM equation

*Message #17 Posted by **James M. Prange** on 2 June 2003, 8:32 p.m.,*
in response to message #11 by Valentin Albillo

> Quote:
>
> I'm still in the third battery change for my 22+ years-old HP-11C, and it has seen very heavy, daily use all the time. Try that with any other calculator at all, past or present.

Although they've long been in the "rarely used" category, I have two that are still on the original batteries.

The oldest is from about 1980, a Lloyd's Accumatic 608, model E608, series 713C. Only 8 digits, and the most advanced features are square root and a user memory. Uses a pair of 625R batteries, which are so odd looking that I wonder whether replacements will be available when they die. Maybe the batteries will outlive me?

The newer one is from 1988, a Radio Shack Cat. No. 65-658A, Model No. EC-4004. A 10-digit "scientific" keystroke programmable, uses one CR-2025 cell. I'm pretty sure that it's a re-badged Casio.

Perhaps this says more about the battery quality than the calculators. I'd have thought that these batteries would be dead by now even if they were just sitting on a shelf in their original packages, so I find it rather amazing that they can still run the calculators.

Regards,
James

Re: Battery life. Was Re: Speed and the TVM equation

*Message #18 Posted by **bill platt** on 2 June 2003, 9:37 p.m.,*
in response to message #17 by James M. Prange

Long Battery Life:

My Wife has and still uses her Sharp Elsi-Mate EL-230 (with Auto Power Off) regularly--for instance the checkbook (she keeps the books so that I can logon to calculator forums) and she has used this nifty little rubber-buttoned beauty as a regular use tool since 9th grade. 9th Grade was 1981. That's 22 years, and NOT sitting in a desk drawer. To get to the batteries, you have to unscrew the back. Never been done.

Even more interesting, and perhaps even heretical, is that the buttons are really good. They do not have the positive click, but they have no keybounce, either. And they all

still work perfectly. and they are sensitive--it is pretty much impossible to push a button and not get a number.

So, evidently, HP is not the only maker that has produced quality goods in the past.

The real challenge that I am afraid we all agree on, is whether there will be any good quality in the future.

Need for Speed

*Message #19 Posted by **Bill Platt** on 2 June 2003, 4:45 p.m.,*
in response to message #6 by Ernie Malaga

Ernie et al:

Well, thanks for your replies. Good discussion.

Speed is important for a number of reasons.

1. Because we are trying to always save more time. Speed is a Direct Competitive advantage.

2. Because speed is percieved as being advantageous, better, smarter, or proof of worthy engineering. Partially, this bias is due to item(1) working both consciously and unconsciously in the buyer's mind.

3. Because not all users use functions in single press, occasional fashion. If there is an iterative loop, (which is quite likely with a *programmable* calculator) then a 1 second trig problem goes from being slightly annoying to becoming downright useless.

4. Because the calculator is *always* in competition with other tools. It must be the *best* it can be, in order to be attractive to the user---otherwise it goes away. A slow calculator is a dead calculator. It has to be better than any built-in or freeware PALMtop emulator--and not just the keys. See my other post regarding economics:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=35261

In other words the calculator has to keep market share to exist.

5. Because the market for calculators is over saturated. Look at how many different models are generally available. Look in a wholesale office supply catalog---mind-boggling! So an HP must STAND OUT!

I think it is also important to strip away all of one's nostalgia in this, too--the moving forward part---and consider that for HP or any other (Say PlattCalc? or RossCalc or MalagaCalc, Or SmithCalc or PrangeCalc, or better yer, VieiraCalc {I like the sound of that one;) }) to survive, there must be a singlemindedness about Unity of Design, Function, Price. The product must be better in a functional way, as compared to any other calculator. No, it doesn't have to have the same click. It does not need a particluar color. The equals key does not have to be where it was on the 34. But it has to work better than what came before. Like when I switched up from 11c to 32sii. Better. And that is a *very* difficult goal to carry out.

Regards,

Bill

OOPS

*Message #20 Posted by **Bill Platt** on 2 June 2003, 4:52 p.m.,*
in response to message #19 by Bill Platt

Regarding Economic, I quoted the wrong previous post. See the following:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=35260

Re: Need for Speed

*Message #21 Posted by **Valentin Albillo** on 3 June 2003, 4:30 a.m.,*
in response to message #19 by Bill Platt

Bill posted:

*" But it has to work better than what came before. Like when I switched up from 11c to 32sii. Better. And that is a *very* difficult goal to carry out."*

Indeed ! So difficult it doesn't even succeed in most cases. Are you implying that the 32SII is *better* than the older, "slower", HP-15C ?

Well, my old, "slow" HP-15C inverts a 7x7 matrix in 49 seconds, and solves a 7x7 system of linear equations in 25 seconds. Will you please tell me the times for your "newer", "better", "4x faster" HP32SII ? Thank you.

Best regards.

Re: Need for Speed

*Message #22 Posted by **Bill Platt** on 3 June 2003, 1:15 p.m.,*
in response to message #21 by Valentin Albillo

Hi Valentin,

The 15c is superior to the 32sii--it is a higher level model.

The 32sii is superior to the 11c--and was (I think) its replacement. 32sii was less expensive than the 11c and did more and faster.

The 42s would be the replacement for the 15c, yes? And it was slightly less exensive than the 15c?

Regards,

Bill

Scientific, The Next Generation

*Message #23 Posted by **Patrick** on 1 June 2003, 2:37 p.m.,*
in response to message #3 by R Lion

As I've mentioned many times, I am a big fan of the 15C. We see others (in this thread even) who think the Voyagers are too slow, and they are probably right. I'm wondering to what degree the Voyagers were student rather than professional calculators. Can a professional actually solve a real problem with so little speed and, especially, memory?

I think a cross between the 15C and 42S with some enhancements would be a fabulous machine, for a lot of folks. I like the 42S two line dot matrix display. Imagine this packed into the form factor of a 15C. Please, no more graphic displays with the commensurate brick sized device you end up with. The 48GX is a great desktop device, but I never carry one with me.

Now, to this 15C/42S hybrid (HP-45S?) add gobs of memory (and I mean *gobs* ... memory is now cheap). Then add wireless communications. I would suggest Bluetooth since it is low power. You really only need to be able to transfer memory to/from your PC when you are next to it. Now imagine that there was a PC emulator for this machine that came with it upon which you could develop (KEYSTROKE!!) programs for the handheld.

To get really fancy, imagine that processor speed is selectable (and programmable!!). Normally, you would keep the speed low to conserve power. Occasionally, you would floor it to get that 50x50 matrix inverse finished within your lifetime.

Ah, yes... "Hello? HP? I'd like to order 25 of those new HP-45S's please. Yes, that's right, 25 of them... What's that? Well, for your information, I actually *do* have 25 rooms in my house! Ok, here's my credit card..."

Re: Scientific, The Next Generation

*Message #24 Posted by **R Lion** on 1 June 2003, 3:19 p.m.,*
in response to message #23 by Patrick

If I need "more than a calculator" (integrating, solving, CAS...) then the speed (and features) of the 48GX is great. GREAT.

And I don't care if it does not fit in my shirt pocket: I can carry it with my books and diary in my bag.

But when I need "only" a calculator for numbers, I love the 15C.

And it doesn't matter if it is sloooow.

Raul (just MHO)

Re: Scientific, The Next Generation

*Message #25 Posted by **Stan (Sg)** on 1 June 2003, 7:13 p.m.,*
in response to message #23 by Patrick

I agree that a new model with bluetooth, etc... would be great. The problem is that this type of model would require a significant amount of development time and money. Thus, I doubt HP is going to do that. If they did, they would need to get into TI's "mass education" market. It is hard to see how this would happen. The Xpander was an attempt at this, but apparently they concluded they could not tale-on TI even with a completed design. HP's current strategy seems to be capturing the niche high-end professional and college student market (the 12CP sells at a >$50 premium versus a comparable TI). A "platinum" version of an existing model takes less time to develop, and in the case of a 15C, has a proven design (form factor, etc...). Heck, they can even reuse the manual versus writing a new one.

Re: Scientific, The Next Generation

*Message #26 Posted by **JimC** on 2 June 2003, 12:25 p.m.,*
in response to message #23 by Patrick

While I agree with the majority of your post, I must (humbly) submit some minor quibbles. Your ideal

calculator sounds great and would perhaps be a better match for a larger audience, but perhaps not for someone like myself.

I think that we are looking at two different markets here. On one hand, HP needs to capture the youth/student market for growth. I think the student market is another issue that I am not qualified to debate as I believe it concerns a certain compatibility with TI. On the other hand, I believe old folks like me are looking for a classic type RPN calculator. The question is, does HP need to meld these into one Uber-calculator? Personally, I don't think so. My perspective is that I would REALLY LOVE a classic RPN type calculator (41/42 Titanium? Nobelium?) only not bought off Ebay, with the classic HP support.

My 41 does really only one thing but it does it uncommonly well. It crunches numbers easily. (It also looks rather handsome on the desktop but that's another issue). It fits in my pocket and in my hand. As another post mentioned, the 15 is not as comfortable in ones hand. I tend to agree, although it does fit better in a shirt pocket.

I wouldn't mind some connectivity to my PC, and a couple MEGs of RAM. A slightly larger screen for my aging eyes....

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David Assembly Manual

*Message #1 Posted by **Jeff** on 31 May 2003, 9:27 p.m.*

Can anyone possibly scan the manual for the David Assembly ROM. I would like to read more regarding this ROM and the possibilities with the MLDL. Thanks, Jeff

Re: David Assembly Manual

*Message #2 Posted by **Donald Leonard** on 1 June 2003, 2:32 a.m.,*
in response to message #1 by Jeff

I have a copy of Eramco's 'David Assembler' manual although my MLDL and EPROMS were stolen. I bought a replacement MLDL reportedly with the David Assembler last month from Germany, but have yet to hold it in my hands.

I would be happy to copy the 70 pages (@.10/pg. plus around $10 shipping) of the manual for you. I will have to go to a copy center to duplicate this as it is not on my computer/printer. This is NOT the correct source for MLDL information in my opinion. My recommendation is a copy of Ken Emery's 'HP-41 MCODE For Beginners' published by Synthetic, ISBN0-9612174-7-2, and used with the hp VASM listings.

I also have a copy of the Eramco ES RSU 1A Operating System QRG and Eramco Systems Products Price list dated 16 Oct. '85. Let me know what you want copied.

I can appreciate the difficulty and frustration of finding info. on these scarce and aged items. I had a similar situation, and all but one refused to step out to help me, giving me 'publishing rights' as a justification to require me to spend up to $30 to get this kind of info. Don

Edited: 1 June 2003, 2:55 a.m.

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Have you seen this??

*Message #1 Posted by **Iqbal** on 31 May 2003, 8:03 p.m.*

http://www.hp.com/calculators/news/index.html

Re: Have you seen this??

*Message #2 Posted by **David Ramsey** on 31 May 2003, 8:53 p.m.,*
in response to message #1 by Iqbal

Yeah, it's old news. We're all waiting for a follow-up to the 15C, 32S, 42S, or 41 series.

Many here were not overly impressed with the 12C Platinum...

Re: Have you seen this??

*Message #3 Posted by **Erik Ehrling (Sweden)** on 1 June 2003, 1:24 p.m.,*
in response to message #2 by David Ramsey

Let's hope that the reason why HP has not yet released a HP-42S Platinum is that they are currently busy doing some more rigorous testing than for the HP-12C Platinum...

Best regards, Erik

No, I missed it

*Message #4 Posted by **D. Webster** on 31 May 2003, 8:54 p.m.,*
in response to message #1 by Iqbal

Howdy Iqbal!

But it was good for a chuckle. I'm still waiting (as most of us are, I hope) to not hear, but see what HP has in store for us in the way of a real scientific calculator. The 30S - a perennial favorite? ? Honestly now, where do they get their data? I guess it depends on who you pay to collect it. What ever happened to the 32Sii with it's amazing 384 bytes of memory? Eclipsed by the 30S already? The 42S forgotten? The 41C deleted from history? Blink and you'll miss significant happenings in the HP directed calculator time-space continuum.

I think the 12CP got rave reviews here right?

Right?

I guess the air is so thin way up in that ivory tower that it has affected the outcome of their research.

Re: Have you seen this??

*Message #5 Posted by **james (UK)** on 1 June 2003, 7:33 a.m.,*
in response to message #1 by Iqbal

From the article

> Quote:
>
> Later in the year, look for powerful new offerings in our engineering and scientific models, which will include graphing, expanded memory for storing complex equations, **greater programmability and connectivity**

Sounds just like the 41!

I hope the new offerings look and feel like an HP.

everyone has a wish :-)

*Message #6 Posted by **R Lion** on 1 June 2003, 11:24 a.m.,*
in response to message #5 by james (UK)

> Quote:
>
> Sounds just like the 41!

```
Many are wishing a 41 descendant...
others a Voyager descendant...
And Pioneers too:
many a 32sII descendant and others, a 42 descendant...


Only hp knows.


Raul
```

Re: Have you seen this??

*Message #7 Posted by **James M. Prange** on 2 June 2003, 1:12 a.m.,*
in response to message #5 by james (UK)

Or maybe a 48 descendent, with a USB port in addition to the serial port. Some of the newer PCs lack a serial port, so you need an adapter to use them with the 48, and with the amount of memory available in the newer calculators, archiving/restoring by I/O can take a lot of time.

But I wouldn't want to do without the serial port either.

Some features could be borrowed from a sibling, the 49G.

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HP 10 keyboard "pop"

*Message #1 Posted by **Scuba Diver** on 31 May 2003, 4:01 p.m.*

Hello everyone!

I found an electronics store that had some old HPs for sale, and I picked up (in addition to a couple of HP 20Ss) a 10B (NOT a 10BII!)

The unit was made in Indonesia in 1996 (S/N 3624M....) and the fit and finish is excellent. There's just one issue; the "0" key seems to make a popping sound when I press it. Other than the interesting sound effect, everything seems to be fine. The calc passes the keyboard test and it registers the "0" every time I press it.

This appears to be the only key that has this effect. I was wondering, is this a big problem? Does this problem exist in many 10Bs, or does this indicate that I'll have problems in the future? Since this was the last 10B they had in stock, I can't get it replaced, so should I be keeping my eyes open on eBay?

Although I LOVE my 17BII, I want to have a 10B for exams; some professors really get their nose out of joint when you take a "programmable" calc into an exam, so this way I'm covered.

Finally, just a question I'm curious about; what is the difference between the 10B and the 14B? Did the 14B have additional features/functions?

Thanks in advance to those who reply! B.

I had an HP14B...

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 31 May 2003, 6:59 p.m.,*
in response to message #1 by Scuba Diver

... and I saw the HP10B manual and I tell you there are differences.

The most significant one is Cash Flow: the HP14B accepts CFj input in the same way the HP12C does, and it holds up to 22 CF input, from CF0 to CF21, with one CF0 restriction: no repetition. From C1 to C21 you may use the Nj feature, j=1 to 21. Also, it adds some extra single SOLVER-like pre-programmed formulas for Cost-Price-Markup, Old-New-%change, Total-Part-%Total an Nom%-Eff%-PP. Each of them can solve any variable given the other two.

The HP14B has many ALPHA messages and input prompts because the display is a 7×5 dot-matrix instead of 7-segments for each digit. Although the HP10B has some error and condition messages, the HP14B's display shows more information. And it has four general-purpose registers - R0 to R3 - against only one - M - in the HP10B.

It is a nice financial Pioneer, even being only algebraic.

If you need extended, rfined information, let me know. The guy that's holding it - my brother - asked me to give him another one, and I'm trying to find something he likes more than the HP14B, and it's getting hard to find. Anyway, I can borrow it for a while, if needed. He is a lawyer and does not like RPN and wants a

programmable algebraic.

I'm still searching.

Hope this helps for now.

Luiz C. Vieira - Brazil

Edited: 31 May 2003, 9:52 p.m.

Re: HP 10 keyboard "pop"

*Message #3 Posted by **GS Leong** on 31 May 2003, 7:43 p.m.,*
in response to message #1 by Scuba Diver

I had a key that popped on my 32sii when it was new, but it eventually went away after two or so months. Hope yours does the same because I know how annoying it is!

Pioneer keyboard "pop"

*Message #4 Posted by **Randy Sloyer** on 31 May 2003, 8:53 p.m.,*
in response to message #3 by GS Leong

Many of the Pioneer models made in Indonesia have that annoying trait. It can happen anywhere on the keyboard, sometimes one, two and maybe as many as four keys in an area will do it. One of my service replacement 42S (Thank you Johnny!) made in 2000 has a poppy + key. It hasn't changed in a year of use.

IMO it is due to a change in the specification or the manufacturer of the biaxial oriented polyester sheet used to form the keyboard dome sheets from.

There is nothing you can do but live with it.

HP14B vs 10B (long)

*Message #5 Posted by **Ellis Easley** on 31 May 2003, 10:08 p.m.,*
in response to message #1 by Scuba Diver

I'm not a regular financial calculator user but I have several including a 14B. A while back I learned how to use them in the process of figuring out how to operate a TI Business Analyst (an LED model in the family with the TI57) without a manual. Later I tried to provide a comparison of the 12C and 14B for someone here on the Forum, and I became familiar with the more advanced functions. So I have reviewed what I learned to give you this comparison of the 10B and the 14B.

First, the 14B has 5 by 7 dot matrix digits like the 32SII instead of the 7 segment digits of the 10B. The annunciators are a little different than the ones on the 32SII, for one thing because the 14B has one shift key and the 32SII has two - maybe the 14B LCD is the same as the 32S.

The 14B uses menus. For a minute, I thought the 14B didn't do cash flow calculations because there is no "CFj" button but it turns out the cash flow list entry is done by pressing "NPV" or "IRR" at the beginning instead of at the end, these keys prompt you to enter a new cash flow list or use the existing one. The 10B lets you enter an initial cash flow plus 14 cash flow groups with up to 99 cash flows per group. The 14B lets you enter an initial cash flow plus 21 cash flow groups with up to 999 cash flows per group. I've always wondered how financial calculators stow away the extra few digits for the number of cash flows per group! Both calculators use some of the cash flow registers for storing statistics data but the 10B uses 6 registers in the middle of the cash flow list while the 14B uses 12 registers at the end of the cash flow list, so the 14B allows

you to share them: if your cash flow list only has up to 9 cash flow groups (plus the initial cash flow), it will be preserved while you use statistics operations.

The 14B has three applications that aren't on the 10B: Return On Investment, Break-Even Analysis and Inventory Turnover Rate. The 14B has a "Compute" button (shift "Input") which is not on the 10B - it is used in the three special applications since their variables don't have their own buttons. The "Compute" button is also used in the "NPV" and "IRR" menus - since those buttons are pressed at the beginning. After you are satisfied with your cash flow lists, you press "Compute" to calculate NPV or IRR.

Both calculators do one or two variable statistics but the biggest difference is that the 14B does curve fitting with four models (linear, exponential, log or power) while the 10B only does linear regression. Under Statistics, Curve Fitting on the 14B you can choose one of the four models or let the calculator choose the model with the best fit. There is a separate Forecast menu that automatically chooses the model with the best fit.

There are some little differences in the way statistics are done in general. The 14B has a menu choice to display "b", the Y intercept (in the linear model, other values in other models); the 10B has you forecast the Y value for X=0 to get the Y intercept. The 10B has buttons for both sample and population standard deviation; the 14B has you calculate the mean and add it to the summation and then calculate the sample standard deviation, to calculate the population standard deviation.

The 14B had four independent storage registers, R0 - R3. The 10B has one, M. The 10B also lets you STO and RCL 0 - 9 and .0 - .4 but these address the cash flow/statistics registers.

Both calculators do conversions between Nominal and Effective interest rates which are important for Canadian mortgages. The 14B has three separate registers that are shared by this function and two kinds of percentage calculations and cost-price-margin calculations. The 10B has four separate registers plus shares the I/YR register to do pretty much the same bunch of calculations. The 10B has an explicit "Markup" button; the 14B does markup as an implicit result of the "% Change" calculation.

Because the 14B uses menus (mostly on shifted keys) to access some functions that are shifted keys on the 10B, some of these functions take three or four keystrokes to access on the 14B instead of two on the 10B - but on the 10B the second functions of function pairs (like "mean of X,mean of Y") take four keystrokes because "Swap", which is like "X<->Y", is a shifted function. The 14B doesn't have a button like "Exit" on the 17BII that always takes you back one level in a menu (although the "backspace" key does function this way in the multi-level menus but only up to the point where you select a bottom level function). So, for instance, it takes three keystrokes to calculate the mean of X values and then another three keystrokes to calculate the mean of Y values on the 14B compared to two keystrokes for the mean of X and then another two keystrokes for the mean of Y on the 10B. But this is alleviated in the Forecast and Statistics, Fit menus of the 14B when forecasting X or Y values for your entered Y or X values - you can press the "down" button to enter another Y or X value without having to start over.

By now I think you can tell that I can operate these calculators but I'm not really familiar enough with the functions to be able to say which calculator has implemented them better!

I left out the TVM program - as far as I can tell it works the same on both calculators - both use "Interest per Year" (as opposed to "Interest per Period" on the 12C) and have a "Periods per Year" variable that defaults to 12 but can be changed. I don't know why the 14B needs 12 registers for statistics unless it is in support of the different models for curve fitting. The 14B has a "Show" button to display all digits of a number, the 10B doesn't.

14B vs 10B and new HP financials?

*Message #6 Posted by **Scuba Diver** on 31 May 2003, 11:10 p.m.,*
in response to message #5 by Ellis Easley

You guys are amazing!! The amount of knowledge that the group posesses is mindboggling!

Thanks to all of you for your insights (espcially you, Ellis!) Although I am not planning on using my 10B all that much (it's really just for exams...my 17BII and 19BII are my day-to-day calcs for school and my 12C sits on my desk at work), the popping 0 was driving me nuts, so I bought a NIB Singapore one on eBay this afternoon for $20.

Now on to something completely different...I was on the HP website today and read a note from the General Manager of HP calculators. I don't know about you, but this guy worries me. Anyone who would describe the 10BII as a "perennial favourite" should have his head examined...anyhow, I was reading an announcement that there will be two financial calculators launched shortly; one is in the next few weeks and the other one later in the year.

I found this news both exciting and disappointing. On the one hand, it was nice to see that HP was going to launch some new calcs to replace the 17BII and 19BII, however I was disappointed because all of their recent launches (the 9S, 9G and 12CP) have been non-events, IMHO. The 9G and 9S are nothing but rebranded junk, and the 12CP was poorly designed and tested. So, in short, I'm not getting too excited about these new financials.

Having said that, I am keeping an open mind. Since there were a few closet 12CP beta testers out there, I was wondering...is anyone beta testing these new HPs? Any insights?

Personally, if they took the 17BII, moved some of the TVM stuff OFF the menus and ONTO keys, added bi-directional IR communication, bumped up the memory and kep it in a pioneer-style case, I'd be happier than a pig in...well, you know...

Comments? B.

Re: HP 10 keyboard "pop"

*Message #7 Posted by **bill platt** on 31 May 2003, 10:44 p.m.,*
in response to message #1 by Scuba Diver

My blue/green indonesia 32sii (which I use every day) has the clicky-pop on some keys. My previous two (singaporean) brown 32sii-s did not. Other than the color change, the clicky-pop sound was the first thing I noticed about it.

I have a brown indonesian 20s which is much more like the singaporean brown 32sii's inb keyboard feel. But really, every one that I have now (one blue/green 32sii, one brown 32sii, two 20s browns, and also two 48g series), have their own slight individual feel.

Calculators are not like McDonalds' burgers...there is some individuality.....

Re: HP 10 keyboard "pop"

*Message #8 Posted by **Scoba Diver** on 31 May 2003, 11:19 p.m.,*
in response to message #7 by bill platt

Hi Bill!

I agree; each one of my calcs is unique...however the clicky pop is not what I would expect from an HP.

Continuing with the McDonald's theme...this 10B is like a Big Mac that has been sitting under the heatlamp for a couple of days...yes, it's a Big Mac, but I wouldn't want to eat it!

B. P.S. I also have two Indonesian 20Ss from 1996 and their keyboards are perfect...just like my calcs from Singapore. Perhaps the reduction in quality was done on a model-by-model basis; first it was the 10B, then came the others...

Re: HP 10 keyboard "pop"

*Message #9 Posted by **David Smith** on 1 June 2003, 12:02 a.m.,*
in response to message #1 by Scuba Diver

I had a 41CV with a clicky pop to a key. I put a drop of Break Free oil on a brush and swished it under and around the key... no more pop.

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HP41 and tone generator

*Message #1 Posted by **Ted** on 31 May 2003, 5:54 a.m.*

Some time, mucho eons ago when I used to get the newsletter from the HP group in Switerzerland, there was an article about a program for a tone generator for the HP41; (or I am getting senile?) Various pitches are available in the standard 41; what I would like to do is be able to generate exact pitches at A=440hz, 441hz and 415 and 430 etc. to use as a pitch reference for tuning harpsichords and clavichords, lutes etc. It should also be possible to generate a scale in different temperments as well without too much trouble, I should think. Am unsure however if the tone generator in the 41 is stable enough for that kind of accuracy (less than 3% of 1 cent variation). Anyway, I'll do my homework and dig into the archives, but any tips for searching or sources would be appreciated.

Re: HP41 and tone generator

*Message #2 Posted by **Ellis Easley** on 31 May 2003, 7:00 a.m.,*
in response to message #1 by Ted

Are you talking about machine language programs? Is the sound generated by a "bit banger" port that should be able to generate any frequency up to a limit set by the shortest loop you can execute?

The main things I've seen written about tones on the 41 are the much wider that normal range available through synthetic programming. Even then, it looks to me like some bands of tones, not a full spectrum. Also, I think each tone instruction has a certain frequency and duration. The chart of synthetic tones should be in any synthetic programming book and maybe the PPC ROM manual.

Re: HP41 and tone generator

*Message #3 Posted by **Ted** on 31 May 2003, 7:44 a.m.,*
in response to message #2 by Ellis Easley

I'm a newbie to this after years of being away, so I might sound stupid! But all I'm looking for is a simple way of controlling the pitch of the internal speaker of the 41 to generate tones of an exact pitch and unlimited duration (for a couple of minutes) without resorting to any peripherals. This would make the 41 unbelievably useful in daily musical life and eliminate carrying another box around. Come to think of it, a metronome should also be possible as well.....

Re: HP41 and tone generator

*Message #4 Posted by **Ellis Easley** on 31 May 2003, 7:53 a.m.,*
in response to message #3 by Ted

I'm pretty sure that to do that (unless there is an existing program) you will need to learn machine language programming. Later today, I'm sure people who know what they are talking about will be awake and will answer your question! I predict you will learn that it is easy if you can find a ROM that is almost impossible to find!

any frequency?

*Message #5 Posted by **Ellis Easley** on 31 May 2003, 11:11 a.m.,*
in response to message #2 by Ellis Easley

I completely overlooked the granularity of such a program. If the tightest possible loop (something like "out, xor, jump", with no way out) generates a frequency of F, adding one more instruction in the loop might generate (F*4)/3, if all instructions took the same time. On something like a Pentium, that shortest loop would generate a frequency in the megaHertz (possibly) so you could add a timing loop inside the loop to increase the period (and lower the frequency inversely) proportional to the count of the inside loop to generate any period that is a multiple of a few microseconds. Plus you could add a way out! But the HP41 runs so slowly that the granularity would be much larger - maybe the range of synthetic tones is the practical limit. I found the graphical chart of synthetic tones, it's not in the PPC ROM manual, although that has a table of all synthetic tones - this chart is in another PPC book and says it corrects some times in the PPC ROM manual table. It looks to me like the synthetic tones only include 16 frequencies (in Hertz): 105,113,121,131,143,158,175,197,225,263,315,394,525,629,788,1051. Each frequency is available in 8 durations, varying from 0.02 to 5 seconds depending on the frequency. The chart appears to show that each duration of a given nominal frequency produces a slightly different frequency.

correction

*Message #6 Posted by **Ellis Easley** on 31 May 2003, 11:43 a.m.,*
in response to message #5 by Ellis Easley

> Quote:
>
> loop might generate (F*4)/3

should have said (F*3)/4

Re: HP41 and tone generator

*Message #7 Posted by **hans brueggemann** on 31 May 2003, 3:40 p.m.,*
in response to message #1 by Ted

ted, the 41 is waaay too inaccurate for this application, simply because its master-clock is not quartz-driven, but a simple L-C resonant circuit. the 41 is by far the most "unmusical" calculator i've ever heard. the hp28S seems to be the far better choice for this kind of application, because you can program the generator frequency directly. however, i noticed some funny pitch-bend effects when running it as a random tone generator. also, frequency settings with cents of deviation are also not possible on this machine.

cheers, hans

Re: HP41 and tone generator

*Message #8 Posted by **Ted** on 1 June 2003, 2:01 a.m.,*
in response to message #7 by hans brueggemann

Thanks Hans, this is what I neede to know before going surfing for hours!

Re: HP41 and tone generator

*Message #9 Posted by **JimC** on 2 June 2003, 3:45 p.m.,*
in response to message #1 by Ted

Ted, you might want to check this link. No promises though!

http://www.irving.org/ftplib/misc/00index.html - the file is mf.zip

I haven't tried running this or even downloading it. Apologies if you have already seen it.

Re: HP41 and tone generator

*Message #10 Posted by **Ted** on 3 June 2003, 6:07 a.m.,*
in response to message #9 by JimC

Thanks Jim, this looks like a handy program, much obliged. The only thing that seems impossible is to hook it up to the HP's oscillator. Hans is correct however- you need accuracy and a little bit of frequency range for that to be of any use. If it were possible it would be a damn handy program for educational as well as musical purposes..sigh. I'll save this program for a long afternoon of inputting.

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HP 49G Keyboard and future HP 49g's

*Message #1 Posted by **Nick Nicholas** on 31 May 2003, 2:57 a.m.*

I came across a HP 39G with parital serial number CN022xxxxx which seems to have less stiff keys than the HP 49G with partial serial number CN148xxxxx. Does anyone know if the later batches of HP 49G's manufactured had less stiff keyboards?

I have read some rumours that HP is in the process of re-introducing a version of the HP 49g. I thought that HP let go the developers who designed this and other HP calculators from their Australian operations a while ago. While redeveloping the simpler calculators on different hardware may not require a significant development effort, a redevelopment of a HP 49g on different hardware would be a significant development effort especially if the developers had no previous experience developing the HP 49g. I question the feasibility of redeveloping this model for a market price that is comparable to the HP 49g, especially if the development costs for the calculator are incurred by the company that HP contracts with to design and manufacture this model. I would not be optimistic that a re-introduced HP 49g would be an improvement irrespective if it was developed on a different hardware platform or not. I would appreciate comments on this subject.

Re: HP 49G Keyboard and future HP 49g's

*Message #2 Posted by **R Lion** on 31 May 2003, 10:26 a.m.,*
in response to message #1 by Nick Nicholas

> Quote:
>
> Does anyone know if the later batches of HP 49G's manufactured had less stiff keyboards?

I've heard somethig in this way, but... you'll find more info searching in comp.sys.hp48

Raul

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HP85 bus signal levels

*Message #1 Posted by **Vassilis Prevelakis** on 31 May 2003, 2:12 a.m.*

I assumed that the HP-85 (and other Series 80 machines) have 0 to +6V levels, but looking at the service manual on the MoHPC CDROM, I see that the clock signals are 0 to +12V.

Can someone post here the levels that are expected on the various pins of the I/O bus?

Thanks

**vp

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HP laserjet 4 Plus

*Message #1 Posted by **Martin** on 30 May 2003, 5:15 p.m.*

Looking for HP LASERJET MANUAL 4 Plus pdf or HP_LASERJET_SERVICE_MANUAL_4_plus pdf

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difference between 3468a and 3468b

*Message #1 Posted by **andy** on 30 May 2003, 3:34 p.m.*

I just came across an hp3468b multimeter. It has HPIL ports in the back. Whats the difference between this and the well known 3468a?

Andy

Re: difference between 3468a and 3468b

*Message #2 Posted by **Grant Goodes** on 30 May 2003, 4:13 p.m.,*
in response to message #1 by andy

I believe it is just a difference in the casing, with one being a molded plastic case intended for bench-top use, and the other more square and compatible with rack use.

Re: difference between 3468a and 3468b

*Message #3 Posted by **Ellis Easley** on 31 May 2003, 7:04 a.m.,*
in response to message #2 by Grant Goodes

Yes, I verified that in my 1986 HP catalog. A is the portable, B is the rackable. Both were $750 in 1986.

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Question for Dave Hicks, forum search

*Message #1 Posted by **Erik Wahlin** on 30 May 2003, 2:49 p.m.*

Dave, I love your web site and probably visit it almost daily. One thing that would be great for accessing the wealth of info on the HP forum would be a search function. Would that be a difficult thing to implement someday? Thanks

Sorry! spoke to soon

*Message #2 Posted by **Erik Wahlin** on 30 May 2003, 2:54 p.m.,*
in response to message #1 by Erik Wahlin

Sorry! I did not see you already have this feature. Erik

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HP 80 Series Software

*Message #1 Posted by **rhahm** on 30 May 2003, 1:44 p.m.*

Does anyone have any software or "Pacs" for the the HP 85 or 87 they would be willing to share. I could send you either 3.5 or 5.25 floppies if you could copy to discs. Also does anyone have a copy of the HP 85 User's Library?

Thanks,

Bob

Just a reminder

*Message #2 Posted by **Dave Hicks** on 30 May 2003, 3:40 p.m.,*
in response to message #1 by rhahm

Please be sure that any pacs/discs etc that are being shared via this forum are in the public domain.

Thanks.

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HP-67 CARD READER REPAIR

*Message #1 Posted by **Jon** on 30 May 2003, 12:54 p.m.*

Hello:

Time ago I posted here a question about repairing a HP-67 card reader. It had the known problem of these readers. It records ok but fails when reading (not always). Somebody recommended me to change a tantalum capacitor. I have opened the calculator to do it and... BAD LUCK!!!!.

It is an early version of the reader with three cylindrical silver capacitors on the board.

Does anybody have experience with these models?

Thanks in advance

Jon

Re: HP-67 CARD READER REPAIR

*Message #2 Posted by **Greg** on 1 June 2003, 3:08 a.m.,*
in response to message #1 by Jon

Jon, I am in process of repairing the reader on my HP-65 and my next project is to replace the rubber wheel on my HP-67 card reader. The readers are very similar. Those tantalun capacitors located on the narrow piggy back board are decoupling caps for power supply. Now how can you verify that you can record a program if you can't read it? Since you opned your calculator I recommend you demagnetize the R/W head. Regards, Greg

Re: HP-67 CARD READER REPAIR

*Message #3 Posted by **Jon** on 1 June 2003, 4:45 a.m.,*
in response to message #2 by Greg

It records ok all the times. I have an HP-97 so I can check it. The problem is that in early versions of the HP-67 there aren´t tantalum capacitors. They are cilindrical, with silver surface (they don´t look like electrolitics).

How can I demagnetize the head?

About the capacitors...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2003, 10:54 a.m.,*
in response to message #3 by Jon

Hi, Jon;

I saw many of these capacitors in earlier Woodstocks, too, if we are talking about the same

components. I have two of them in hands right now and I read:

```
+T110
KEMET
22µF
15V10%
7630


150D ±10%
60µF
6DC
7634
```

I used to take them all as electrolytic capacitors, maybe the ones you see are not. Have you checked for their values? Just for checking.

As you may know, tantalum are polarized, have higher internal resistance and do not show value drift easily. In some applications, tantalum are better than electrolytic.

Success.

Luiz C. Vieira - Brazil

Edited: 1 June 2003, 11:03 a.m.

Re: About the capacitors...

*Message #5 Posted by **Jon** on 1 June 2003, 3:10 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Luiz:

Thanks for the fast answer. I have also seen those capacitors in woodstock calculators. The problem is the caps of the HP-67 are much more smaller and I can´t read any value. May be I try to unsolder all of them, measure the value and change for electrolitic or tantalum caps.

If I get any success I will make you know.

Jon

Re: HP-67 CARD READER REPAIR

*Message #6 Posted by **greg** on 1 June 2003, 3:23 p.m.,*
in response to message #3 by Jon

Jon, I don't think your HP-67 is older than my HP-65. The cylindrical caps are tantalum (it does't make any difference tantalum or elctytic both types are polrized) I bought a demagnetizer from Radio Shack P/N 28-07246 it is called HEAD DEMAGNETIZER I used to use it on my cassette recorder heads. Demagnetizing could help the cause but it could be somthing else wrong. You can send me an email to my yahoo addresse. Here is a link with som pictures showing the inside of HP-67. http://www.rskey.org/hp67reader.htm gvgregor@yahoo.com

Re: HP-67 CARD READER REPAIR

*Message #7 Posted by **David Smith** on 1 June 2003, 3:10 p.m.,*
in response to message #1 by Jon

Those cylindrical silver caps are tantalum caps... they are just in a much more expensive package than the

dipped epoxy coated ones. They also are much more reliable. I don't know which of the three is the power supply cap, but two of them are connected to the head circuitry (see the HP97 service manual on the HPMUSEUM CDROM set).

HP67 × HP97: card readers

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 1 June 2003, 5:43 p.m.,*
in response to message #1 by Jon

Hi, folks;

Despite of size and external structure, are readers the same for both HP97 and HP67? I do not have any of them (so far; I'm about to receive a gifted HP97; thanks D.S.!) and I'd like to know what from one card reader corresponds to the other in the same way and what doesn't.

I remember seeing pictures of the HP67 reader internals (MoHPC? I don't remember) and there are some structures that "resemble" the HP82104A equivalents (HP41's Card Reader). What called my attention at that time was the HP67's one-piece card sensor metal plate, because there are two independent metal plates in the HP41's card reader.

I'm aware of PCBs' design, structural components and their differences because both calculators have different cases and internal space. What I want to know is: knowing about one's internals will help repairing the other? I think this is my biggest question.

Thanks for any information.

Luiz C. Vieira - Brazil

Edited: 1 June 2003, 5:44 p.m.

Re: HP67 × HP97: card readers

*Message #9 Posted by **David Smith** on 2 June 2003, 3:27 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

The reader electronics for the HP67 and HP97 are similar. The HP97 has a different power supply arrangement for its reader. The sense amp chip and head wiring is the same.

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HP 42S & 82240B Printing Test?

*Message #1 Posted by **Gregg** on 30 May 2003, 12:32 p.m.*

Hi! I have both of these devices, and cannot figure out how to test to see if the printer will work with this calculator. Obviously I'm doing something wrong. The printer powers-up, and will feed paper, but does not respond to the calculator. I must admit, I cannot figure out how to use this calculator (again, the BA in art proves unhelpful!). I did perform the "self-test," and it seemed to pass. Any clues? Thanks!

Gregg

Re: HP 42S & 82240B Printing Test?

*Message #2 Posted by **Richard Garner** on 30 May 2003, 12:50 p.m.,*
in response to message #1 by Gregg

I don't have the 42s infront of me at this time, but there is a print menu that is accessed by using the orange shift key and I think the minus key. When you have the menu active scroll through the menu until you find the printer on (prton) setting activate this setting. The rest of the menu should be explain itself. Be sure to turn the print mode off (prtoff) when you are done with the printer. This will turn off the power to the IR interface and prolong battery life. Hope this helps.

Re: HP 42S & 82240B Printing Test?

*Message #3 Posted by **Gregg** on 30 May 2003, 6:32 p.m.,*
in response to message #2 by Richard Garner

Richard & Randy, I have concluded you are both geniuses!! Your instructions worked perfectly, and so do the 42S and the printer. Thank you for your help!

Gregg

Re: HP 42S & 82240B Printing Test?

*Message #4 Posted by **Randy Sloyer** on 30 May 2003, 1:11 p.m.,*
in response to message #1 by Gregg

Self test the printer: With the power off, press and hold the form-feed button on the right side. Turn on the power and now release the form-feed button. The unit will self-test and print a character map and the battery level. 5 is the highest. Replace the batteries if you are 2 or below. On the 42S, press:

1. Shift,- (print}. Press the scroll down arrow 2 times.
2. The menu should read PON POFF MAN NORM TRACE.
3. Press the E+ key to activate PON (printer on).
4. Press LOG to set MAN mode.
5. You should now be back to a normal screen.
6. Press shift,- to access the print menu.
7. Press the LOG key to print the stack contents or any of the other menu picks there to do whatever you

want.

As Richard mentioned, don't forget to disable printing when not needed, especially when in trace mode.

Repost if you help more...

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HP 38 G problem

*Message #1 Posted by **George Rigas** on 30 May 2003, 6:53 a.m.*

My HP 38G suddenly doesn't turn on.I've tried changing batteries,but nothing happened.Is there a way to disassemble it in order to repair it??

Re: HP 38 G problem

*Message #2 Posted by **Ron Ross** on 30 May 2003, 8:46 a.m.,*
in response to message #1 by George Rigas

Sometimes a 48G will also suffer from this. A quick and dirty solution for a 48G that requires no effort that works, is to push down slightly (very little pressure is needed) just above the 2nd key on the keypad and the LCD display screen.

Let us know if this works, so we know if the 38G has a similiar solution.

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A request

*Message #1 Posted by **Ted** on 30 May 2003, 2:28 a.m.*

For my final decision about a halfnut 41 CX purchase, could anyone supply me with a jpg picture of a numeric and alpha string on a CX halfnut? Want to avoid the chance of spending hard earned bucks on soemthing I might not like the look of (after 15 years of fullnut screen!) Thanks again, Ted

Re: A request

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 30 May 2003, 4:32 a.m.,*
in response to message #1 by Ted

Hi, Ted;

Have a look at the images below. In both images, the first one shown is the fullnut's.

This one in intended to enhance ALPHA string differences.

http://www.logeng.com.br/images/hf_lcd_03_.jpg

This one allows you a complete view of all numbers, [=] and underscore.

http://www.logeng.com.br/images/hf_lcd_01_ret.jpg

I myself have no trouble using any of them, I think it's a matter of taste; for me, after using them fr a long time, differences are not too big. Anyway, you should take them both in hands, because even not precisely "felt" in these images, halfnut LCD characters look weird at first "contact", allowing even a confusion when trying to figure out who is who. It "scares" a little bit, but you may get used to it. I take the extra rounded-edges black frame in halfnut's display as a particular fancy touch. I once tried a custom halfnut-like frame in one of my fullnuts and I liked it a lot, but I removed it to use as reference to cut a few others and lost it; I'll take it back as a near-future design project ;^)

Hope this helps you. And remember: try having a halfnut in hands an you'll have a better "feeling".

Luiz C. Vieira - Brazil

Re: A request

*Message #3 Posted by **Ted** on 30 May 2003, 5:59 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Thanks Luiz, this is just what I needed! cheers, Ted

Re: A request

*Message #4 Posted by **Dave** on 30 May 2003, 10:22 a.m.,*
in response to message #1 by Ted

Just my $.02

You will not like the halfnut display as well as the fullnut. Mine are not as readable and contrast is worse on the halfnut. But they both calculate just fime

Re: A request

*Message #5 Posted by **David Smith** on 30 May 2003, 4:36 p.m.,*
in response to message #4 by Dave

The contrast is about the same when they are viewed at the intended viewing angle. The halfnut was optimized for viewing at a more horizontal angle. The fullnut likes to be viewed more head on. Also the fullnut's optimum view angle range is larger than the halfnut's.

Re: A request

*Message #6 Posted by **Donald Leonard** on 1 June 2003, 2:45 a.m.,*
in response to message #4 by Dave

I agree. To my eyes, not only does the contrast appear to be lower, the character segments APPEAR to be thinner too. Don

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Woodstock ACT Instruction Set

*Message #1 Posted by **Michael F. Coyle** on 30 May 2003, 1:57 a.m.*

I've been delving into my new HP-21. I'm looking at the instructions coming from the ROM and it's clear that there are new instructions, not present in the older 2-chip microprocessor used in the older machines.

Has anyone worked out the instruction set for these machines? I'd like to do a ROM dump someday (some year?) but there seems to be very little information on the internals of Woodstock and Spice calculators. The earlier machines are well-documented due to the patent disclosures (the HP-45 patent and code listing is my favorite bedtime reading these days) and the HP-41 and later machines seem to be well-understood too.

Any solid information, or pointers to same, would be appreciated.

- Michael

Re: Woodstock ACT Instruction Set

*Message #2 Posted by **Renato** on 30 May 2003, 12:51 p.m.,*
in response to message #1 by Michael F. Coyle

Michael, I have no additional information, but can you describe your procedure, setup and instruments for delving into the HP-21 ? If I can, I will try to do it myself.

Renato

Re: Woodstock ACT Instruction Set

*Message #3 Posted by **Michael F. Coyle** on 31 May 2003, 12:00 a.m.,*
in response to message #2 by Renato

Hi Renato,

First, let me describe how I've spent the last three weeks.

I bought an HP-21 on eBay and received it May 10. I spent a couple of days playing with it and charging up some batteries. I then took it all apart and hooked it up to my test equipment. It's been that way ever since.

I have the HP-21 schematic that's been floating around here for a while. I've been using an oscillscope to look at the various signals coming off the chips and I've produced a detailed timing diagram (similar to what's in the HP-97 servide manual but more detailed).

The most interesting signal is the one that carries addresses and data to and from the ROM. I can look at the signals and read some of the bits but the instructions don't match up well to the Classic instructions, as far as I can tell. In particular, addresses have been widened to 10 bits from 8 and some instructions, branches at least, take two words in memory.

My 'scope has analog storage and delayed sweep, so I can sometimes trigger on a repetitive instruction sequence and read off all the addresses and data; it's pretty tedious though. Here's an example of what I have: the idle loop (waiting for a key to be pressed) is apparently a single instruction, two words long:

```
Addr  Data       My Interpretation
----  ----       -----------------
 254  1111011100 (Probably: If no key pressed, goto...)
 255  0011111110 (254)
```

SYNC is asserted during the data read-in at location 254 but not at 255, as we'd expect from a two-word instruction. (By the way, the bits are presented on the bus LSB first; I've reversed the back to their "right" order in the example.)

I'll throw in the other piece of code I have information for: the other part of the idle loop, which runs after your function has been executed but while your finger is still holding down the button. (In other words, it's waiting for you to lift your finger so that it can resume the scan listed above.)

```
Addr  Data       My Interpretation
----  ----       -----------------
 246  1111001100 (Old CPU: 15->p)
 247  0010111100 ???
 248  0110010000 (Old CPU: Select ROM 3)
 249  1011101100 (Old CPU: If p # 11)
 250  0011111000 (248)
 251  1111010100 (Probably: If key still down, goto...)
 252  0011110110 (246)
```

The instructions listed as "Old CPU" are probably wrong for the ACT. What actually happens is that the instructions at 246 and 247 initialize a loop, probably a debounce delay. The instructions from 248 to 250 are executed 7 times in the loop. (The delay would be about 7 ms.) After the loop, there is probably a test that says, if the key is still being held down, then jump back up to 246 and do another delay. If the key was lifted, the CPU presumably executes a one-word instruction at location 253 (I haven't seen that one yet), then waits in the one-instruction loop at 254 and 255.

I've stopped looking at the moment because this is about as far as I can get get with the equipment and knowledge I have. I could build a special piece of hardware to automatically grab the addresses and data on the bus but without better information on the instruction set and opcodes, there's not much point.

If any of the HP engineers who worked on these chips or calculators are lurking on this Forum, now would be a good time to speak out!

Comments, etc. always welcome.

- Michael

HPJournal on Woodstock

*Message #4 Posted by **Renato** on 1 June 2003, 12:50 a.m.,*
in response to message #3 by Michael F. Coyle

Michael, HP designers spoke out in HP Journal, November 1975. I´ve quoted a part of one article below. There is a full article describing woddstock architeture and design. I´ve got a PDF of the HPJ issue on the PPC CD ROM set.

Best regards,

Renato

> Quote:

Design Details

Several improvements in the instruction set of the HP-21-family microprocessor made life much easier for the microprogrammer. Three of the most useful improvements were 12-bit subroutine addresses, the digits-to-ROM-address instruction and the data register instructions.

In the HP-35 microprocessor, the microinstruction address was only 8 bits long. Each 256-word ROM would turn itself on or off as ROM-select instructions dictated. There was only one level of subroutine and the return address had only eight bits. The HP-21 microprocessor uses a twelve-bit address. A given ROM responds only when it sees an address it contains. Subroutines can be located in different ROMs and easily return to the correct next instruction. The new processor can save two twelve-bit subroutine return address. Two levels make it possible for one subroutine to call another.

Re: HPJournal on Woodstock

*Message #5 Posted by **Ellis Easley** on 1 June 2003, 2:22 p.m.,*
in response to message #4 by Renato

That article is also available here online:

http://www.hpmuseum.org/journals/wooda.htm

Also another article from the same year about Woodstocks:

http://www.hpmuseum.org/journals/woodb.htm

This article is mostly about the hardware design and has some paragraphs about each chip.

Re: HPJournal on Woodstock

*Message #6 Posted by **Michael F. Coyle** on 1 June 2003, 3:13 p.m.,*
in response to message #5 by Ellis Easley

Renato, Ellis,

Thanks for the pointers to the articles. Interesting stuff!

- Michael

hp22 patent info

*Message #7 Posted by **Ellis Easley** on 1 June 2003, 6:13 p.m.,*
in response to message #6 by Michael F. Coyle

Mike Sebastion's (Calculator Forensics) website has a page of links to calculator patents. This description is among them:

4055757 HP-22 Financial calculator with annuity begin/end period switch.

Maybe it contains some details you are looking for. He has cleverly hidden the addresses of the individual pages of his site, but if you go to:

http://calcinfo.com/

and click on "Calculator Related Patents", you will see the list. He doesn't have the patents, just links to the United States Patent and Trademark Office.

Re: hp22 patent info

*Message #8 Posted by **Michael F. Coyle** on 1 June 2003, 11:36 p.m.,*
in response to message #7 by Ellis Easley

Hi Ellis,

The patents were interesting; they even included small bits of source code. I've printed them up and will read them tomorrow.

Some of the other patents were interesting, especially 3955074, which is four pages long and covers just the gold key! I wonder how much money was spent doing that!

Thanks.

- Michael

Re: HPJournal on Woodstock

*Message #9 Posted by **Ellis Easley** on 1 June 2003, 7:51 p.m.,*
in response to message #6 by Michael F. Coyle

I just noticed another item in Mike's list of HP patents:

3987290 Engineering notation

According to the HP Journal articles that Renato found, engineering notation was an innovation on the HP25.

Re: HPJournal on Woodstock

*Message #10 Posted by **David Smith** on 3 June 2003, 4:15 p.m.,*
in response to message #9 by Ellis Easley

A a damn fine innovation at that... once you use it, you never go back to SCI.

Re: Woodstock ACT Instruction Set

*Message #11 Posted by **David Smith** on 30 May 2003, 4:38 p.m.,*
in response to message #1 by Michael F. Coyle

You can learn quite a bit about the woodstock architecture from the HP97 service manual on the HPMUSEUM CDROMs.

Re: Woodstock ACT Instruction Set

*Message #12 Posted by **Michael F. Coyle** on 30 May 2003, 10:56 p.m.,*
in response to message #11 by David Smith

Hi David,

Thanks for the tip. I just read the manual. I did get some good info from it, like some signal names, but alas, no information about the ACT instruction set itself. Oh well.

I did also find some good info in some lecture notes for a talk given by Tony Duell.

I'm still looking.

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HP-41cv PRGM key not working

*Message #1 Posted by **Tracy Vermeyen** on 30 May 2003, 1:19 a.m.*

I recently found my old calculator had corrosion damage from the batteries. I clean everything and replaced the ribbon strip/power connector assembly (long story in itself) and every thing appears to be working, except the PRGM mode won't come on when the key is pressed. In fact, the USER and ALPHA are unreliable, but will eventually work.

Any suggestions on how to diagnose/repair this problem?

Thanks

Re: HP-41cv PRGM key not working

*Message #2 Posted by **Randy Sloyer** on 30 May 2003, 3:16 p.m.,*
in response to message #1 by Tracy Vermeyen

Sounds like some battery goo got into the switches. You can usually clean them with David Smith's micro-wire brush trick:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv010.cgi?read=26576

I've seen 41's that would not turn on when the leak got into the on/off switch. David's method worked fine to restore normal operation.

Re: HP-41cv PRGM key not working

*Message #3 Posted by **Tracy Vermeyen** on 30 May 2003, 11:11 p.m.,*
in response to message #2 by Randy Sloyer

Randy,

Thanks for the suggestion. I tried it, but there appears to be a plastic film under the keyboard. Do I try to clean above this film, or do I need to break through it to clean? Also, do I try to clean just the inside the cylinder or to the sides of the hole?

Thanks

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Slightly and significant changes

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 29 May 2003, 8:20 p.m.*

Hello, Dave;

your recent changes made easy to recover from errors. And I use them much... :)

- Delete dialog box right after text instead of after the response box and
- Edit after post feature, with an important warning that must be read

I think many others have noticed, but I thought you should know it happened.

Thank you helping us to participate.

Luiz C. Vieira - Brazil

Re: Slightly and significant changes

*Message #2 Posted by **Dave Hicks** on 30 May 2003, 12:12 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

You're welcome Luiz. These changes are in place in all the forums now.

I've also added some new formatting codes which are documented here. Perhaps the most interesting is the [quote] code. I don't expect to see it used very frequently because the threaded nature of this forum usually makes responses obvious, but sometimes someone will post a long message and you'll just want to respond to one (or more) small bit(s). In that case, you can cut and paste the bit(s) into your response surround by [quote] and [/quote] tags like this:

> Quote:
>
> If the automobile had followed the same development cycle as the computer, a Rolls-Royce would today cost $100, get a million miles per gallon, and explode once a year, killing everyone inside.

That was from Robert X. Cringely of InfoWorld magazine, but usually you'll use it to quote someone here.

Re: Slightly and significant changes

*Message #3 Posted by **Katie** on 31 May 2003, 1:53 p.m.,*
in response to message #2 by Dave Hicks

Thanks Dave! These are all great and much appreciated enhancements.

I recently found a very nice spelling program for Internet Explorer, that when combined with your editing features makes posting here a pleasure. For those of you who don't know about this http://www.iespell.com/download.php I highly recommend trying it out.

-Katie

Edited: 31 May 2003, 1:55 p.m.

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Manual for the HP21S

*Message #1 Posted by **jose goncalves** on 29 May 2003, 3:59 p.m.*

I got an HP21S from a friend that is not able to find the manual. Unfortunately this manual is not included (so far) in the Museum's CD collection. Where can I find such precious material ? Is it possible to download it from somewhere ? Is there any gentle soul that has it in PDF format for me to download ?

Thanks

I'm looking too

*Message #2 Posted by **Randy Sloyer** on 29 May 2003, 8:32 p.m.,*
in response to message #1 by jose goncalves

It's the one Pioneer manual I do not have :^(

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HP 41CX halfnut

*Message #1 Posted by **Ted** on 29 May 2003, 2:54 p.m.*

Hello out there! Can someone tell me exactly why HP made the 41, 41cv adn 41cx in regular and halfnut versions? What evactly (besides the processor board and the display) is really improved/ better /worsws than the regular one? Thank you all for your time in advance with this question, Ted

Re: HP 41CX halfnut

*Message #2 Posted by **james (UK)** on 29 May 2003, 4:05 p.m.,*
in response to message #1 by Ted

Hi Ted

Supposition on my part, but I beleive the halfnut has a lower component count so I'm guessing that Norm's friends, the beancounters and MBAs, at HP changed to the halfnut as it was cheaper to produce.

From comments made on this board, it appears that halfnuts may be more reliable (although my two fullnut CVs - ebay purchases - appear to be fine with no problems even after a trip across the Atlantic (so far - touch wood) BUT the fullnuts are a lot easier to repair as they can be disassembled more readily (not that I've tried).

Functionally I don't think there's much difference, opinion seems to be divided as to which display is preferable but the halfnut display is optimised for viewing at an angle (machine lying on the desk) whilst the fullnut is easier to read from a 90 degree angle (machine in your hand).

Apparently the halfnut can also display lower case characters but this requires machine code (mcode) programming techniques, eprom burners, et al so isn't a practical difference for low tech guys like me.

Hope this helps with a bit of info until the experts can reply.

Re: HP 41CX halfnut

*Message #3 Posted by **james (UK)** on 29 May 2003, 4:18 p.m.,*
in response to message #1 by Ted

PS see also in the latest archive

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv012.cgi?read=32415

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv012.cgi?read=32488

Just a few more info

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 29 May 2003, 5:34 p.m.,*
in response to message #1 by Ted

Hi;

AFAIK, James pointed out almost all user-related differences and their reason. The only two extra points are:

- key-feeling: halfnuts' keys are a bit "harder" to punch because of a thicker rubber sheet between the keys and the keyboard
- display contrast - using the same extra ROM mentioned by James, you can adjust halfnut's contrast and consequently their viewing angle, not available in fullnuts' LCD.

It's a fact that many other hardware related aspects are not even known, or disclosed as information, but what we can say by observing and describing is about that.

Just an extra 1¢.

Luiz C. Vieira - Brazil

Re: HP 41CX halfnut

*Message #5 Posted by **Ellis Easley** on 29 May 2003, 10:57 p.m.,*
in response to message #1 by Ted

Semiconductor technolgy was expanding so quickly at that time (really just getting into the curve that we are still enjoying), plus the 41C family were in production for so long, that it would have made perfect sense to have changed the design several times as HP did. Cost reduction is almost always reliability improvement. Number one is reducing the number of IC package pins involved (by putting more functions in one chip) because every time a wire is bonded to an IC, the die suffers a severe shock that can ruin or weaken it. This also reduces the number of solder joints which are a potential source of un-reliability. Keeping more functions on a chip reduces total current consumption because the signals that have to go to external pins need relatively high powered drivers to charge the capacitance of PCB traces, which aren't required for internal nodes.

Eliminating some PCB traces also improves radio frequency interference (reduces radiation - makes it easier to pass the test!) FCC and other regulatory compliance can add a lot to the engineering cost because it can require redesign and additional tooling. One Tandy computer that was designed with a plastic case (the last one, I think!) had to have a number of internal sheet metal shields added at the last minute - each one recommended by a very expensive consultant! Shortly after that, the entire department spent two days in school taught by that consultant, learning how to design for compliance.

Also, as semiconductor technology advances, as measured by the "microns" (gate length?) which are always always getting smaller, it is not possible to continue manufacturing older designs - the new equipment is tuned for the new, smaller geometry. So chips that stay in production for extended periods have to undergo "die shrink" - literally reducing the masks and seeing if the logic still works - or be re-designed in the new technology. Since the new technology always allows higher density, it is logical to try to take advantage of it to reduce the chip count, with all the ancillary benefits, one of which is cost reduction.

Re: HP 41CX halfnut

*Message #6 Posted by **Ted** on 30 May 2003, 1:00 a.m.,*
in response to message #5 by Ellis Easley

Well, I really have to thank each and every one of you for your time with this question. I've learned a lot just within 24 hours. Guess the only thing I must decide for myself now is if I can get to love the rounded window as much as I loved the square one on my original HP 41. Thanks guys!

Ted

Re: HP 41CX halfnut

*Message #7 Posted by **Randy Sloyer** on 30 May 2003, 7:14 a.m.,*
in response to message #6 by Ted

Why not get one of each? :^)

Re: HP 41CX halfnut

*Message #8 Posted by **Ted** on 30 May 2003, 8:05 a.m.,*
in response to message #7 by Randy Sloyer

Well, at the moment there are people in the UK selling mint unopened CX's on eBay as well as in some stores- and they are all halfnuts. Don't know if I'd dare buying used CX via eBay really.....but your idea is OK with me :)

Re: HP 41CX halfnut

*Message #9 Posted by **james (UK)** on 30 May 2003, 8:19 a.m.,*
in response to message #8 by Ted

Ted - which stores?

(Bank manager in full panic mode now!)

Re: HP 41CX halfnut

*Message #10 Posted by **Ted** on 30 May 2003, 8:46 a.m.,*
in response to message #9 by james (UK)

James, email me on that one! ted@kompascd.nl

Re: HP 41CX halfnut_Buy on Ebay

*Message #11 Posted by **Bill Platt** on 30 May 2003, 12:20 p.m.,*
in response to message #8 by Ted

I just bought a used 41 CV fullnut on e-bay.

The seller concealed the fact that the battery terminals were corroded. Would not work until I took it apart, and cleaned--corrosion even got into the contacts on the main PCB.

(By the way, I learned how to open it up safely by going to the excellent write up here in the museum--written by Stefan Vorkoetter, found in the articles forum, under "reapairs")

In every other way, a brand new looking unit. I do not think the original owner ever used it.

Caveat Emptor.

But now she works, anyway.

I also bought a 48g dud, similar situation. Seller said it works, but it didn't. He said "Sorry about your luck--claim it on the postage insurance---which the post office of course refused because the shipping package was pristine.

So now I know what's going on in some cases:

1. seller sells a dud (and buyer is supposed to understand this somehow)

2. Buyer buys, with "postal insurace"

3. Buyer takes package after receiving it, and beats it up a bit,

4. Buyer requests postage receipt, takes mess to post office, and claims!

Seems like a scam, and I bet it happens more and more on EBAY.

Still need assistance in your 48G?

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 30 May 2003, 2:30 p.m.,*
in response to message #11 by Bill Platt

Hi, Bill;

is your 48G still needing assistance or you alredy have it working? If so, let us know. Maybe help is available...

Luiz C. Vieira - Brazil

Re: Still need assistance in your 48G?

*Message #13 Posted by **Bill Platt** on 30 May 2003, 3:55 p.m.,*
in response to message #12 by Vieira, Luiz C. (Brazil)

Luiz,

Thanks for asking. Actually, I have not done anything with it yet.

I have read a couple of different articles on performing surgery on the 48 series, and it certainly seems like quite a bit of work, so I have not started to explore, yet.

As it only cost me $30 USD (inlcuding all costs) I have not been too compelled to go after it, yet. But certainly moral support makes all the difference....

regards,

Bill

Re: HP 41CX halfnut_Buy on Ebay

*Message #14 Posted by **Bill Platt** on 30 May 2003, 3:51 p.m.,*
in response to message #11 by Bill Platt

Well, GOOD NEWS!

The seller of the corroded unit was very apologetic (I wrote him a nice note--not a mean one) and he agreed to either totally refund my money, OR give me compensation for the unknown damage. In fact, we came to a good agreement on the real worth of the machine, and all parties are happy.

So far, in my small e-bay experience, I have only one true "dud" out of eleven (11) purchases.

Ebay is rather remarkable (in a good way, I think)

-Bill

Re: HP 41CX halfnut_Buy on Ebay

*Message #15 Posted by **james (UK)** on 30 May 2003, 5:19 p.m.,*
in response to message #14 by Bill Platt

I'll second that - so far I've only had good fortune with ebay purchases - my first 41CV was in very good condition, perfect battery contacts (with new batteries but shipped outside the calculator) and all covers, including the side cover, present other than for one port which had a real estate module in it, and all 4 rubber feet.

My second backup 41CV was also in good condition, all feet and all covers apart from ports that had modules in. I bought it mainly for one of the modules, it was advertised as a 41C but turned out to be a 41CV.

Also picked up a very good refurbished card reader which looks like new.

The only problem purchase I had was a 12C with 5 non-working keys - the vendor readily offered to replace it but my curiosity got the better of me and with assistance from contributors on this forum I was able to diagnose and fix it.

The only problem with ebay I have had so far is trying hard not to get carried away! Only had limited success with this!

Re: HP 41CX halfnut_Buy on Ebay

*Message #16 Posted by **bill platt** on 31 May 2003, 3:04 p.m.,*
in response to message #15 by james (UK)

SNIP>>The only problem with ebay I have had so far is trying hard not to get carried away! Only had limited success with this!<<END SNIP

Yes, I already have my wife saying, "not another CALCULATOR!" or, "O.K., what are you buying THIS time?!" or, "there goes the money for our new mattress....."

And I only started buying calculators about 3 months ago when I went to buy a second 32sii and found them out of production.

The world is truly full of temptations. Fortunately some are more benign than others!

Regards,

Bill

Re: HP 41CX halfnut_Buy on Ebay

*Message #17 Posted by **james (UK)** on 1 June 2003, 7:41 a.m.,*
in response to message #16 by bill platt

Hi Bill

Yeah, I only started buying a couple of months ago when the battery in my Casio expired (buying a new battery was way to logical for me!). As the house is empty during the day I got my purchases delivered to the office - my colleagues thought I was nuts spending $100+ on a used calculator and that was before they found

out it has no equals key! Their eyes glaze over when I start on stacks and roll-downs / ups!

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12c Platinum on MSNBC

*Message #1 Posted by **RB Jones** on 29 May 2003, 12:18 p.m.*

FYI

http://www.msnbc.com/news/918886.asp

Re: 12c Platinum on MSNBC

*Message #2 Posted by **Raymond Del Tondo** on 30 May 2003, 1:04 p.m.,*
in response to message #1 by RB Jones

Thanks for the link.

Excerpt from the article:

"...the Platinum is the first of H-P's financial designs to include two new modes: ALG (Algebraic) and RPN..."

If this statement is in the brochure or in the manual, one could think someone's trying to rewrite history. Maybe the writer never heard of the 17BII and 19BII, which both were switchable from RPN to the dark side of modes...

Raymond

Nope, they mean...

*Message #3 Posted by **Gene** on 30 May 2003, 1:58 p.m.,*
in response to message #2 by Raymond Del Tondo

the new ALG mode, which does not include any hierarchy and does not include parentheses.

the 18c, 19b, 19bii, 17b, and 17bii at LEAST included parentheses.

Give me a break, HP. Putting an = key on a calculator that will solve 1 + 2 x 3 = and give 9 rather than 7, is nuts if you don't have parentheses keys!

Gene

Re: Led Zeppelin on MSNBC [OT]

*Message #4 Posted by **HP / Led Zep fan** on 30 May 2003, 4:54 p.m.,*
in response to message #1 by RB Jones

FYI

http://www.msnbc.com/news/919436.asp?0dm=L12IV

Similarities between HP calculators and Led Zeppelin:

- Both started out in 1968
- Nothing/nobody else like them (before or since)
- Universal appeal, while not being accepted by the general public
- Releasing new versions of originals
- Class act; products/material have stood the test of time
- Both are from our generation

Sorry, couldn't resist.. I've waited nearly 25 years for this (new releases from my favorite band) 8^)

Re: Led Zeppelin on MSNBC [OT]

*Message #5 Posted by **james (UK)** on 30 May 2003, 5:21 p.m.,*
in response to message #4 by HP / Led Zep fan

The difference is that I don't want to pick up Led Zeppelin when I see them!

one more Led Zeppelin on MSNBC [OT]

*Message #6 Posted by **db(martinez,california)** on 30 May 2003, 10:30 p.m.,*
in response to message #4 by HP / Led Zep fan

forgive my paraphrasing but-

i remember a line from some movie that goes: led zeplin didn't write songs that everyone liked, they left that for the bee gees.

well; hp didn't make calculators that everyone liked, they left that for casio.

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You should see this... Voyager related!

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 29 May 2003, 10:40 a.m.*

Hi, folks;

About two years ago, I found a FESTO catalog and I scanned some images, mostly related to their workbenches and general look. I was checking these images a few moments ago and I found this one particularly interesting.

http://www.logeng.com.br/images/festo_HP.jpg

The image "speaks" for itself.

David, if you need to remove this post because of copyright violation, please do it.

Enjoy it, folk~s!

Re: You should see this... Voyager related!

*Message #2 Posted by **GS Leong** on 29 May 2003, 4:18 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

What is Festo?

Re: You should see this... Voyager related!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 29 May 2003, 5:27 p.m.,*
in response to message #2 by GS Leong

Hi;

FESTO is a German Co. dedicated to the development of servocontrolled devices. It develops custom or general-purpose equipment and is a lot known in Brazil, mostly in tecnology schools.

You may find it directly: www.festo.com .

Luiz C. Vieira - Brazil

Re: You should see this... Voyager related!

*Message #4 Posted by **james (UK)** on 29 May 2003, 5:32 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Thanks for the pic Luiz. Festo obviously have good tatse in calculators!

Re: You should see this... Voyager related!

*Message #5 Posted by **Chan Tran** on 29 May 2003, 6:14 p.m.,*

in response to message #4 by james (UK)

I know FESTO as a company that makes a lot of pneumatic components like cylinders, valves etc.. I used a lot of their products in my work.

You're right...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 29 May 2003, 8:13 p.m.,*
in response to message #5 by Chan Tran

Hi, Chan Tran;

you're right. FESTO's primary activities are related to pneumatics, but they have gone further and are getting into servocontrolled devices and robotics. I'm not shure if they have "joint-venture"d to some other companies or groups, but I saw some FESTO educative workbenches, from pneumatics to robotics, that made me think seriously about building a complete FESTO-based development lab, educational level. I did not have the time to do it, unfortunately, mostly because the school I was working on for three-and-a-half years (1999-2002) decided to go for other markets (food technology).

It seems to me that FESTO followed today's needs. As a German company, it does not surprise me.

Best regards and thak you for your remind.

Luiz C. Vieira - Brazil

Re: You're right...

*Message #7 Posted by **GS Leong** on 29 May 2003, 9:06 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Thanks for the info!

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Does anybody want an HP-35 emulator for Palm?

*Message #1 Posted by **Jonathan Purvis** on 29 May 2003, 4:38 a.m.*

I've ported Eric Smith's csim to PalmOS. I've got it emulating the HP-45 and HP-35 (using Peter Monta's extraction of the ROM). Unfortunately the hard disk of the computer i was developing it on died last week so the only version i have is the one on my Treo that emulates the HP-35 only. Does anyone want a copy? I do plan on rewriting it sometime, but i've got to buy a new hard disk and reinstall Linux, etc first.

It's a little slow, but useable. I ported it by simply writing the relevalent Unix calls, which may account for some of the slowness.

Re: Does anybody want an HP-35 emulator for Palm?

*Message #2 Posted by **ToddG** on 29 May 2003, 12:55 p.m.,*
in response to message #1 by Jonathan Purvis

Will it include an X^Y key, and the bugs?

Re: Does anybody want an HP-35 emulator for Palm?

*Message #3 Posted by **Jonathan Purvis** on 29 May 2003, 3:23 p.m.,*
in response to message #2 by ToddG

It's using the original ROM, so it has all the same keys and all the same bugs (hopefully no new ones).

Re: Does anybody want an HP-35 emulator for Palm?

*Message #4 Posted by **Mark Ordal** on 29 May 2003, 5:10 p.m.,*
in response to message #1 by Jonathan Purvis

A nice stack-based calculator program already exists for PalmOS PDAs: "RPN" by Russell Y. Webb (http://www.nthlab.com).

It doesn't emulate HP models. However, being stack-based, it obviously operates in a similar manner. It is programmable, but its scripting language is quite a bit different than programming a real HP RPN or RPL model.

Re: Does anybody want an HP-35 emulator for Palm?

*Message #5 Posted by **Renato** on 29 May 2003, 11:54 p.m.,*
in response to message #1 by Jonathan Purvis

Jonathan, May I have it ? Source codes would be nice, if you don´t mind.

r_toi at yahoo dot com

regards,

Renato

Re: Does anybody want an HP-35 emulator for Palm?

*Message #6 Posted by **Eric Smith** on 2 June 2003, 4:31 p.m.,*
in response to message #1 by Jonathan Purvis

CSIM is provided under the GPL. If you don't distribute sources (for any reason, including a disk crash), you can't distribute the object code either. Sorry.

But if you do write it again, we'll all look forward to seeing it.

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82143A repair manual

*Message #1 Posted by **Monte Dalrymple** on 28 May 2003, 9:15 p.m.*

texaspyro, would you consider loaning this to the Museum for everyone to enjoy?

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3026843646&category=11713

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NBC: tongue in cheek?

*Message #1 Posted by **Ellis Easley** on 28 May 2003, 7:21 p.m.*

I just saw the last bit of the last story on the NBC nightly news. It was about video games and whether they are harmful: surprising news... I caught a little (which I have heard before) about how the military is using them to train people who are going to use similar interfaces to operate battlefield equipment. Then they had a clip of an expert who said the experience of video games doesn't help people to solve problems in mathematics. They concluded the story with the statement that there is no substitute for learning the subject the old fashined way, accompanied by video of a student doing math homework with a calculator! (looked like a TI graphing model)

Re: NBC: tongue in cheek?

*Message #2 Posted by **Speck** on 28 May 2003, 9:36 p.m.,*
in response to message #1 by Ellis Easley

I think viewers would think something was up if they dug up some film (if they could find any) of some kid doing his math with a slide rule. Not sure everyone would get it, though.

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82161A HPIL tape drive - possible source for tapes

*Message #1 Posted by **Ellis Easley** on 28 May 2003, 7:08 p.m.*

Michel posted the address of a company that sells tapes that look a lot like the ones for the HPIL tape drive in this message:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=34674

I wrote an email to the company and have had the following interchange:

```
to: sales@braemarinc.com <sales@braemarinc.com>


I am interested in these tapes because they look like they might work with a
Hewlett-Packard tape drive (82161A) which HP no longer supports. HP also
called the tape cartridges "Mini Data Cassettes" and the manual for the tape
drive says the cartridges contained "24 meters (80 feet)" of tape. If there
is a chance one of your tapes might work in this drive, I would like to know
how I can buy some to try out.


Thank you,
Ellis Easley



Hello Ellis:


We sell new CMC80 mini-data cassette tapes in packages of 10. The part
number is 600-0057-001 and the price is $19.00 each. These tapes operate
in a CM600 tape drive which is used in many different applications by a
multitude of companies around the world. We no longer manufacture new
units but continue to service units in the field. If you have a serial
number on the unit we may be able to cross-reference it in our data
base. We process these orders on a credit card or COD basis. Please
advise if you would like to order these tapes. Thank you.



Hello Louise,


I would like to try the CMC80 tapes with my drive. Is the price $19.00 for
one tape or the package of 10?


Thank you,


Ellis Easley



Hello Tony [???],


The price per CMC80 mini-data cassette tape is $19.00 each and the
minimum purchase is 10 tapes in one package or $190. Please advise if
you would like to place your order. Thank you.
```

So my question is: would people be willing to spend $19 each for these tapes (assuming they will work *perfectly*

in the 82161A)? I am thinking of writing back to ask if I can buy one tape to verify operation because I know a number of people who are looking for tapes and would be willing to "club together" to but a quantity of them. If this company was actively selling the tapes, they would probably sample me one, but I'm pretty sure they are just supporting a legacy product (remember when companies used to do that?!!!)

EduCalc charged $9.50 each / 10 for $90 for these tapes in the last catalog that listed them. I don't know what they are going for on Ebay.

Re: 82161A HPIL tape drive - possible source for tapes

*Message #2 Posted by **Michel Beaulieu** on 28 May 2003, 7:44 p.m.,*
in response to message #1 by Ellis Easley

Yes it's interesting; it they fint in the drive and have the "mirror" at the end of tape to tell the reader... the end....

so just find 9 others, 8 if you take one!

Thanks!

I found that link when searching fluke replacement data cartridge that also fit the HP drive.

Re: 82161A HPIL tape drive - possible source for tapes

*Message #3 Posted by **Ellis Easley** on 28 May 2003, 7:55 p.m.,*
in response to message #2 by Michel Beaulieu

I bought a box of Fluke tapes on Ebay just to see if they would work. I never put them in the drive but I measured the tape in other ways: The actual thicknes with a caliper (it is thicker that HP tapes) and the length, indirectly by counting turns of the hub (there is considerably less than the HP tapes). The fact that HP says their tapes had a length of 80 feet and this company (Braemar) sells models "CMC80" and "CMC50" makes me wonder if their CMC80 is the same as the HP tape and their CMC50 is the same as the Fluke tape.

I don't know if I want to pay $19 each for these tapes! If enough people do want to, and if the company will sell one tape for test purposes for a reasonable price, it is worth persuing.

Fluke tapes

*Message #4 Posted by **Mike** on 28 May 2003, 8:24 p.m.,*
in response to message #2 by Michel Beaulieu

I have over 20 brand new Fluke tapes and they fit fine but they will not format because, apparently, they are too short.

Of course it could also be because of missing holes or someting. They loaded properly so I assumed the eot holes were fine. Didn't check beyond trying to format them.

The format failed and I just assumed it was length, since the tape ran all the way to the end before an error was given. Then the tape just rewound.

I assumed it saw holes before it was finished formatting.

Re: 82161A HPIL tape drive - possible source for tapes

*Message #5 Posted by **Diego Diaz** on 29 May 2003, 4:36 a.m.,*
in response to message #2 by Michel Beaulieu

I contacted them few months ago, and posted here:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv010.cgi?read=28647

though nobody shows any interest by those days.

They only offered me the 10 unit box at $21/unit i.e. $210 + shipping, as I live in the Canary Islands and I was only going to make a try... this seemed quite a lot for my budget, of course, they didn't say a word about 82161A compatibility. So it must be done at your (our, mine...) risk.

Anyhow, price has come a bit down ;-)... may be in one or two years...

About Fluke tapes, if the shell fits into the drive and mirrors (at least one of them) is in its place, the tape itself can be substituted with regular audio cassete tape. I'm willing to get a pair of them for testing.

I've done it on two heavily worn out HP cassettes and they are working fine since then:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv009.cgi?read=24244

(I must say that they have only been formatted (NEWM) and recorded and read/verfied twice, as they are only used for long term archiving purposes. 9114B is the *real* solution for HP-IL mass storage)

Cheers

Re: 82161A HPIL tape drive - possible source for tapes

*Message #6 Posted by **Ellis Easley** on 29 May 2003, 5:34 a.m.,*
in response to message #5 by Diego Diaz

I guess I missed your posts. I wonder if the price will keep coming down? $2 every few months - they should be free by next year! I wouldn't even consider buying 10 tapes at these prices, even shared among several people, without knowing that they will work. Even if they are the right tapes, that's a lot.

Wouldn't it be something if they bought up a stock of HP tapes and re-labeled them? There was a rumor (here) that somebody's brother has a huge supply of HP tapes and is just waiting for the right time to sell them on Ebay. I didn't think to ask Jim Carter about them when he had his EduCalc closeout - I did buy several 80 packs of HP41 cards for about $2.50 each.

I don't have my notes at hand, but I'm sure the Fluke tapes had the holes in the tape and the mirrors, the main difference is that the Fluke tapes are made to be turned over - in fact, the Fluke tapes might be the original version - the HP tapes have two mirrors but only use one, and they have some extra plastic so you can only load them one way. I've (only) though about reloading the Fluke (or HP) tapes, is the width of audio cassette tape correct? I would choose a tape that was the same color - all I know about different formulations is that the old 5.25" floppy disks were brown and the later high density ("high [600 oersted] coercivity", the original 1.2 MB diskettes were marked) and 3.5" disks are black. At least cassette tapes come in different lengths and I always heard that the 120 minute tapes were thinner and more likely to jam. I measured the HP tape with a dial caliper and it is definitely thinner than the Fluke tape. I'll have to take a caliper to some audio cassette tapes. The next problem (I thought) was how to punch the hole cleanly without making the tape very weak.

Re: 82161A HPIL tape drive - possible source for tapes

*Message #7 Posted by **Diego Diaz** on 29 May 2003, 6:46 a.m.,*
in response to message #6 by Ellis Easley

Hi,

Ellis, check out the whole thread under my previous post's last link. I think you'll find some useful info regarding tape refurbishing.

Regards.

Re: 82161A HPIL tape drive - possible source for tapes

*Message #8 Posted by **Ellis Easley** on 29 May 2003, 8:52 a.m.,*
in response to message #7 by Diego Diaz

Diego, I did - after I wrote my message! I want to try some of your experiments myself.

Here's some ancient history that might apply: I worked for Tandy and I remember someone talking about the cassette tapes for the TRS80, which used a regular audio cassette tape recorder for storage. It was a factory issue because every unit shipped with a tape (and a recorder) - I think it was a Blackjack game! Radio Shack knows all about audio and knew how to mass produce pre-recorded audio cassettes and so they provided a master cassette and had the tapes made the normal way but they didn't work reliably - or at least the playback volume setting on the recorder, which was critical for success in loading programs, had to be changed from the setting that worked best to load programs recorded on the recorder, to load the prerecorded cassettes. The process for making the pre-recorded tapes involved making a master recording on metal tape and then bringing a blank tape into contact with the metal tape with both tapes in synchronous motion and hot air blowing past them. The advantage of this process is that it can be done at very high speed. They found that they had to increase the amplitude of the signal recorded on the metal tape master to get a pre-recorded tape that worked reliably without changing the volume setting.

The lesson of that story might just be that the recorder that was shipped with the computer recorded at a higher amplitude than it should have. But I give Radio Shack's engineers credit for eliminating that factor. I assume they started out by providing as a master, a typical recording produced by the computer and the actual model of recorder that was shipped with it (BTW, the recording level of the cassette deck was not user adjustable - I'm sure it had an automatic recording level circuit to maximize the level that went onto the tape, to minimize hiss on playback - it was a regular audio cassette recorder, not a high fidelity deck).

The lesson of the story seems to be that a nominally audio recording of digital data works best at recording levels much higher than for high fidelity sound recording. Maybe the optimal signal for digital purposes is what would be considerd a clipped signal for sound purposes. Does magnetic media clip "softly" - without sharp edges that would play back harmonics? If a voice is heavily clipped, you just hear the fundamental frequencies and can't understand the speech, which is mostly conveyed by the harmonics. But this type of modulation doesn't depend on harmonics - in fact, eliminating all other frequencies should make recovery of the data easier. Recording a clipped level on the tape might enhance that.

How did you use a drill bit to make the holes in the tape? Did you clamp the tape between two sheets of something hard for the bit to work through?

I'm curious about Tony's article. I have the HPCC CD-ROM - 20 Years of Datafile. Hopefully it is there.

Re: 82161A HPIL tape drive - possible source for tapes

*Message #9 Posted by **Diego Diaz** on 29 May 2003, 10:16 a.m.,*
in response to message #8 by Ellis Easley

Originally recorded signal in the HP tape (remember it didn't work) was fully saturated, i.e. it shows a flat upper and lower waveform with very fast transitions between them (almost squarewave).

Anyhow it was reproduced in a Hi-Fi deck, so heads are obviously unnapropriated for the task, but for reference only.

The holes at both ends were made with a 0.8mm drill bit (by hand) placing the corresponding portion of the tape with the magnetic coated surface towards a hard plastic flat piece and taped with scoth-magic adhesive tape to this plastic piece, then handle the drill bit carefully to make a centered hole thru the "sandwich", remove the adhesive tape (also carefully) and you'll have a very nice and round hole (little practise helps a lot.)

I'll look for Tony's article and will send it to you. It is a great job about repairing tape's pressure pads, opening the tape case, etc.

Cheers from Spain.

Re: 82161A HPIL tape drive - possible source for tapes

*Message #10 Posted by **David Smith** on 29 May 2003, 5:42 p.m.,*
in response to message #1 by Ellis Easley

When they appear on Ebay the HP tapes usually sell for over $20 each if they are new. I saw a 2 pack bring over $75 and a pack of 10 bring like $275. I have also seen them go for quite a bit less. $19 each seems like a reasonable amount these days.

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HP12c Plat and trig/log/etc

*Message #1 Posted by **WigglePig** on 28 May 2003, 5:47 p.m.*

Hi all!

Has anyone thought about writing programs for the new 12c platinum (or indeed the old gold 12c) to implement trig functions and logarithms? I was thinking that I might do this myself, then I could get one of these new calcs and use some of these extra programming steps while keeping my minty 15c safely at home.

Regards, thoughtfully...

WigglePig

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What is the key consumer noticable for HP ?

*Message #1 Posted by **Bob** on 28 May 2003, 4:35 p.m.*

Although I am a long-term HP user, quasi-collector, and a dedicated RPN fan, I just bought a half dozen TI-36XII's for use in a lab environment that has, historically, been hazardous for calcs. (Yes, I know that it is heresy, but I don't want to fork over a ton of money if the unit will be trashed in a few weeks. Not everyone appreciates the finer things in life!)

My point is, what are the most noticable features that you would need to make you buy something other than an HP if no new models emerge ?

I have to admit that given the number of features on the TI36XII's and the price of $9.99 each, I could easily get along with it if: 1. ...it's keys had more tactile feedback than an over-ripe grape. and 2. ...it used RPN rather than algebraic entry.

...so, for me, it is the feel of the keys and RPN. I have had several calcs for 10 - 20 years and they still work, (TI's included) but if they were even 3X the cost of the calcs I just bought, and included the features above, I would buy a bunch of them and spread them around the house, office, car, briefcase, nightstand, etc. - OK, I made that part up about the nightstand. (I'd buy more if they were the right color - brown!)

Re: What is the key consumer noticable for HP ?

*Message #2 Posted by **GS Leong** on 28 May 2003, 5:05 p.m.,*
in response to message #1 by Bob

I agree, Key feel and RPN are the two dominant features next I would put layout and color scheme. Whats wrong with having an hp by on the nightstand anyway?

Re: What is the key consumer noticable for HP ?

*Message #3 Posted by **Bill Platt** on 28 May 2003, 5:32 p.m.,*
in response to message #2 by GS Leong

I parked an Algebraic there (on the nightstand) just a month ago--to try to slowly acclimatize my wife to the HP way ;)

Re: What is the key consumer noticable for HP ?

*Message #4 Posted by **hugh** on 28 May 2003, 5:38 p.m.,*
in response to message #1 by Bob

for me its the keys and display, assuming no obvious function limitations. being palmsized and pocket sized are also a big bonus. other than hp's i also appreciated the build quality of some of the early casios (and other japanese makers). graphing is something of a minus for me, because it means the unit is bigger and i dont really want to do graphs on a calculator anymore.

an interesting question is; what is nicest machine currently still on sale new?

Re: What is the key consumer noticable for HP ?

*Message #5 Posted by **Les Bell [Sydney]** on 28 May 2003, 10:29 p.m.,*
in response to message #1 by Bob

Huh? Of course you need an HP calc on the nightstand!

Why else do the 41 Time Module and the 41CX have the XYZALM function?

Best,

--- Les [http://www.lesbell.com.au]

Re: What is the key consumer noticable for HP ?

*Message #6 Posted by **james (UK)** on 29 May 2003, 5:35 p.m.,*
in response to message #1 by Bob

Apart from RPN and key feel, I would also say the 'pick-up factor' - when you see a classic HP it calls out to you, you want to pick it up and hold it. Sadly, I can't say the same about the current ones - even the Voyager loses some of its attraction when released in a wierd color scheme.

Re: What is the key consumer noticable for HP ?

*Message #7 Posted by **Chan Tran** on 29 May 2003, 6:18 p.m.,*
in response to message #6 by james (UK)

Look. When I bought my first calculator in late 1975 I picked the HP-25 over others like TI's because of its look. I didn't really know what all the specification meant and definitely not knowing the different between RPN and algebraic. May be that's why RPN is easy for me as I didn't know any other way to use a calculator.

Re: What is the key consumer noticable for HP ?

*Message #8 Posted by **Trent Moseley** on 30 May 2003, 12:13 a.m.,*
in response to message #7 by Chan Tran

Chan Tran, you are three years ahead of me. I had a Commodore.xxxx which one of my sons lost at school. I saw an ad in Scientific American for the HP-25C in 1978 which I bought with some trepidation not having a clue about RPN. What a wonderful surprise!

tm

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HPLX Codenames

*Message #1 Posted by **Mike** on 28 May 2003, 9:14 a.m.*

HP95LX is Jaguar, HP100LX is Cougar, HP200LX is Felix(?), HP1000CX is Puma. Now who the f*ck is "Lion"?

Had the SW different codenames than it's HW?

How knows?

Ciao.....Mike

BTW, if you are realy sure about those codenames pls reply to hp41cx at web dot de

TIA

The Lion

*Message #2 Posted by **Andrés C. Rodríguez (Argentina)** on 29 May 2003, 1:23 p.m.,*
in response to message #1 by Mike

I think (not 100% sure) that "Lion" was a sub-notebook PC, with a 386 sx processor and running Windows 3.1 in standard mode (not multitasking). It has all the software in ROM (Windows, Word and Excel) and a very curious "mouse" attached with a plastic arm to the side of the machine. I don't remember the commercial name, but it was one of the first to use the OmniBook label.

These are just imperfect memories from 10 years ago, I apologize for possible errors.

Re: The Lion

*Message #3 Posted by **R Lion** on 29 May 2003, 1:31 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Sorry, you are wrong: I am the Lion

Raul :-)

Re: The True Lion

*Message #4 Posted by **Andrés C. Rodríguez (Argentina)** on 29 May 2003, 5:18 p.m.,*
in response to message #3 by R Lion

Sure, Raul :-)

Re: The Lion

*Message #5 Posted by **Raymond Del Tondo** on 30 May 2003, 1:59 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

You mean the first OmniBooks (the REAL OmniBooks!).

However, there was another variant of the 200LX, the OmniGo 700LX. Maybe this is the Lion? I mean the other Lion, other than Raul;-)

Raymond

Re: The Lion

*Message #6 Posted by **Frank Wales** on 30 May 2003, 2:15 p.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Unless my memory is broken, I believe that 'lion' was the Omnibook 300, which was the first Omnibook, and indeed as you described it here (mouse on a stick, Windows in ROM, no internal spinning drives, long battery life, etc.).

Re: The Lion

*Message #7 Posted by **Mike (Stgt)** on 4 June 2003, 11:14 a.m.,*
in response to message #2 by Andrés C. Rodríguez (Argentina)

Thank you for the info. Was there some special data exchange between "Lion" and the HP200LX? Or some special SW charing databases between this systems?

TIA.....Mike

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HP41CV Extended Function Module

*Message #1 Posted by **Todd Templeton** on 28 May 2003, 12:25 a.m.*

Greetings, All:

I'm new to this form and the museum, so maybe this is not the place for this question, but here it goes anyway.

I am a devoted disciple of the HP41CV. I bought mine in 1982 and have babied it for the past 21 years. It recently broke, but I was able to get it repaired and it is as good as new, now. Before I got the HP41CV I had a TI58, which was a piece of junk in comparison, although expensive.

Anyway, I'm looking for an Extended Function Module so I can load in a some programs that would be useful in my work (mostly base conversions). I would also like to find a Math Module for it. I've checked on eBay, but I haven't found anything, yet. I could buy a CX, but my CV is just fine -- I just need the module.

Anybody have any suggestions for me?

Todd Templeton Torus Business Group LLC Phoenix, AZ

Re: HP41CV Extended Function Module

*Message #2 Posted by **Jim L** on 28 May 2003, 12:45 a.m.,*
in response to message #1 by Todd Templeton

Try the classified ads

Re: HP41CV Extended Function Module

*Message #3 Posted by **Todd Templeton** on 28 May 2003, 12:54 a.m.,*
in response to message #2 by Jim L

Wow! That was a fast reply.

I tried the classifieds first, but nothing jumped out at me as possibly what I was looking for. But, I'll go through them more carefully.

Thanks!

Todd

Re: HP41CV Extended Function Module

*Message #4 Posted by **Jim L** on 28 May 2003, 3:14 a.m.,*
in response to message #3 by Todd Templeton

Actually I was suggesting that you post a "want to buy" ad.

I'd suggest buying an HP41CX

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 28 May 2003, 1:38 a.m.,*
in response to message #1 by Todd Templeton

Hello, Todd;

If you can afford doing this, buy an HP41CX. It's an anhanced model, not only an HP41CV with time and X-Functions module. You can keep your beloved HP41CV and buy the modules, but I believe it's gonna be easier to find an HP41Cx instead of an X-Functions. And prices will probably justify buying a complete calculator.

About the math module: you will be able to use in any of them.

Hope you have success.

Best regards.

Luiz C. Vieira - Brazil

Re: I'd suggest buying an HP41CX

*Message #6 Posted by **Todd B. Templeton** on 28 May 2003, 6:44 p.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hi, Luiz:

Actually, surprisingly enough, I was contacted by a fellow this morning with an X-Function module for sale who is located here in Phoenix. I also just heard from a fellow in Australia with a Math Module for sale, so I think I have everything I'm looking for.

Your point is well taken, though, and I would dearly love a CX. I would have purchased a CX when I bought my CV, but I was a starving college student at the time and couldn't come up with the additional cash. At the time, I think the CX was about twice the price of the CV. I paid $256 for in 1982 (still have the original invoice), which was a considerable sum for a college kid paying his own tuition on a minimum wage job. Since I can afford it now, I may pick up a CX some time just for giggles.

Anyway, I appreciate all the feed back from everyone.

Thank you.

Todd

You'll not regret, believe me!

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 28 May 2003, 10:10 p.m.,*
in response to message #6 by Todd B. Templeton

Hi;

if you really love your HP41CV, you'll feel as betraying it when meeting an HP41CX! I felt like that and it took me more than a month to get back to my old fella 41C after having a CX in hands. Different tastes, I'd say.

Well, take your time. Now you have what you need. I just want to tease you a bit more: my HP41CX has an HPIL, two X-Mem modules and an X-IO connected to it (I have no math module; all I need in

math I have in my HP42S). As it has the X-Functions built in, I can use all ports for other modules. Oh, yes, and I can see if it's time to shoot it off and go bed...

Success!

Luiz C. Vieira - Brazil

Edited: 29 May 2003, 8:19 p.m. after one or more responses were posted

Re: You'll not regret, believe me!

*Message #8 Posted by **Todd B. Templeton** on 29 May 2003, 6:37 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Luiz:

You're a hoot! I'll look out for a good deal on a CX and pick it up.

Thanks!

Todd

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HP41CV Help/Advice

*Message #1 Posted by **Steve Gosselin** on 27 May 2003, 11:40 p.m.*

Hi all. I have a HP41CV that I purchased what seems to be many years ago. Some 8 years ago its simply stopped working - it won't turn on using either the ac adaptor or replacable batteries. The calculator was well cared for and prior to that it never gave any indication of problems. It has sat in my desk since. Can anyone tell me what might be the problem and where or how I might get it repaired?

Thanks.

Steve Gosselin

Re: HP41CV Help/Advice

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 28 May 2003, 1:33 a.m.,*
in response to message #1 by Steve Gosselin

Hi, Steve;

let's first identify which model you have. Please, look at the LCD window and compare what you see to the image below.

This image belongs to the HP Museum (this site).

In both cases, the best starting point is cleaning batteries contacts, the ones in the calculator. If you see they are O.K, chances are you have a small battery leakage and that the residal leak got between the kayboard and the battery connectors assembly. In this case, it's necessary to open the calcualtor. Do you need advice for this?

If so, let us know so we can continue.

Best regards.

Luiz C. Vieir - Brazil

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HP41CV Display

*Message #1 Posted by **Howard** on 27 May 2003, 6:23 p.m.*

On my HP41CV there is some flakes of dust or something on the display. Does anybody know an easy way to remove it. I was thinking on the lines of how I fixed a sticky key on my HP32SII (on advice from this forum). That advice was to bathe the whole calculator in clean water several times and dry it out with a hair dryer. Does anybody know if this method can be used on the HP41CV? Thank you. PS Wipe the "SPAM" off to email.

HP41 display cleaning

*Message #2 Posted by **Randy Sloyer** on 27 May 2003, 8:34 p.m.,*
in response to message #1 by Howard

If they are black, there is a chance your LCD is leaking. If it's a full-nut, it's replaceable. You're out of luck with a half-nut as the display is not serviceable.

If it just looks like dirt specs, you can open the unit by removing the four feet and the four screws underneath. You can then usually blow the dirt out by directing the flex tube of some canned air in from the sides of the display. If they are really stubborn, you can try a sliding a strip of stiff paper into the LCD area and try dislodging the specs then follow up with air.

The water wash will probably not loosen the dirt and can cause further problems especially with a half-nut by transporting even more dirt to the display area.

In a very desperate situation, you can always unsolder and remove the LCD from a full-nut for cleaning.

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Help needed - Woodstock external battery charger

*Message #1 Posted by **Renato** on 27 May 2003, 4:22 p.m.*

I just got a external battery charger for my woodstock collection. It seems to be working, but there is a rattle inside. Also, one terminal is corroded - so i would like to open it, clean and fix the rattle. I don't know how to open this unit - can someone help me ?

Re: Help needed - Woodstock external battery charger

*Message #2 Posted by **Tony Duell (UK)** on 27 May 2003, 5:04 p.m.,*
in response to message #1 by Renato

It's glued together :-(. The main area for glue is between the flat part at the bottom of the battery cavity and the bottom part of the case. You have to carefully prise (pry) it apart. Once the 2 parts of the case have separated (hopefully without too much damage -- mine came apart cleanly), it's easy to extract the little PCB. The circuit is really simple -- 2 resistors, a diode, and the LED.

Re: Help needed - Woodstock external battery charger

*Message #3 Posted by **Renato** on 27 May 2003, 5:54 p.m.,*
in response to message #2 by Tony Duell (UK)

Tony,

Ok, thanks.

Renato

Re: Help needed - Woodstock external battery charger

*Message #4 Posted by **David Smith** on 28 May 2003, 3:19 p.m.,*
in response to message #2 by Tony Duell (UK)

The ones that I have needed to open were glued shut rather well. One had to break the plastic tabs to get them apart. Putting them back together again was a real pain.

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HP12C Platinum on hp.com

*Message #1 Posted by **J.Manrique Lopez de la Fuente** on 27 May 2003, 11:48 a.m.*

Hello,

Just see it here

Best regards,

J.Manrique Lopez de la Fuente
Users Club from Gijon
1077 HPCC Member

Re: HP12C Platinum on hp.com

*Message #2 Posted by **Dave Shaffer** on 27 May 2003, 3:04 p.m.,*
in response to message #1 by J.Manrique Lopez de la Fuente

And when you try the URL for more information about the complete line of HP calculators, you get a "Sorry ..." note from HP!!

Indicative of the true state of affairs?!?!?!

Re: HP12C Platinum on hp.com

*Message #3 Posted by **J.Manrique Lopez de la Fuente** on 27 May 2003, 7:39 p.m.,*
in response to message #2 by Dave Shaffer

It seems they are working in a new site too: http://www.hp.com/calculators/index.html

Best regards,

J.Manrique Lopez de la Fuente
Users Club from Gijon
1077 HPCC Member

Hilarious...I bet the 12c classic outsells the 12cp 2 to 1

*Message #4 Posted by **Gene** on 27 May 2003, 3:05 p.m.,*
in response to message #1 by J.Manrique Lopez de la Fuente

If there's only a $10 difference, I still think the original 12c will sell better than the new one...at least, after the HP nuts, e.g., most of us here, have bought one.

The extra programming steps (400 vs. 100) won't matter a hill of beans to 99.99% of the 12c buyers.

The slower solutions to annuity problems will matter to at least 50% of the 12c buyers.

The ugly color scheme will also be a drawback.

IMO, of course. Gene

What are the extra functions?

*Message #5 Posted by **Tony David Potter** on 27 May 2003, 3:35 p.m.,*
in response to message #1 by J.Manrique Lopez de la Fuente

On the HP Financial Calcualtor comparison page http://www.hp.com/calculators/financial/index.html it lists the number of built-in functions.

HP-12C - 120+
HP-12CP - 130+

What are the extra functions? Trig would be too much to hope for, I'm sure.

--Tony David.

Re: What are the extra functions?

*Message #6 Posted by **Gene** on 27 May 2003, 5:02 p.m.,*
in response to message #5 by Tony David Potter

Extra functions are:

X^2 (wow)

ALG (selects algebraic mode)

RPN (selects RPN mode)

= (of course, have to have an equals function for ALG mode)

Can't really find much else.

Some of us had hoped for something to really compete with the $30 TI BAII Plus calculator. Much more bang for the buck than the 12c, sad to say.

Re: What are the extra functions?

*Message #7 Posted by **NH** on 27 May 2003, 10:30 p.m.,*
in response to message #6 by Gene

The 12C sports a variety of new special MBA boardroom features,

* pay-raise program to determine the highest possible executive pay-raises while a company is going bankrupt. Hit 2nd-shift button to determine corresponding pay-cuts to employees.

* hostile takeover share price calculations

* employee paycut percentage calculator, enter the monetary value of an outstanding employee's corporate contributions, the calculator responds with how much to cut that employee's pay. 2nd-shift button for hack-jobs and non-producing employees, to determine correct amount to raise their pay.

* builtin earnings-sheet fraud generator program

* automatic solve function to determine which is the most profitable and popular product with customers, to target those products for discontinuation.

* foreign currency converter, to check value of Swiss bank account (maximum 11 places plus decimal).

* personal family-member calculation subroutines, example, enter number of creepy MBA sons going to Yale law school, calculator responds with amount of tuition required quarterly (limit 7 figures plus decimal).

* major capital destruction probability programs. HP responded specifically to NASA management on this one, similar to when they responded to NASA on the 41C years ago. So when Dittermore burnt up the 2nd shuttle, he takes his 12C, enters the amount of major capital destruction caused by not listening to engineering, enters the gross annual income of the organization, assets and earnings, calculator responds with most likely payraise to the individual holding responsibility for the capital destruction. 2nd shift to calculate 'bonus' amount and number of share options awarded after media coverage cools off.

I think Carly is pretty happy with the new extra features. NASA is going to try that last feature often, until they run out of shuttles.

Re: What are the extra functions?

*Message #8 Posted by **Dave Shaffer** on 28 May 2003, 1:17 a.m.,*
in response to message #7 by NH

Norm,

You forgot one final function for those MBA types:

The calculator tells them to go lie out on the railroad tracks and wait to be fixed!

Ouch !

*Message #9 Posted by **Norm** on 28 May 2003, 1:55 a.m.,*
in response to message #8 by Dave Shaffer

Ouch !

Thats one MBA who will need a few bandaids.

I could spare a few bandaids for our test MBA... well, one or two bandaids anyway, well, the little round ones at the bottom of the can that I dont use. If thats not enough too bad.

Hope it was Carly .

Be nice, guys, I AM an MBA!

*Message #10 Posted by **Gene** on 28 May 2003, 11:16 a.m.,*
in response to message #9 by Norm

Not all of us are like you make it out to be...seems like only those at HP. :-(

Re: Be nice, guys, I AM an MBA!

*Message #11 Posted by **Ellis Easley** on 28 May 2003, 5:01 p.m.,*

in response to message #10 by Gene

Gene, I hold you in high regard, along with another MBA who has been shaking up the world lately! I have no animosity about it but I wonder why RPN has survived in the 12C but not in the scientific calculator market. In the manner of the optometrist (think of me as an optimistic optometrist!), tell me which of these works better:

a. Accountants like RPN because it is not unlike the old adding machine.

b. Accountants like RPN because it is sort of a secret method that sets them apart (not meaning to imply that only accountants would be motivated this way!)

If it turns out that it was only the gold anodized finish that made the 12C popular, the 12CP is screwed! I know platinum is the natural progression from gold for prestige, but in an actual object, will the extra few dollars make people forget that it is really aluminum?

OK we will be nice

*Message #12 Posted by **NH** on 28 May 2003, 8:47 p.m.,*
in response to message #11 by Ellis Easley

OK we will be nice.

You can have a big band-aid.

Maybe we will even phone 911 for you.

HEY SERIOUSLY, if you are a nice MBA, prove it. I always hoped maybe I would meet one someday, though I hadn't so far.

I am sitting on several multi-million dollar opportunities. NO this is not SPAM. I am an inventive design engineer. I have smaller ones, and larger ones, all clearly legitimate, and sought-after by customers near and far. 2 out of 3 are protected by patent, the 3rd one will be later.

Everytime I sit down with modern management, they are too twisted and braindead to even know how to change a lightbulb. NOT the management from the moonshot era. Now, if they can't even change a lightbulb, you cant exactly talk to them about important enabling technology allowing a huge pile of money to be made, can you. So I have these great ideas but they can't pronounce anything more complicated than "golf" so then I go hungry because the only way I can make money is by inventing cool new things, and they cannot appreciate that process.

Besides, they are busy saying 'rip you off' and you cant talk technicals anyway because they are just figuring out how to swindle somebody (perhaps the inventor, or maybe the shareholders).

So I have 3 specific outstanding ideas, 2 could generate a million bucks a year of sales, the 3rd could generate 20 million bucks a year of sales. Prove to me you are a nice MBA by talking to me about it.

Click on the blue, up top.

- Norm Design Engineer

Mr. Nice MBA

*Message #13 Posted by **Norm** on 30 May 2003, 1:39 p.m.,*
in response to message #12 by NH

A little louder please,,,,

so far,,,,,

I can't HEARRRRRR youuuuuuu .

Re: HP12C Platinum on hp.com

*Message #14 Posted by **Gordon Dyer** on 27 May 2003, 5:24 p.m.,*
in response to message #1 by J.Manrique Lopez de la Fuente

Despite the mistakes made on colour scheme and bugs, HP need to be congratulated for the support documentation. See the link below for a set of .pdf documents. I hope that they keep this up with newer scientific models, but with traditional colours, no bugs and faster speeds!
http://www.hp.com/calculators/financial/12p/educators.html

Re: HP12C Platinum on hp.com

*Message #15 Posted by **james (UK)** on 28 May 2003, 8:52 a.m.,*
in response to message #14 by Gordon Dyer

Pity the manuals link on the normal 12C page takes you to the 10BII and not the 12C! Maybe the guy who did the website is the same guy who built my Malaysian 12C keyboard!

Re: HP12C Platinum on hp.com

*Message #16 Posted by **Dan M** on 28 May 2003, 4:36 p.m.,*
in response to message #14 by Gordon Dyer

Gordon:

Please note that the pdf documents linked to in your referenced link are credited mostly to Grapevine Publications, and so it is really mostly they (not necessarily HP) who should be congratulated for a job well done.

Now if Grapevine Publications could be contracted to write the HP support documentation, it would be very interesting. And about those colours...

Regarding the documentation about the "algebraic" mode for the HP 12CP: have you read that? It is, indirectly, one of the better arguments for using RPN that I've seen. Try to do one of those problems, and it's almost guaranteed that learning RPN would be easier, even for "those MBA types" :-)

At least this shows that HP wants to produce some decent documentation, even if they've forgotten how to do it themselves.

Dan "cynical? me?" M.

Re: HP12C Platinum documentation

*Message #17 Posted by **Matt Kernal** on 28 May 2003, 8:10 p.m.,*
in response to message #16 by Dan M

Dan> Gordon:

Dan> Please note that the pdf documents linked to in your referenced link are credited mostly to Grapevine Publications, and so it is really mostly they (not necessarily HP) who should be congratulated for a job well done.

I suspect the (RPN part of the) documentation comes from Grapevine's "An Easy Course in Using the 12C" book, which was written many years ago.

And didn't I read the 12CP manual is an updated version of HP's own original 12C manual (ie. Example problems now have updated Interest rates, PV amounts, etc..)? If so, we should congratulate the original writers for a job well done (for the manual they wrote twenty years ago).

Matt

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Would someone check an HP41C halfnut, please? (and a new image)

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 11:44 a.m.*

HI, HP41 maniacs (like me);

if there is any HP41C halfnut owner reading and with necessary skills, would you please open it and check for the hybrid LCD driver code?

I'd like to know if there are only two of these IC's - 41CV and 41CX - or if the 41C halfnut has a different one. Let me explain why.

When the first halfnuts became available, the HP41C was no longer being produced. Anyway, I read here in this very formum, that some units were released for replacement purposes. This means that the same mainboard is used for the HP41C.

As I have an HP41CV that fails to recognize more than 63 registers and the hybrid IC has the same code of another fully-operating HP41CV halfnut, I am trying to get to conclusion if this hybrid IC is defective or if there is some sort of jumper in the mainboard that would restrict the access to the remaining memory.

I compared this halfnut mainboard to another 41CV halfnut mainboard (newer) and found an additional SMD with an N2(with a slash over both characters) as identification, and it goes straight in two terminals of the hybrid chip. The other mainboard has the pads for soldering it, the one I scanned and posted here doesn't. I thought about removing it and testing it to see what sort of component it is, but I prefer waiting a bit more till I have other references. If there is a third hybrid chip for the HP41C, I will conclude this 41CV is definitely damaged.

The new, additional image is the one that shows the back image of the halfnut LCD. I forgot to add this image to the set shown in my previous post.

http://www.logeng.com.br/images/hn_lcd_back_legends_s.jpg

Thank you for any additional information.

Luiz C. Vieira - Brazil

Re: Would someone check an HP41C halfnut, please? (and a new image)

*Message #2 Posted by **Meindert Kuipers** on 27 May 2003, 3:48 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Check this out:

http://www.kuipers.to/images/open41cx.jpg

I have made some new pictures for my online museum, but did not have the time yet to upload it in a nice format. Put this one online just for Luis. The file is about 700+ K and a picture of my whole opened 41CX.

No Luis, I am NOT NOT NOT (excuse me for shouting) going to disassemble it any further ;)

Meindert

Thank you!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 8:40 p.m.,*
in response to message #2 by Meindert Kuipers

Hi, Meindert;

this is what I call a great big picture!

The paper label over the hybrid chip is the same as the one found in my halfnut CX. Now I want to know if the existing HP41C halfnut have another code.

CV: 5061-7255 CX: 5061-7262 C: ??????

Thank you very much. Not a curse: if you, by any reason, need to dismantle your HP41CX, be sure there is someone that has already done something like this... and has no regrets.

Best regards.

Luiz C. Vieir - Brazil.

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More info on 41c card reader problem

*Message #1 Posted by **Steve** on 27 May 2003, 9:54 a.m.*

It looks like it was the alignment of the LED with the card slide hole and sensor. I adjusted the LED (from the board) to be in the center of the opening (near the wheel) and it has started to work. I never realized the positioning was so critical (I only moved it a couple of millimeters) but I guess it is. I believe this would explain why it runs for ~5 seconds: if the sensor does not detect the LED light, it thinks it has a card, but since the card may be stuck, it turns the motor off after a few seconds. I've seen this with bad wheels that can't pull the card through.

Steve

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Halfnut dismantled (with images!)

*Message #1 Posted by **Vieira, Luiz C.(Brazil)** on 27 May 2003, 4:17 a.m.*

Hi, guys;

let's see how long will this provider keep my images...

Well, here it comes. This is a comparison between halfnut (left) and fullnut (right) PCB, front view. The small black holes in some of the fullnut PCB's holes (nine) indicate the difference between them, concerning to their respective cases. I have successfully used an HP41CV's halfnut PCB in an HP41C's fullnut case. I had to remove the small plastic "posts" where indicated by the black holes.

http://www.logeng.com.br/images/hn_fn_front_compare.jpg

This is a back view of the halfnut's PCB; that's what you see when opening the calculator. The red-and-black wires shown in the top of the image were added to connect external batteries; they do not actually exist in the calculator. Also, both electrolytic and tantalum capacitors were positioned that way so I could scan the image; actual position is shown in the small additional image.

http://www.logeng.com.br/images/hn_mainboard_back_view.jpg

This shows the halfnut LCD removed from the mainboard. If you look at previous picture, you'll see there are eight small metal strips around the LCD's hybrid chip (upper, part. # 5061-7255), four in the top (easily visible) and four right below the hybrid itself (not so easily visible, they are like dark mark in four round holes). It's necessary to slightly unfold them in order to remove the LCD. What you see below the LCD is the not-usually visible set of connectors from the hybrid 5061-7255.

http://www.logeng.com.br/images/hn_lcd_removed_detail.jpg

I decided to go further and removed the LCD driver from the mainboard in order to try to find sny problems, like short-circuited or open trails, cold soldering... but I found no trouble. This HP41CV's halfnut PCB returns .END. REG 63 after SIZE 000, calculator memory cleaned. It should return .END. REG 319. I rebuilt everything back and it is working fine for an HP41C!

http://www.logeng.com.br/images/hn_hybrid_removed.jpg http://www.logeng.com.br/images/hn_hybrid_b&f.jpg

These images show a sequence where a fullnut LCD is disassembled. The two small "lockers" (black flat fasteners) are made of plastic, and are easily removed. I must warn that it's necessary having careful hand and fingers movements; if you force too much, you may bend the metal bridges or even break their soldering tabs, permanently damaging the LCD assy. After inspecting aligned pads for both LCD's I got to the conclusion that fullnuts' and halfnuts' LCD's are not interchangeable; I mean the LCD itself, the glass parts, not the drivers. (sorry, Gordon)

http://www.logeng.com.br/images/fn_lcd_front.jpg http://www.logeng.com.br/images/fn_lcd_dis_01_s.jpg
http://www.logeng.com.br/images/fn_lcd_dis_02_s.jpg http://www.logeng.com.br/images/fn_lcd_dis_03_s.jpg
http://www.logeng.com.br/images/fn_lcd_back.jpg

As I'm having more information, I'm posting. I hope these images help others.

Feedback is always welcome.

Thanks and enjoy.

Luiz C. Vieira - Brazil

Re: Halfnut dismantled (with images!)

*Message #2 Posted by **Meindert Kuipers** on 27 May 2003, 7:20 a.m.,*
in response to message #1 by Vieira, Luiz C.(Brazil)

Impressive piece of disassembly!

Just a question, I have an HP41CX. What is in the PCB that sits above the CPU (at least I think it is the CPU). Are all the extra ROMs in there (time, xfun)?

Meindert

Re: Halfnut dismantled (with images!)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 8:38 a.m.,*
in response to message #2 by Meindert Kuipers

Hi, Meindert;

thaks for your supporting words.

I have both halfnut and fullnut 41CX and as far as I know (and read about), the extra halfnut-exclusive assembly contains TIME and X-Fucntions hardware only. The hybrid RAM/ROM & display driver is not the same for the CX too (ID #: 5061-7261), because CX ROM contents are different, as you know.

Unfortunately this is all I know.

In time: congrats for your amazing MLDL development.

Best regards.

Luiz C. Vieira - Brazil

Re: Halfnut dismantled (with images!)

*Message #4 Posted by **Meindert Kuipers** on 27 May 2003, 3:37 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I am asking this because my MLDL may be small enough to replace the bridge board (it would be bigger, but could fit inside). The only thing it could not (yet) emulate is the time module.

Meindert

Re: Halfnut dismantled (with images!)

*Message #5 Posted by **David Smith** on 27 May 2003, 2:27 p.m.,*
in response to message #2 by Meindert Kuipers

The bridge CPU board in the 41CX halfnuts is the clock circuitry. I think it also contains the clock ROM

functions so that if you transfer it onto a 41CV, you get the equivalent of the 41C Time Module, but I have never done this.

X-Functions in the HP41CX?

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 3:08 p.m.,*
in response to message #5 by David Smith

Hi, David;

again, to keep me up-to-date about the internals and not to spread bad information around, where are the X-Functions stored in the HP41CX?

I remember I read once, I'm not sure if it was here, that the HP41CX halfnut had the extra ROM's for both Time and X-Functions in the bridge board, and that the CX-only functions for time and X-Fcn were recorded with basic CX-ROM, in the hybrid chip.

Is it an incorrect information? If so, I must update my own database.

I also found that the CX fullnut has some extra ROM chips, and I remember I saw an extra X-tal. I did not search for any specific clock chip, but I know it must exist.

Thank you again for calling my attetion to these facts.

luiz C. Vieira - Brazil

Re: X-Functions in the HP41CX?

*Message #7 Posted by **Tony Duell (UK)** on 27 May 2003, 5:12 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

In the fullnut, the timer chip is the 20 pin (I think) IC at the right of the PCB (looking at the component side). That's just the timer, the programs to drive it are in one of the ROM chips). In the halfnut, I beleive. the 'bridge board' hybrid contains the timer chip, the extended memory RAM, and 12K of ROM (page 3 and both page 5s) containing the extended functions, timer functions, and CX specific functions. However, the main 12K ROM (pages 0, 1, 2) in the display driver hybrid is different between CV and CX machines -- adding the bridge board to a CV will add the timer functions (and the time chip), but it will not recognise the extended functions.

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hp 65 reader

*Message #1 Posted by **Greg** on 26 May 2003, 11:48 p.m.*

Does anybody can help me with connection diagram for HP65 card reader head. 4 of 5 wires on my card reader came loose. The colors of the 5 wires are: black, red, orange, yellow and blue. I can see three of the wires go to a 20 pin IC (pin 7, 8 and 9). Thanks, Greg

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Disposable HP RPN

*Message #1 Posted by **Tom Cox** on 26 May 2003, 9:13 p.m.*

It would seem that the Chinese 3V 12C fits this category quite well. Mine Lasted just past the warranty and then.... flakey keyboard (press a key, it clicks, but no entry).But it is the least expensive currently marketed RPN calculator made by HP. I found the g {blue} front face keys to be essentially unreadable unless the lighting is just right.

For plain mathematical expressions not involving Trig functions it worked OK (for just over a year). It was also good for basic Statistics.

Would prefer to use an HP-32SII, but price on them has gone so high that an old unit in good condition (readable blue and yellow shift functions) is too valuable to use on a daily basis. Hard to believe they bring $300 or more.

Can't imagine the 12C (Chinese) having the life of HP-41C, many of which are still functional after 18 years.

How do we get the message to HP that people are willing to pay a premium price for a premium calculator? Or is the market for such devices so limited as to make this only a dream?

Wish that HP would sell an equivalent to the HP-32SII (the old version -- not the one with the green and magenta shift keys) they would get my money.

Re: Disposable HP RPN

*Message #2 Posted by **Patrick** on 26 May 2003, 9:44 p.m.,*
in response to message #1 by Tom Cox

It only takes a relatively small number of buyers to influence the price of items on eBay. That means that one cannot base a business case for a new, quality (RPN) calculator by pointing at auction prices. So, yes, I think you are right in saying that there is likely no (mass) market for quality devices.

Most people will recognize that you can buy a *series* of cheap items, each lasting perhaps only a few years, and not pay much different than one high quality device. With the rate of innovation in electronics, being able to get the latest and greatest every few years is generally an added benefit.

I would have to say, though, that there appears to have been a certain amount of reverse innovation in the calculator field. It is hard to find a machine with the capability (RPN, complex numbers, matrices, solver, numerical integration, full keystroke programming model) convenience (size, battery life) and support (great manual, advanced guide available) of a 1982 vintage 15C.

Will we see such a beast again? Given how many 15C's I've accumulated, I'd have to say my opinion is no, not in my lifetime.

Re: Disposable HP RPN

*Message #3 Posted by **Vassilis Prevelakis** on 27 May 2003, 2:48 a.m.,*
in response to message #1 by Tom Cox

```
Tom Cox wrote:
> Disposable HP RPN
> It would seem that the Chinese 3V 12C fits this category quite well.
```

If this not a statistical fluke, then this is really bad news for current HP calcs. In the business community, everything is a status symbol. Executives that wouldn't be caught dead with a disposable pen, use HP 12Cs both for their looks and functionality.

If HP starts producing cheap (quality) calculators, their users will simply abandon them for ever.

**vp

Re: Disposable HP RPN

*Message #4 Posted by **Ellis Easley** on 28 May 2003, 5:14 p.m.,*
in response to message #1 by Tom Cox

"How do we get the message to HP that people are willing to pay a premium price for a premium calculator?"

The price of a 12C is a premium price! They shouldn't fiddle with the quality too much if they want to keep justifying the high price. The painted key legends is one thing - as long as the colors are readable and the paint sticks reasonably well, they should get by. But if the keys don't respond when you press them, or (most aggravating without a backspace key!) if you get multiple key entries, then it ceases to be a premium calculator.

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The Complete Voyager

*Message #1 Posted by **Patrick** on 26 May 2003, 6:03 p.m.*

The way Norm feels about the HP-34C is something like the way I feel about the Voyager series.

I'm happy to report that, with the receipt today of a quite well preserved HP-10C, I am now the proud owner of a complete working set! Woo hooo!!

Just thought I'd share this with you since my family kind of looks at me funny when I am stupid enough to start talking about these sorts of things (I'm sure many of you recognize this phenomenon).

I do apologize to the HP socialists here who have recently expressed the sentiment "One person, one HP calculator!". I'm definitely way out on a limb with regards to these folks... ;-)

Re: The Complete Voyager

*Message #2 Posted by **GS Leong** on 26 May 2003, 7:27 p.m.,*
in response to message #1 by Patrick

Congratulations! Thats quite an achievement.

Re: The Complete Voyager Series

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 26 May 2003, 9:48 p.m.,*
in response to message #1 by Patrick

Congrats, Patrick; you achieved a good rank by having at least one of each.

For the records: how many of each model you have? If you intend to collect, remember that there are at least 5 different HP12C, Platinum not counting: four different internals with a set of three batteries and the one with the single 3.3V battery. And there are two types of each HP11C, 15C and 16C. I am not sure if there are two types of the HP10C.

I do not collect models or types, I have calculators I can and like to use. I take technology as something I collected.

Best regards.

Luiz C. Vieira - Brazil

Re: The Complete Voyager Series

*Message #4 Posted by **Trent Moseley** on 26 May 2003, 11:31 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz,

How do you know which type of 15C, 16C, and 12C, you have? By country of manufacture and serial number?

tm

Re: The Complete Voyager Series

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 12:11 a.m.,*
in response to message #4 by Trent Moseley

Hi, trent;

the trick is in the batteries' connectors: the fastest way to identify the two basic Voyagers "guts".

If your Voyager has metal strips on each of the battery connectors, than it's one of the first types. These ones use the flex-circuit assembly with all chips and the LCD in one package and the keyboard has a separated hard PCB.

If you see a spring in one pole (+) and a small rigid tab in the other (-), then yours is a newer Voyager. There are at least three different HP12C layouts with these "single PCB", but I saw only one of these PCB's in the HP11C/15C/16C. I'm not sure about the HP10C because I have never opened any, but I had the chance to see and use one when I was at the university.

I have some scanned images and I'm yuploading them tonight, if I'm lucky enough finding my e-space active and working. I'll post later.

Hope this helps. If I miss anything, let me know.

Best regards.

Luiz C. Vieira - Brazil

Forgot to mention...

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 12:36 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

Hi;

I forgot to mention that the second type, the ones with a spring and a tab in the batteries' compartment, have one single PCB with all components built in.

The three HP12C with a single hard PCB had original HP-coded chips, one of them being the 1LQ09-0322, the other has 1RR2-0001 ID code and the third one I have not seen again (the earlier type). The one with single 3.3V button cell (Chinese) comes with an Agilent chip, ID 2AF1-0001.

There is more data about the HP11C, 15C and 16C, already posted here sometime ago. I'm collecting data (I like it a lot!) to try an article, later.

Best regards.

Luiz C. Vieira - Brazil

Re: Forgot to mention...

*Message #7 Posted by **james (UK)** on 29 May 2003, 4:59 p.m.,*

in response to message #6 by Vieira, Luiz C. (Brazil)

Hi Luiz

Looking forward to your article, when do you think it'll be ready?

Re: Forgot to mention...

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 30 May 2003, 2:35 a.m.,*
in response to message #7 by james (UK)

Hello, James;

I'm just wating to see if I can get more information about the "chipset" used in both HP10C and earlier HP12C. As the HP12C is still in production, the first units are most likely to be thrown away or sent to HP "headquaters" for repair and eventual replacement. I do not like to mention it because of speculation, but I think first HP12C units are as rare as the HP10C, if not rarest.

As I have this information and put it together with my own, I'm setting images up and I'll prepare a text to be collectively handled. I think this is the best way.

Thank you for your ecouragement and support!

Luiz C. Vieira - Brazil

Edited: 30 May 2003, 4:59 a.m.

Re: The Complete Voyager Series

*Message #9 Posted by **Patrick** on 27 May 2003, 12:54 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

> For the records: how many of each model you have?

Well, Luiz, you ask a very loaded question. You see, I have been quite active in my collecting recently, especially in the area of Voyagers and (to a lesser degree) Woodstocks. This is my version of a mid-life crisis, I suppose.

I will say that I have at least two copies of each (well, except for the 10C, for which my second copy is still in transit). I have more 15C's though, because I am terribly enamoured with that particular model.

I'm sure, though, that I do not have all the varieties you've been mentioning. I read somewhere, probably here, that some of the early 11C's and 15C's had metal logos, later replaced by plastic ones. In the case of the 12C, I have a copy from the US, one from Brazil and one of the new ones from China (large single battery). I'm not all that interested in what kind of PCB is inside them. No doubt I will should the day come when they don't work anymore!

But then, you'll be here to answer my questions, wont you Luiz??! ;-)

Re: The Complete Voyager Series

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 3:30 a.m.,*
in response to message #9 by Patrick

Anytime, anywhere... be my guest!

I only hope I'm able to help, of course.

About particular external changes: I'm not aware of most of them, I am mostly concerned about their internals and operation. As an example, I have two HP42S: one of them is no longer working, and they are externally different: the earliest one has an LCD protective shield, while the newer one doesn't. Internally they look the same, but their SW version (O.S.) is different, upgraded.

When I realised that external changes may occur without internal subsequent changes (or the opposite), I decided to keep track of the internal ones; I like them most.

Success! And keep these babes in good hape, wilyah?

Luiz C. Vieira - Brazil

Re: The Complete Voyager Series

*Message #11 Posted by **Ernie Malaga** on 28 May 2003, 1:00 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

>I do not collect models or types, I have calculators I can and like to use. I take technology as something I collected.

Besides, who wants to go, "eeny-meeny-miny-moe" to choose one, when needing a calculator? 8^)

-Ernie

Re: The Complete Voyager

*Message #12 Posted by **db(martinez,california)** on 27 May 2003, 1:43 a.m.,*
in response to message #1 by Patrick

i am no doubt one of the calculator socialists.

i applaud your recient completion of the voyager series collection. lucky dog. i am not far behind though. what i have refered to in derision is some peoples indescriminate buying of multiples of everything in sight because they can.

i have a few duplicates. i just sold one. i will sell the rest too, but i'll keep my three 41's. i use a 41 daily and would not sleep right if i just had one. several good members of this community have duplicates. they use them to earn a living. others like mike they buy-fix-improve-combine and then resell them as a hobby. they share their repair methods with the rest of us and wouldn't know jack to teach us if they didn't have to fix the wrecks.

socialisim is forced on a population. electing to make yourself a member of a community is a personal decision. i believe that this forum functions as a community.

the following is only my opinion: i do not think that buying a lot of calculators that one found out about here at $100 and selling them for $250 here to the same people who would have bought them at $100 if they were quicker is being a member of the community. i don't think that having the deepst pockets on ebay is bad. i do think that buying the same thing again and again just to have the biggest stack of hp-XX's around is pointless. and since a bunch of people wanted them; i think that redundant buying on the scale of a couple of the jerks on ebay is just being a pig. it also drives up the already insane prices.

ebay doesn't affect me too much. i bought my work units from ol' jim carter and richard nelson at educalc. i have found most of my treasures at the flea market and most of the rest from fellow surveyors and people i

know. what i am saying is that if i had a garrage full of hp calcs all that would do is make a lot fewer people to have something to post about here. it wouldn't do anything FOR me, or this community.

ok, enough phylosophy. lets get back to business.

don't the new hp's suck?

Re: The Complete Voyager

*Message #13 Posted by **Juergen (CH)** on 27 May 2003, 2:40 a.m.,*
in response to message #12 by db(martinez,california)

Although I was just kidding when proposing the HP socialits party, you perfectly brought it on the point. Thanks!

Re: The Complete Voyager

*Message #14 Posted by **james (UK)** on 29 May 2003, 5:28 p.m.,*
in response to message #13 by Juergen (CH)

Hi guys

I take the true socialist view, everyone else should have one but I can have many (everyone is equal but some are more equal than others!)

I've only recently upgraded to an HP having used a Casio for years (doing very basic calcs) until the battery went. Of course the sensible option was to spend £1 or so on new batteries so I can considered that for at least a second then decided it was a good opportunity to get a new calculator.

When I was at school in the 70s and calculators were just becoming readily available HPs had an awesome reputation (the Rolls-Royce or Cadillac - I'm bilingual! - of calculators) but were way out of my reach. I eventually progressed to a TI-58 at University (don't mock too much - at least it has red leds) and then on to Casios at work because they were cheap.

Having now decided to get a new calculator I thought I would look at HP's current offerings but was disappointed - the move away from RPN, the loss of that unique HP look - cover the logo of the current machines and they could be any brand - the only potential buy being the 12C.

Fortunately I came across this site and started having a look at ebay - although some of the prices are steep, some aren't too bad and it does at least provide a ready source for people outside the States.

I don't see many HPs in junkshops, etc over here - it's possibly a sad reflection of the status of engineers in the UK as the great British engineers of the past came from artisan stock in the working classes so engineers have never had a high status here whereas in Europe they tended to come more from the middle/upper classes and have a higher status - witness the use of Ing as a title in Germany - it is interesting to note that on ebay excluding the USA the majority of HP-41s come from Germany! Probably explains a lot about the state of UK industry!!

Anyway, I got a lovely 41CV just over a month ago and am currently working my way through some of the manuals on the Museum CD - I picked up an X-Functions module recently so am presently working my way through Keith Jarett's X-Funct book.

Of course, paranoia set in when I started reading posts about problems people have with their 41s so of course a back-up one had to be purchased! Didn't hurt that the back-up one had a PPC rom stuffed in the back! Boy, are the office going to be pleased when I print out 500pages of manual from the CD!!

I also like the looks of the Voyager and a UK seller on ebay had a 12 on offer so that has been added to the fleet pending me finding (or saving up for!) a 15.

Of course, I also would like a red led model and am looking out for a 67 or 34C.

Anyway enough insanity from me and well done to anyone who has read this far!

Beware !

*Message #15 Posted by **Randy Sloyer** on 29 May 2003, 11:25 p.m.,*
in response to message #14 by james (UK)

James,

I can tell from your post that the infection has taken hold in your system. Beware.

Treatment for this malady may still be effective if undertaken quickly.

Re: Beware !

*Message #16 Posted by **james (UK)** on 30 May 2003, 3:50 a.m.,*
in response to message #15 by Randy Sloyer

LOL - I think I'm now beyond curing, the infection has taken too great a hold.

Re: The Complete Voyager

*Message #17 Posted by **Juergen (CH)** on 30 May 2003, 6:18 a.m.,*
in response to message #14 by james (UK)

I must admit that I am a bad (or, in your words, a true) socialist and yes, this malady is very dangerous and, in my wife's opinion, is immedicable...

Re: The Complete Voyager

*Message #18 Posted by **Valentin Albillo** on 27 May 2003, 9:17 a.m.,*
in response to message #1 by Patrick

Congratulations indeed !

I completed my Voyager quintet a long time ago, matter of fact I'm now completing my third set, and very proud of them all. As you may have noticed, I also share your enthusiasm for the HP-15C, which IMHO is the best, most advanced, pure *calculator* ever.

Notice I say "calculator" and not "computing system", "advanced graphing calculator", "pocket computer" or whatever. In its class, the HP-15C is unparalleled, every detail, every feature, has been the subject of very careful thought and consideration by the very best calculator designers in the world. Everything in this *advanced calculator* is superb, from its physical characteristics to its documentation. There's never been anything like it, nor will it ever be again, that is unless Star Trek-like 'replicators' make an early appearance in this century. :-)

By the way, Patrick, I'd like you to have a look at some interesting related materials, would you please consider letting me know some suitable means of forwarding them to you.

Best regards.

I think the same about the 15C (no text)

*Message #19 Posted by **R Lion** on 27 May 2003, 10:05 a.m.,*
in response to message #18 by Valentin Albillo

.

Re: The Complete Voyager

*Message #20 Posted by **Veli-Pekka Nousiainen** on 27 May 2003, 10:52 a.m.,*
in response to message #18 by Valentin Albillo

I wish, I wish, for HP 15C Platinum^2 "what ^2 ?", you may ask. Well four times more memory and speed than even the HP 12C Platinum, that is 16* (memory,speed). Never mind the batteries will not last!! I want speeeed! (and large matrices + more memory) The same with the 16C and I would buy both in a hearth beat.

The Complete Voyager - another issue?

*Message #21 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 12:28 p.m.,*
in response to message #20 by Veli-Pekka Nousiainen

Hi;

Not exactly the same issue, but I'd prefer an HP42S+ (32KRAM) with I/O capabilities. I know many of you do not like it so much, but the HP42S is already a lot faster than the HP15C, holds a lot more information, ALPHA messages, despite being hard to "type" in, are handy, and I think its Matrix Editor is better input interface than the HP15C's stack entering (my thoughts).

I have two HP15C and two HP16C and I like them a lot. But when I need to work with matrices and I do not know how much "space" will I need, I prefer to make room and use as many matrices names as I want to than to "squeeze" data in five labels and 64 registers tops. If it is a simple four complex variables' linear system solution, like in power lines, I grab the HP15C User's Manual and follow that recipe to solve it. For fun.

Just my thoughts.

Luiz C. Vieira - Brazil

Re: The Complete Voyager

*Message #22 Posted by **Patrick** on 27 May 2003, 12:29 p.m.,*
in response to message #18 by Valentin Albillo

Hi Valentin

You can contact me by email at my yahoo account. I give it here in pieces to try to avoid the spammers, but the user id can be gotten by concatenating the strings "psheppard" and "ca" (with no intervening punctuation). Perhaps you can use a 41C to compute the answer? ;-)

I look forward to hearing from you!

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Matrix Reloaded

*Message #1 Posted by **Valentin Albillo** on 26 May 2003, 7:43 a.m.*

Hi to all of you, specially to HP-15C lovers:

Here's a little HP-15C Quiz/Challenge which doesn't just try to be merely enjoyable but useful as well. Though it is proposed and particularized for the venerable HP-15C, the intended solution will be equally applicable to all other HP calculators with matrix capabilities, i.e.: HP42S, HP-71B+Math ROM, and HP-41C+Advantage ROM, among others.

The Quiz/Challenge

Suppose we're dealing with an HP-15C's application that requires a number of matrices holding id codes of some sort, represented as 10-digit integer values from -1E9 to +1E9, say.

The challenge is to write a *general purpose* subroutine which takes two matrix descriptors placed in the X,Y stack registers and must then swap the values of their corresponding matrix elements, subject to these requirements:

1) It must work with *any two distinct arbitrary matrices* placed in X,Y, (i.e: A,B,C,D, or E), of the same, arbitrary dimensions up to a *minimum of 30 elements per matrix*. The routine must not assume any two particular matrices nor any specific dimensions.

2) It must be as short and fast as possible, and use as few registers and resources as possible, preferably just the stack.

For example, if you have C = (3, 1, 4) and D = (2, 7, 1), the code segment:

```
RCL MATRIX C
RCL MATRIX D
GOSUB A
```

(where LBL A, ..., RTN is your subroutine) should result in matrix C and matrix D holding now (2, 7, 1) and (3,1,4), respectively.

Try your hand at it. For the record, my best solution to date is an 11-step routine (not including LBL & RTN), which swaps two 5x5 matrices in 3.7 seconds, and uses no register at all, not even the index registers R0, R1 and RI, just the stack. Let's see yours :-)

Here is my solution

*Message #2 Posted by **Patrick** on 26 May 2003, 2:40 p.m.,*
in response to message #1 by Valentin Albillo

Valentin

Great problem! Anything to keep interest in my beloved HP-15C is very welcome.

Below is my solution. I haven't timed it yet, so I don't know if it is faster or slower than yours, however it is

shorter. Not including LBL/RTN it is 8 steps. Like yours, it uses just the stack, no other resources. It even preserves the Z and T registers!

I never would have thought about this solution had you not mentioned how short was the one you had!

Anyhow, here it is for your consideration ...

```
LBL E
GSB .5
GSB .5
LBL .5
STO RESULT
x<>y
CHS
+
LAST x
RTN
```

Some words of explanation... I chose "E" for "Exchange". I also have the convention to use the dot labels for private routines inside programs and to use the non-dot labels for routines I expect to call from the keyboard. I use 5 because it is private to routine E, the 5th lettered subroutine.

I will post a follow-up where I explain the workings of the routine and post timings.

Thanks again, Valentin... I much enjoyed that!

BTW... I do notice the beginnings of the values pi and e in your example... you should have used your 15C's RAN# function!

Re: Here is my solution

*Message #3 Posted by **Patrick** on 26 May 2003, 5:08 p.m.,*
in response to message #2 by Patrick

Well, it turns out that this solution is considerably slower than yours. For two 5x5 matrices, it takes a little over 6 seconds to execute, compared with your 3.7 seconds. Not having seen your solution yet, I won't hypothesize on the reasons.

True numerical analysts in the audience will also notice that this is truly not a correct solution. It depends on the fact that b = (a + b) - a, which is not always true on a calculator if a and b differ wildly in magnitude (e.g., a=1.0e10, b=1.0e-10).

As to the workings of the algorithm, it is clearly seen that the purpose of LBL E is to simply execute the subroutine LBL .5 exactly three times. Each time you execute this subroutine, the values in the matrices (say, X= matrix A and Y = matrix B) get changed as follows:

```
A <-- A-B
B <-- -B
```

Also, at the end of the routine, the stack is changed so that the descriptors are flipped: X = matrix B, Y = matrix A.

If you do this operation exactly three times, keeping in mind this role reversal of A and B each time, you will see that the contents of A and B are interchanged, thus:

```
A  --> A-B --> B-A --> B
B  --> -B  --> -A  --> A
```

QED.

Re: Here is my solution

*Message #4 Posted by **Valentin Albillo** on 28 May 2003, 4:36 a.m.,*
in response to message #3 by Patrick

Hi Patrick,

Thank you for your input to my Quiz/Challenge, I agree with your remark about raising interest in the HP-15C, it's a real pity this *ubercalculator* has become so unaffordable, resulting in fewer HP calc fans finding it possible to get hold of one ...

Your solution is truly excellent, I don't think a shorter one is possible though my solution, while less elegant, is faster:

```
LBL A
STO RESULT
X<>Y
 +
RCL RESULT
LAST X
STO RESULT
 -
X<>Y
STO RESULT
X<>Y
 -
RTN
```

That's 11 steps (not including LBL/RTN), and swaps two 5x5 matrices in 3.7 seconds in my HP-15C (by the way, yours takes 5.7 seconds in my machine). Why is it faster ? Several reasons:

- my solution has *no branching at all*, it runs straight, thus avoiding the overhead of having to execute two GOSUB, three LBL, and three RTN, as your does. The instruction count reveals that your routine executes *24 instructions* in all, while mine executes only 13. Also, all my instructions are 1 byte each, while your GSB .5 and LBL .5 are *2-bytes each* (the manual's wrong !), so the executed byte count actually comes out as *29 vs. 13*. This accounts for an extra 0.8 seconds. Simply by changing your LBL .5 and GSB .5 to LBL 5 and GSB 5 you would save 3 bytes of program storage (23%), and 5 bytes of execution time.

- my solution performs the swap like this, in HP-71 BASIC code:

  ```
  MAT X = X + Y
  MAT Y = X - Y
  MAT X = X - Y
  ```

  so it's doing two subtractions and one addition, for a total of 75 arithmetic operations in the case of 5x5 matrices. On the other hand yours performs three additions, which amount to 75 arithmetic operations as well, *but also three CHS*, which means changing the sign of said 75 elements. This accounts for the remaining 1.2 additional seconds.

By the way, both your solution and mine are *truly correct* solutions under the quiz conditions, which specified that the matrices would hold *integer* values from -1E9 to +1E9. For those values, B=(A+B)-A holds on an HP-15C.

For arbitrary values, the smaller ones could be rounded or lose accuracy if very different scales are involved. Depending on the application, this could be a *desirable* side effect (!), converting a matrix with very small elements (perhaps some increment in a Newton method applied to matrix equations) in a zero matrix, thus nicely fulfilling the criteria to end the iterations !

However, both your solution and mine have a *weakness* which is easily cured: though they meet the quiz requirements ("two *distinct* matrices"), the fact is that if both matrices X, Y are one and the same, then the matrix will be *zeroed* ! The remedy is to insert these two steps right after the routine's label:

```
TEST 5
RTN
```

this compares both matrix descriptors for equality, and if they happen to be the same, the routine returns immediately, thus leaving the matrix elements *unchanged*, as it should.

A final remark: HP-71/42S/41C owners, take note. The fastest, best way to exchange two matrices is by making use of an auxiliary matrix T, like this:

```
MAT T = X
MAT X = Y
MAT Y = T
```

but if the matrices are so large that there isn't enough RAM to allocate T, the technique above:

```
MAT X = X + Y
MAT Y = X - Y
MAT X = X - Y
```

can save the day if rounding is not an issue. This also works for the HP42S and HP-41C + Advantage ROM. The technique can be also applied to arbitrary objects as long as they allow addition and subtraction.

Best regards.

Re: Here is my solution

*Message #5 Posted by **Patrick** on 28 May 2003, 2:38 p.m.,*
in response to message #4 by Valentin Albillo

Perfect solution, Valentin. The extra few bytes of length over mine are well, well worth it from a pragmatic point of view.

Your comment about the technique applying to other machines and other types of objects which allow arithmetic, keyed a memory for me from my assembler class so many years ago. A standard technique for swapping the values in two CPU registers without using any other memory is to use the "exclusive or" operator three times:

```
XOR A,B
XOR B,A
XOR A,B
```

Assuming XOR does an "exclusive or" of the two named registers and puts the result in the first register, the effect of these three (very quick) machine instructions is to exactly swap the contents of registers A and B, without using a temporary register.

The neat thing about this litte routine is that, to prove it to yourself that it works, you need only consider the simple case of one bit registers. If it works for the four possible combinations in that case, it must work on arbitrary sized registers since the XOR operation is performed bitwise.

Not every having owned a 42S (but still trying!), I don't know if XOR is an operation you can perform on matrices? I doubt it, but if so, this would likely lead to a faster and shorter routine.

Matrices in the HP42S

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 28 May 2003, 9:58 p.m.,*
in response to message #5 by Patrick

Matrices in the HP42S

Hi Valentin, Patrick, guys;

Compared to the HP15C, matrices are treated differently in the HP42S. You may have two nameless matrices in both X- and Y-registers, i.e., there's no need for a "descriptor" as it happens in the HP15C. In the HP42S, you may have as many matrices as memory can hold, each with your particular choice as a name, and other four other matrices (five, with LASTx) stored in stack registers. It's about the same that happens in the HP48/49: In both systems, matrices stored in the stack have no name.

Based on these facts, swapping all elements from one matrix to another is useful only in the HP15C, that has a predefined set of five "names". I take both solutions as too clever, I could not even start thinking of how to do it. I didn't thought about using RESULT, I tried multiplying by neutral elements but did not succeed anyway. As I saw I could not provide a thoughtful answer, I decided to watch only. I'd like having a good idea to show, but I did not.

I also thought that a particular need to swap elements from one matrix to another in the HP15C was to preserve RESULT setting, but both solutions change RESULT contents.

My congrats to both of you.

Luiz C. Vieira - Brazil

Losing RESULTs

*Message #7 Posted by **Patrick** on 28 May 2003, 11:17 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Both programs leave at least one stack register unmolested. This means that it is possible to preserve RESULT if necessary. One need only RCL RESULT near the beginning of the routine and STO RESULT at the end, sandwiched between whatever Roll-Up or Roll-Down commands are necessary to manipulate the stack correctly.

On the other hand, I don't know if preserving RESULT is worth it. It seems to me that the user should expect RESULT to be lost in any non-trivial matrix subroutine call. It is like the LAST X of matrix operations.

I would be more inclined to document the fact that RESULT is lost, but that (in the case of Valentin's routine, for example) the original Z register is preserved in Y, Z, and T. The user can then choose whether or not to do the RCL RESULT / STO RESULT gymnastics surrounding the call to the matrix exchange subroutine.

A few RESULT comments

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 29 May 2003, 1:57 a.m.,*
in response to message #7 by Patrick

Hi Patrick, folks;

I do not intend to focus a small grain over the whole shore, but I think that if you do not use RESULT correctly, some operations may not occur.

You wrote:

It seems to me that the user should expect RESULT to be lost in any non-trivial matrix subroutine call. It is like the LAST X of matrix operations.

Once, when using the HP15C for the first times, I tried a matrix operation and got successive Error 10 messages. I tried hard to find what was going on and did not get it. After a Pr Error forced condition ([ON]/[-]) it got back to normal, meaning that the exact sequence I tried before could find space to be accomplished. Right after that I saw that I was missing something because RESULT was not properly set. I realized that in my previous unsuccessful matrix operation I did not set RESULT too. And that might be the problem: I was using almost all available registers, and remaining memory was not enough to create a new matrix to hold the resulting one. If I had simply set RESULT as one of the matrices I was working on, I'd have no problem at all.

I take much care about REULT in the HP15C because of this: is not set properly you may generate an error, have no space to accomplish the task or need to search for the result in another matrix. I'm mentioning this all because, as you wrote preiously, RESULT settings for me are not exactly LASTx, instead it's a ***floating*** *X-register matrix setting* because it sets where will the result be placed, and it's a different concept of LASTx, I think.

For me, the hP15C is the best stand-alone calculator ever, and these particularities tease me even more, so I have to read again and again and test new key sequences. As if I did not like this...

Best regards.

Luiz C. Vieira - Brazil

Re: A few RESULT comments

Message #9 Posted by ***Patrick*** *on 29 May 2003, 4:23 p.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Yes, you are right, Luiz, when you say RESULT plays the role for matrices what a floating X register would do for numbers.

My assertion was about the persistence vs. transience of RESULT. What I mean by this is that, when I call a typical numeric subroutine I do not expect that LAST X will be preserved when the subroutine returns. The value stored there is quite transient. It needs to be in order to play the role that is intended for it. Likewise, I believe the RESULT setting should be viewed in the same manner when calling a matrix based subroutine. In order to do anything non-trivial with matrices, the subroutine programmer will very likely have to set RESULT to something of his/her choosing. When the subroutine returns, I should *expect* that the previous value of RESULT is lost.

Regards, Patrick

O.T.: grammar!

Message #10 Posted by ***Vieira, Luiz C. (Brazil)*** *on 29 May 2003, 12:41 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Hi, folks;

completely off-topic, but I do not like reading my own posts and finding errors, mostly spelling and grammar errors. When there is no answer, I usually purge it, correct it and post

it again.

This one has a brutal "**I didn't thought**" amongst others, and I could not believe in my eyes.

Sorry!

Luiz C. Vieira - Brazil

Re: O.T.: grammar!

*Message #11 Posted by **Valentin Albillo** on 29 May 2003, 4:19 a.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Hi, Luiz. You posted:

"I could not believe in my eyes."

It should be:

"I could not believe my eyes.", without the "in" :-)

Best regards.

Learning and learning...

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 29 May 2003, 6:37 a.m.,*
in response to message #11 by Valentin Albillo

Thank you! :o)

Re: O.T.: grammar!

*Message #13 Posted by **Ernie Malaga** on 29 May 2003, 3:49 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Luiz:

Not that you've written it yourself, but I want to mention several very common mistakes:

1. "It's" instead of "its."

2. "I could care less" instead of "I could not [or couldn't] care less."

3. "Alright" instead of "all right."

4. "There" instead of "their."

5. "Too" instead of "to" (and vice-versa).

...and everybody's nemesis...

6. "Who" instead of "whom" (and vice-versa).

Generally it's not the writer's fault, but the language's. English has to be _the_ Western language that is most difficult to learn. Spelling and pronunciation alone are already

chaotic. Add to this a grammar full of exceptions (and exceptions of exceptions), and it's not surprising that we all make mistakes when using the language.

Like you, Luiz, I wasn't born in an English-speaking society. My native Peru speaks Spanish, and it's been an uphill battle to learn this #@*$!! language. (Sorry about my "French.")

I'm still trying to find an exception-free to help me determine when it's "I" and when it's "me" in sentences such as "you and me" (or "you and I"). Sometimes it gets so confusing that I wish we all spoke Esperanto. At least then there would be no irregularities to worry about!

-Ernie

Re: O.T.: grammar!

*Message #14 Posted by **Patrick** on 29 May 2003, 4:18 p.m.,*
in response to message #13 by Ernie Malaga

You didn't mention "your" and "you're"... one of my perennial favourites.

I am a native English speaker but not a school teacher. That said, I believe the rule regarding "I" vs. "me" is relatively simple: you should use whatever you would use if there was not another person being mentioned in the sentence.

For example, you wouldn't say "Me went to the store" so you also don't say "Fred and me went to the store."

Even if there are exceptions to this rule (and I actually doubt it), I'm pretty sure no one would complain about this language style in everyday use.

Re: O.T.: grammar!

*Message #15 Posted by **Dave Shaffer** on 29 May 2003, 5:04 p.m.,*
in response to message #13 by Ernie Malaga

Ernie,

re: "I'm still trying to find an exception-free to help me determine when it's "I" and when it's "me" in sentences such as "you and me" (or "you and I"). Sometimes it gets so confusing that I wish we all spoke Esperanto. At least then there would be no irregularities to worry about!"

The absolutely infallible rule is the "I" is subjective (i.e. the subject of a sentence) and "me" is objective (i.e. the object of a sentence or preposition).

Therefore, you use "I" for the subject of a sentence (as decribed by Patrick: Fred and I went to the store - or You and I went to the store.) whether there is one or more than one subject.

Almost everywhere else, you should use "me." As in, "They gave it to me" (again, whether there are one or more than one object - They gave a dinner for Fred and you and me).

The screw up results when what at first glance looks like it is an object should be

subjective. This occurs mostly as a pronoun after the verb "to be." Proper: It is I. Improper: It is me. However, this latter form is VERY common in everyday English usage. Therefore, most English teachers try to stamp it out by correcting at every chance possible - from "It is me" to "It is I." I think the net effect is on those who don't think about it carefully, and who are then scared into thinking that they can never use "I"!!!!

For what it is worth, "who" and whom" are in EXACTLY the same category. "Who" is the subjective form and "whom" is the objective form. If you remember that, you can never go wrong.

All that said, your English is way better than my attempts at foreign language (after five years of French and one of German)!

Re: O.T.: grammar!

*Message #16 Posted by **Ernie Malaga** on 30 May 2003, 3:16 a.m.,*
in response to message #15 by Dave Shaffer

>All that said, your English is way better than my attempts at foreign language (after five years of French and one of German)!

Why, thank you. I've lived in the U.S. since 1979 and have always made an effort to _not_ use Spanish -- not easy living in places like Los Angeles and San Diego (CA) and Miami (FL), the 3 places where I've lived the longest.

You want to know another English grammar thorn? How about "which" and "who"? Even professional writers have trouble with this one!

-Ernie

Re: O.T.: grammar!

*Message #17 Posted by **James M. Prange** on 1 June 2003, 4:15 a.m.,*
in response to message #15 by Dave Shaffer

I agree that "I", "he", and "she" are nominative (or subjective, if you prefer) case, and "me", "him" and "her" are objective case. Any grammarian will tell you that this holds true even for compound subjects or objects.

Personally, I use the rather simple rule of using the word that would "sound right" if I were to substitute a non-compound subject or object. At least, I think that I use this rule; it may be that I sometimes get it wrong when I don't have time to analyse which would be correct, as in casual speaking.

On the other hand, in actual English, in compound subjects, "me", "him", or "her" is very commonly used, probably even more commonly than the "grammatically correct" "I", "he", or "she", and this has apparently been the case for centuries.

Of course, English teachers try to drum the rule into our heads, insisting that we say "He and I...." rather than "Me and him....", but it's as if many people can't seem to learn to use the "correct" nominative case in compound subjects without going too far and using it incorrectly in compound objects. The result is that it's not uncommon to hear (or read) "I", "he", or "she" in compound objects, which

grates on my ears.

Could it be that there's an unwritten rule in English that the objective case is used in compound subjects, and that the grammarians have simply never acknowledged this rule? Should grammatical rules describe the actual language, as complicated as it is, or should they be relatively simple, straightforward, easy to write rules that make sense to the people who make the effort to write them down for the rest of us?

That said, sometimes an entire clause that contains its own subject is the object of a sentence; similarly, sometimes an entire clause that contains its own object is the subject of a sentence. These situations can be a bit tricky, and often the wrong case is used in spoken English and casual (and sometimes even formal) writing.

Regards,
James

Re: O.T.: grammar!

*Message #18 Posted by **Ellis Easley** on 1 June 2003, 2:06 p.m.,*
in response to message #17 by James M. Prange

> Quote:
>
> ... it's as if many people can't seem to learn to use the "correct" nominative case in compound subjects without going too far and using it incorrectly in compound objects. The result is that it's not uncommon to hear (or read) "I", "he", or "she" in compound objects, which grates on my ears.

I think this happens when people are trying hard to speak correctly and the one rule pops into their heads at the wrong moment!

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HP Forum Archive 13

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HP 12C Keys don't work

*Message #1 Posted by **Stan (Sg)** on 26 May 2003, 7:26 a.m.*

I have a Malaysian built HP 12C (1999 model if I am decoding the serial number correctly). The R/S and SST keys (and sometimes the R down key) don't work intermittently (these are all in a row – keys 31, 32 and 33 per the program numbering). If I press the key many times, I can usually get it to work. I have tried removing the batteries for about 15 minutes and it didn't help. The self test comes out fine. The keyboard self test works until I get to those keys, then gives "Error 9" when I get to X<>Y, which indicates that the keys in question are not "talking" to the CPU.

My understanding is that the step of shorting a wire across the batteries is meant for the case where the unit will not respond to any key input. The unit is still under warranty for another couple of months. Should I try anything else before returning the unit? Any thoughts are appreciated.

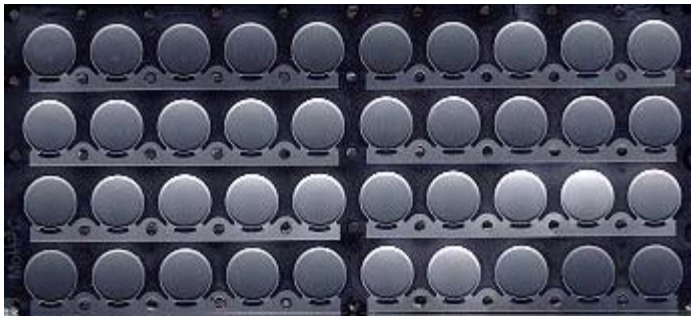
Re: HP 12C Keys don't work

*Message #2 Posted by **Randy Sloyer** on 26 May 2003, 9:25 a.m.,*
in response to message #1 by Stan (Sg)

The battery gymnastics will not solve your problem. Nor will taking the batteries out for 24 hours as HP support recommends to "bleed off static charge". Nonsense stuff.

It's a bad keyboard, plain and simple. The Chinese units would be more likely to have this defect, but it certainly is possible in a 1999 unit.

The row of five keys R/S thru CLX should have the same problem. The keyboard is made up of eight strips of five keys each. If the strip looses contact with the keyboard scanner through the one connection point, the whole row of five will be dead. You might see intermittent behavior when pressing the R/S key, as the common connection is near that key and the force of the key actuation could help make the common connection. Here is Dave's picture of the strips in a 15C keyboard, the same as your 12C:



Get a new one while you can.

First signs...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 26 May 2003, 10:43 a.m.,*
in response to message #2 by Randy Sloyer

... of a short-life, disposable calculator. Sob!

Luiz C. Vieira - brazil

i know how to fix that 12C

*Message #4 Posted by **Norm** on 27 May 2003, 2:09 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

i know how to fix that 12C first you go down to main street where the trains rumble thru town. Then you .....

Re: i know how to fix that 12C - I tried

*Message #5 Posted by **Renato** on 27 May 2003, 1:06 p.m.,*
in response to message #4 by Norm

Norm,

I tried that on my brand new 34c. It did not fix it. Maybe it was because it was in the box with all manuals, papers, case, charger, new batteries, etc. Would you care for the remains ? Maybe US trains work better.

Renato

That method of repair

*Message #6 Posted by **NH** on 27 May 2003, 2:43 p.m.,*
in response to message #5 by Renato

That method of repair is only meant to be used on certain flavors of LCD calculators.

If you used that method of repair on a 34C,it would be a grave error, also, it would not fix it.

Re: HP 12C Keys don't work

*Message #7 Posted by **Renato** on 26 May 2003, 5:30 p.m.,*
in response to message #1 by Stan (Sg)

Stan,

I once got this type of problem on a Malaysian 12C. It was on the entire row that contains 7,8,9 (and others) keys. The cause was a bad solder on the single-chip - the pin was connected to all keys. I just checked continuity on the circuit board and checked keys - all ok. Then i pressed the corresponding chip pin, and presto - it started working reliably. I resoldered the pin, and the keys are working ok, although self testing them fails sometimes.

I have also seem a 12c keyboard with corrosion on the metal domes, but have not tried fixing such a problem.

Hope this helps,

Renato

Re: HP 12C Keys don't work

*Message #8 Posted by **Ellis Easley** on 26 May 2003, 7:52 p.m.,*
in response to message #7 by Renato

It would be great if a fairly easy repair will fix it. It's tempting to say get it replaced by HP while you can, but the replacement will probably be a 3V Chinese unit. Maybe you should open it up, being extra careful with the feet, and see if there is a problem like Renato saw. Then if you can't fix it, close it back up and get HP to replace it

Re: HP 12C Keys don't work

*Message #9 Posted by **Stan (Sg)** on 27 May 2003, 8:19 a.m.,*
in response to message #8 by Ellis Easley

Thanks for all of the comments. I am surprised that the Malaysian and Chinese models would be different enough to justify opening this one up and possibly voiding the warranty, but I have never used a Chinese model. The keys on this model do feel pretty good. I will consider your suggestion.

This development is especially disappointing when you consider how much abuse my HP15C (circa 1986) took over many years and still works fine. In fact, I have been using it some since my 12C developed a problem. When I got out my 15c I was surprised how many scratches / etc... that it has - but it still works great.

HP 12C Keys don't work - Help please!

*Message #10 Posted by **james (UK)** on 28 May 2003, 8:18 a.m.,*
in response to message #1 by Stan (Sg)

The plague seems to be spreading - I have got a Malaysian 12C (serial MY93908021) in which the top 5 right hand buttons (CHS, 7,8,9 and division) do not work. From Renato's reply and the picture of the 15C keyboard a broken connection somewhere would seem to be the cause. As the calculator was cheap I am considering trying to see if I can fix it as training for the day to come when I might need to poke around in my fullnut 41CV.

From what Ellis said I'm guessing that like the 41 the casings are held together by screws which are hidden by the rubber feet. Is this correct?

Can anyone point me to pictures of what the innards will look like and the best way of tracking down the duff connection?

Any suggestions gratefully received. As it's rather a long trip to the railroad tracks I would like to try some other methods first.

Help is on the way

*Message #11 Posted by **Randy Sloyer** on 28 May 2003, 9:26 a.m.,*
in response to message #10 by james (UK)

Peel the feet, back out the screws and it's open. Pop the back off and before turning it over, locate the two very small springs that protrude from the front inside small tubes and remove them. They are part of the ESD protection and electrically connect the front and rear metal plates.

Once open, you should be able to figure out where the 5 key strip makes its common connection and trace it. Sometimes on older units, the heat fused tops of the posts that hold the keystrips in contact break off. If you can find the post in question, you can clamp it and glue with gap filling cyanoacrylate.

Sometimes the solder connection fails on the keyboard encoder chip if one sits on their calculator too often. That should cause the loss of 2 strips of 4 keys vertically as they are commoned at the encoder.

Re: Help is on the way

*Message #12 Posted by **james (UK)** on 28 May 2003, 9:42 a.m.,*
in response to message #11 by Randy Sloyer

Many thanks for the quick response. Lunch-hour has finished so I will need to postpone the operation until tonight! Will let you know how I get on.

Re: HP 12C Keys don't work - Help please!

*Message #13 Posted by **Ellis Easley** on 28 May 2003, 9:39 a.m.,*
in response to message #10 by james (UK)

Yes, under the feet there are four screws that hold the case together. I assume it will be the single PCB version inside, which means you can see the IC's (maybe just one in a 12C?) above the keyboard area (behind the LCD). From what Renato said, you might expect to find a pin on one of the IC's not properly soldered to the PBC. A tool like a dental probe is good for looking for such a loose pin. A large sewing needle might be a good substitute. Gently press the tip of the probe against the edge of each pin, one at a time, just above the pad where it is soldered to the PCB - in other words, push the pin toward an adjacent pin. If you do this to a loose pin it will give a little. A properly soldered pin will feel quite solid (it will bend if you push it too hard, but don't).

Since you are touching each IC pin with a metal object, it is very important that there is no electrostatic charge on your body. Don't try to do this at all on a cold, dry day. Wait for a humid day. Run some hot water in the shower to raise the humidity (stop working if your glasses fog up!) Breathing on the work will raise the local humidity. Don't slide around on a chair seat. If you hold the calculator in one hand and probe it with the other hand, rather than lay the calculator on a table, there will be less chance of an electrostatic discharge since both your hands are at the same potential. Holding the calculator down on the table with one hand is good because the calculator will be at the potential of your body. If you are working and want to go and do something else, first touch the table top with the hand that is not holding the calculator, then lay the calculator on the table top, then take both hands away from the calculator, then stand up. When you come back to work, first sit down, then touch the table top with both hands, then pick up the calculator. These little habits will make it possible for you to stop worrying about static. Faith is essential!

If you look up an article in the Articles Forum about upgrading a 42S to 32K RAM, I think you will find a good explanation of how to solder pins on a surface mount IC without shorting them together.

I haven't heard of Malaysian HP calculators before - just US, Singapore, Indonesia, Brazil and China. Were other models made there? I guess since the 12C has been in production for so long, it has probably been made in the most factories.

Re: HP 12C Keys don't work - Help please!

*Message #14 Posted by **james (UK)** on 28 May 2003, 9:59 a.m.,*
in response to message #13 by Ellis Easley

Hi Ellis

Many thanks (I've stopped shivering from the mention of a dental probe!) I'm in Scotland so no problem with the humidity!

Re: HP 12C Keys don't work - Help please!

*Message #15 Posted by **Trent Moseley** on 28 May 2003, 2:27 p.m.,*
in response to message #13 by Ellis Easley

I bought my 12C MY72002125 new at Fry's in Palo Alto in September 1997.

tm

Photo of pin in question

*Message #16 Posted by **Randy Sloyer** on 28 May 2003, 5:28 p.m.,*
in response to message #10 by james (UK)

I cracked open a dead Malaysian unit SN MY90500345. It's a bit older than yours, but the guts should be the same. Here is the pin in question for CHS/7/8/9/DIV keys. Hope it helps.

http://mywebpages.comcast.net/etron/images/12_chip.jpg

Surgery postponed

*Message #17 Posted by **james (UK)** on 28 May 2003, 6:53 p.m.,*
in response to message #10 by james (UK)

Firstly, many thanks to Randy and Ellis for their advice, much appreciated.

Got held up at work tonight, we're doing a presentation tomorrow and had to do a rehersal tonight so surgery has been postponed until the weekend.

I'll report back on the patient once the op is done.

Once again, many thanks.

Surgery successful - patient recovered

*Message #18 Posted by **james (UK)** on 29 May 2003, 3:55 p.m.,*
in response to message #10 by james (UK)

Hi guys

Just finished open heart surgery on the 12C - many thanks for your assistance. When I opened her up all the joints looked fine, even under high magnification, but after setting up a bench in a steam filled bathroom and prodding the appropriate pin connection with a probe it was obvious the solder had not taken. However, a few tense moments with the iron and connection was re-established. The main self test and the keyboard test were fine and the patient is now happily sitting up in bed crunching negative numbers with 7s, 8s and 9s in them. As far as I can tell all functions seem to be working - difficult to tell with the financial stuff though but a NPV problem gave the same result as that from the Real Estate pac in my 41CV so must be right!

One thing that surprised me was what seems to be a solder bridge between pins 3 and 4 on the bottom left hand side of the chip - I did wonder if this was the fault but figured it must be intentional as if it was a fault presumably a lot more than just the top 5 right hand keys would have been affected. It also looked like the bridge was there on the photo Randy posted so I left it alone.

Once again, many thanks Randy and Ellis - couldn't have done it without you.

Re: Surgery successful - patient recovered

*Message #19 Posted by **Ellis Easley** on 29 May 2003, 7:15 p.m.,*
in response to message #18 by james (UK)

Great!

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Viewpoint about RED LED calcs and batteries ...

*Message #1 Posted by **Norm** on 26 May 2003, 4:18 a.m.*

Here comes a grand idea... and an opportunity for debate :o)

In the past, some debate has been had, about whether RED LED calculators are worth the hassle of keeping them charged up. Also, whether RED LED's are better (bright-sunlight users say 'no', office-cubicle people say 'yes').

But the big thing is, RED LED's draw more power, and the charger had to be used to frequently top-off the NiCad batteries. Some would say that's a reason to call them impractical, or inferior to LCD, or say 'you can't get away from a 120V wall socket'.

BUT..... it just depends on your batteries. In the context of spice-model calculators (HP-34C) I would suggest that somebody who acquires one should just stuff in "AA" Alkaline batteries, and set the plug-in charger aside. That's what I did with my 34C I acquired.... and I haven't had to mess with any batteries since.

I'm saying, dont bother charging them, its a hassle. Just plug-in non-rechargeables, and replace them once in a blue moon when they need replacement (wont be that often).

Now then, to the idea of the day..... why not just stuff in AA PHOTO-LITHIUM batteries ?!? When my AA Alkalines finally quit, someday, maybe a year from now, I'd tend towards the AA Photo-Lithium. Sure, we're talking about some ungodly sum of money, maybe $8 a pair, BUT, then you're done, man. Its like an Atomic Submarine..... it will just keep going and going 'cuz the nuclear reactor wont quit.

And if this takes care of power concerns with the RED LED's, so you can just kick back and enjoy the ride, well, isn't the price of AA Lithium batteries worth the peace-of-mind. I don't use my 34C all that often. I still do the majority of calculating on my fleet of 'throwaway' HP-32S. The cats walk on them, and they get house dust ground into them, etc. I bring out the 34C kind of like bringing out a bottle of fine wine.... finest aged RED wine. At that rate of usage, a set of Photo-Lithiums will probably last 4 to 8 years. So why are we all so frightful about the power consumption issues of classy Red LED calculators ?? (none finer than HP-34C).

- Norm

Re: Viewpoint about RED LED calcs and batteries ...

*Message #2 Posted by **Ellis Easley** on 26 May 2003, 7:21 a.m.,*
in response to message #1 by Norm

Dr. Michael Meyers (no relation to the movie star)(or the movie character) has been advocating the 1.5V lithium batteries for a while here in the Forum. You can find several threads on the subject in the Archives.

Re: Viewpoint about RED LED calcs and batteries ...

*Message #3 Posted by **Ernie Malaga** on 26 May 2003, 7:25 a.m.,*
in response to message #1 by Norm

Norm:

If you like LEDs so much, go for it, man. Knock yourself out. Me, I truly don't care for LEDs because (to my eyes) the slightest moonbeam is enough to diminish their effectiveness, and I do need light to see what buttons I'm pressing. That is the _only_ reason I advocate in favor of LCDs. Other than that, the choice is irrelevant except for matters of taste.

I have an alarm clock with gigantic LED numbers. At first I had no problem using it, day or night. After several years of continuous operation, however, I can hardly see the stupid thing by day. Could this mean that LEDs wear out, becoming dimmer and dimmer?

-Ernie

May I borrow these, Ernie?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 26 May 2003, 10:41 a.m.,*
in response to message #3 by Ernie Malaga

Ernie wrote:

> and I do need light to see what buttons I'm pressing. That is the _only_ reason I advocate in favor of LCDs.

I second him in these words and I'll post a few of mine again.

I like *Continuous Memory* and amongst HP LED-based continuous memory calculators, the best one for me is the HP34C. Well, I think it's the LED-display with the best set of features, right? I'm not counting the off-road HP95C, of course.

I don't like the idea of having to recharge batteries for ten to twelve hours so I'll be able to use the calculator for three to four hours. I know, you are talking about disposable cells; I prefer rechargeable.

I use graphics and I prefer having custom ALPHA strings to help signaling conditions. HP LED-display calculators neither have ALPHA capabilities, nor graphics. At least so far.

After reading about Organic LED's and their amazing characteristics, I believe a hybrid display OLED/LCD is the final frontier: lights for those who need enlightment, shadows for those leaving the darkness... Wow!

Luiz C. Vieira - Brazil

Re: Viewpoint about RED LED calcs and batteries ...

*Message #5 Posted by **Howard** on 26 May 2003, 2:30 p.m.,*
in response to message #3 by Ernie Malaga

Have you been to the optometrist lately??

Re: Viewpoint about RED LED calcs and batteries ...

*Message #6 Posted by **Ernie Malaga** on 26 May 2003, 4:28 p.m.,*
in response to message #5 by Howard

>Have you been to the optometrist lately??

Yes, thank you. It's that my age (pushing 48 now) and the AIDS virus have reduced my ability to discern small images and patterns. Nothing that can be fixed, alas...

-Ernie

Re: Viewpoint about RED LED calcs and batteries ...

*Message #7 Posted by **glynn** on 27 May 2003, 12:45 a.m.,*
in response to message #3 by Ernie Malaga

To answer the question about the LED alarm clock:

LEDs DO diminish over time; they eventually get less and less bright. LED manufacturers do measure a useful life to half-brightness. This happens, in your standard GaAs red LEDs, well after one-hundred thousand or more hours of operation.

Organics are much less long-lived... so far. This is one of the things being worked on.

I dunno how long ago you bought your clock. I imagine though, that it has been on all the time since it became your clock. It should have a useful display life MUCH longer than the hours of operation alone might imply, simply because not all segments are on all the time. I would figure a LED clock should go about 35-40 years before it dims to half-bright, and even then, some segments will fare better than others.

Overvoltage and a punishing duty-cycle when multiplexing might prematurely age LED displays. Conversely, you may NOT be seeing the aging of the LEDs at all-- what you MAY be seeing is the aging of the driver circuit. Remember, LEDs can look a lot less bright if the voltage supplying them drops just a small bit. A failing capacitor, say, in the supply circuit might cause you to think the display was getting weak...

Re: Viewpoint about RED LED calcs and batteries ...

*Message #8 Posted by **Ellis Easley** on 26 May 2003, 8:10 a.m.,*
in response to message #1 by Norm

One problem with using regular size AA cells is that they are a little longer than the flat-top NiCads that HP used. I think a lot of people have tried them at one time or another, I did in my 25 which is tied for first of my LED HPs (I got a 45 and a 25 at the same time on Ebay from Gene, and learned about the HP Museum at the same time!) In the Woodstocks, the springs are long enough that the extra length of the cell isn't too much of a problem (those springs are already mighty strong!) but in the Spices I think it has caused a lot of broken battery contacts.

Re: Viewpoint about RED LED calcs and batteries ...

*Message #9 Posted by **db(martinez,california)** on 26 May 2003, 10:46 p.m.,*
in response to message #8 by Ellis Easley

ellis; hp sold the battery packs with a little spacer held on by two sided tape at the bridged end. it has the springy prongy thingers of the stainless steel wrap around there too. if you just use a piece of aluminum foil as the bridge then regular AA cells are no (or not very much) tighter than the rechargeable pack.

btw: i finally got that resistor. thanks for the instructions and the hand holding.

Re: Viewpoint about RED LED calcs and batteries ...

*Message #10 Posted by **Ellis Easley** on 28 May 2003, 4:42 p.m.,*
in response to message #9 by db(martinez,california)

I've been meaning to ask about your battery charger! I'm glad to hear it's progressing.

I never had a real Spice battery. I've used foil to make the connection and then some neat woven copper tape - that worked but began to corrode a little after a while. Currently I'm using flat top NiCads with an official welded strap to make the connection. I got a 4 cell pack and cut it in two, I use half in my 34C and the other half in my 25 - I filed off every trace of the straps on the new working contacts.

Someone here has mentioned 3 mil nickel tape (with adhesive?), I'd like to try that. I'm always trying to think of uses for the little strips that are inside the "security devices" that are stuck on everything sold nowadays, they look like they would be useful for something. They are very thin and metallic looking. I've never actually taken an ohmmeter to them but they look like metal. They are so thin that they would be good to make the connection in the Spice battery compartment, if they are conductive.

Re: Viewpoint about RED LED calcs and batteries ...

*Message #11 Posted by **Norm** on 29 May 2003, 4:29 p.m.,*
in response to message #10 by Ellis Easley

It is important that such a piece of metal be as thin as possible, so that the "AA" batteries can be jammed into there.

a metal with an adhesive backing sounds clever.

Dont do this, but aluminum-foil ducting tape comes to mind. That adhesive never comes off. But dont do it because aluminum doesn't have resistance to oxidation. The result will be poor.

However, it is nice to be able to replace the home-brew strip of metal that you choose. Therefore I would just grab something and stick it in there, and replace it later with something else.

Very thin nickel-metal-foil should be the ultimate. Copper foil might also be suitable. A bit of an old 'flex' circuit might also suffice.

I dont have any. I just use a bit of copper "solder-wick" such as the technicians use to remove solder. The flux that is mixed into it seems to do pretty well at maintaing gas-tightness, no oxidation, and 100% conductivity of the metal material.

Re: Viewpoint about RED LED calcs and batteries ...

*Message #12 Posted by **hugh** on 27 May 2003, 1:14 p.m.,*
in response to message #8 by Ellis Easley

ah, so that's how my ham-fisted brother broke the contacts on my 32e. he denies it tho'

Re: Viewpoint about RED LED calcs and batteries ...

*Message #13 Posted by **Michel Beaulieu** on 26 May 2003, 5:56 p.m.,*
in response to message #1 by Norm

Is LCD with green backlight a good compromise? I mean, you can have a good seeing in a dim environnement and no backlight need in sunlight and you can get all ALPHA and graphic you need AND i think it consumes less power to backlight than to use LED

But i understant, i really LOVE LED calculators is fun and charmy to use in the lazyboy but for "real" business, i prefer the 41c or a 48G...

I agree with Luiz whe he said continuous memory is important and LED don't show this too often (Hp-25C, TI-58C). I will add that i also like when a calculator can hold more than a program at a time and i don't know

any led that can do that without doing a bid program cut in independant one; aother advantage of the 41!

Re: Viewpoint about RED LED calcs and batteries ...

*Message #14 Posted by **hugh steers** on 27 May 2003, 1:24 p.m.,*
in response to message #1 by Norm

im with norm on this. in fact, ive been looking for a simple calculator that emits light (doesnt have to be LED specifically) could be backlit even. using recharge AAA cells thats 1500mAh for a pair which should last some (dry cells are a lot more).

something ive noticed now is that dry cells dont last anymore. i mean last when not being used. is it because they are all manganese dioxide rather than good 'ol zinc carbon? packets have sell by dates that are only a year or two away. duracell claim their quoted shelf life is when its down to 80%. i have some old fashioned zinc carbon batteries in LCD calculators from the 80's that are still going strong. about this time manufactures noticed that they were nuts to put two AA batteries into LCD units and it all switched to button cells.

if you're wondering why i need an led unit, its so i can figure the bill in dark restaurants. in fact, im considering the idea of carrying a pocket slide rule for this. then i wont need the batteries at all :-)

Re: Viewpoint about RED LED calcs and batteries ...

*Message #15 Posted by **Paul Brogger** on 27 May 2003, 3:05 p.m.,*
in response to message #14 by hugh steers

Long ago, my math instructor gave this short-but-sweet comparison of my slide rule vis-a-vis his HP-21: "Less than half the precision, doesn't need batteries, but does require an external light source." (Or something like that, anyway.)

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scratches on LCD screens

*Message #1 Posted by **Ellis Easley** on 25 May 2003, 8:55 p.m.*

Is there any way to touch-up (or replace) the anti-glare coating on the protective windows on some LCDs (71B, 75 and Voyagers especially) if it gets scratched? (other than putting the calculator on a railroad track)

Re: scratches on LCD screens

*Message #2 Posted by **Andreas Stockburger** on 26 May 2003, 3:28 a.m.,*
in response to message #1 by Ellis Easley

Hi,

have you tried the cream which is sold to remove scratches from swatch-watches ?

Andreas

no more railroad track posts

*Message #3 Posted by **Norm** on 26 May 2003, 4:22 a.m.,*
in response to message #2 by Andreas Stockburger

no more railroad track posts

I was only kidding in the first place

:o|

It's gonna be a trade mark...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 26 May 2003, 6:31 a.m.,*
in response to message #3 by Norm

... and a reference to the insane, hopeless, unacceptable... solution?

Never mind! It will always be a nice reference, never a disgusting curse.

Be well!

Luiz C. Vieira - Brazil

Re: scratches on LCD screens

*Message #5 Posted by **Ellis Easley** on 26 May 2003, 7:18 a.m.,*
in response to message #2 by Andreas Stockburger

I haven't tried anything yet. Is that something like the scratch remover for CD's?

Re: scratches on LCD screens

*Message #6 Posted by **Hans Brueggemann [GER]** on 26 May 2003, 1:24 p.m.,*
in response to message #5 by Ellis Easley

There are many different sorts of polishes on the market. most of them are sold in 3 categories: 1)chrome (metal) polish, 2) car polish, 3) acrylic glass polish.

for our purpose i recommend acrylic glass polish only. if applied manually (i.e., slowly, in order to keep the temperature down and avoid smearing) and with sufficient patience it will give absolutely perfect results. all other types are too coarse and will leave visible scratches on the surface.

however, if the protective window has some anti-glare coating, the coating will definitely be ruined by any polish or solvent that contains abrasive materials.

cheers, hans

p.s.: always try to make friends with your dentist :o^ dentists have all sorts of wonderful drills, polishes, 2-component glues, etc ask him for some help.

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Opening (and repairing) a halfnut

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2003, 8:33 p.m.*

Hi, HP41 maniacs.

I'm opening an HP41CV halfnut because it has a problem I cannot repair without spreading its guts around: after a MEMORY LOST and SIZE 000, it gives me .END. REG 63 instead of .END. REG 319. I did not test regular memory modules (82106A) so far, but I'll do it later. I read in some posts (some time ago) that RAM chips are in the LCD assy, and I'm gonna open it. I'm scanning all intermediate images so far, and I found out two somewhat important facts:

1 - tactile sense in halfnuts is solely due to a thicker rubber sheet between the keyboard and the keys; parts used in both half- and fullnut *keyboards*, i.e., the metal caps, are essentially the same;

2 - based on the ones I have in hands, calculator's plastic case has the same geometry for both types, meaning you can remove the halfnut guts and build a complete fullnut in the same halfnut case. I removed the halfnut guts and tested a fullnut keyboard. Fits perfectly. (in fact, after testing, I could not identify which case was the original one except for a missing post in the fullnut's one)

I am now with a strange thinking: I have an HP41C's case and a fullunt's guts that acts like an HP41C. I'm tempted to keep the halfnut's guts as is and build it as an HP41C. And I'll have a genuine... O.K., O.K., a cheated HP41C fullnut. In any case, I'll open the LCD assy in order to check for the cause of the missing 256 registers. As the plastic rivets were untouched, it's definitely a problem to be solved instead of an original HP41C halfnut in an HP41CV's case.

As I have all images scanned and saved, I'm posting a new message.

Suggestions? Comments?

Luiz C. Vieira - Brazil

Small remark

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2003, 9:47 p.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi;

just to add an information.

Although the halfnut guts fits in a fullnut's halfcase, there are 7 (seven) plastic rivets that must be removed from the fullnut's case because there are no equivalent holes in the halfnut's mainboard for them. Tha mainboard fits in, but cannot be settle unless they are removed.

When I post the images, I'll indicate which rivets are the ones to be rmoved in this case.

Best regards.

Luiz C. Vieira - Brazil

Re: Opening (and repairing) a halfnut

*Message #3 Posted by **Gordon Dyer** on 26 May 2003, 4:35 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

It is very interesting to hear about the difference in keyboards; I have often wondered if the difference in feel of the case, and the creaking of a halfnut, was due to a poorer grade plastic. Or is it the construction? Anyway I am tempted to send you my halfnut 'as new' CX and ask you to upgrade it to to old fullnut keyboard and display for me!

Unfortunately...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 26 May 2003, 6:22 a.m.,*
in response to message #3 by Gordon Dyer

Hi, Gordon;

thank you for your always valuable and supporting comments.

But I have to warn you that the inner guts cannot be transplanted. The fullnut's LCD cannot be used in a halfnut mainboard (at least I did not try to...). What I did was using a fullnut's upper halfcase to hold a halfnut internal. But it must be a complete halfnut internal. What can be done is replacing the thicker halfnut rubber sheet, under the keys, for the fullnut's. I tested and the key feeling of the fullnut is kept: it feels as if you are using a fullnut.

I promise I'll go deeper into the LCD's compatibility. I did not disassemble any fullnut LCD so far, but it seems to me there is one malfunctioning LCD comming closer to my hands, and if I need to, I'll open it and compare it to the halfnut. I'll let you know...

Best regards.

Luiz C. Vieira - Brazil

A brief report.

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 26 May 2003, 6:14 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Hi, HP41 maniacs;

I have concluded my incursion into the inner guts of the HP41 halfnut. I scanned some interesting sites, mostly the hybrid RAM/ROM Display Driver, from what seems to come the Voyager R2D2 + uP. Yes, believe me, I removed the display driver IC in search for a failing jumper, connection or the like, but I was not successful.

Even after being completely disassembled and reassembled, the halfnut insists on seeing only 64 registers instead of the expected 320. I also compared the hybrid code to another existing 41CV halfnut and the codes match. What to do?

I already built the mainboard in a former HP41C fullnut case. Yes, it fits fine. I had to remove eight (not seven as I thought) of the small plastic posts (rivets) used to settle the mainboard in the upper half case. Now I have a custom HP41C halfnut.

I'll post images as soon as the webmaster explains to me why can't I access the page where my previous

images were loaded. I cannot even open the page, not necessary to say I cannot upload the images.

I'll take a little time to treat the images and prepare the one showing which plastic rivets must be removed in a fullnut's case in order to accept a halfnut's internals. The opposite operation - using a halfnut case to build a fullnut internal - needs no further operations; simply stuff it in.

I hope the images to be posted and the information herein help others to handle the halfnuts internals.

Best regards.

Luiz C. Vieira - Brazil

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CD audio won't play

*Message #1 Posted by **Dave Trost** on 25 May 2003, 1:16 p.m.*

Here's the scoop and what I have:

1. HP Pavilion 8860 2. ASUS A7V-VM (GAS, GLAS) oem motherboard with onboard sound 3. Onboard sound was VIA, KM133A chipset 4. Phoenix BIOS, recently updated 5. Processor is AMD Athlon 1G with 128 meg PC133 SDRAM 6. Graphics = AGP 4X, TNT2 Nvidia Vanta 7. HP CD Writer Plus LG CD RW- CD 8080B, Hitachi DVD ROM GD-7500 8. *** I installed PCI Turtle Beach Santa Cruz soundcard 9. I had removed the VIA drivers, and disabled the onboard sound in the BIOS per instructions. 10. Sound works fine for MP3, games 11. No sound from audio CDs, in either the CD RW or DVD – they won't play in mediaplayer, realsound, etc. 12. No sound when I plug headphones in the CD burner drive 13. DVDs play OK, sound included, in the DVD drive. 14. CD ROMS seem to read data OK, and I can burn data on a CDR OK. 15. ASUS HP oem motherboard had onboard sound - I disabled in the BIOS 16. CD ROM jumpers – I have tried leaving them in the motherboard, sound card and disconnected – no difference. 17. Games that require sound from CD don't seem to recognize a CD's in the drive.

Any ideas? Hate to take this to the shop!

Which calculator plays CDs? :-)

*Message #2 Posted by **Gene** on 25 May 2003, 4:43 p.m.,*
in response to message #1 by Dave Trost

Did I miss this introduction? :-)

Let's make new friends...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2003, 5:08 p.m.,*
in response to message #2 by Gene

Hi, Gene;

I thought I could ask him to find a seat, look around for someone he recognizes and, if he sees he's got into the wrong party, let's invite him to stay!

Isn't it the American spirit? <8O)

Cheers!

luiz C. Vieira - Brazil

Off-topic, but...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2003, 5:01 p.m.,*
in response to message #1 by Dave Trost

Hi;

I'll try to put my own experience and a bit of knowledge, but it doesn't mean I'm taking your precise situation, O.K.? It's a general view. Let's see; you wrote:

2. ASUS A7V-VM (GAS, GLAS) oem motherboard with onboard sound
3. Onboard sound was VIA, KM133A chipset
4. Phoenix BIOS, recently updated
5. irrelevant
6. irrelevant
7. irrelevant
*8. *** I installed PCI Turtle Beach Santa Cruz soundcard*
9. I had removed the VIA drivers, and disabled the onboard sound in the BIOS per instructions.
10. Sound works fine for MP3, games
11. No sound from audio CDs, in either the CD RW or DVD – they won't play in mediaplayer, realsound, etc.

Have you checked for audio cables? Some of them have a different location for ground and signal wires.

12. No sound when I plug headphones in the CD burner drive

This is the "weirdest" symptom of them all. You mean you put an audio CD at the CD recorder and get no sound from its own headphone plug? Id you check if CD is actually "playing"? I mean, does any LED/blinking LED signals it is happening anything?

13. DVDs play OK, sound included, in the DVD drive.
14. CD ROMS seem to read data OK, and I can burn data on a CDR OK.
15. ASUS HP oem motherboard had onboard sound - I disabled in the BIOS.

Have you checked what sort of devices are installed in your O.S. check list? What O.S. are you running?

16. CD ROM jumpers – I have tried leaving them in the motherboard, sound card and disconnected – no difference
17. Games that require sound from CD don't seem to recognize a CD's in the drive.

Seems that logical connections (flat cables) are fine, but you may still have a configuration OR driver problem.

Any ideas? Hate to take this to the shop!

In cases like this, I take a bunch of free time, uninstall everything, remove all boards, and go babe-steps mode ON: one driver and one device at a time. I experienced Plug&PRAY (yes, plug&PRAY) conflict when everything is detected at the same time, but when boards were installed and detected one at a time, interruptions and DMA were satisfactory set at BIOS and correctly followed by O.S. (in this case. MS related O.S.).

Hope this helps a bit... In time: have any HP calculator at home? Office? Anywhere? Ahn?

Luiz C. Vieira - Brazil

(sorry, guys, could not resist...)

Re: Off-topic, but...

*Message #5 Posted by **Ellis Easley** on 25 May 2003, 8:48 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I think maybe the system has no information regarding WHICH CD drive to use to play audio CDs. There is no ambiguity regarding which to use to play DVDs or to burn CDs but either one could play audio CDs and for some reason the system doesn't know which one to use. Once it does know, it probably doesn't need the audio cable connected - Windows nowadays seems to default to playing audio CDs digitally (raw read through the data cable) rather than the old fashioned way. I believe that fact is part of the "Napster" conspiracy. At the same time, your DVD drive is required to note whether you play DVD movies with different Region codes, and only allow you to change regions so many times (5?) until it stops changing and only works with the last region.

Re: CD audio won't play

*Message #6 Posted by **Ben Salinas** on 25 May 2003, 10:32 p.m.,*
in response to message #1 by Dave Trost

This is my area of expertise (computers). Chances are, your cd rom drive isn't plugged in. (WEll it is plugged in, but not all the cables are plugged in) To play Audio CD's in your CD-ROM, you must connect a cable from your CD Drive to your sound card (generally they are blue). I believe the cable comes with the sound card. hope this helps -ben

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Problems rebuilding a 41c Card Reader

*Message #1 Posted by **Steve** on 24 May 2003, 7:42 p.m.*

I thought I was beginning to understand the 41c card reader, but this one has thrown me a curve. After assembling the reader (and checking it over several times for lose wires, bad contacts, etc) as soon as I plug it into the 41, the motor runs. It will run for about 5 seconds, then shut off. If I attempt to power on the 41, it will not start (display blank). If I unplug the card reader, I can power up the 41. I've tried 2 41's and I have the same problem.

What could be wrong with the card reader to make the motor run as soon as it's attached to the 41's port? Other than the wheel slipping (what I was fixing), this was a working reader until my last repair attempt. Thanks!

Steve

Re: Problems rebuilding a 41c Card Reader

*Message #2 Posted by **Randy Smith** on 24 May 2003, 7:46 p.m.,*
in response to message #1 by Steve

The contacts that tell the reader a card has been inserted may need adjusting.

Re: Problems rebuilding a 41c Card Reader

*Message #3 Posted by **Steve** on 25 May 2003, 9:50 a.m.,*
in response to message #2 by Randy Smith

I'll take another look, but I actually went out of my way not to disturb the contacts. What are the chances it's a component failure on the board? Thanks,

Steve

Re: Problems rebuilding a 41c Card Reader

*Message #4 Posted by **Randy Smith** on 25 May 2003, 4:17 p.m.,*
in response to message #3 by Steve

That one I can't answer for you. There are others here who are electronic smart

Re: Problems rebuilding a 41c Card Reader

*Message #5 Posted by **Randy Sloyer** on 25 May 2003, 5:24 p.m.,*
in response to message #1 by Steve

I initially thought the reader motor start contact was closed. A photo of switch points for reference:

http://mywebpages.comcast.net/etron/images/82104_1.JPG

I tried duplicating the problem by shorting the motor start contact, but it didn't prove out. While the calculator

was dead and would not turn on, the reader motor ran continuously and would not turn off. Different problem than you describe.

I doubt you killed anything in unit as I'm the king of klutz and have never had a reader I was able to render permanently dead.

Still thinking about it...

Re: Problems rebuilding a 41c Card Reader

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2003, 5:52 p.m.,*
in response to message #5 by Randy Sloyer

Hi Randy, guys;

I am not sure, but is there any solid-state switch that would turn motor ON and allow it to go OFF after a few seconds? I think the only common line on it is the "power line".

A few days ago I got the following problem: an HP41 that would turn ON, blink the 0.0000 and than it yould turn off and refuse itself to go ON again. I opened it, clenaed the contacts and rebuilt it. Same problem.

I took the batteries of another HP41 and it did not even switch to NO. I cross-tested the batteries and felt myself confused: the problem was in the batteries.

I tested each one of them and found 1.38 to 1.48 Volts eanch, but when nI tested for current, one of them got less than 1mA, others could go more than 180mA. I placed the "bad" pack back and measured voltage by the small golden balls used for external DC power connection. Voltage was fine till I press ON key: it would drop to about 2.5 V (high resistence from bad battery) while LCD would blink the 0.0000 and then the calcualtor shoot-off. I changed the batteri and everything is fine, now.

What I mean is that electrical connection with bateries is achieved by the HP41's I/O connector, and batteries (+) and (-) lines go stragiht to any external devices. This means there is no way to cut off power to the devices by solid-state control; how come the card reader motor stops working? Are batteries O.K. when extra charge occurs?

Just a suggestion.

Luiz C. Vieira - Brazil

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Programmables Available Today?

*Message #1 Posted by **Patrick** on 24 May 2003, 6:21 p.m.*

Was at a calculator history site recently and read an article where the author pointed out that there were diminishly few programmable calculators on offer at a retail level today.

I can only think of the 12C, 12CP, 48GX, all from HP! Is the 49 still being sold? Can't think of any programmables from TI, although I don't know their line anywhere near as well as I did in the mid-late 70's!

I always thought that TI's top of the line programmables were very nice machines. Not in the same league as our beloved HP's, but nice nonetheless (am I allowed to say that here? ;-). But, they don't make them anymore, either, eh?

It will be interesting to see if any of the new HP calculators promised for introduction in 2003 will be programmable. I expect not. I wouldn't be surprised if some of them have a SOLVER, though.

Are there people interested in Programmables?

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 24 May 2003, 7:25 p.m.,*
in response to message #1 by Patrick

Hi Patrick, guys;

I'm a teacher and sometimes I face the hard task of answering the question: "Why do we have to learn how to program?"

I sometimes take a big breath and try to explain not the need itself, but the fact that everytime one explains something to someone else he/she is, in fact, programming the other in a way he/she will be able to perform that particular task somehow. When we know how to do something it does not mean we are also able to expand this ability to someone else, as we see many people saying: "I know how to do it, but do not ask me to tell you how do I do it!".

Communication and programming, at a human level, are too close that sometimes they are the same. When you get to know a Computer Scientist you are, in fact, knowing someone that should be able to "communicate" with a machine by means of "programming" it. And the "programming" level we have today for computer languages goes beyond computer abilities by itself. If we look straight at what one can do with a computer when programming in PASCAL or C, we will be able to actually understand what the computer can do. But if we look at what can be done when A.I., Neural Networks, Fuzzy, Object Oriented and related "tools and environments" are used, we go beyond the understanding of the computer; we are, in fact, looking at the programmer instead the machine.

When I bought my HP41 in the 80's, personal computers (Sinclair, Apple and a few others) needed to be programmed to do what the calculator was able to as a plain tool. Almost every math tool was ready-to-use, and whatelse was needed could be, in many cases, programmed in time.

Computers had their magic moment when high definition graphics and higher level programming languages became available and calculators, that once were at the desktop, are now deeply hidden inside the drawer. And

desktop computers are there, now.

Programmers? What do you need to program in your calculator so far? I know how to program in almost all programmable HP calculators (I did not stop to create "programs" in the HP17BII/19BII... yet), some TI, but I was not able to program in those BASIC-related CASIO, SHARP and others. I also never had an HP71 in hands and I know it is BASIC-programming and has an RPN-like calc mode.

I think the problem is not a lack of programmable calculators; instead, it's a lack of programmers. In fact, except for people like most contributors in here, that I believe take programming as a lot more than a cause-and-effect procedure, a few others will see programming as gray matters, reasoning, mind development, amongst other advantages, but never a mind threatening activity.

I hope that not only HP offer programmable calculators, but I also that we find enough reasons to use their programming capabilities to do something useful.

My thoughts, though. Comments, suggestions, critics, add-ons accepted and welcome.

Luiz C. Vieira - Brazil

Re: Are there people interested in Programmables?

*Message #3 Posted by **HrastProgrammer** on 24 May 2003, 8:44 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Are there people interested in Programmables?

I am :-)

Re: Are there people interested in Programmables?

*Message #4 Posted by **Trent Moseley** on 25 May 2003, 12:01 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Luiz,

Your eloquence on this subject is very beautifuly expressed.

tm

Thanks!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2003, 4:40 p.m.,*
in response to message #4 by Trent Moseley

Hi, Trent;

in spite of some grammatical sin, I believe I could mention most of what I wanted. I think this particular subject is teasing, and I added this other post mostly as a practical example.

I'm glad "I made it"!

Thank you again. It's encouraging.

Luiz C. Vieira - Brazil

Re: Are there people interested in Programmables?

*Message #6 Posted by **Gordon Dyer** on 25 May 2003, 5:29 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

My first computer program was writing an iterative routine in BASIC on an Open University mainframe to find the value of e.
Very soon the function e^x was available in most scientific calculators and in BASIC so the need disappeared. Programming moved on to a higher level.
Today the need for the level of programmability in 1980's pocket calculators has disappeared because the tasks that they were used for can be performed with a few simple steps in a spreadsheet, which is quicker, easier to learn, gives the ability to plot results, store the "program" and the results, email it to almost anyone else in the world and they will be able to read, understand, repeat and modify that "program" with very little effort or additional training. Try that with a 49G!
Arificial Intelligence will gradually replace the need to type in formulae to a spreadsheet, or input at low level to an application such as Mathematica.
All of this progress is made by having the low level algorithms required to solve our problems programmed in to a machine for us by people in software companies, anf higher levels of useability added to remove us from needing to see the low level problems.
Unfortunately I fear that pupils in school are in danger of never understanding what is happening inside the machines they use because they perform tasks for them so easily. Of course the benefits are that the newer generations will be able to concentrate on higher level tasks, predicting earthquakes or weather patterns, without ever needing to know how to calculate the value of e, or write an algorithm for Runge-Kutta integration. But if they had to do these low level tasks they would not find time for the high level ones.
It is our teachers, such as Luiz, who will have to continue to find the right balance between the low level and higher level learning which will allow progress to continue WITH understanding of the processes involved; this is not going to be an easy task!

My first program(s)

*Message #7 Posted by **gene** on 25 May 2003, 7:39 a.m.,*
in response to message #6 by Gordon Dyer

Besides the do nothing "add 1, pause, goto add" routines on my friend's TI SR-56, my first programs were for the SR-52.

Tried doing a 3x3 matrix determinant. Since each memory reference took THREE program step locations (STO, 0, 0) this was a pain.

Then I wrote a version of a space war game for the SR-52. Never got very far. :-)

BASIC? In 1980, had to write a payroll program.

Assembly? PDP-11 Had to write a program to echo characters typed on a terminal to a line printer.

HP-41? My real "new" programs I have written include Yahtzee and Skunk.

Re: My first program(s)

*Message #8 Posted by **Ernie Malaga** on 25 May 2003, 9:23 a.m.,*
in response to message #7 by gene

>Tried doing a 3x3 matrix determinant. Since each memory reference took THREE program step locations (STO, 0, 0) this was a pain.

Not only that, but you only saw zeroes while keying in the program. I never understood why TI

made its programmables that way. It's like driving a car without being able to see.

-Ernie

Re: Are there people interested in Programmables?

*Message #9 Posted by **Ernie Malaga** on 25 May 2003, 9:19 a.m.,*
in response to message #6 by Gordon Dyer

>Unfortunately I fear that pupils in school are in danger of never understanding what is happening inside the machines they use because they perform tasks for them so easily.

On the other hand, Gordon, I do not sadden because kids can't multiply 6 by 7 without counting with fingers or pressing 6 [ENTER] 7 {x}. There has to come a time when we have to bypass parts of what was known as "knowledge" by an earlier generation.

Most forum users here use some kind of solver when they need to solve equations. Would anyone think less of them because they never learned (or have forgotten) how to use matrices and calculate determinants to solve simultaneous equations?

Or, going to a lower level, who cares today to learn how to extract a square (or cube!) root manually. I learned both in my younger days, and I'll be damned if I can remember any of it today. All I remember is how slow, tedious, error-prone, and inefficient it was.

Just my 2 cents.

-Ernie

May I?

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 25 May 2003, 2:37 p.m.,*
in response to message #9 by Ernie Malaga

Hi, Ernie;

I'd be dammed, too, if I have to do it all the time, but I normally show how to extract a square root step by step to my students everytime I teach math classes, then I ask them to use their calculators and perform the same operation with a single keystroke. This way, they'll understand what's going on.

You may be sure that some of them will ask: "Does it all happen inside the calculator? How come? ", and then it's time to talk about algorithms, Series, etc. See? At least it's a good bait. And when you show them you know how to perform that set of complex operations and that that same set of operations is also performed by a single keystroke, it looks magic. I remember one day a student asked me how to compute sine. I took the remaining time to tell about series and to perform a single sin(PI/4) with about five or six terms only. I had to ask for help computing factorial and division, and ask them to use their calculators. They felt impressed with the hole process and some of them took note and tried later with other values, just for curiosity.

Just let them curious and they will be caught.

My 2¢.

Luiz C. Vieira - Brazil

Re: May I?

*Message #11 Posted by **Ernie Malaga** on 25 May 2003, 6:47 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

Luiz:

>I'd be dammed, too, if I have to do it all the time, but I normally show how to extract a square root step by step to my students everytime I teach math classes, then I ask them to use their calculators and perform the same operation with a single keystroke. This way, they'll understand what's going on.

Yes, except that what they did on paper is not the same algorithm the calculator uses. It's good for a bait, and interesting as curiosity, but no one in his or her right mind would take the time to take a square root on paper and pencil -- today.

Think of this, too. When I was a kid I learned how to perform addition, subtraction, and multiplication (not division) using _Roman_ numerals. It's an incredibly complicated process, but it intrigued me. Just the same, I wouldn't use Roman numerals for computation when Arabic are available. Further, I wouldn't use paper and pencil if a calculator was at hand.

Especially if it's an RPN one. 8^)

-Ernie

Re: Are there people interested in Programmables?

*Message #12 Posted by **Gordon Dyer** on 25 May 2003, 4:56 p.m.,*
in response to message #9 by Ernie Malaga

You need to read the next sentence to the one which you quoted to see my main point; it is the release from the low level tasks which will allow future generations to do more complex things. But that does not mean that lower level understanding is not still important, and Luiz seems to do well at gaining pupils' interest in learning some of those.
The overall point is that us 80's calculator lovers are pandering to nostalgia, but we enjoy it!
The enduring features of the older calculators (and test equipment) which HP need to recognise as important are the quality and useability, they badly need to learn how to maintin these attributes in their new products.

Re: Are there people interested in Programmables?

*Message #13 Posted by **Dave Shaffer** on 26 May 2003, 2:12 a.m.,*
in response to message #6 by Gordon Dyer

re: "Unfortunately I fear that pupils in school are in danger of never understanding what is happening inside the machines they use because they perform tasks for them so easily"

They are also liable to have a pretty poor understanding of whatever functions they are evaluating. I teach intro college physics, and am amazed every semester at the almost complete lack of understanding my students have of the Sin/Cos/Tan functions. Oh sure, some (!) of them know the basic definitions (opposite over adjacent, etc.), and they can all pretty much punch the buttons on their (sigh, non-HP) calculators. But ask them the value of cos(0), or sin(45), or tan(45), or sin(90) and you get a room full of blank stares. Makes it hard to get them to have a feel for the limiting behavior of various problems!

Is it a plague?

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 26 May 2003, 4:16 a.m.,*
in response to message #13 by Dave Shaffer

Hi, Dave;

I think we are facing a plague! My students at least start attending classes with me like this, and some of them seem to be cured at the end of the semester. Later, when needing that knowledge, it's simply vanished from their (?) heads. <8^O

As human beings, it's our duty to take necessary meajures to extinguish this plage! Extreme meajures, if needed! B^(

Now I understand why using RPN is so hard for most of them... :(

Luiz C. Vieira - Brazil

Re: Are there people interested in Programmables?

*Message #15 Posted by **Gordon Dyer** on 26 May 2003, 4:38 a.m.,*
in response to message #13 by Dave Shaffer

Your right! And there is no substitute for making them draw out the functions on paper BY HAND and look at some of the main values. A pencil on a wheel and pulling a piece of paper past it wa instruvtive to me when I was learning these things...

Re: Programmables Available Today?

*Message #16 Posted by **JimC** on 24 May 2003, 8:51 p.m.,*
in response to message #1 by Patrick

Well, at the risk of sounding like a dinosaur, I think that yes, Virginia there is a need for a programmable calculator. However I would like to add one more point: a programmable does not always need to do high end graphing and graphics (a la 48G series). I have seen some of the applications that the new HP's can do and yes, I am impressed. Do I program? No. I am an engineer, and I would like a programmable (RPN PLEASE!) to remember my "macro" strokes. Something like my 41. I don't need high end calculations, I need something semi-portable. Oh sure, I can use a PDA, but then I have the interface in the way.

Just a number cruncher. That's all I want. Programmable but not with graphics. Black, so's I can use it in the boardroom or the field. Good documentation, so's I can figger the darn thing out and not have to have the book at my side when I want to do a little more advanced calculation. (Imagine if HP brought out a 41/42 "classic" series - wishing....)

Re: Programmables Available Today?

*Message #17 Posted by **Fred Lusk (CA)** on 27 May 2003, 1:17 a.m.,*
in response to message #16 by JimC

Jim…

My sentiments exactly. What I want is EVERYTHING in a 41CX + Advantage ROM + EVERYTHING in a 42S + the ability to handle unit analysis. I also want full I/O capabilities and communication with my PC, lots of memory, a high speed processor, etc. Finally, I want the old HP quality and I would pay a lot of money for such a machine…like $500 perhaps. I still program my calculators as part of my work as a civil engineer, and plan to continue. (As an example, see the listing of HP-41 programs for a Feet-Inches-

Fraction program I wrote.)

I have a 48G+ that I rarely use. It's not as easy or as convenient as my 42S, nor as powerful as my PC. I find that a graphing calculator is not very useful except as something to play with. I can graph faster and better in Excel or Mathcad.

The way I see it, if my 42S dies and I can't find another to replace it, I may just have to retire. 8-)

Fred

Re: Programmables Available Today?

*Message #18 Posted by **R Lion** on 27 May 2003, 10:19 a.m.,*
in response to message #17 by Fred Lusk (CA)

I can understand your feelings about the 48, between the 42 and the PC... but I don't agree. My feeling is that the 42 is between the 15C and my 48GX... so I didn't use it and I'm going to send it to a good friend.

I feel very confortable with my highly customized 48GX and it is much smaller than my PC and when I need a "pure" calculator I am in love with the 15C...

Raul

Re: Programmables Available Today?

*Message #19 Posted by **Fred Lusk (CA)** on 27 May 2003, 9:21 p.m.,*
in response to message #18 by R Lion

Raul…

I know the 15C is very popular and the perfect calculator for many people. I have a non-working 34C that I loved and might have migrated to the 15C if not for the 41CX and 42S. My main objection to the 15C is the horizontal format, which I never cared for…I use a calculator in the hand often enough to prefer the vertical format.

This is not to disparage the 15C and its bretheren. I just never had a need for it.

Fred

Re: Programmables Available Today?

*Message #20 Posted by **Ellis Easley** on 25 May 2003, 1:01 a.m.,*
in response to message #1 by Patrick

TI sells programmables that are also graphing calculators. In fact, they keep selling the same models plus enhancements, like the 83, 83+, 83+SE. I have the 81 and 83+SE. I understand their top end (94?) is quite advanced in terms of math and also contains a 68000 - not new but powerful.

Re: Programmables Available Today?

*Message #21 Posted by **glynn** on 25 May 2003, 4:37 a.m.,*
in response to message #20 by Ellis Easley

Interestingly, TI have recently revamped their top-of-the-line TI-92+ to a HORIZONTAL format calculator. The screen is on the upper left, and numeric pad on the right side.

They call it the "Voyage 200"...

Odd choice of name, I thought.

;-)

Re: Programmables Available Today?

*Message #22 Posted by **David Ramsey** on 25 May 2003, 2:04 p.m.,*
in response to message #21 by glynn

Um, the TI-92 has ALWAYS been horizontal...(I have one right here). The Voyager looks like the same things, slightly smaller.

Re: Programmables Available Today?

*Message #23 Posted by **Steven Kutoroff** on 26 May 2003, 10:01 a.m.,*
in response to message #20 by Ellis Easley

I do software for a living.

Years ago even our text editors where programmable, like EDT for the DEC systems. When a repetitive operation was required, I would program a key to do it and the edit would be complete it seconds. Now, with the wonders of GUI editors, I have to repeat the same operation hundreds of times with my fingers (or suffer Perl).

We also have had to substitute spreadsheets for even simple operations. Sometimes this paradigm works. Sometimes I just need a real calculator, but I rarely have had the need to program my many calculators. Were in the physical sciences, this might be different. The 41 was the best programmable, but I have come to like Basic for this sort of thing, not Visual Basic, but clean and simple 71 and 75 style basic.

Re: Programmables Available Today?

*Message #24 Posted by **Mark Ordal** on 29 May 2003, 5:33 p.m.,*
in response to message #1 by Patrick

The HP-49G is still available at some places. I didn't get around to buying one until about a month ago (i.e., April 2003). I got mine from http://www.samsoncables.com.

As for programmable calculators from Texas Instruments, the TI-Voyage200 came out in the fall of 2002 as a replacement for the TI-92/92+. The TI-86 is still available, as is the TI-89. (The TI-89 is essentially a TI-92 in a TI-86 case.) The TI-83 is still available as well, including a new variant with much more memory than the standard model.

All of these TI models are programmable in a dialect of BASIC. The TI-89/92/92+/Voyage200 use a newer dialect that includes upper & lowercase characters and more readable language constructs (e.g., if...endIF instead of if...end). The TI-83 dialect is compatible with the TI-86 and largely compatible with the long discontinued TI-85. (The TI-83 includes functions not present in the old TI-85.) However, the TI-85 & TI-86 include instructions in their BASIC that are not present in the TI-83 version (e.g., mod). (A situation somewhat analogous to an HP32SII relative to an HP42S or the HP41 series.)

Unless HP reverses itself on the termination of its professional calculator line, Texas Instruments will have the only current production programmable scientific calculators with any power. That would be a tragedy! Let's see an improved HP49G with at least 2x the speed of the old 49G!

Re: Programmables Available Today?

*Message #25 Posted by **Patrick** on 29 May 2003, 9:19 p.m.,*
in response to message #24 by Mark Ordal

Hey, Mark, thanks for that.

While the discussion in this thread has been fascinating to me (isn't serendipity great?), your message contains the information I originally sought!

There doesn't seem to be a web site that has the information about detailed machine features for TI's that we have here for HP's. I know about datamath.org but you can't tell, for example, whether a calculator has, say, an x<y? test or a DSE or an index register or what have you.

Maybe there is one out there I haven't found yet, but it is nevertheless a testament to our curator's great work how easy this information is to find for so many models of HP.

Re: Programmables Available Today?

*Message #26 Posted by **Wayne Brown** on 30 May 2003, 8:03 a.m.,*
in response to message #24 by Mark Ordal

> Quote:
>
> Let's see an improved HP49G with at least 2x the speed of the old 49G!

Better yet, let's see the 49G software built into the body of a 48GX. (I'll *never* buy a 49 as long they keep the current hardware and color scheme.)

Re: Programmables Available Today?

*Message #27 Posted by **Ellis Easley** on 31 May 2003, 7:19 a.m.,*
in response to message #26 by Wayne Brown

I'm not positive, but I think maybe if you put MetaKernal in a GX you might have what you are looking for. I think to do it requires adding a RAM card to hold it, so it would be an expensive way to go. Apparently MetaKernal was available as a ROM card but some kind of licensing problems make that not available.

Re: Programmables Available Today?

*Message #28 Posted by **Wayne Brown** on 31 May 2003, 10:22 a.m.,*
in response to message #27 by Ellis Easley

Actually, that's what I've done: I have a 128K card with MetaKernel and a 2MB card with Erable and Alg48 and a bunch of other stuff. It gives me most of the functionality of a 49G (which is based on those three packages), but there are some inconveniences. Erable only works in ports 0 or 1, and MetaKernel fills port 1, so I have to move Erable to port 0 when I use it. That nearly fills port 0, so I frequently have to move it to another port (on the 2MB card) when I want to use port 0 for other things. Fortunately, MetaKernel's Filer makes it very easy to move and copy things around from port to port.

The 49G has all the software components much better integrated and there's some added functionality as well, and there's much less problem with running out of memory. However, the

49G's lousy keyboard, the lack of IR port and expansion slots, and the shape & color of the case are so disagreeable to me that I'd rather stick with my 48GX.

48GX Super

*Message #29 Posted by **R Lion** on 31 May 2003, 12:29 p.m.,*
in response to message #28 by Wayne Brown

I'm using a 48GX + 128kb + 1Mb with Metakernel, Erable, Alg48 and many other sofware... All this is *perfectly* integrated with my own Menu System from wich I can access any ROM or RAM command. Probably (sure) I will buy a new 15C or a 32S Platinum, but it will be very very very difficult substitute my 48GX Super

Raul

Edited: 2 June 2003, 3:52 a.m.

Re: 48GX Super

*Message #30 Posted by **hugh steers** on 3 June 2003, 6:53 p.m.,*
in response to message #29 by R Lion

do you know if there's some way to romify this or the equivalent?

when the 49 came out, i reasoned i'd better buy a 48GX real quick before they stopped making them. basically because its a much nicer built machine and that matters for me. i added in erable, alg48 and that java (not web java) stack replacment thing that lets you scroll fast and everything.

like this its great, until it crashes and you lose it all.

Re: 48GX Super

*Message #31 Posted by **R Lion** on 4 June 2003, 2:45 a.m.,*
in response to message #30 by hugh steers

What do you mean with romify? (excuse my english) Do you mean to protect your installed prgs against memory deleting if calcualtor crahes? I have all libraries instaled in ports>0. Also a Home backup. Those ports are (almost) secure.

Please tell me if I understood your question...

Raul

Re: 48GX Super

*Message #32 Posted by **hugh** on 4 June 2003, 2:00 p.m.,*
in response to message #31 by R Lion

thanks for the info. i hadnt realised that ports other than 0 are a lot more secure.

Re: Programmables Available Today?

*Message #33 Posted by **hugh** on 3 June 2003, 6:56 p.m.,*
in response to message #24 by Mark Ordal

also, sharp and casio have some nice units out there. the casio 4800p isnt that bad and the sharp el-9900 programs in basic.

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harvesting email addresses here for spam?

*Message #1 Posted by **db(martinez,california)** on 24 May 2003, 5:45 p.m.*

i have all but abandoned my old email and started using another here and in corospondance because i am tired of wading through 30 to 40 offers each day to buy viagra, enlarge my tool, consolidate my debts, get a credit card, refinance my home, see young girls nekid etc. i just got a spam on my other email (which i have had for 4 years and never got spam on) from a steaming pile named Donald Kayode. he has an "Important business proposal" for me. yea, right. probably wants to help me invest in a large reddish bridge just north of san francisco.

anyway, i was wondering if he harvested my email from here. it is only posted one other place and that is a low traffic site - one that would not be likely to be frequented by frisky girls with names ending in the letter "i" who would write a letter to a stranger asking if i want to see the new movie of her and rover.

anyone else getting offers from mr. kayode?

Snap

*Message #2 Posted by **james (UK)** on 24 May 2003, 6:08 p.m.,*
in response to message #1 by db(martinez,california)

I've had the same email - it's the usual African scam (in the pre email days most of the letters originated from Nigeria)- millions of dollars acquired in dubious means ($33m in this case) which they need to move out and can they just use your bank account - you'll get 20% (yeah right!) - just send you account number and hey-presto - before you know it your account's been cleared out - in the last month I've had similar offers from Rev Kelly Momoh, Mrs Mariam Sese-seko, Dominic Jones, Mohammed Abacha and Patrick Foster - aren't I lucky? The others were all addressed to an email address I use for an Innocenti Mini-Cooper forum but Donald's effort was the email address I use here so you're probably right in thinking your address was harvested here.

Re: harvesting email addresses here for spam?

*Message #3 Posted by **Patrick** on 24 May 2003, 6:08 p.m.,*
in response to message #1 by db(martinez,california)

Not getting email from said pea brain but there's just no end of these rude jerks. I don't make it easy on them any more in getting my name triple and quadruple times on the same list, which is why you don't see me post my email address here. It is not that I don't want to share with the majority of good folks here, it's just that it takes just one in a thousand to wind up inundated with unwanted crap.

On the other hand, I've started email accounts on the free servers (hotmail, yahoo, etc) and gotten spam on them right away, having NEVER used it even once and having never given the address to ANYONE. Go figure.

Re: harvesting email addresses here for spam?

*Message #4 Posted by **frankin** on 24 May 2003, 6:15 p.m.,*
in response to message #1 by db(martinez,california)

Mostly likely from here. I just received the same email from the person after I posted a ad here a few days ago.

Re: harvesting email addresses here for spam?

*Message #5 Posted by **James M. Prange** on 24 May 2003, 9:39 p.m.,*
in response to message #1 by db(martinez,california)

Yes, that name looks familiar, I saw it in my inbox a little while ago.

The "Nigerian scam", but with the faintly amusing variation that he's a private investigator in Europe who's been contacted by officials in Africa with a proposal to transfer several million dollars to my account, whence I'm to transfer it to a special account in the Cayman Islands....

Too late to get the details; it's already been trashed.

But I honestly don't know whether he got my e-mail address from this forum. I get one of these every few days. Mostly annoying, but occasionally the lies are outrageous enough to be slightly amusing. These guys should join a "liars club".

Regards,
James

I don't think it's from here...

*Message #6 Posted by **Scuba Diver** on 24 May 2003, 11:16 p.m.,*
in response to message #5 by James M. Prange

I don't think he's getting your address from here; I use my hotmail account when I post here and I don't get any spam there (touch wood).

Of course, my normal email address that I use for day-to-day correspondence gets 40+ emails a day...I'm thinking that I'm going to respond first to the email that guarantees you a salary of a million a year, so that I can afford to buy all of the other products (such as viagara and the "enlargement" tool...not that I need either of those! :))

B.

Re: harvesting email addresses here for spam?

*Message #7 Posted by **Ellis Easley** on 25 May 2003, 12:35 a.m.,*
in response to message #1 by db(martinez,california)

Yes, I got that email today. I also got email last week from "support@microsoft.com" with an attachment - the same morning I read a news story about a new virus that was attached to an email like that - also in the news story, Microsoft reminded everyone that they never send unsolicited email with attachments! I minimized my preview pane - I understand that is the only way to keep Outlook Express from opening an email if, for instance, the item is at the end of the list when you start OE. When I right-clicked on the attachment, it showed the envelope icon, like an email attached to an email - I've never figured out how to open those! So I guess it wouldn't open automatically, like a jpeg or a gif. I'll bet there's exceptions, like if there is Java code in the email telling it to open the attachment.

Are there email readers that work like news readers - that don't automatically download every item but just the headers so you can decide what you want to download?

Re: harvesting email addresses here for spam?

*Message #8 Posted by **Laurence Carr** on 25 May 2003, 5:28 a.m.,*
in response to message #7 by Ellis Easley

HI

I use mailwasher pro http://www.firetrust.com/products/mailwasherpro/

This actually lists mail on your servers and allows you to delete without downloading, you can read the mail on the server as well. Also it can create blacklists and create fake "bouce" messages.

Works well for me

Re: harvesting email addresses here for spam?

*Message #9 Posted by **Ellis Easley** on 25 May 2003, 6:40 a.m.,*
in response to message #8 by Laurence Carr

Thanks, I'm going to look into that!

mailwasher pro

*Message #10 Posted by **Ellis Easley** on 25 May 2003, 9:18 p.m.,*
in response to message #8 by Laurence Carr

I downloaded mailwasher pro this morning and have already bounced a bunch of spam, which makes me feel like I am accomplishing something, at least! There is a 30 day free trial and then it will cost $30 and I just might bite the bullet and buy it.

Re: harvesting email addresses here for spam?

*Message #11 Posted by **James M. Prange** on 25 May 2003, 10:48 p.m.,*
in response to message #7 by Ellis Easley

I've been getting a lot of those e-mails from "Microsoft Support" and such "helpful" folks with an attached infected file for the last few weeks. I've noticed that the "To" or "CC to" often includes the addresses of a lot of folks that I recognize from comp.sys.hp48; I suspect that someone on the newsgroup has a virus.

What's really nice is that sometimes, right after Norton AntiVirus notifies me that it's taken care of it, a sender's ISP e-mails me a warning that it's detected that an infected e-mail has been sent to me. Seems to me that they could detect the virus and *not* send the e-mail, simply notifying the sender.

Re: harvesting email addresses here for spam?

*Message #12 Posted by **Dave Shaffer** on 26 May 2003, 1:59 a.m.,*
in response to message #7 by Ellis Easley

re: "Are there email readers that work like news readers - that don't automatically download every item but just the headers so you can decide what you want to download? "

Depends on where/how you get your mail. I get most of my mail via a non-PC, non-browser-based UNIX system. The e-mail address I give here goes to that system. I read it within an ascii window, using a mail program called pine on the nevada.edu server. I --> NEVER <-- worry about PC viruses with such a system. I do get my share of spam, however!

I also have an Earthlink mail box, which I access via my ancient Netscape 4.78 browser. This version of Netscape is so old that Earthlink mail doesn't support it. It then does what I think you want: it offers to let me look at the headers, at which point I can click on a header and then read the associated mail. I use this so little (pretty much just to get my Earthlink messages) that I have never had any spam there. And nobody has that address in any address book, so I've not gotten any viruses either. The address would be hard to get from a random address generator: I use my ham radio call, consisting of a letter, a number, and three more letters. A blind searcher would have to try 36^5 possible "names" to be sure to get it. (A quick check with my trusty '41CX shows that this equals 60,466,176 possibilities.)

So, all you need is an ancient browser and/or a non-windows e-mail system. (Another reason to hate Microsoft!?)

Re: harvesting email addresses here for spam?

Message #13 Posted by on 25 May 2003, 7:52 a.m.,
in response to message #1 by db(martinez,california)

There is no doubt that someone/s is/are harvesting email addresses from here. I had no spams for years! I tried to avoid posting my email address wherever I could. Since I posted my WTB red dot (7th April) I get more and more of these annoying messages. Could there be an easy way to get in contact with other HP-minded people without crying out our addresses or names around the world?

Re: harvesting email addresses here for spam?

*Message #14 Posted by **Bernhard Emese** on 25 May 2003, 11:59 a.m.,*
in response to message #13 by

I discovered the HP Museum Forum only about one week ago, and had the same offer to receive 33 Million US$ from Nigeria (20% is for You). But I remember that I got a very similar offer two years ago, at that time I didnt know anything about the HP Museum. Bernhard

Spam is increasing in general

*Message #15 Posted by **Dave Hicks** on 25 May 2003, 1:50 p.m.,*
in response to message #1 by db(martinez,california)

And there are a lot more "spammer-tools". I have an ISP account that was used ONLY for receiving billing statements for years. Several months ago it started receiving several spams a day. One of the new spammer tricks is to do "dictionary attacks" on ISPs. They basically combine a huge list of names, exhaustive or randomly generated character strings, user names known from OTHER ISPs etc. and flood an ISP with emails to each one of them. The 0.00001% that don't bounce are the real addresses. So never giving out an email address doesn't protect you any more. (And you wonder why your net access slows down sometimes...)

My ISP reacted to this by installing SpamAssassin and it seems to be working quite well. My hpmuseum address goes through spamcop which is also pretty nice. All email to this address if forwarded to spamcop.net which holds most spams (for up to 2 weeks in case you want to review them) and deletes viruses (all so far).

I'm working on a couple of modifications for the forum software right now. The big one is message editing. (Another feature was improving the speed of the archives. That one's in place now.)

I'm also **thinking** about some sort of email obscuration and/or total invisibility (ie, clicking on a poster would present a form that you could fill in with your message and return address but you would never see the actual poster address unless you receive an email reply.) If anyone has any thoughts on this, I'm open to ideas because I haven't throught it through yet.

email obscuration

*Message #16 Posted by **glynn** on 25 May 2003, 9:53 p.m.,*
in response to message #15 by Dave Hicks

The system has worked pretty well for me-- just don't fill in the email address blank, or if you do, fill it in like "imacollector@NOSPAMyahoo.com". If you want to get REALLY elaborate, just tell people they can contact you if they hold a mirror to "moc.oohay@rotcellocami".

A harvester has a pretty hard time with that; but presumably, a calculator enthusiast could figure it out.

You can implement whatever you want, of course-- but, quite simply, it should remain up to the user to protect his own... whether mail address or whatever. I would think that obscuration will only lead to requests for you to provide feedback, i.e., an email to me stating whenever someone had requested my email, etc. Or other complications of that sort.

On a philosophical note: I think we are going eventually to see this spam-boom hurt the entire Internet, either through increased regulation, or fees, or some much more complex mail-system. A few bad apples...

Re: email obscuration -- Seems to Work Fine!

*Message #17 Posted by **Paul Brogger** on 26 May 2003, 12:34 p.m.,*
in response to message #16 by glynn

I saw someone here (maybe Glynn) inserting "NOSPAM" in posted email addresses, and decided to try it myself. My old hotmail account is still a target of all the spam offers mentioned in db's opening post, but my newer EarthLink address is clean and unmolested.

I assume it's because I've been posting it as "*pjbrogger**NoHormel**@earthlink.net*" . (I chose "NoHormel" because I think the harvesters may catch on to "NoSpam" sooner or later.)

So, for what it's worth, my experience is that obscuration definitely helps.

Re: email obscuration -- Seems to Work Fine!

*Message #18 Posted by **db(martinez,california)** on 26 May 2003, 11:01 p.m.,*
in response to message #17 by Paul Brogger

paul; ....and when they catch on to nohormel you can change it to "bloody vikings".

btw all: i tried the firetrust program and so far it has only confirmed that i don't speak geek.

Re: email obscuration -- Seems to Work Fine!

*Message #19 Posted by **Bill Platt** on 28 May 2003, 12:22 p.m.,*
in response to message #18 by db(martinez,california)

I saw your NO HORMEL a week ago or so when I read one of your posts--I like it!

Bill

mail washer pro

*Message #20 Posted by **Ellis Easley** on 28 May 2003, 6:07 p.m.,*
in response to message #18 by db(martinez,california)

I don't know about speaking geek but I was intrigued by some of the mannerisms of speech on the firetrust website such as "the ONLY way to deal to senders of junk e-mail" - the use of "deal to" where I would say "deal with". The company is in New Zealand and that must be the way they say it there.

I think the program is great! Basically, it is just an independent (of your regular mail program) way to preview your mail without really opening the files. I don't know why this program can clearly download the data without the mail server noticing, but it's bound to have something to do with the protocol of internet mail - maybe something akin to the way a merchant inquires about your credit card balance at the time of the transaction but doesn't actually charge your account until the time of shipping.

I especially like that mailwasher lets you "bounce" unwanted emails instead of just delete them - the way they describe it, they are able to make your mail server respond in a way that causes the sender to think your email ID is invalid. Whether it really makes a difference or not, it makes me feel that I am doing something! Time will tell if it really reduces the amount of spam delivered to me.

The only thing you have to remember is to run mail washer before you run your email program, or at least before you tell your email program to get your mail from the server. Use mail washer first, let it get your new mail, mark the no good mail to be bounced, mark the emails from those you want remembered as friends, then tell mail washer to "process mail". It then does the bouncing and remembering. When it has finished, it starts up your email program and you tell it to get your mail - which will only be the good items that you said you wanted to receive. Over time, mail from sites you have bounced mail from before is automatically marked "blacklisted" and pre-selected to bounce, mail from "friends" is highlighted. You can read all the text in the message from within mailwasher so you can decide if you want to go ahead and receive mail that would otherwise be bounced.

One thing I have to train myself to do is to click on "Send All" instead of "Send/Receive" when I send an email, otherwise I bypass mail washer for any messages that arrived since I last used mail washer (or since mail washer last automatically checked for new mail).

I started out the hard way when I installed mail washer: I went looking for the items it needs to identify your email accounts (I only have one). It needs your email user name (the left part of your email address), your incoming mail server, your outgoing mail server (you can find both of these under "Tools / Accounts / Properties / Servers" in your mail program [at least Outlook Express]) and your email password (only you know this, although your mail program has probably been remembering it for you, but it won't tell mail washer!) I went and gathered all these things and got mail washer working before I noticed it has an "Import" buttom that would have found everything but my password!

speed of Archives index loading

*Message #21 Posted by **Ellis Easley** on 26 May 2003, 7:57 a.m.,*
in response to message #15 by Dave Hicks

Dave, that's a great improvement! I was thinking of suggesting that it go straight to the "customize" screen but what you have done is better.

Re: Spam is increasing in general

*Message #22 Posted by **David Smith** on 27 May 2003, 2:38 p.m.,*
in response to message #15 by Dave Hicks

The email havesters are onto the NOSPAM, etc trick. I suggest some random uppercase characters that need to be removed.

As far as Hotmail is concerned a group of spamsters has been probing every possible combination of characters for a couple of years now. Once they latch onto your name, expect 50+ disgusting emails a day. Hotmail refuses to do anything to stop them.

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HP Forum Archive 13

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HP-82161A cassette type?!?

*Message #1 Posted by **Frederic** on 23 May 2003, 8:00 p.m.*

I found a cassette drive for my HP-41C but i have a problem : I cannot find any cassette that fit the dreve. I tried "microcassette" but too small, i tried Dictaphone cassette but the distance between holes is too small. "mini cassette don't enter too because of a notch in the drive no present on the cassette.

What kind to use and WHERE to find these?

Thanks Fred

Re: HP-82161A cassette type?!?

*Message #2 Posted by **Vassilis Prevelakis** on 23 May 2003, 10:06 p.m.,*
in response to message #1 by Frederic

```
Frederic wrote:
> What kind to use and WHERE to find these?
```

Welcome to world of antique computers. I hope you don't expect to be able to get supplies at Office Depot.

I believe that these tapes are no longer produced, so your best bet is eBay. Instructions on how to maintain old tapes may be found in the MoHPC Forum archives.

**vp

Re: HP-82161A cassette type?!?

*Message #3 Posted by **Michel Beaulieu** on 24 May 2003, 9:19 a.m.,*
in response to message #1 by Frederic

I have the same problem. I read that these cassette were also use in a fluke instrument. Is there a replacement for these?

I also found on the net this :

http://www.braemarinc.com/GeneralProducts.htm

Is it the same cassette.

I read that the original HP mini data cassettes were rename VERBATIM products, do someone know the model number?

Re: HP-82161A cassette type?!?

*Message #4 Posted by **Vassilis Prevelakis** on 24 May 2003, 6:19 p.m.,*
in response to message #3 by Michel Beaulieu

```
Michel Beaulieu wrote:
> I read that the original HP mini data cassettes were rename VERBATIM products, do
someone know the model number?
```

Check the MoHPC archives, I remember an exchange last year with the same subject. I recall that the verbatim model number was given then, but I don't remember what it is now.

The tape drive has low capacity, scarce consumables, and access takes forever. Use a 9114 diskette drive instead.

**vp

Re: HP-82161A cassette type?!?

*Message #5 Posted by **Michel Beaulieu** on 24 May 2003, 6:51 p.m.,*
in response to message #4 by Vassilis Prevelakis

Where to find that drive? Obsolete i suppose ;-(

Re: HP-82161A cassette type?!?

*Message #6 Posted by **Vassilis Prevelakis** on 25 May 2003, 4:16 a.m.,*
in response to message #5 by Michel Beaulieu

```
Michel Beaulieu wrote:
> Where to find that drive? Obsolete i suppose ;-(
```

Of course. The cassette drive you have is 20 years old, the floppy is slighly newer (15?), but still an antique.

You can still get them on eBay, recent prices range from around $80 to $130, so they are not *that* expensive. Note that the mechanism inside the box cannot be replaced/repaired using modern PC drives, but at least Double Density floppies are still readily available.

**vp

Re: HP-82161A cassette type?!?

*Message #7 Posted by **Frank Winter** on 27 May 2003, 2:29 p.m.,*
in response to message #1 by Frederic

Last week I started to study catalogs from business suppliers here in Germany and found a promising tape from Philips (www.speech.philips.com): 0005 Executive (2 x 15 min). It arrived yesterday and after a first examination I can state (for now) following:

1) It has the same size,

2) Drilling the two holes and cutting the notch on the back seems no problem (neither drilling the holes into the tape),

3) Further investigations are needed for the pressure pad (replacement?) and

4) getting a mc repair kit (for the leading celluloid tape).

I will leave a message, if I can achieve something (or not).

Re: HP-82161A cassette type?!?

*Message #8 Posted by **db(martinez,california)** on 27 May 2003, 10:28 p.m.,*
in response to message #7 by Frank Winter

good luck and you may have found an un-needed small sideline business. let us know.

Re: HP-82161A cassette type?!?

*Message #9 Posted by **Frank Winter** on 29 May 2003, 11:05 a.m.,*
in response to message #8 by db(martinez,california)

Today is a public holiday in Germany and so I started this morning to examine the Philips cassette. It's a dead end. (You can't open it without destroying the cassette, the "pressure pad construction" is completely different from the original HP cassettes).

But this new thread looks interesting: http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=34976

Re: HP-82161A cassette type?!?

*Message #10 Posted by **Ellis Easley** on 29 May 2003, 7:32 p.m.,*
in response to message #9 by Frank Winter

Just as a matter of Forum techniques, let me say that the newer thread is really just a continuation of this thread, triggered by Michel's post - I started a new thread in hopes of drawing attention. There were a few responses but no groundswell of people ready to spend $19 for a tape! But David Smith thinks it's probably near the market price for HP tapes. So the problem remains determining if these are really usable in the HP tape drive, without having to buy a box of 10. I bought a box of 10 Fluke tapes on speculation but they only cost $14 total! I'm steeling myself to write back and ask if they could possibly break open a box and sell me just one tape.

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BIG Collection

*Message #1 Posted by **Gordon Dyer** on 23 May 2003, 5:25 p.m.*

Here is someone in Germany who has a huge collection!
HP do get a look in, try pic 17.

Re: BIG Collection - with site address!!

*Message #2 Posted by **Gordon Dyer** on 23 May 2003, 5:28 p.m.,*
in response to message #1 by Gordon Dyer

Here is someone in Germany who has a huge collection!
HP do get a look in, try pic 17.
http://www.elektron.net/docs/calculators/various/hnf.html

THE original TI calculator ... the first is in this pic!

*Message #3 Posted by **Gene** on 23 May 2003, 6:39 p.m.,*
in response to message #2 by Gordon Dyer

http://www.elektron.net/docs/calculators/various/hnf23.jpeg

Re: BIG Collection - with site address!!

*Message #4 Posted by **Randy Smith** on 23 May 2003, 7:07 p.m.,*
in response to message #2 by Gordon Dyer

That is an incredible collection! It looks as if it might be on display for the public to see as well. Wonder how many years it took to assemble and where he found some of those machines at.

Re: Who's got something this guy doesn't?

*Message #5 Posted by **Paul Brogger** on 23 May 2003, 8:00 p.m.,*
in response to message #2 by Gordon Dyer

"BIG Collection" indeed! And so well presented -- sure would be nice to see it in person.

I looked through the alphabetic-by-manufacturer page, and found at least one item I've got that he doesn't: a Litronix 2260 "exponential". (But he does have several close relatives.) I'm sure there are others, but I wonder how many?

That collection may not represent truly *comprehensive* coverage of the subject, but it's got to be at least representative of just about every facet one might be likely to consider. Wow!

(I'm going to show this to my wife -- maybe she'll get the idea that it could be a lot worse!)

And re: the "original TI" -- where's the display????

TI Prototype

*Message #6 Posted by **Michael F. Coyle** on 23 May 2003, 9:05 p.m.,*
in response to message #5 by Paul Brogger

This looks like the demonstration calculator Jack Kilby *et al* at TI put together in the mid 1960's. It didn't have a display -- it printed on a thin strip of paper that exited on the left side of the machine. (It was a thermal printer. LED's weren't quite ready in 1965.) The design was produced in 1970 as the Canon Pocketronic.

The original "Cal Tech" prototype is in possesion of either TI or the Smithstonian, so I suspect this one is a replica.

- Michael

Re: TI Prototype

*Message #7 Posted by **Joerg Woerner** on 26 May 2003, 12:45 p.m.,*
in response to message #6 by Michael F. Coyle

If you are interested in TI's Cal-Tech Project you should read these two articles:

http://www.vintagecalculators.com/html/ti_cal-tech.html

http://www.datamath.org/Story/Datamath.htm

Regards, Joerg

Re: Big Collection

*Message #8 Posted by **Holger Weihe** on 23 May 2003, 8:42 p.m.,*
in response to message #1 by Gordon Dyer

These fotos have been taken in the "Heinz Nixdorf Forum". That is a (real world)-museum for computer history, located in Paderborn, Germany.

You may visit this museum at http://www.hnf.de. There also is a VR-tour through the exhibition where you can see the "calculator-wall".

I never visited the exhibition, but since it is only 120 kilometers away from where I'm living I definitely should go there!!

Would be nice to touch these calculators or even better run them. :-)

Holger

Re: Big Collection

*Message #9 Posted by **GS Leong** on 23 May 2003, 9:36 p.m.,*
in response to message #8 by Holger Weihe

There is a picture of the Cal Tech Prototype in the HNF forum and underneath this quote appears " As is illustrated by the display, products became both more widespread and more powerful. Hewlett Packard from the USA in particular, has dominated the market for high performance calculators, whereas companies from eastern Asia have been sucessful with low-cost mass products."

Such a shame that this is no longer true!

Re: Big Collection

*Message #10 Posted by **db(martinez,california)** on 23 May 2003, 9:41 p.m.,*
in response to message #8 by Holger Weihe

there is an even better photo of the cal tech on page 14 of the guy ball/bruce flamm book and i have wondered since i first saw it: since there is no "=" key but there is an "E" key, was the first t.i. an rpn? and if so; why did they dumb it down? i guess the "E" could be "equals". btw: they date it as 1967.

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P41CV for PALM Devices

*Message #1 Posted by **Daniel Diggelmann** on 23 May 2003, 5:24 p.m.*

I just discovered this very interesting HP 41 Emulator for Palm Devices:

http://www.palmgear.com/software/answernew.cfm?sid=49F26072-53CE-464D-AA6BF6EBF78B2DBB&quicksearch2=p41cv&CFID=8931780&CFTOKEN=97339376

Programs written on the memo pad can be compiled. And there is an PORT manager which allows to try out different ROM combinations in the four ports. I like it very much. Until now I was using COCONUT for Palm. But the free version always cleared memory on exit. There never was a registered version.

Any one have experience with P41CV?

Happy Programming from Switzerland

Re: P41CV for PALM Devices

*Message #2 Posted by **Bill** on 24 May 2003, 9:49 a.m.,*
in response to message #1 by Daniel Diggelmann

I use this emulator daily - great program. The accessory Rom programs allows you to choose four modules from a list of 17 which include the Advantage and PPC modules. I think the Rom Program only comes with the registered version. I think the developer, Charles Lee, is considering updating it sometime for the CX.

There is another good emulator for Palm, called Coconut. It emulates a HP-41CX and works very good. I don't think it's available anymore. I just tried accessing his web site, and the page is no longer avalable. I know he had pulled is from the PalmGear site. Too bad since it is a very nice emulation.

The best part is that I always have my Sony Clie with me and thus I always have access to the 41!!

Re: P41CV for PALM Devices

*Message #3 Posted by **Daniel Diggelmann** on 26 May 2003, 7:10 p.m.,*
in response to message #2 by Bill

Just today I received an upgrade to the HP41CX. I'm totally amazed about this Emulator. It now supports time an XMEM functions. It can even print to the memo pad. Congratulations to Charles Lee

Re: P41CV for PALM Devices

*Message #4 Posted by **Johnny Billquist** on 27 May 2003, 5:25 a.m.,*
in response to message #1 by Daniel Diggelmann

P41CV is nice, but it's sad it don't emulate the font of the HP41. If that was implemented, I'd love it. Otherwise it's really great. I'll have to try the CX version, now that it's out.

Coconut (yes, I have a registred version) is very nice in the look and feel, but it do have some bugs. I used to report them in the beginning, but it seems as if the product was terminated instead. Sad.

Re: P41CV for PALM Devices

*Message #5 Posted by **Johnny Billquist** on 27 May 2003, 6:16 a.m.,*
in response to message #4 by Johnny Billquist

I'll have to correct myself. It was too long ago since I looked at P41CV. The font is now there. Looks great.

I'll have to do some more evaluation of it, but I think I'm changing from Coconut...

Re: P41CV for PALM Devices

*Message #6 Posted by **Robert** on 29 May 2003, 2:33 p.m.,*
in response to message #1 by Daniel Diggelmann

Hey! Thanks for posting that. That's one slick little emulator. Now I need a hi-res Palm.

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12c Platinum on TV?

*Message #1 Posted by **RB Jones** on 23 May 2003, 5:23 p.m.*

Steve Wildstrom of BusinessWeek may be going to show the 12c P on this weekend's Money Talks, a Bizweek TV show that runs on some stations on the weekends. Be ready to get up early.

See sked

http://www.businessweek.com/bwtv/stations.htm

RB

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41CV Gone Wild!

*Message #1 Posted by **gifron** on 23 May 2003, 2:11 p.m.*

See the original post of the same title at 17 May. This is a follow up.

The solvent recommended is methylene chloride, aka methylene dichloride (MDC), aka dichloromethane (DCM). I've found out that it is used in paint strippers, as a blowing agent in polyurethane foams, and as a decaffeinating agent, and that it causes cancer (depending upon whom you listen to). Nevertheless, I can't find any to use on my calculator. I found some paint strippers that contain it, along with a host of other unpronounceables, but not the straight stuff. As expected, any time I ask a store employee for help finding dichloromethane, they look just as lost as I do. Where can I find this stuff? Is there a brand name I can ask for?

Thank you in advance.

Re: 41CV Gone Wild!

*Message #2 Posted by **Randy Sloyer** on 23 May 2003, 2:24 p.m.,*
in response to message #1 by gifron

Look for plastic welding solvent cement sold in hobby stores. It is a clear, water-like liquid found in small bottles with a brush in the cap. It is the only thing that will penetrate the small cracks in the posts.

The right stuff usually says it causes cancer. But then, what doesn't?

Might not be available in all countries.

Re: 41CV Gone Wild!

*Message #3 Posted by **David Smith** on 23 May 2003, 4:09 p.m.,*
in response to message #1 by gifron

The stuff I use is called TENAX (X7R?). I get it at Hobbytown for about $3 for a small bottle. At one time there was a person on Ebay selling 2 liter bottles of reagent grade for around $10.

Re: 41CV Gone Wild!

*Message #4 Posted by **gifron** on 28 May 2003, 12:05 a.m.,*
in response to message #3 by David Smith

I found the Tenax at Hobby Town. Seems to have done the trick! Thanks to all who have had input. Hopefully I will be able to pass this or other information along to others in the future.

Re: AMBROID "ProWeld"

*Message #5 Posted by **Paul Brogger** on 23 May 2003, 4:37 p.m.,*
in response to message #1 by gifron

I found it as "Ambroid ProWeld" at a hobby shop -- clear, in a small glass bottle with a brush for ~$3.00 .

I'm not sure whether this is PURE methylene chloride -- I think it "contains" that key ingredient.

Incidentally, I (re)discovered a way to tighten up stripped screw posts in my still-not-working (#*&%$*&@!) HP-41CV: I shaved a sliver of plastic from inside one of the port covers, inserted it into the post hole, brushed around liberally with ProWeld, and then used a toothpick to hold the sliver against the interior post wall while the solvent did its thing. Where the screws used to simply turn ineffectually, they now bite nicely.

What's wrong with your HP41CV?

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 23 May 2003, 5:23 p.m.,*
in response to message #5 by Paul Brogger

Hi, Paul;

as you may have noticed, I don't like bad news and stuck (HP) calculators. What's wrong with your HP41CV?

Can we help anyway?

Success!

Luiz C. Vieira - Brazil

Re: What's wrong with your HP41CV?

*Message #7 Posted by **Paul Brogger** on 23 May 2003, 6:27 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

It's a fullnut.

The behavior (it does *behave* at least!) is consistent, but consistently bad. The leftmost columns of keys seem to have been randomly reassigned. They seem to consistently invoke the wrong operations.

For example, the 8, 9, EEX and back-arrow keys work correctly. But the 1 acts instead like the 9, and the 2 acts instead like the EEX. The shift key turns on the SHIFT annunciator, but the next keypress will consistently result in the wrong operation. Some of the unshifted keypresses will invoke operations which *should* be shifted(!?!?) (For example, the LOG key shows and executes the "ATAN" function.) Some keys cause non-alphanumeric symbols to be inserted into the display.

I can go into ALPHA mode, and start pressing the keys in sequence. I don't remember what comes out (I could reconstruct that easily enough), but in general, it's as if the keys generally on the left side and middle of the keyboard are "offset" in their alpha values by 4 or five places in the alphabet, while the rightmost keys give the proper letter. Very weird!

I've chased keyboard traces and tried to see whether the "1", for example, looks electrically like the "9" has been pushed, but to no avail. Within the capabilities of my limited diagnostic resources, the keyboard and display seem to be functioning fine.

Anyway, there's no way (that I know of) that such a cross-connection in the keyboard could explain the mapping of unshifted keys to shifted functions. I suspect a zapped ROM, with a scrambled jump- or lookup-table has caused a random reassignment of key functions.

I've messed WAY too much with the lower screws, posts, and zebra connector. I've tried soldering the CPU board to the keyboard, first with wire-wrap wire, then with ribbon cable. I've brushed and

cleaned, and scraped around solder pads and . . .

None of that seemed to change anything. It's consistently behaved the same, so I'm suspecting ROM damage. If anyone has any other suggestions, I'd LOVE to hear 'em!

Damaged ROM

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 23 May 2003, 9:13 p.m.,*
in response to message #7 by Paul Brogger

Hi, Paul;

I have what left from three HP41's I could rebuilt two. This remaining carcass has two damaged ROM chips and one that is probably good.

If you look at the DIP 8-pin chip codes in your fullnut's mainboard you'll see three of them are 1LE90X and the others (RAM) are 1LA701 (all of the full-nut have it) and a set of five 1LB70x. If data is consistent, I can send this suspiciously good ROM of mine (worthless) so you can test in your HP41CV.

The one I have is the mid one, if I am not wrong it's an 1LE907 (not in fornt of me right now). E-mail me your actual address and I'll send it for you. If you test it and it does not change situation, keep it with you anyway and do whatever you want.

If it works fine, consider it a gift. As I mentioned before, I have no use for it. I was waiting for an actual chance to use it in a fair "mission".

Best regards and let's hope it's a solution.

Luiz C. Vieira - Brazil

Re: Damaged ROM (?)

*Message #9 Posted by **Paul Brogger** on 27 May 2003, 9:53 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Luiz:

You wrote:

"*If you look at the DIP 8-pin chip codes in your fullnut's mainboard you'll see three of them are 1LE90X and the others (RAM) are 1LA701 (all of the full-nut have it) and a set of five 1LB70x*"

Your description sounds as if there are a total of ten or more 8-pin chips on the fullnut main board. I only see seven on mine: five attached directly to the board, and two more, each stacked on top of one of the other five.

With the capacitor to the upper left, and the 8-pin chips across the top, reading from right to left, their numbers are:

```
ILG901 (attached directly),
ILA701 (stacked on another -- can't read its i.d. code),
ILH502 (attached directly),
ILH503 (attached directly), and
ILH505 (stacked on another -- can't read its i.d. code).
```

Also on the board are:

```
  a large 30-pin DIP across the middle
    (the CPU? – I can't see the numbers because of the buzzer disk);
  a 14-pin DIP running along the "left" side, below the capacitors
    ("1826-0953-1" / "RAYL8336"); and
  there are pads for a 20-pin DIP on the right side, but no chip there.
```

Thie 8-pin chip set doesn't sound very much like what you described. Perhaps you can advise me as to what I'm dealing with (and whether your ROM is likely to help)?

Thanks,

Paul B.

Re: Damaged ROM (?)

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 12:04 p.m.,*
in response to message #9 by Paul Brogger

Hi Paul, folks;

as I like making public all of the informaion I can get here or anywhere, I'll reproduce the e-mail I sent you so anyone else that needs the information will ahve access to it, O.K.?

It seems to me yours is a newer HP41, maybe the newest of them all. As you post, I understand that yours has only one ROM chip, and I guess it's the 1LG901. The 1LA701 is a RAM chip and it has the sixteen system registers (stack, ALPHA, flags, controll, etc.) and the remaining 1LH50x are the remaining RAM, being the 1LH501 the first 64 registers (you do not see it) and the 1LH505 the last 64 ones. The other one you do not see is the 1LH504.

In my description, the set 1LE906/7/8 compose calculator's ROM, and they sem to be replaced by the new 1LG901, available in your model. In this case, the 1LE907 I was about to send you would be of no help at all. You need the complete set - 1LE906/7/8 - or another 1LG901.

Thank you for your valuable information. I was not aware of this new "chipset". As I collect information, this is something to be saved.

Thak you again and success! If you need anything else, be my guest.

Luiz C. Vieira - Brazil

Re: Damaged ROM (?)

*Message #11 Posted by **David Smith** on 27 May 2003, 2:43 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

I stopped couting and 41C/CV CPU board variations at around 8. I suspect there are over a dozen.

Re: 41CV Gone Wild!

*Message #12 Posted by **db(martinez,california)** on 23 May 2003, 9:50 p.m.,*
in response to message #1 by gifron

about finding your mdc; do you have a tap plastics near your home?

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HP-25 Repair

*Message #1 Posted by **Bernhard Emese** on 23 May 2003, 2:01 p.m.*

I bought my HP25 in 1978. Till now it is my calculator, it belongs to me, i love it. But in the 80th I had to send it for repair to HP because something was wrong, sometimes the display showed nonsense, sometimes there was only one digit visible. They repaired it and sold me a new battery as well. But it was not really repaired it had just some good days during the repair, because some days or weeks later, it was the same. I was not able to send it again to HP, which I should have done. It waited many years in a vitrine or somewhere else. Now I discover gradually that there are more people like me, which have this special relationship to their HP calculator. I see also these ebay auctions, where HP calculators were sold for high prices and I found this wonderful private HP Museum.

Now I stop these long history and come to the question. Is anyone able to reactivate my HP-25, by giving me those chips from his calculator, which is probably totally damaged in other parts, display or keyboard or else, so we can make one running into life by using two of them. Or does anyone have an idea where those chips can be bought, does HP have them in some old forgotten store. I can replace them be myself with a good soldering iron. Or does anyone have an better idea. Of course, I can buy a HP25 in ebay if I wait and find one and have enough money, but I would not be able to replace those chips from a functioning calculator into mine, by destroying the other one. How can I bring my old HP25 into life again?

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Battery pack for HP29C?

*Message #1 Posted by **Steve Inselberg** on 23 May 2003, 1:41 p.m.*

Where can I obtain replacement battery packs for my 20-series (HP29C) and 30-series (HP34C) calculators?

Re: Battery pack for HP29C?

*Message #2 Posted by **David Smith** on 23 May 2003, 4:14 p.m.,*
in response to message #1 by Steve Inselberg

If you have your old packs, they can be rebuilt with new cells at battery stores like Batteries Plus or Batteries, Etc. I rebuild all my packs with high capacity (1800maH) nickle metal hydride cells. They will run the machine for three times as long (if you charge them three times longer).

Otherwise you will need to try the classifieds here or find them on Ebay.

The 34C battery can be faked very easily. It is just two AA rechargeable cells side by side. Again, the battery store can whip you one out for cheap. To get really fancy you need to fill one side of the valley between the cells totally with epoxy. The other side has only the top half of the valley filled. This prevents you from being able to install the pack backwards.

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What to use with Alcohol when cleaning PCBs?

*Message #1 Posted by **Paul Brogger** on 23 May 2003, 1:31 p.m.*

I've been using Q-tips with 90% isopropyl alcohol when cleaning contacts on PCBs, keyboard traces, etc. But that leaves strands of cotton all over.

What do the experts recommend I use to apply the alcohol & "scrub" surfaces? (I assume something lint-free -- lens tissue?)

Thanks . . .

Re: What to use with Alcohol when cleaning PCBs?

*Message #2 Posted by **Randy Sloyer** on 23 May 2003, 2:41 p.m.,*
in response to message #1 by Paul Brogger

Household Q-tips will do that. Industrial cotton swabs with wooden handles are less prone to that annoying habit, as the cotton is wound tighter and glued better.

One place you can them order online:

www.techni-tool.com Item 758CH016 $11.10 for 1000 pcs

A Lab supply company should carry them as well. If you want to go all out, you can buy foam tipped swabs at 13X the cotton price. 758CH3160 $71.10 for 500 pcs..

Re: What to use with Alcohol when cleaning PCBs?

*Message #3 Posted by **Gordon Dyer** on 23 May 2003, 3:09 p.m.,*
in response to message #1 by Paul Brogger

I use lens tissues or lint free lens cloth.

Re: What to use with Alcohol when cleaning PCBs?

*Message #4 Posted by **David Smith** on 23 May 2003, 4:17 p.m.,*
in response to message #1 by Paul Brogger

The electronics industry uses "acid swabbing" brushes. These are made of bristles crimped into a hollow metal sleeve for a handle. Trim the bristles down to about 1/8 inch long. You can get them at many hardware stores, West Marine, and Harbor Freight Tools, etc.

Re: What to use with Alcohol when cleaning PCBs?

*Message #5 Posted by **db(martinez,california)** on 23 May 2003, 9:54 p.m.,*
in response to message #1 by Paul Brogger

us hillbillies use the old toothbrushes that we done wored out.

Re: Toothbrushes

*Message #6 Posted by **gifron** on 24 May 2003, 1:03 a.m.,*
in response to message #5 by db(martinez,california)

You knew the toothbrush was invented in Arkansas, didn't you? If it was invented anywhere else, it would have been called a teethbrush! Wacka, wacka, wacka! ;) ;) ;)

But seriously, folks - We real hicks use a pocket knife to scrape each little leg till it's nice an' shiny. This method may not be very efficient, but at least there's a good chance you'll bend or break off a leg.

Oh, you asked about alcohol. One of those little sponge "brushes" that comes in a mascara case, or a sponge wedge, also used in makeup application. These are just ideas - I haven't actually used either one, but they seem to have the right firmness, with no cotton fibers to worry about.

Re: What to use with Alcohol when cleaning PCBs?

*Message #7 Posted by **David Smith** on 24 May 2003, 7:58 p.m.,*
in response to message #5 by db(martinez,california)

Ya mean ya still got yer choppers! Some folk have all the luck.

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Ok. Help for idiot (me) with HP-49 on PocketPC

*Message #1 Posted by **Gene** on 23 May 2003, 12:02 p.m.*

I've tried several times and have not been able to get the HP-49 emulator (Emu49) running on my PocketPC.

Could someone post idiot-proof instructions to help me out?

:^)

Re: Ok. Help for idiot (me) with HP-49 on PocketPC

*Message #2 Posted by **Chris Randle (UK)** on 23 May 2003, 2:57 p.m.,*
in response to message #1 by Gene

I'm using Emu48 (not 49). It all worked smoothly for me with one notable stumbling block:

On the initial startup screen, it asks you to enter OK which I kept trying to do by pressing the PocketPC's OK button. I think you have to type OK and return on the keyboard - at least it finally worked for me when I did that.

If that's not the problem then what's happening or not happening?

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O.T: Pun for Today

*Message #1 Posted by **Paul Brogger** on 23 May 2003, 11:45 a.m.*

Someone forwarded this -- I thought you might like it:

Did you hear about the mathematics teacher arrested by the FBI after being found with a calculator and a protractor in his pockets?

*It seems he was suspected of being a member of **Al-Gebra**; he was, after all, in possession of **weapons of math instruction**.*

Re: O.T: Pun for Today

*Message #2 Posted by **Michael F. Coyle** on 23 May 2003, 1:32 p.m.,*
in response to message #1 by Paul Brogger

Arrgh! (sp?)

That was awful.

It's almost as bad as the story of the little acorn who grew up and said, "Gee, I'm a tree." ("Thanks" to my old math teacher for that one.)

- Michael

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deskjet 6122

*Message #1 Posted by **qim** on 23 May 2003, 9:40 a.m.*

PC Win98SE connected Deskjet and to router w/ RJ45 cable Laptop XP connected to router with RJ45 cable

what drivers do I need for each of the computers?

qim

Re: deskjet 6122

*Message #2 Posted by **Ellis Easley** on 23 May 2003, 10:21 a.m.,*
in response to message #1 by qim

Is a "router" very different from a "hub" or a "switch"? I have managed to connect several Windows ME computers and one Windows 95 computer in a peer-to-peer network through a "switch" using only the Windows networking Wizard and the diskettes/CD-ROMs that came with the network cards or motherboards (those that have Ethernet onboard). The Windows 95 computer has a small Panasonic laser printer attached (a "Win [95] Printer" - no newer drivers to be found!) and it is accessible from the other computers as an HP LaserJet IIp. The WinPrinter has two modes of operation (on its host system): GDI or PCL. The PCL mode is shared, and is what shows up as a IIp on the other systems.

Re: deskjet 6122

*Message #3 Posted by **qim** on 23 May 2003, 6:49 p.m.,*
in response to message #2 by Ellis Easley

He ellis

well I got it going the same way and it has been working fine for a while.

But now i am having problems with Word and Dr. Watson reckons it is something to do with the HP driver.

But the driver download page does not seem to apply to my set up, so I don't know how to proceed.

I thought I would come to the experts...

Is there another forum that deals more specifically with this type of pquestion?

thanks

qim

Re: deskjet 6122

*Message #4 Posted by **Ellis Easley** on 24 May 2003, 5:50 a.m.,*

in response to message #3 by qim

There are some independent websites that archive drivers of all types - maybe that's what you mean by "the driver download page"? I can't think of the names of such sites but I'm sure Google would find them if you just ask for "drivers".

You might try calling HP customer service and saying you need the CD-ROM (or whatever they have) for the product. They sent me the latest CD-ROM for a digital camera that I bought as a clearance item without the accessories, and they didn't charge me anything.

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Pioneer (17B,17BII,27S,42S) ROM image download?

*Message #1 Posted by **Christoph Giesselink** on 22 May 2003, 5:59 p.m.*

Hello I'm wondering if there are any interests in a quicker download of ROM images from the High End Pioneer calculators HP17B, HP17BII, HP27S, HP42S.

The ROM dump way from Jean-Francois Garnier published in HP-42S: New Facts is quite slow and needs lot of manual work.

My way needs also a HP48 as receiver with 70KB or 103KB (depends on the ROM image size (64KB/96KB)) of free memory, so a HP48G+, HP48GX or any other HP48 with merged 128KB RAM card is necessary. Further you need of course the calculator which ROM you want to copy.

The trick for the faster download is, that I use a binary data capable receiver program on the HP48 and machine written code on the Pioneer calculator. This machine code must by entered by the integrated memory scanner and may destroy the current RAM content. I takes about 5 - 10 min. to enter and verify this code. The program (~50 bytes) needs the ROM point entry of the IR transmitter function.

I know the entry of

- HP17B rev. B
- HP17BII rev. B
- HP27S rev. B
- HP42S rev. A
- HP42S rev. B
- HP42S rev. C

so far.

I have written a short description how to search for this address on unknown systems, most of the addresses from above have been detected by this way.

The automated download from the Pioneer calculator to the HP48 takes about 16 - 17 min. for a 64KB ROM image. Finally you have to transfer the captured string from the HP48 to a PC and decode the string on the PC with a command line program into the final ROM image. The whole process without searching for the ROM entry on unknown software revisions takes about 40 - 45 min, most time automated. The battery consumption is quite low on both calculators comparing to Jean-Francois way.

Is this interesting? I ask because the software is working, but writing the manual takes much time I wouldn't spend if there is less or no interest.

ROM images are necessary if you want to explore the operating system internals or you want to work with an emulator. I will update the HP42DEMO emulator in the next time allowing the usage of all four calculators above.

Christoph Giesselink, Homepage

Re: Pioneer (17B,17BII,27S,42S) ROM image download?

*Message #2 Posted by **Ellis Easley** on 23 May 2003, 5:41 a.m.,*
in response to message #1 by Christoph Giesselink

Speeding up the ROM download and seeing how to insert some machine code into the source calculator both sound very interesting to me!

Re: Pioneer (17B,17BII,27S,42S) ROM image download?

*Message #3 Posted by **Randy Sloyer** on 23 May 2003, 9:42 a.m.,*
in response to message #1 by Christoph Giesselink

Christoph,

Thank you for all your hard work. I have a copy of your demo 42S emulator, it is most impressive.

I would be interested in this utility. I have downloaded my 42S C version with the time consuming and error prone manual method.

I would also be interested in a pre-compiled disassembler for the PC for working with the images. I have never been successful in compiling any of the sources available on the web, so I've been using my own very limited hacked together AWK program. As a result, I've never gotten very far with the study of the internals. I'm most interested in adding I/R input to the 42S.

Re: Pioneer (17B,17BII,27S,42S) ROM image download?

*Message #4 Posted by **Richard Garner** on 25 May 2003, 4:46 p.m.,*
in response to message #1 by Christoph Giesselink

What I am looking for is an HP 42s Emulator that is in an executable file that looks and runs like the v41 emulator on the PC. I do not have any of the java, C, Visual Basic or other compilers nor do I know how to ues them. Is there suca a program for the PC?

Re: Pioneer (17B,17BII,27S,42S) ROM image download?

*Message #5 Posted by **Christoph Giesselink** on 26 May 2003, 1:42 p.m.,*
in response to message #1 by Christoph Giesselink

Because there is so less response on this request I wouldn't make the work to describe the ability of faster ROM upload.

So the links from the GPL alpha version sources of Emu42 for Win32 article are still valid.

Changes to this article

- emulator update from 0.01alpha1 to 0.10beta1
- compiled EXE file now included in the package
- now works also with unpacked ROM images

Some additional remarks to the new emulator version:

The state file format is incompatible with the old emulator. I wrote a migration tool some time ago to handle different state file formats of the emulator, but I don't know if the migration tool can handle state file from 0.01alpa1. If somebody has spend many hours on entering program data to his emulated HP42S on Emu42 v0.01alpha1, and only then, and want to use this programs on the newer version, the old state file can send to

me. I will validate my migration tool with this state file then. My email address can be found on my homepage. Sorry for the inconvenience, but I hate spammers.

Old KML files need also some additional work, the "Model" argument changed from "P" to "D" at the HP42 and 2nd there's the new keyword "Hardware" with the argument "Lewis" to distinguish the KML files from different emulators. This allows to copy all KML files from Emu28, Emu42 and Emu48 into one directory, but this isn't recommended. The latest KML script file documentation can be found here. The KML file in the package contain already these changes.

The emulator Emu42 base on the sources of Emu48 and is published **without** any support. The emulator needs a ROM image. Because of license reasons ROM images aren't part of the emulator package.

Christoph Giesselink, May 2003

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Whither HP-11C Solutions Handbook?

*Message #1 Posted by **Patrick** on 22 May 2003, 4:43 p.m.*

I cannot find a .pdf version of the HP-11C Solutions Handbook (HP part # 00011-90009) in the Museum's CD set. I can't even remember seeing one being auctioned on eBay. Is this a rare beast?

Too bad HP doesn't supply .pdf versions of these manuals like they do for the 12C...

Re: Whither HP-11C Solutions Handbook?

*Message #2 Posted by **james** on 22 May 2003, 5:19 p.m.,*
in response to message #1 by Patrick

Patrick

My newly arrived set of CD's (Version 4.00) has it on CD4 in the Pacs directory - 11csoln.pdf - #00011-90009 - April 1981 - 101 pages.

Incdidentally, I'm very impressed with the CD's - amazed to find the PPC Rom manual was on it - excellent!

Regards

It's in my CD4, too!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 22 May 2003, 11:17 p.m.,*
in response to message #2 by james

Hi and thanks!

I was not aware of this book's contents. it's amazing! A lot of good stuff, indeed.

As James mentions, if you have your MoHPC set, this is the first PDF in a name-sorted directory listing.

Go there!

Best regards.

Luiz C. Vieira - Brazil

I am a dunce.

*Message #4 Posted by **Patrick** on 23 May 2003, 2:40 a.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

It turns out I hadn't copied CD4 to my work computer. I am such a dunce. In future, I recommend you not responding to anything I ask for a good 24 hours... gives me a chance to answer my own questions...

Thanks for not laughing, guys!

BTW... If you like the 11C book, check out the 15C Advanced Functions Handbook. It is quite incredible. Better than several numerical analysis course curriculums I've seen. I've actually got a paper copy of that one and I curl up with it just before going to bed some nights.

Ok, now you can laugh.

Great issue!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 23 May 2003, 4:54 a.m.,*
in response to message #4 by Patrick

Hi, Patrick;

In my "close encounter of the third kind" with an HP15C (the one I bought in the 80's) I was not aware of the Advanced Functions Handbook because Brazilian version simply removed all mentions about it. When I bought an HP15C Owner's Handbook (English version) and I read that I started to search for it and could not buy it at that time. This manual was THE one I mostly wanted in the MoHPC and my brother (that was in USA last year) ordered the complete set for me. First thing was to entirely print the Advanced Functions Handbook (except cover) in its original size, scan the HP15C Owner's Handbook cover and print it in color with Advanced Functions Handbook as title. The first time I could read one... Amazing.

Again, I was not aware of the HP11C's Solution Handbook, mostly because the original HP11C Owner's Handbook and Programming Guide has an excelent programming section that extends, as for applied techniques, to both HP15C and HP16C. I'd never imagine such a Solutions Book was available.

Thanks again for your kind advise.

Best regards.

Luiz C. Vieira - Brazil

Re: I am a dunce.

*Message #6 Posted by **Trent Moseley** on 24 May 2003, 12:33 a.m.,*
in response to message #4 by Patrick

The HP-15C Advanced Functions Handbook is a "tour de force". It's too bad the author(s) did not receive any credit whatsoever.

tm

15C Advanced Functions

*Message #7 Posted by **james (UK)** on 24 May 2003, 5:36 a.m.,*
in response to message #6 by Trent Moseley

Just had a quick look at the manual on my CDs - looks very interesting - I will need to add it to the list of stuff to covertly print out at work - I'm not going to have a free lunch hour for quite a while.

Re: I am a dunce.

*Message #8 Posted by **Valentin Albillo** on 26 May 2003, 5:14 a.m.,*
in response to message #6 by Trent Moseley

What do you mean " ... It's too bad the author(s) did not receive any credit whatsoever" !?

Re: I am a dunce.

*Message #9 Posted by **Trent Moseley** on 26 May 2003, 2:26 p.m.,*
in response to message #8 by Valentin Albillo

I don't find any author given in my handbook printed in August 1982. Do you? Maybe I'm not looking in the right place.

tm

Re: I am a dunce.

*Message #10 Posted by **Valentin Albillo** on 27 May 2003, 6:18 a.m.,*
in response to message #9 by Trent Moseley

Diana Roy, Robert Barkan and Hank Schroeder wrote the HP-15C Owner's Handbook.

Professor William Kahan wrote a portion of the HP-15C Advanced Functions Handbook. Paul J. McClellan and Joseph P. Tanzini are the coauthors of the HP-15C Advanced Functions Handbook.

Source:

Hewlett-Packard Journal, May 1983, 11-page article "Scientific Pocket Calculator Extends Range of Built-In Functions" featuring the (then) new HP-15C, written by Eric A. Evett, Paul J. McCLellan and Joseph P. Tanzini.

Regards.

I am a dunce, too.

*Message #11 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 12:11 p.m.,*
in response to message #10 by Valentin Albillo

Hi, Valentin;

thank you!

I never understood why User's Guides and Owner's Manuals authors are not mentioned in the books themselves. Maybe it's a contract clause, but I do believe they should be mentioned.

In the HP15C Advanced Functions Handbook there are two mentions to the authors, but they refer to other publications, not specifically their credits for the Adv. Functions itself.

I have a few HP Journal issues, and I do not have this one. I did not find the time to "dig" the MoHPC completely; is this issue coppied there?

Thank you again.

Luiz C. Vieira - Brazil

Re: I am a dunce, too.

*Message #12 Posted by **Valentin Albillo** on 27 May 2003, 12:28 p.m.,*
in response to message #11 by Vieira, Luiz C. (Brazil)

Hi, Luiz:

If it were available in this site, it should be at this URL:

http://www.hpmuseum.org/journals/journals.htm

alas, it isn't ! :-(

Never mind, I'll send it to you if you want it and your e-mail account can accommodate an 8+ Mb attachment.

Best regards.

Thank you!

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 27 May 2003, 12:36 p.m.,*
in response to message #12 by Valentin Albillo

Hello, Valentin;

thank you; please, I'd like very much!

BTW, do you have the HP journal issue related to the HP41's first appearance? It's date-of-birth is Jully 16th, 1979, right? If you also have it, would you be as kind as for sending it too? I'll first clear the one you're kindly offering to send now and let you know so you can send the second one, if you have it. I'm not sure if my e-mail account holds more than 10MBytes, but I'd not take the risk.

Thank you again.

Luiz C. Vieira - Brazil

Re: I am a dunce.

*Message #14 Posted by **Gunnar Degnbol** on 27 May 2003, 3:05 p.m.,*
in response to message #10 by Valentin Albillo

William Kahan talks about the hp-15c and the Advanced Functions Handbook in this very interesting paper on his site:

MATHEMATICS WRITTEN IN SAND - the hp-15C, Intel 8087, etc.

http://www.cs.berkeley.edu/~wkahan/MathSand.pdf

The stuff in the AFH was not included in the standard manual because "a prudent marketing specialist" told them that users would get scared if they looked in the box and saw a tiny calculator and a huge manual.

There is much else in the paper.

Re: I am a dunce.

*Message #15 Posted by **Trent Moseley** on 28 May 2003, 12:24 a.m.,*
in response to message #14 by Gunnar Degnbol

GUNNAR

THANK YOU!

tm

Re: I am a dunce.

*Message #16 Posted by **Vieira, Luiz C. (Brazil)** on 28 May 2003, 1:41 a.m.,*
in response to message #14 by Gunnar Degnbol

Hi;

I sedcond Trne in his wild THANK YOU!

I saw the complete page and downloaded other documants, too. One of our regular contrbutors in here knows Prof. Kahan in person. That's the sort of honor I'd like to deserve.

Best regards.

Luiz C. Vieira - Brazil

HP34C papers

*Message #17 Posted by **Ellis Easley** on 29 May 2003, 7:57 a.m.,*
in response to message #16 by Vieira, Luiz C. (Brazil)

Did you notice two papers on the HP34C Solve and Integrate functions in Prof. Kahan's Math 128 directory? They are HP Journal articles that are on Dave's CD-ROMs but not online on the Museum. Maybe Norm would enjoy reading them!

http://www.cs.berkeley.edu/~wkahan/Math128/

Great references, Ellis!

*Message #18 Posted by **Vieira, Luiz C. (Brazil)** on 29 May 2003, 10:53 a.m.,*
in response to message #17 by Ellis Easley

Hi, Ellis;

this is good, good stuff, pall! Thanks alot!

You see? We're more than 15 years ahead and admiring "ancient" technology no because it's ancient, but because it's still usefull and, in a sense, "up-to-date".

Is it so hard for the new HP staff to understand what HP used to be and what it became?

Just that.

Luiz C. Vieira - Brazil

I am a dunce, no longer

*Message #19 Posted by **Patrick** on 28 May 2003, 10:21 p.m.,*
in response to message #14 by Gunnar Degnbol

Let me add my voice to the chorus of Thank-You's!!

I am reading this paper right now and it is delicious.

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atan

*Message #1 Posted by **hugh steers** on 22 May 2003, 2:11 p.m.*

i see luiz has an article on trigs for the 16c (possibly also the 17bii). sorry, i missed this thread.

however, on the subject of inverses, i spent a while some time ago developing a fast arctan (but only single precision accuracy) using a limited pade approximation. not sure whether this is accurate or compact enough to be useful when converted to a calculator program, but here it is:

(sorry about the bad formatting, it gets mangled)

#define M_PI 3.141592654f

#define A0X 0.2388229612f

#define A1X 2.445205396f

#define B1X 3.943529789f

#define A2X 1.314747223f

#define B2X 1.798249626f

float atan6(float x) { /* correct to 3e-7. 4 multiplies/divides */ float x2; float v; x2 = x*x; if (x > 1.0f) v = M_PI/2 - (A0 - A1/(x2 + B1 - A2/(x2 + B2)))/x; else if (x >= 0.0f) v = x*(A0X + A1X/(x2 + B1X - A2X/(x2 + B2X))); else v = -atan6(-x); return v; }

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HP15C emulator for the PocketPC

*Message #1 Posted by **Andrés C. Rodríguez (Argentina)** on 22 May 2003, 1:54 p.m.*

A seemingly interesting HP15C emulator for the PocketPC appears in:

http://microsoft.handango.com/PlatformProductDetail.jsp?siteId=75&jid=BF2C84CABF6633A5832424CAAEE298C3&catalog=0&sectionId=0&productType=2&platformId=2&productId=49174

I have not used it, this is just a pointer for who may be interested...

Please, somebody build this for PALM!!

*Message #2 Posted by **Patrick** on 22 May 2003, 4:46 p.m.,*
in response to message #1 by Andrés C. Rodríguez (Argentina)

It sure looks great, and the 15C *is* one of my favs. Alas, I have a Palm and I'm certainly not switching to another cumbersome Microsoft platform.

I just hope somebody eventually makes this for Palm. The KK-12C from KKtechnologies.com is a decent 12C emulator, but we need emulators for the out-of-production machines, too!!

Re: Please, somebody build this for PALM!!

*Message #3 Posted by **hugh** on 23 May 2003, 7:36 a.m.,*
in response to message #2 by Patrick

i wouldnt mind trying to build a palm version. are the roms available. ie free from copyright?

OmniSolve [Was: HP15C emulator for the PocketPC]

*Message #4 Posted by **Raymond Del Tondo** on 23 May 2003, 6:34 a.m.,*
in response to message #1 by Andrés C. Rodríguez (Argentina)

Too bad the 15C emulator is only for 'Pocket PC 2000/2002' . If there were a version for Handheld PC Pro, with WinCE 2.11 , it would be more interesting.

However, since my Jornada 690 has OmniSolve is built-in, there's not much need to 'upgrade'.

For those who don't know what Omnisolve is:

It's a very nice RPN calculator emulation, switchable between RPN and algebraic.

In RPN mode, it looks like an 11C or 15C, with minimal differences.

And best of all: It's FREE. You only have to have the Handheld PC, of course;-)

Raymond

Re: OmniSolve

*Message #5 Posted by **Andrés C. Rodríguez (Argentina)** on 23 May 2003, 8:28 a.m.,*
in response to message #4 by Raymond Del Tondo

Omnisolve was available as a software product from Landware (if I recall correctly), but was included in some HP Jornada handheld PCs indeed. Other brand (non HP) handhelds needed to buy it.

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HP 85 gummy wheel repair

*Message #1 Posted by **hugh steers** on 22 May 2003, 1:31 p.m.*

i have a lovely hp85 microcomputer. however, inevitably the age has rotted the pinch wheel to gunge. is there an article on diy repair for this (i found ones for 67, 97 but not 85) or does anyone know the ideal sized part for replacement.

thanks for helping, -- hugh.

Re: HP 85 gummy wheel repair

*Message #2 Posted by **andy** on 23 May 2003, 4:18 p.m.,*
in response to message #1 by hugh steers

I repaired mine using heat shrink. It takes a little trying to get to it and you have to be very careful because there are some small parts which can fall out while trying to access the part the needs heat shrink.

Also, don't use Radio Shack heat shrink because its too smooth (and isn't very good for anything). I used 3M. I has a nice grippy surface and works great. I even found some in red which somewhat matches the original gummy wheel.

Best of luck...

Andy

Re: HP 85 gummy wheel repair

*Message #3 Posted by **Tony Duell (UK)** on 23 May 2003, 6:29 p.m.,*
in response to message #2 by andy

I took my 9915 tape drive apart recently -- AFIAK it's the same unit as in the HP85. Although there are some small rollers, etc that will fall out if you take the top section apart, it's easy to remove the capstan without doing that. All you do is remove the tape drive from the machine, disconnect the tachometer lamp leads from the PCB (some machines have these soldered in place -- my 9115 did, others have them plugged into little pin sockets on the PCB). Unplug the motor wiring from the PCB. Remove the 4 screws round the motor on the underside of the unit. Remove the motor and capstan complete. Undo the 2 Allen screws (0.050" key) holding the capstan to the spindle, and pull it off. Take great care not to damage the tachometer disk. I need to rebuild the capstan in this drive (and in some other similar HP drives I have here) -- can you tell me what the outside diameter of the capstan should be?

Re: HP 85 gummy wheel repair

*Message #4 Posted by **hugh steers** on 24 May 2003, 1:46 p.m.,*
in response to message #3 by Tony Duell (UK)

thanks for the help tom, i am following your instructions. i have removed the motor unit. the capstan is 3/8".

i am thinking of using some heat shrink like andy suggested, although i can only find the smooth stuff (maplin). also the capstan wont pull off, i've undone the two allen screws (i had to buy another set to get the small 1/20") should i just pull harder? although if i use skrink, i figure there's no real need to remove the capstan, now i have the motor out.

recommendations for shrink or another idea most welcome. thanks.

mistake

*Message #5 Posted by **hugh steers** on 24 May 2003, 1:56 p.m.,*
in response to message #4 by hugh steers

..oops, tony, why did i call you tom. this is what happens when you're fixing your hp's and cooking the dinner at the same time :-)

Re: mistake

*Message #6 Posted by **Tony Duell (UK)** on 24 May 2003, 6:09 p.m.,*
in response to message #5 by hugh steers

Don't worry about it -- I've been called many worse things than that :-)

Re: HP 85 gummy wheel repair

*Message #7 Posted by **Tony Duell (UK)** on 24 May 2003, 5:57 p.m.,*
in response to message #4 by hugh steers

The setscrews raise little burrs on the motor spindle which makes it hard to get the capstan off. What I had to do was remove the setscrews completely (they're not hard to handle on the end of the Allen key), then support the capstan under the capstan roller part (NOT the tachometer disk) with a pices of hard plastic (nylon?) clamped in the vice. I then used a soft metal (brass) drift and hammer to tap the motor spindle out. Oh yes, have some way of catching the motor when it finally does come free. For reassembly, I smoothed out the burrs on the spindle with 1000 grit wet-n-dry paper. When you say the capstan diameter is 3/8", I assume this is the diameter of the rubber part, not the metal hub (which is still intact, of course, in my drive).

Re: HP 85 gummy wheel repair

*Message #8 Posted by **Vassilis Prevelakis** on 24 May 2003, 7:05 p.m.,*
in response to message #7 by Tony Duell (UK)

But why go to all the trouble of removing the spindle, when you can replace the plastic coating of the capstan roller part while the spindle is still attached to the rest of the motor assembly.

Of course the first time you go through such an operation you may go a bit too far (I took the whole tape drive assembly apart and then had to put it together while all the little plastic bits tried to escape). Now I leave this alone and only remove the motor.

**vp

Re: HP 85 gummy wheel repair

*Message #9 Posted by **hugh steers** on 26 May 2003, 6:49 a.m.,*
in response to message #7 by Tony Duell (UK)

thanks. yes, i noticed looking down the holes that the spindle has been dented by the screws. i'll try a bit more force as you've suggested otherwise i'll give up and try to repair it whilst attached to the motor, which should be ok, unless i need to do something scary.

i measured 3/8" after i've cleaned off all the old rubber residue. my motor looks *exactly* like the picture here from vassilis (even the stray wires on the left).

It Works!!

*Message #10 Posted by **hugh steers** on 26 May 2003, 1:33 p.m.,*
in response to message #9 by hugh steers

i have fixed it with some heat shrink and it works. i can load programs and they run. what fun!

it rumbles somewhat whilst spinning the tape. was it originally real silent? i didnt know the original rubber thickness, so i put on two layers of shrink and hoped.

anyone interested can see by bodges here: http://www.voidware.com/calcs/hp85rep.htm

many thanks to people on this thread for their help!

Re: HP 85 gummy wheel repair

*Message #11 Posted by **Vassilis Prevelakis** on 26 May 2003, 2:54 a.m.,*
in response to message #3 by Tony Duell (UK)

```
Tony Duell (UK) wrote:
> can you tell me what the outside diameter of the capstan should be?
```

Here is a picture of the capstan. This is the *original* material which has turned into goo, but it is still retaining its original shape. The scale of the items in the picture can be extrapolated from the diameter of the metal spindle (which I assume is the same on all drives).

```
> Take great care not to damage the tachometer disk.
```

This is the semi transparent disc at the far end of the spindle.

**vp

http://www.series80.org/Pictures/HP85-TapeDriveCapstan.jpg

Re: HP 85 gummy wheel repair

*Message #12 Posted by **hugh steers** on 26 May 2003, 6:50 a.m.,*
in response to message #11 by Vassilis Prevelakis

thats *exactly* what it looks like. except i've cleaned off all the goo. the capstan head is 3/8".

Re: HP 85 gummy wheel repair

*Message #13 Posted by **Katie** on 25 May 2003, 12:49 p.m.,*
in response to message #2 by andy

Here's how I fixed the tape drive on my 9815:

In the plumbing department at Home Depot I found some stuff called Magic Wrap, it's a roll of very thin

rubber 1" x 16'. I cut a 2" x 1/4" piece of this stuff stretched it out to about the width of the roller then wrapped it around (several turns) the cleaned off roller as tight as I could. Then I smoothed it out by spinning the drive wheel at high speed and grinding down the rubber with an emery board. This sort of melts the rubber and fusses it to itself getting rid of the overlap and making the whole thing perfectly symmetric. To spin the drive wheel I disconnected one of the motor leads and put it on a variable power supply. You can use up to 12 volts but I found 5 or 6 volts ran the wheel plenty fast with tons of torque. Basically, you want to use it like a lathe and I found that the tape head makes a good tool rest!

Re: HP 85 gummy wheel repair

*Message #14 Posted by **hugh steers** on 26 May 2003, 6:54 a.m.,*
in response to message #13 by Katie

thanks. that sounds like a possible alternative idea. i dont have a home depot (i'm in london uk) but there might be something similar to magic wrap in my local diy store.

its sunny today and just for fun, i attached the motor to my 12v solar panel. it really spins! my alternative energy plan is on hold currently until i figure out how to make inverters happy with inductive loads :-)

Re: HP 85 gummy wheel repair

*Message #15 Posted by **rhahm** on 30 May 2003, 1:42 p.m.,*
in response to message #1 by hugh steers

I use 3/8" latex tubing from Lowes Hardware and LockTite glue. I also leave the capstan on the motor during the repair.

RH

Re: HP 85 gummy wheel repair

*Message #16 Posted by **hugh steers** on 3 June 2003, 6:59 p.m.,*
in response to message #15 by rhahm

it worked with heat shrink in the end, although it rumbles a bit. maybe i needed one more layer or its not as smooth as the original rubber.

i'd like to thank people here for their help with the details. here's my bodgery anyhow;

http://www.voidware.com/calcs/hp85rep.htm

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compaq presario 2500 (2505EA) with windows 2000 has no proper video drivers!!

*Message #1 Posted by **Carlos** on 22 May 2003, 10:10 a.m.*

Hi all there,

I have just bought a brand new Compaq Presario 2500 (model 2505 EA) with Windows XP Home Edition preinstalled.

Unluckily (and unconciously) I have realized that I cannot install the windows 2000 professional on it. I have found in the Internet the drivers for the network card, but not for the video card (ATI Mobility Radeon 9000). I have found the drivers but, when I install them, the system tells me that "default VGA drivers MUST be loaded to be able to install the Mobility ones".

I have called the technical support and they have told me that this specific computer is designed for the Windows XP Home Edition :(. They have even told me that those drivers for ATI Mobility Radeon 9000 and Windows 2000 don't exist.

Has anyone have that problem as well?, can anybody help me?.

Thanks in forthcoming.

Re: compaq presario 2500 (2505EA) with windows 2000 has no proper video drivers!!

*Message #2 Posted by **Dave Shaffer** on 22 May 2003, 12:51 p.m.,*
in response to message #1 by Carlos

Carlos,

Welcome to the wonderful world of Microsoft: you can only go forward, as in marching off a cliff; you can't go back.

You might check the discussion from a week or two ago about operating systems and old hardware.

If you are not wedded to the new video card, you might try an old card. I got an "XP only" Sony PC about a year ago, which the Best Buy folks said would work ONLY under XP. I tried putting Win98 on it, and it sort-of, barely worked - mostly because, like you, I couldn't get reasonable video. (I just swapped in a hard drive which had a complete Win98 system on it.) I finally put in a truly ancient PCI video card (STB Velocity 3D, borrowed from a Gateway PentiumPro), and it worked fine! These and similar video cards are available now on Ebay for basically the cost of shipping (under $10). If you don't need fancy graphics, they are fine. Typically, they have 2-4MB of video memory, and will drive a 1024x768 display in full color.

Moral of the story: if you want to be retro in your software, you probably have to be retro in (at least some of) your hardware!

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compaq presario 2500 (2505EA) with windows 2000 has no proper video drivers!!

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HP19C & HP29C

*Message #1 Posted by **Howard** on 22 May 2003, 10:04 a.m.*

Does anybody know if the HP29C charger can be adapted to be used in the 19C?

Re: HP19C & HP29C

*Message #2 Posted by **David Ramsey** on 22 May 2003, 12:03 p.m.,*
in response to message #1 by Howard

Maybe. The HP-19C adapter outputs 8 volts AC; the 29C adapter outputs 10 volts AC. Perhaps just connecting wires from the output of the 29C adapter to the input pins on the 19C would be enough...

Re: HP19C & HP29C

*Message #3 Posted by **David Smith** on 22 May 2003, 4:33 p.m.,*
in response to message #1 by Howard

Probably not a good idea. The 29C charger is designed to charge 2 cells. The 19C has 4 cells. The 19C charger (82059A/B/C/D) is readily available on Ebay, etc. for very reasonable prices. It is the same charger used for the HP91/92/97/41C series accessories, etc.

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Ebay
*Message #1 Posted by **Howard** on 22 May 2003, 12:28 a.m.*

I hope that the buyer was a sniper and only put in a plenary bid to win this item. See - http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3024706892&category=11713&rd=1 The item went from $78 to $159.28 in the last 10 seconds.

Re: Ebay
*Message #2 Posted by **james** on 22 May 2003, 8:08 a.m.,*
in response to message #1 by Howard

Ah, Therwil strikes again! At least he has something to put in his nice new box!

Re: Ebay
*Message #3 Posted by **DougT** on 22 May 2003, 12:14 p.m.,*
in response to message #1 by Howard

It's always entertaining to watch the bidding on choice HP items, even items I can't possibly afford. Some poor sap thinks his high bid will stand...but...denied! Therwil swoops in! I'm thinking that he HAS to have an addition on his house to hold all the HPs he's scored.

Worn out ENTER key
*Message #4 Posted by **Michael F. Coyle** on 22 May 2003, 1:28 p.m.,*
in response to message #1 by Howard

The enter button has been pushed a lot and the white paint on the "R" is worn off.

Does this mean that the 97, from the Golden Age of HP, has silkscreened key legends, not double-shot molded? Tsk tsk, HP.

Re: Worn out ENTER key
*Message #5 Posted by **David Smith** on 22 May 2003, 4:40 p.m.,*
in response to message #4 by Michael F. Coyle

There is a range of production dates for the HP97 that are prone to a nasty little key problem. The white shot molding step on the right hand keyboard keys was not done properly and the plastic for the white lettering was not only thin and incomplete but tends to decompose. What looks like worn lettering is actually missing or decomposing plastic. Then ENTER key is particularly prone to this problem.

On the subject of HP97 plastic problems... I have now seen three machines from the same date code series with identical cracks in the plastic case on the left hand vertical side of the case near where the printer sits.

Re: Ebay

*Message #6 Posted by **Juergen (CH)** on 22 May 2003, 1:41 p.m.,*
in response to message #1 by Howard

Some months ago, there was another guy (don't remember his eBay nick name) who bought many HP items for very high prices. And now, it's therwil. Sometimes I dream to be one of these guys having (too) much money to spend on eBay, but when I wake up, I have to admit that using HP calcs makes much more fun than just buying them. And when you buy dozens of calcs, you cannot use them all. Most of them end in (nice) boxes and wait for getting alive again... I think we have to found the HP socialists party: One HP calc for everybody! ;-)

Juergen

HP Socialist's party

*Message #7 Posted by **james** on 22 May 2003, 5:46 p.m.,*
in response to message #6 by Juergen (CH)

I think we need a mandate for two HP's for everyone - I wouldn't want to lose my 41 but I yearn for some red led's - but not much joy on ebay as most of the sellers only ship to the US and no doubt when I find an international shipper therwil and texaspyro will be there too with their sackloads of greenbacks!

Still - roll on the glorius revolution with the Carly-types swinging from the lamp-posts!

A thought: are therwil and texaspyro minions of Carly tasked to buy-up all proper HP calculators in a vain hope that the world will forget how great they are and start lusting after Kingpo's?

Must go and take my medication now.....

Re: HP Socialist's party

*Message #8 Posted by **Frank Wales** on 23 May 2003, 3:10 p.m.,*
in response to message #7 by james

...but not much joy on ebay as most of the sellers only ship to the US...

I have found that sellers whose auctions say this are generally willing to ship overseas if you say you'll pay the extra. However, it might also be good to identify a friend in the U.S. who will be willing to be sent things on your behalf, just in case the item of your dreams is being sold by someone who won't go for the extra postage.

...are therwil and texaspyro minions of Carly tasked to buy-up all proper HP calculators in a vain hope that the world will forget how great they are...?

Fear not; they don't have enough money.

Thanks for the advice

*Message #9 Posted by **james (UK)** on 24 May 2003, 5:16 a.m.,*
in response to message #8 by Frank Wales

Frank

Thanks for the tip - I had just assumed that they didn't want the hassle of someone across the pond subsequently complaining that the item didn't work properly, etc (although I couldn't reconcile this

with items such as books and manuals!)

Mind you, it'll help my bank balance if they don't sell internationally - until I get a friend in the States!

Re: Ebay

*Message #10 Posted by **Garry** on 22 May 2003, 2:10 p.m.,*
in response to message #1 by Howard

See my post of 13 May 2003. Seriously, Ebay only shows a bid 1 step higher than the previous high bid. If I bid a maximum amount of say $100, and the starting bid is $5.00, you have to bid at least $101 to snipe me. I always use a fairly high proxy bid on items I want. If you snipe me, you pay above what I was willing to pay. If you don't bid against me, I get the item for whatever the bidding went up to. Sniping is a loosing game. You have to pay more than everyone else is willing to pay, as Ebay shows time and time again...G-man

Re: Ebay

*Message #11 Posted by **James M. Prange** on 24 May 2003, 7:56 a.m.,*
in response to message #10 by Garry

Sniping is a loosing game. You have to pay more than everyone else is willing to pay, as Ebay shows time and time again...G-man

Well, the "winner" always has to pay more than everyone else bid ("Dutch" auctions excepted). But some buyers apparently don't bid what they'd really be willing to pay, apparently thinking that they can always put in a higher bid if someone tops their bid; I guess that they just don't "get" the proxy bidding system. So a sniper does have the advantage over those folks.

If there's a losing game, it's first off, bidding early, second, not using the proxy system sensibly, instead waiting until someone tops your bid before you raise your bid, and worst, getting into a bidding war and ending up paying more than you wanted to just to keep someone else from "winning" an item that you're bidding on.

On the other hand, the "winner" has to fork over his money, while the "loser" gets to keep his, so maybe the terms should be reversed. If I always "won" everything I bid on, I wouldn't be able to bid on so many things.

Regards,
James

Re: Ebay

*Message #12 Posted by **Trent Moseley** on 25 May 2003, 12:43 a.m.,*
in response to message #10 by Garry

My question is about the "gummy wheel". I just got my 67 back for the third time for card reader repair in 20 years. Even though this Ebay machine has been sitting on the shelf all this time, is the gummy wheel any good. I thought it deteriorated over time whether it was used or not.

tm

Re: Ebay

*Message #13 Posted by **Ellis Easley** on 25 May 2003, 1:12 a.m.,*

in response to message #12 by Trent Moseley

My 67, which had been attacked savagely with a screwdriver, looked otherwise like it had never been used. I think someone went crazy trying to figure out how to open it in order to figure out what kind of battery it needed (at least the voltage and polarity). Anyway, the copper springs that keep the cards lined up showed zero wear. The rubber wheel was completely gummy but also clear and adhered to the nylon roller in one spot (I never tried using the reader before opening it up). The wheel actually came off in one piece - it looks just like a pineapple flavor gummi lifesaver.

HP-67 for $885

*Message #14 Posted by **Juergen (CH)** on 23 May 2003, 2:38 a.m.,*
in response to message #1 by Howard

therwil news: HP-67 for $885 http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3024916572&category=11713&rd=1

Re: HP-67 for $885

*Message #15 Posted by **james (UK)** on 23 May 2003, 3:41 a.m.,*
in response to message #14 by Juergen (CH)

Amazing - whatever next?

How long before the first $1,000 dollar case (in brand-new condition in original wrapping mind you!)?

Re: HP-67 for $885

*Message #16 Posted by **Ellis Easley** on 23 May 2003, 6:03 a.m.,*
in response to message #15 by james (UK)

Was it a 65 NIB that went for $1300 a few months ago? Also a new 35 without the hard case went for about $650, the seller said in the ad that he got it for free in a trade. The same time frame, tomd (I think) grabbed a (red dot?) 35 for $69 BIN. Another good topic for Archive summaries! (Actually two topics - Ebay and complaints about Ebay discussions!)

NIB=New In Box, BIN=Buy It Now

Re: HP-67 for $885

*Message #17 Posted by **David Smith** on 23 May 2003, 4:20 p.m.,*
in response to message #15 by james (UK)

It has happened many times already. The last two NIB HP67's sold for $1300+ and $1500+. Therwil got him a bargain! The last NIB HP65 went for $1900+.

Re: HP-67 for $885

*Message #18 Posted by **ToddG** on 23 May 2003, 8:07 a.m.,*
in response to message #14 by Juergen (CH)

The next highest bidder (k6ad) bid $875, up from the third highest bidder (texaspyro) of $478.

k6ad is probably still shaking his head and wondering what hit him.

Re: HP-67 for $885

*Message #19 Posted by **Howard** on 23 May 2003, 8:29 a.m.,*
in response to message #18 by ToddG

This sure makes my snipe look small fry. I hope k6ad was a friend of the seller and the ambit bid by him was to trap therwil. This might be the way to stop him.

What's the problem ?

*Message #20 Posted by **Bob** on 23 May 2003, 10:16 a.m.,*
in response to message #19 by Howard

What is the issue with "Therwil" buying calculators at higher prices ? They are only worth what he is willing to pay for them.

I doesn't really seem to drive up all of the other auctions as far as I can see.

Complaining about someone elses good fortune to be so wealthy to be able to afford whatever he wants is poor manners. The fact that he swoops in at the last minute and grabs the item from another's grasp is the nature of an auction, isn't it ?

I think that suggesting that there should be an attempt made to "stop him" is sour grapes and probably wouldn't work. As I said, they are worth what he is willing to pay. If he wants it, he has demonstrated that he has the resources to buy it and you can't cover every auction. Besides, showing that HP calcs are highly prized could have a postive effect on future offerings.

Bottom line is, the jealousy doesn't fit with the general atmosphere of the forum.

Re: What's the problem ?

*Message #21 Posted by **Patrick** on 24 May 2003, 12:37 a.m.,*
in response to message #20 by Bob

I totally agree, Bob.

It is reasonable to lament one's misfortune at not being able to afford (or not wanting to pay) $885+ for a nice item, it is quite another to insinuate that there is something wrong with someone who can.

Like it or not, this is the freemarket system at its best.

What's the problem???

*Message #22 Posted by **Mike** on 24 May 2003, 1:20 a.m.,*
in response to message #1 by Howard

I think he got a bargain. Absolute bargain.

The application packs alone are worth over $100 (5 at a low $20 each). The external battery charger could get $40. The AC Adapter $20 The manual $40

So, not counting the 97, he got $200 worth of items (very conservatively), for a bid of $159.00.

Keys can be replaced. I have at least 5 machines that I use for parts, so keys could have been replaced easily.

This was a very good buy!

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HP25C survives ROM transplantation; donator is kept frozen

*Message #1 Posted by **Vieira, Luiz C. (Brazil)** on 21 May 2003, 11:53 p.m.*

Latest news!

After about one hour span time since surgery room preparation to the few minutes post-surgery set of severe tests at the Intense Care Unit, the HP25C Serial # 1511Axxxxx recovered its full operating capabilities. Unfortunately, donator HP25 (ID not revealed so far) is kept frozen for later replacement as it becomes available.

Thanks to specialist advisors Ellis Easley, David Smith amongst intl. cooperators around the world not mentioned here because of a small lack of information, the offended ROM was identified as being the one at the left side of the ACT chip. A brief report mentions that the removed ROM was also tested at the donator's "guts", which showed the same behavior observed in the HP25C before transplantation: a blank display followed by a complete set of "zeroes" after any key pressed except number keys, [STO], [RCL], [f] or [g] and full operating RAM, registers and program steps. This ROM (1818-0154) is definitely toasted.

Thank you all for your attention and patience... reading this silliness.

Luiz C. Vieira - Brazil.

(This story is based in actual facts; original identity of both calculators was not revealed to respect their privacy)

good surgeon

*Message #2 Posted by **Norm** on 22 May 2003, 3:38 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

It does not surprise me that this medical procedure had such a favorable outcome,

seeing how such a good surgeon was in charge of the operation.

I'm flattered...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 22 May 2003, 5:26 a.m.,*
in response to message #2 by Norm

... you know, there are so many good eyes looking after us that we must do the best to deserve them...

I am sure I'm not being original in this statement, but I'll take the risk of stealing someone else's lines: "I feel as supported by giants' sholders"! At least it sounds good an d appopriate.

Thank you!

Luiz C. Vieira - Brazil

(So far the patient is alive)

Re: HP25C survives ROM transplantation; donator is kept frozen

*Message #4 Posted by **Ernie Malaga** on 22 May 2003, 11:44 a.m.,*
in response to message #1 by Vieira, Luiz C. (Brazil)

Luiz:

Did you use local or general anesthesia?

-Ernie

Re: HP25C survives ROM transplantation; donator is kept frozen

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 22 May 2003, 7:59 p.m.,*
in response to message #4 by Ernie Malaga

Hi, Ernie;

Basic Procedures, form MoHPC Publishing Sparse states that a general anesthesia should be used. I "played by the numbers"... as if there is another way to play in this case!!!!

Cheers.

Luiz C. Vieira - Brazil

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Hearing HP-IL

*Message #1 Posted by **Renato** on 21 May 2003, 11:17 p.m.*

I got a 3421a unit. Nice one - three 10ch cards. As the sealed lead acid battery is bad, i decided to try reviving it. First approach is to let the 3421a try to recharge the battery, while monitoring voltage using the front panel inputs.

The point is: using the DCV routine, the 41cv is monitoring voltage on the battery continuously - late at night (you ´d guessed it...) I am certain that i can hear HP-IL module humming, in sync with the voltage readings. My guess is that HP-IL is using serial communications at around 2KHz. Does anynone know about it ? If I´m right, i´m not taking my ears to calibration :^)

Also, NiCd battery replacement is a popular subject here. What about SLA batteries replacement ? The 3421a uses a 3.2 AH 6V Panasonic. I found a Powersonic equivalent, at US$15.00. See http://www.power-sonic.com/, model is PS632. If anyone knows another alternative, please let me know.

Re: Hearing HP-IL

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 22 May 2003, 12:05 a.m.,*
in response to message #1 by Renato

Hi, Renato (lucky one!).

Congratulations! You have a nice data acquisiton system!

Just one information: the HPIL is electrically (de)coupled by a set of three independant toroid-core transformes built as one single unit with many terminals. You bet you're hearing them.

Keep them fine!

Luiz C. Vieira - Brazil

Re: Hearing HP-IL

*Message #3 Posted by **Christoph Klug** on 22 May 2003, 1:53 p.m.,*
in response to message #1 by Renato

Dear Renato,

the HP3421 IL-Data Logger is a nice HP-IL device. From a German supplier for model cars I get a replacement battery which is compatible to the original battery. Same batteries are used in the IL-Disk drive and the HP3468 IL-Digital Multimeter.

When you replace the battery do not remove the internal option cards than you need a new calibration of the system. Replacing the battery is possible with special screw drivers and tools.

Last not least for advanced data logging and measurement applications also I/O-Board and IL2000 System exist. This includes some nice features like, much digital input/output lines, some analogue input/output lines

with 12bit resolution, some different voltage supply lines, a modular hardware desing, solar charger option, control software for HP41. If you want to realise a data logger application which is limited by the features of the HP3421 than take the I/O-Board or IL2000 system. For more details refer to HP-Museum article forum :

003 HP41 Hardware Interfacing Activities
192 Interfacing IL2000 System to Analogue World
311 HP41-PC Gateway & Emulator

Best wishes from Germany - Christoph Klug

Re: Hearing HP-IL

*Message #4 Posted by **kim** on 22 May 2003, 5:17 p.m.,*
in response to message #3 by Christoph Klug

Hr Klug

I live in Stuttgart (you guessed right I'm not German).

Could you possible help directing me to the model car 'dealership'?

Kim

PS.: I own one of you IL IF's. Have not tried to connect it yet. But once I get the time (probably in fall) I'll try it out in the dock of my OmniBook 800CT...

Re: Hearing HP-IL

*Message #5 Posted by **Massimo Gnerucci (Italy)** on 23 May 2003, 2:50 a.m.,*
in response to message #4 by kim

PS.: I own one of you IL IF's. Have not tried to connect it yet. But once I get the time (probably in fall) I'll try it out in the dock of my OmniBook 800CT...

You'll find it working nicely in your OB800CT... at least, mine does.

Enjoy,
Massimo

Was: Hearing HP-IL Now: Help with IL Card for OB800CT

*Message #6 Posted by **kim** on 25 May 2003, 3:49 p.m.,*
in response to message #5 by Massimo Gnerucci (Italy)

I got to play with my 'Klug' IL IF for the PC (OB800CT). I was planning for fall and today looked a lot like fall so of I went on and tried it out.

It went reasonably well I got the test to tell me that Card was found, loop was OK, and ocassionally it found stuff on the loop, most succesfull with 71B in 'control off' mode.

Using the Monitor i found that some commands turn up twice so my conclusion is that my OB800CT is to fast :')

I have tried the Ctrl+Alt+Minus but it does do it.

Does anybody have an idea?

Kim

Re: Help with IL Card for OB800CT

*Message #7 Posted by **Christoph Klug** on 26 May 2003, 4:49 a.m.,*
in response to message #6 by kim

Dear Massimo,

I want to help you with your HP-IL/PC installation. Please give me informations about your operating system and the software like Link Plus, or TRANS41 or EMU41 ?

Best wishes from Germany - Christoph Klug

Re: Hearing HP-IL

*Message #8 Posted by **Renato** on 23 May 2003, 12:52 a.m.,*
in response to message #3 by Christoph Klug

Dear Christof,

Thank you for the information. Do you know the brand and model# for the replacement battery you found ? Maybe I can find it here in Brazil . This would me much more convenient than the US source I found.

I did remove one internal option card, to remove the battery. I did not disconnect any cables for that - I guess recalibration will not be necessary . Do you agree ?

Thank you for the articles refs. I´ll look at them. I got this 3421a just for fun - I mean, I don´t have a specific application for it. Looks like other HP-IL itens might bring more fun ...

Best regards from Brazil,

Renato

Replacement battery for HP3421

*Message #9 Posted by **Christoph Klug** on 23 May 2003, 2:54 a.m.,*
in response to message #8 by Renato

Dear HP3421 enthusiasts,

yes the IL-Datalogger is a nice unit - also EMU41 with HP-Il/PC Interface Card have the power to control the HP3421.

For ordering a replacement battery refer to www.batt-mann.de In the list of the shop you will find :

Blei Akkus - 6V / 2,4Ah / 66 x 33 x 99mm

The identical battery is used by the IL-Disk Drive. About this you find some messages in the HP-Museum forum. When I remember correctly Raimund del Torno created a message about an alternative battery supplier in Hamburg...

Best wishes from Germany, and now realise your interfacing applications "to the world" (Gary Friedman) - or "to the future" (my own idea) - Christoph Klug

Re: Replacement battery for HP3421

*Message #10 Posted by **Ellis Easley** on 23 May 2003, 6:19 a.m.,*
in response to message #9 by Christoph Klug

The 3421 came with a slightly larger battery, 3.2 A-H. The replacement that a local battery store found for me (exact fit as original Panasonic battery) is "Power Patrol SLA0895", 6V 3.8 A-H.

Found a replacement battery for 3421a

*Message #11 Posted by **Renato** on 24 May 2003, 2:18 p.m.,*
in response to message #8 by Renato

I just bought a Unipower 6V 2.8AH SLA battery. It is shorter than the original panasonic, but H and W are the same - it fits perfectly in the 3421a. Paid around us$9.00

self-monitoring battery

*Message #12 Posted by **Ellis Easley** on 23 May 2003, 9:26 a.m.,*
in response to message #1 by Renato

Did you connect the low input to the battery negative terminal? If so, you have shorted out the battery fuse with your test lead! The fuse is between the battery negative terminal and ground. There is also a diode connected with its cathode to the battery positive terminal and anode to ground, between this diode and the fuse, if you accidentally connect the battery backward, the diode will conduct and the fuse will open, protecting the system.

In general, it is not a good idea to measure anything in a test instrument with itself unless it was designed to do so for test purposes. In this case, it would probably be acceptable to measure the battery voltage by connecting just the high input to the battery positive terminal, with a small error due to the voltage drop of the fuse. You would fail to sense an open fuse, but that is impossible anyway because the negative terminal of the battery charging circuit is connected to ground which is ultimately connected to the "analog ground" which the low input is connected to. I haven't yet determined from the service manual just where the analog and digital grounds are joined but I'm pretty sure they are connected, at just one specific point to avoid ground loops affecting the accuracy of the readings. These grounds are not connected to the power cord ground, there is only a spark gap between them.

With your mux board, you could measure the positive terminal and the negative terminal of the battery (with just the high inputs) and accomplish two things: (1)correct the reading from the positive terminal by subtracting the voltage on the negative terminal, which is the voltage drop of the fuse and the wire and (2) detect an open fuse, which would show up as a unusually high voltage on the negative terminal: even if the battery is fully charged and measures over 6V without any charging current, the positive battery terminal will be driven to 7.2V by the charging circuit so you would measure up to 1.2V on the negative battery terminal if the fuse was open.

Another measurement you can make regarding the battery charging circuit is the voltage across the current sense resistor, R705, a 0.27 ohm resistor located between the power transistor Q700 and the power transformer T700. One end is connected to ground and the other end is connected to the negative terminal of the bridge rectifier and its filter capacitor, C700. The negative lead of C700 is a good place to connect to it but it is hard to reach if you have the HPIB board installed, the resistor is easy to reach. I have been using my 3421A to charge some different size 6V lead-acid batteries and so I am very familiar with this circuit right now! After you let the battery run the system for a few minutes (my unit draws about 200 mA - this doesn't show up at the current sense resistor if you disconnect the AC and just let the battery power the unit), if you then turn the unit off and connect the AC again, the charging current goes to the limit right away (on my unit), I measure -136 mV on R705 which is about 1/2 Amp. While the current limit circuit is operating, the voltage is not being

regulated (they work through the same pass transistor). After a while the current starts dropping from the limit value and at this point the voltage regulator circuit starts working. My unit puts about 7.2 V on the battery at room temperature (there is an NTC thermister in the voltage regulator circuit that reduces the voltage as the temperature inside the cabinet rises). If you have one of the Panasonic batteries, it should have a description of the charging specifications printed on it. Mine says "Constant voltage charge - Cycle use: 7.25~7.45V (25 deg. C) - (Initial current: less than 1.28A [always .4 times the A-H rating on different size batteries] - Standby use: 6.8~6.9V (25 deg. C)" I have some different size Panasonic batteries that have slightly different voltages printed on them (10 A-H: says 7.3~7.5V for Cycle use). It appears that HP has chosen a voltage between the Cycle and Standby ranges. The different batteries that I have measured finally settle to a charging current corresponding to about 4 to 10 mV across the current sense resistor (about 15 to 40 mA).

With all my oscilloscopes, I need to connect one to this charging circuit so I can understand the function of one component: a capacitor connected to the outputs of the voltage regulator and current limit comparators. There is an LM393 dual comparator with open collector outputs doing both jobs. The voltage regulator comparator drives its output low when the battery voltage rises above its limit. The current limit comparator drives its output low when the current rises over its limit. The two outputs are "wire-ORed" together. At the outputs there is a 33.2K pullup resistor to the unregulated supply (12-18V) and a 1 microfarad capacitor to ground and the base of an NPN transistor with its emitter going to ground through a 200 ohm resistor (feedback, current limit?). The collector of the NPN goes to the base of a PNP power transistor whose emitter goes to the unregulated supply and collector to the positive battery terminal through a forward biased diode (I think this diode is to keep the charging circuit from draining the battery when the AC is disconnected). So the NPN is a phase inverter and voltage level shifter for the PNP pass transistor. When a rising voltage on the base of the NPN turns it on, it drops the voltage on the base of the PNP and turns it on. As long as either comparator output is low (voltage or current too high), the transistors are off. When both comparator outputs are high (voltage and current below their limits), the 33.2K pullup resistor starts charging the 1 microfarad capacitor. If the unregulated supply is at 18V, the 33.2K resistor would source .54 mA which would take a little over 1 ms to charge the 1 microfarad capacitor to 0.6V, at which point the NPN would begin to turn on. The capacitor would continue to charge, shunting some of the current that would otherwise turn the transistor on more quickly. This is where the feedback from the 200 ohm emitter resistor comes in, because as the NPN collector current (= PNP base current) rises, so does the NPN emitter current and emitter voltage and base voltage, which allows the capacitor to keep charging. If the NPN emitter was grounded and the 200 ohm resistor was between the NPN collector and PNP base, providing current limiting, the NPN base voltage wouldn't rise much after the transistor started to turn on, so the capacitor wouldn't charge much more and the transistor would turn on more quickly. When either comparator output goes low again (current or voltage rising above limit), its open collector output transistor turns on and shorts the capacitor to ground, quickly discharging it and turning off the NPN transistor and the PNP pass transistor. Now the 200 ohm emitter resistor might make the NPN turn off more quickly, because its voltage drop raises the emitter voltage and causes the base voltage required to keep the transistor turned on to be higher. Drawing a comparison to a music synthesizer, the capacitor (and the 200 ohm emitter resistor?) cause the battery charging current to have a slow attack and a fast decay. I suspect the voltage at the comparator outputs is a sawtooth wave.

Maybe the capacitor is there to slow the circuit down and prevent uncontrolled oscillations that might occur due to the lack of hysteresis in the comparator circuits. IIRC, the 9114 battery charging circuit has a comparator with hysteresis to turn on a sensitive gate SCR (gate driven with DC, load driven with pulsating [unfiltered] DC). You can see the comparator limits by monitoring the battery voltage and watching the LED (which provides a trickle charge current when the SCR is off).

Re: self-monitoring battery

*Message #13 Posted by **Renato** on 23 May 2003, 10:57 a.m.,*
in response to message #12 by Ellis Easley

Ellis,

Thank you for so much information.

You said: "Did you connect the low input to the battery negative terminal? If so, you have shorted out the battery fuse with your test lead!" My comments: I did connect low input on ch 0 to battery negative. Consequence is that when when a measurement is started on ch 0, 3421a locks up, and needs off/on cycle. There seems to be no further consequences (I hope...).

Connecting battery terminals to front panel input seems to be ok - DCV readings are consistent. Do you know if there is any risk from doing this ?

Re: self-monitoring battery

*Message #14 Posted by **Ellis Easley** on 24 May 2003, 5:21 a.m.,*
in response to message #13 by Renato

Only a possible ground loop. Bypassing the fuse is a potential safety (at least to the machine) issue but other than causing a ground loop I don't think it would affect the reading. I'm surprised that connecting to the negative terminal through the mux causes a problem! Unless it is that when the relay on the mux closes, it causes a transient on ground that leads to a CMOS chip latching up. I verified that analog ground (for instance, the low input on the front panel) does go back to power supply ground (like the fuse on the battery negative terminal) but if you track it down in the PCB traces, I think you will find that there is exactly one point where the analog ground connections join the power supply, or digital, ground. Adding another wire from the battery negative terminal to the low input creates the ground loop that can cause problems.

I've been thinking some more about the 1 microfarad capacitor and the 200 ohm resistor in the charging circuit. Now I think that the capacitor's main job is to integrate the pulses on the comparator outputs and the reason for the feedback from the 200 ohm resistor is to do a voltage to current conversion from the capacitor voltage to the NPN transistor collector current. So the comparators are generating a pulse width modulated error voltage reflecting the battery's voltage as compared to a reference, which the capacitor integrates to an analog voltage level, and then the NPN transistor and the 200 ohm resistor convert the capacitor voltage to a current to drive the PNP base, thereby controlling the voltage at the battery.

Re: self-monitoring battery

*Message #15 Posted by **Renato** on 24 May 2003, 2:29 p.m.,*
in response to message #14 by Ellis Easley

Ellis, Although I don´t fully understand your explanations, I agree that connecting ch0 low input to battey negative does not cause harm. About locking the 3421a, maybe this unit is not perfect - I just got it, and do not have a assesment about its condition.

Thank you.

Renato

Re: self-monitoring battery

*Message #16 Posted by **Ellis Easley** on 25 May 2003, 2:48 a.m.,*
in response to message #15 by Renato

I don't expect it will cause harm to the machine but I still believe it can cause erroneous operation because of a ground loop. Also, although you are using an instrument to measure inside itself which is really not a good idea, since the battery negative terminal is in fact

connected (through the fuse) to the digital ground and to the analog ground and the low input, you don't need to connect it with another wire to measure the voltage at the battery positive terminal. If fact, if you want to measure the voltage between any two points in the 3421A with itself it would be best to measure the voltage on each point separately using only one wire to the high input and then calculate the difference between the two readings. And there are plenty of points in the analog input section that it would be a very bad idea to connect to the high input.

The thing about the ground loop is that inside the 3421A HP has gone to pains to make sure everything connected to the low input of the sensitive input circuit is isolated from the electrically noisy ground of the logic circuits and power supply. By running a wire from the battery negative terminal to the low input, you are defeating HP's isolation efforts and exposing the input circuitry to all that noise. It's completely different from connecting the low input to a noisy ground on another piece of equipment because the 3421A is designed to only measure the difference in voltage between the low and high inputs and ignore the "common mode" voltage upon which is riding every signal in the equipment under test. The manual has a description of how the instrument even works to average out the differential mode noise (originating in the AC power mains) that comes in on a signal to be measured, which is the reason for the 50/60 Hz switch on the back panel.

Here's an example of what can go wrong: I have some HP equipment that have voltage regulators with pass transistors in the negative side of the supply - not negative voltage supplies but positive voltage supplies which are regulated by having pass transistors between the negative side of the unregulated supply and ground. The positive output comes directly from the positive side of the unregulated supply. The 3421A has something a little like this in that it has the 0.27 ohm current sense resistor between the negative side of the bridge rectifier and ground. The significance is that there is a point (in an otherwise positive-voltage-with-respect-to-ground circuit) more negative than ground. If the 3421A had such a negative side voltage regulator, with a pass transistor between the negative battery terminal and ground, and you connected the low input to the battery negative terminal, you would short out the pass transistor and all the circuits in the unit would be exposed to a higher voltage than they were supposed to see.

Re: self-monitoring battery

*Message #17 Posted by **Renato** on 27 May 2003, 1:50 a.m.,*
in response to message #16 by Ellis Easley

Ouch. I guess I was pretty lucky.

Thanks for the information. BTW: is your 3421 being useful ? What for ?

Renato

Re: self-monitoring battery

*Message #18 Posted by **Ellis Easley** on 28 May 2003, 7:28 p.m.,*
in response to message #17 by Renato

Currently it is just charging batteries! (or should I say "constant voltagely"?) Actually, one of the projects I have in mind for it is to test batteries - discharge, recharge, monitor voltage and current, calculate capacity, etc. - just for self-edification.

Re: self-monitoring battery

*Message #19 Posted by **Renato** on 28 May 2003, 10:01 p.m.,*

in response to message #18 by Ellis Easley

Ellis, Quite interesting ! I could have written your exact words. Battery charging was a important issue for me in the 80s. It is important again now - my woodstock collection is almost complete, and if I succeed on efficiently handling batteries, i will try to use a 21 daily.

Best regards from Brazil.

Renato

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HP-97 printing problem

*Message #1 Posted by **Juergen (CH)** on 21 May 2003, 4:39 p.m.*

I've got an HP-97 which only works partly. I can calculate, but whenever I press any key that causes a printing action, the calc turns off :-(Any idea what's wrong with the calc?

Thanks, Juergen

Re: HP-97 printing problem

*Message #2 Posted by **Chan Tran** on 21 May 2003, 5:19 p.m.,*
in response to message #1 by Juergen (CH)

Is it possible that the battery is low. Or the printer mechanism is jam

Try the ADV buttom

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 21 May 2003, 5:37 p.m.,*
in response to message #2 by Chan Tran

Hi;

based on Chan Tran's precise advice, you can simply press the ADV button, the one at the right side of the printer, and see if the paper advances. If the paper goes without trouble, than both batteries and mechanics are fine; otherwise, Chan Tran's advices are correct and it's most likely to be.

If the problem happens only when a printing command is attempted, than you may have electronics problems.

Let us know about what you get.

Success!

Luiz C. Vieira - Brazil

Re: Try the ADV buttom

*Message #4 Posted by **Tony Duell (UK)** on 21 May 2003, 6:49 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Another possiblity is a shorted transsitor in the H-bridge driver circuit for the printer motor. When the other transistor in that side of the bridge is turned on (to run the motor for either the printing command or the ADV button), then the circuit effectively shorts out the power line. Needless to say if this is the problem, then the ADV button won't work either. I have seen this once, not in a 97, but in another Topcat that I repaired for somebody. A rather rarer machine than the 97, too...

Re: HP-97 printing problem

*Message #5 Posted by **Juergen (CH)** on 22 May 2003, 5:47 a.m.,*
in response to message #1 by Juergen (CH)

The battery should be OK. It's a rebuilt one, and I've charged it over night.

The printer mechanism looks fine.

The ADV button does not work. If I press it, the calc turns off.

So it looks like it may be the problem Tony described. I don't know much about electronics. Anyway, is there a chance to fix this?

Thanks, Juergen

Re: HP-97 printing problem

*Message #6 Posted by **Erik Wahlin** on 22 May 2003, 10:38 a.m.,*
in response to message #5 by Juergen (CH)

Is the print head located in the far right position? It may be that the reed switch (activated by position of print head) is not properly set. I can't remember if this would cause the problem you are seeing.

Re: HP-97 printing problem

*Message #7 Posted by **David Smith** on 22 May 2003, 4:47 p.m.,*
in response to message #1 by Juergen (CH)

If the HP97 printhead cannot be made to return to its "home" position the machine will lock up in a loop looking for the "HOME" signal. HOME is generated by a small magnetic reed relay.

There are two main causes of the problem. First is a jammed print head. The other is a bad printer gear. The gear was made of a soft plastic that likes to loose its teeth. See Katie's piece in the Articles section for a possible source of a replacement gear.

HP-97: HOME sensor loop? Interesting!

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 22 May 2003, 11:48 p.m.,*
in response to message #7 by David Smith

Hello, David;

I found very, very interesting this fact. If the HOME sensor is not triggered, than the display blanks and stays like this? Say, you you have the mottor wires simply removed when the head is not at HOME position, than you'll have the same symptom?

Just wondering about it. If so, maybe it's gona be easier to repair if this is the situation

Juergen, have you noticed where is the head parked? Left- or right-most position?

Let us know.

Success.

Luiz C. Vieira - Brazil

Re: HP-97: HOME sensor loop? Interesting!

*Message #9 Posted by **David Smith** on 23 May 2003, 12:37 a.m.,*
in response to message #8 by Vieira, Luiz C. (Brazil)

Yes, the machine will lock up in one of several different ways. It can give a blank display or an "Error" display. It may also light up but go away the first time you hit a key.

If the head is not a HOME when you power it on, the machine tries to move the head to HOME. If it is jammed, HOME never happens, the machine gets hung up.

Re: HP-97 printing problem

*Message #10 Posted by **Juergen (CH)** on 24 May 2003, 2:02 a.m.,*
in response to message #7 by David Smith

This really seems to be a problem. I made the following test:

1. I manually moved the print head to its home position by turning the gear with my fingertips.

2. I turned on the calc, entered any number and pressed 'print'. The number gets printed, but then the print head stops and does not move back to its home position.

3. Same test with ADV button. The print head stops in the middle.

I closely looked a the printer mechanics. Did not see any problem.

Any idea why the print head does not move to its home position is highly appreciated.

Thanks, Juergen

Re: HP-97 printing problem

*Message #11 Posted by **David Smith** on 24 May 2003, 8:00 p.m.,*
in response to message #10 by Juergen (CH)

Sounds like the paper feed cam and lead screw needs to be cleaned and lubricated. Also the lead screw bushings.

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Unobtainium or Neverexistedium ?

*Message #1 Posted by **GE (France)** on 21 May 2003, 4:13 p.m.*

While browsing the MoHP CDs, I remarked in the preface of the PPC ROM User's Manual (not a "guide" !!) that the author had a chance to play a bit with a prototype EPROM version of National Semiconductor's never released NS7100. Sure this machine must be very very rare, as all unreleased models. So comes up the question : which is the rarest ? The top contenders must be the HP95C, the TI88 and the NS7100. I think this is the right order from "most common" (!) to the rarest. Does anyone have EVER seen an NS7100 ? Never heard of such an encounter. V.Thoth has a TI88, the only publicly advertised ever. Probably less than a dozen of these leaked from TI. If I recall correctly from posts here the HP95C is in the less-than-100 league. Do you know other such very-very-hard-to-find models ?

Re: Unobtainium or Neverexistedium ?

*Message #2 Posted by **Ron Ross** on 21 May 2003, 4:37 p.m.,*
in response to message #1 by GE (France)

I suggest you switch the order of the 95c with the Ti-88.

My thoughts, the Ti-88 made it to store shelves, to be immediately pulled. Therefore, there must be more of them, but these very Ti calculators were pulled because of failure rates and poor life history. Therefore, most probably did make it back to Ti, but even a small % would probably be higher than a 100. Now how they were treated by their owners??? "$#%^& Ti doesn't work!! I'll throw this piece of $%^& right in the Garbage and buy an HP!"

Well maybe anyway.

Well, I'm still looking for a commodore!

*Message #3 Posted by **Gene** on 21 May 2003, 4:40 p.m.,*
in response to message #1 by GE (France)

I have been searching for an M55 calculator for years. Have yet to see one on ebay.

Anyone have one for sale? :-)

Re: Well, I'd take a TI SR60 desktop off someone's hands :)

*Message #4 Posted by **Bill Wiese** on 21 May 2003, 9:32 p.m.,*
in response to message #3 by Gene

As long as we're talking about "unobtainable" calcs... I'd love to have a TI SR60 (-A?) desktop calc. I'd love to have an HP91 desk calc, and I'd like to have a few Casio CFX20 and CFX200 sci. calculator watches !

Bill Wiese San Jose, CA

Re: Well, I'd take a TI SR60 desktop off someone's hands :)

*Message #5 Posted by **Gene** on 21 May 2003, 10:07 p.m.,*
in response to message #4 by Bill Wiese

There was one of these on ebay...closed today or yesterday.

Re: Well, I'd take a TI SR60 desktop off someone's hands :)

*Message #6 Posted by **David Smith** on 22 May 2003, 4:55 p.m.,*
in response to message #4 by Bill Wiese

I paid 10 bucks for a nice working SR60 at the Tucker Electronics in Dallas a few years back when they had their surplus store. One pops up on Ebay once or twice a year.

For the real exoitca freak, I snagged some TI calculators that were modified with different displays for market research studies. At the time TO only offered red LED's. These freaks had LCD, green LED, and orange displays. The machines were tossed in the TI trash, rescued by a scrounge, and sold for a pittance and the Dallas electronics sidewalk sale.

Re: Well, I'd take a TI SR60 desktop off someone's hands :)

*Message #7 Posted by **GE (France)** on 23 May 2003, 3:35 p.m.,*
in response to message #6 by David Smith

We want pictures !!! ... of the insides would be even better... Thank you !

Do the 'bout 200 Xpander count?

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 21 May 2003, 11:30 p.m.,*
in response to message #1 by GE (France)

Hi;

I'm not such an equipment collector, instead I search for technology and information. Mostly because technology and information, once disclosed, remain with the keepr and may spread around everywhere without "fading", instead it is reinforced.

Anyway, I thik the most recently come-to-be-rare piece of technology is the Xpander. It is very well known and documented, also those who posess one of it will keep them with another perspective.

I compare all of them, HP95C, TI88, Xpander and now the NS7100 with each other, no way to try to reason about these "guys" as regular equipments that were never released. At the moment they become "Unobtainium or Neverexistedium", they go to another level of existence...(?)

I like more reading about them than reasoning about them. They are already history, and at this point, history cannot be changed. Also, I'd like to thanks to each one of those brave keepers who disclosed these dazzling, rare pieces of information I like so much to keep in mind.

My thoughts... Oh, I have 1¢ in my pocket!

Luiz C. Vieira - Brazil

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HP41-CV

*Message #1 Posted by **Dan Coll** on 21 May 2003, 3:44 p.m.*

Using an HP41-CV with Financial Module I: when in "user" mode - I press the function key and then the "CHS" key to start a payments program, but instead the display show "ISG". How do I get out of this and back to normal program operation? Will appreciate assistance. Thanks in advance.

Re: HP41-CV

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 21 May 2003, 4:06 p.m.,*
in response to message #1 by Dan Coll

Hi, Dan;

try this:

1- go to normal mode, if needed (Press [USER] untill USER annunciator is off)
2- press [SHIFT] (golden key) [ASN] [ALPHA][ALPHA] [CHS]
3- Try [CHS] key again in USER mode

You probably had [ISG] assigned to [CHS] once and this assignment is still active. Unless you have a SHIFT key pressed before [CHS], what is most unlikely, because you did not press it.

When the callculator is not in USER mode, does [CHS] work fine? if so, the sequence above may return [CHS] to its normal operation while in USER mode.

Let us know if you succeed doing this.

Best regards.

Luiz C. Vieira - Brazil

Re: HP41-CV

*Message #3 Posted by **Dan Coll** on 23 May 2003, 11:55 a.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Hi Luiz,

Your fix did the trick! I had to be in USER mode; [SHIFT][ASN][ALPHA]typed in "money"[ALPHA][SHIFT][CHS]. That did it. The MONEY program is now at the CHS key when in USER mode = where it is supposed to be.

Thanks so much for your help on this.

Best regards, Dan Coll

HP41-CV - another USER mode trick

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 23 May 2003, 2:02 p.m.,*
in response to message #3 by Dan Coll

Hello, Dan;

I'm glad you made it!

Another small notice about USER mode and assignments.

There are two basic types of "programs" in any HP41: those writtne by the user and those available in ROM modules. Financial Decisions Pack is a ROM module wiht many programs that you can use, list and load into RAM (COPY function).

While these programs are sored only in ROM, their "label" is treated by the system as an XROM function and may be assigned to as many keys as you can asign their name to. But if you have a program in RAM with a global labels, i.e., lable with ALPHA characters, these labels can only be assigned to one key at a time.

If you create a program with a LBL'GO anywhere, each time you assign 'GO to a new key will clear previous assignment. This is because global labels store the assignment in the LBL function itself, and general functions store their assignments in part of the calculator RAM (one register is needed to hold two assignments).

If you already know about this, forgive me; maybe others will find it helpful.

Cheers.

Re: HP41-CV - another USER mode trick

*Message #5 Posted by **Dan Coll** on 27 May 2003, 9:29 a.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Luiz,

Thanks for the additional labeling tip. Looks like a handy shortcut.

Dan

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HP-71B-Programming ROWDRV (Display driver)

*Message #1 Posted by **Alain (Canada)** on 21 May 2003, 11:26 a.m.*

Hello all,

I'm studying the HP-71B internals, especially the display driver. To do that, I try to modify/improve existing LEX and got stuck with one particular entry. While studying the DSPLEX that changes the behaviour of the display (such as "small fonts, invert etc) I was surprised how easy the implementation of the small font feature was. Changing fonts from normal to small is achieved just by setting ROWDRV to the value "0000800360041008".

What does the ROWDRV entry point for the HP-71B. The IDS volume 1 says : "Row lines (16 nibbles). Should be set by software as follows: 8001400220041008". This is set accordingly in "LCDINI" (see IDS volume 3 page SB&DVR-34) and says "Bit pattern for driving display".

Notice that the hex sequence is symmetrical from the middle (: 80014002 Vs 20041008).

Is there anybody that can give a definition of the pattern and how it affects the display behaviour ?

Thanks

Alain Robillard

Re: HP-71B-Programming ROWDRV (Display driver)

*Message #2 Posted by **GE (France)** on 21 May 2003, 1:39 p.m.,*
in response to message #1 by Alain (Canada)

Is this operation possible with the bare bones machine ? Thank you.

Re: HP-71B-Programming ROWDRV (Display driver)

*Message #3 Posted by **Alain (Canada)** on 21 May 2003, 2:06 p.m.,*
in response to message #2 by GE (France)

Hello,

Is it possible with the bare bones machine? I would guess so, the operations to switch to small font is :

```
SMA    LCHEX  0000800360041008 * Small constant
STORE  D1=(5) ROWDRV           * Point to row driver
       DAT1=C 16               * Write out C and return
nxtstm GOVLNG NXTSTM           * return to main loop
```

so, technically, just a poke to ROWDRV (E2350) with the proper value is required.

Regards

Alain Robillard

Re: Ooopps Wrong Address !HP-71B-Programming ROWDRV (Display driver)

*Message #4 Posted by **Alain (Canada)** on 21 May 2003, 2:26 p.m.,*
in response to message #3 by Alain (Canada)

Opps!,

wrong address for ROWDRV, it is NOT E2350 but 2E350.

ROWDRV = 2E350.

Also, a simple poke does the joke as far as SMALL is concerned. But, you must enter the reverse string :

Poke "2E350", "8001400630080000" will put the HP-71B display in small font mode.

Regards !

Alain Robillard

Re: CHHUv2n1 : HP-71B-Programming ROWDRV (Display driver)

*Message #5 Posted by **Alain (Canada)** on 21 May 2003, 8:29 p.m.,*
in response to message #1 by Alain (Canada)

Hello all,

CHHU Chronicle V2N1 page 30 gives all the details about ROWDRV for the HP-71B. I tried a couple of funny examples too.

Regards

Alain Robillard

Re: CHHUv2n1 : HP-71B-Programming ROWDRV (Display driver)

*Message #6 Posted by **Holger Weihe** on 22 May 2003, 3:46 p.m.,*
in response to message #5 by Alain (Canada)

Sounds interesting! Are these chronicles anywhere available in the web?

Holger

Re: CHHUv2n1 : HP-71B-Programming ROWDRV (Display driver)

*Message #7 Posted by **Alain (Canada)** on 22 May 2003, 8:00 p.m.,*
in response to message #6 by Holger Weihe

Well,

not on the WEB, but you could have all this (and much more) with the PPC CD-ROM Set. You should never leave home without it (and your HP-71B) !

Here is the link http://www.waterw.com/~jakes/ppccdrom.htm

Regards

Alain Robillard

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HP17BII wanted

*Message #1 Posted by **inmasan** on 21 May 2003, 6:36 a.m.*

I'm looking for a financial calculator which is out of catalogue: HP17BII. I need it urgently as my chief lost his and cannot learn a new users-guide everytime he changes the machine. Can anyone help me?

Re: HP17BII wanted

*Message #2 Posted by **Dave Shaffer** on 21 May 2003, 12:29 p.m.,*
in response to message #1 by inmasan

Try E-bay. I searched with this string: " hp 17* calc* " and found a dozen or so for sale at the moment. Other permutations will probably find additional items.

One of the best deals appears to be this one (and the seller ships internationally)

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3025902428&category=11712

Good luck.

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Hello Mr. Sus

*Message #1 Posted by **Mike (Stgt)** on 21 May 2003, 3:48 a.m.*

Hello Mr. Sus!

Your father told me that you are in HP-Museum minimum one hour daily to watch nice pictures of old calculators. If you buy the CDs here you may watch them as long as you like. <G>

And if you like some real old calculators just let me know.

Greeting from Stuttgart to Asperg :-)

.....Mike

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From hp12c platinum owner's handbook

*Message #1 Posted by **J.Manrique Lopez de la Fuente** on 21 May 2003, 2:49 a.m.*

I received my hp12c platinum yesterday, and I've read this on backside of cover from the Owner's Handbook:

```
Manufacture's name: Hewlett-Packard Co.     KINPO ELECTRONICS
                                             (CHINA) Co., LTD
```

Ok, everybody knows that new HP calculators (9 series and 12c) are being made by Kinpo, but I couldn't imagine that HP would officially put it on their products.

This is my first «Voyager», and I like it very much, specially its keys feedback. Nice to see that Kinpo can do this kind of keys. I will send some of my impressions and photos I've taken to Jordi Hidalgo for his review for next HPCC Datafile.

Best regards,

J.Manrique
Users Club from Gijón
#1077 HPCC Member

Where can the 12c plat be purchased now?

*Message #2 Posted by **Gene** on 21 May 2003, 7:30 a.m.,*
in response to message #1 by J.Manrique Lopez de la Fuente

?

Re: Where can the 12c plat be purchased now?

*Message #3 Posted by **Jordi Hidalgo** on 21 May 2003, 12:53 p.m.,*
in response to message #2 by Gene

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv010.cgi?read=33334

Jordi Hidalgo
HPCC #1046

Re: Where can the 12c plat be purchased now?

*Message #4 Posted by **Richard Garner** on 21 May 2003, 1:59 p.m.,*
in response to message #2 by Gene

The only place I have seen them so far is eBay.

Re: Where can the 12c plat be purchased now?

*Message #5 Posted by **Stan (Sg)** on 22 May 2003, 8:40 a.m.,*
in response to message #2 by Gene

I have seen them at a specialty store in Singapore. I was going to buy one until I saw the discussion about how slow it was solving the financial equation. I wonder if the 12C Platinum that I saw could have been a preproduction model? It was in an unopened blister pack, so perhaps not...

As mentioned in other posts, it's too bad that trig functions were not included in the new version. Having said that- I am really glad to see a new RPN model.

Re: HP12c platinum -- But Does It Turn Itself Off Regularly???

*Message #6 Posted by **Paul Brogger** on 22 May 2003, 8:52 a.m.,*
in response to message #1 by J.Manrique Lopez de la Fuente

As (only) an observer, I'd think the major question is whether they fixed the automatic shut-down at the end of each program execution. That seemed easily the most damning "feature" of the version used for Beta test.

. . . so, to any of you who've obtained an off-the-shelf, retail-ready model: Does it turn itself off?

Apparently Not . . .

*Message #7 Posted by **Paul Brogger** on 23 May 2003, 1:09 p.m.,*
in response to message #6 by Paul Brogger

FYI, Jordi Hidalgo amswered this question via email with a reference to this message. From this I take it that his unit does not exhibit the turn-off problem.

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Finance and Statistics Pacs for HP-71B

*Message #1 Posted by **Wektor** on 21 May 2003, 2:01 a.m.*

Hello!

I am searching for Finance and Statistics Pacs for HP-71B to use them with the HP-71X emulator for HP-49G. I was able to find JPC, Math and HPIL ROMs from various sources (and on the ftp server on this site, among the others) but wasn't able to find Finance and Statistics. Are they available anywhere on the web?

Regards.

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HP 25 Display

*Message #1 Posted by **Charles** on 20 May 2003, 6:08 p.m.*

I have an HP 25 which works well but the display is a bit dim certainly when compared with my HP 35 and HP 33E. Is there anything I can do about this or could it be terminal ?

Re: HP 25 Display

*Message #2 Posted by **Michael F. Coyle** on 20 May 2003, 10:15 p.m.,*
in response to message #1 by Charles

If you feel like going into your calculator and doing a small modification, you can make your display brighter.

Open your machine. At the top of the main circuit board there are two IC's, one with 18 pins, one with 20. Pin 6 on the larger IC is connected to ground through a 3K resistor. This resistor sets the display current and hence the brightness. Replacing it with a somewhat smaller value will brighten the display.

I tried this on an HP-21. I didn't remove the existing resistor but temporarily put a 4.7K resistor in parallel with it, giving an equivalent resistance of about 1.8K. The increase in brightness was modest but noticable.

Warnings: Don't do this unless you are very comfortable about disassembling your calculator and replacing components. Don't overdo it -- too much current could damage the display or its IC's. Finally, more current will reduce battery life and increase recharge time while the calculator is on.

Have Fun!

HP 25 question (again...)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2003, 11:26 p.m.,*
in response to message #2 by Michael F. Coyle

Hi Michael;

you mentioned both IC's under the LED assembly (viewing from the top). Which one is the HP25 ROM? I always forget that, and it's been mentioned so many times... q:o)

Not a "senior moment", instead a lazy guy. :(

Thanks... :)

Luiz C. Vieira - Brazil

Re: HP 25 question (again...)

*Message #4 Posted by **Ellis Easley** on 20 May 2003, 11:35 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz, I don't have my 25 open in front of me, but an HP memory chip should have a part number beginning with 1818-. Other digital logic IC's like the ACT will start with 1820-. Of course, there are the parts with alphanumeric part numbers (like the 1LB3-0003 HPIL chip for example, also most of the 41C chips including the memory chips) which seem to be HP manufactured chips. The "other" chip (not the ROM) under the Woodstock display might be such a chip but I think the ROM will have an 1818- part number. So will the other ROM and the RAM(s) on a 25, while the ACT will have an 1820- part number

Re: HP 25 question (again...)

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 21 May 2003, 12:40 a.m.,*
in response to message #4 by Ellis Easley

Hi, Ellis;

thanks for your help. I have mine in hnads right now and it's convinientely without the two small screws.

On the top of the smallest IC, 18-pins, I read

```
MK60030N (MOSTeK)
MALAYSIA
1818-0163
```

The other one, 20-pins, allows the reading of a faded "**20**" and nothing else. This "**20**" comes from 1820, I guess.

May I consider this 1818-0163 the ROM chip, with almost all HP25 internal resources? I want to xchange the 25 ROM with the 25C's to verify if the 25C's can be repaired. AFAIK, they are interchangeable, right? If so, I prefer having an HP25C in hands and save the HP25 as for spare parts. It also has a damaged LED display.

Thanks again, Ellis.

Luiz C. Vieira - Brazil

Re: HP 25 question (again...)

*Message #6 Posted by **Ellis Easley** on 21 May 2003, 3:35 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

The only thing I have an opinion on is that 1818- means a memory chip! I don't know what's interchangeable except what David Smith has said - including that the "only" ROM in a 21 (under the display) isn't the same part used in the 25. Another thing, the 25 should have two ROMs and one or two RAMs. The RAM or RAMs are nearest to the ACT, I believe, and the second ROM is at the bottom of the PCB but further from the ACT.

Re: HP 25 question (again...)

*Message #7 Posted by **David Smith** on 21 May 2003, 2:48 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

The HP25 has two ROMs. The first is included in the 18 pin display driver chip under the display module. The other is the vertical chip on the left side of the big 22 pin ACT chip. This one seems to be the one most likely to die.

Thanks (again...) David, Ellis. (n.t.)

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 21 May 2003, 4:08 p.m.,*
in response to message #7 by David Smith

<<<8^)))

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HP15c - HELP

*Message #1 Posted by **Mitch Linne** on 20 May 2003, 3:45 p.m.*

I have a "c" annunciator on the display and don't know what it means. It may be coincidental that the calculator works unpredictably also. What is it and how do I turn it off? I dont have a manual handy. Thanks

Re: HP15c - HELP

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2003, 3:49 p.m.,*
in response to message #1 by Mitch Linne

Hi;

this annunciator means your HP15C is operating in Complex (numbers) mode.

To clear it and return to normal operation:

[g] [CF] ([5] key) [8]

It should disappear.

Best regards.

Luiz C. Vieira - Brazil

Re: HP15c - HELP

*Message #3 Posted by **Patrick** on 20 May 2003, 3:57 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

Listen to Luiz. Not only is he faster off the mark, he's also more accurate. Of course, you set and clear flags with the [g] prefix, not [f]. Didn't have the machine in front of me...

On the other hand, Mitch, if you really can't be bothered, why not send the 15C to me and be done with it? I'll certainly pay your shipping charges.... ;-) It'll save you a trip down to the railroad tracks.

Re: HP15c - HELP

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2003, 4:43 p.m.,*
in response to message #3 by Patrick

Hello, Patrick;

I consider myself as playing in the best team: ours.

It was a matter of about 1 minute. And your answer called the attention to the one of three possible ways to set Complex mode ON; mine didn't.

Best regards fornm a "forumate".

Luiz C. Vieira - Brazil

(A curiosity of mine: what's the story behind the railroad tracks?)

Re: RailRoad tracks

*Message #5 Posted by **Ron Ross** on 20 May 2003, 4:50 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Seems like people on one side of the tracks can afford an Hp or even better, lots of Hp's.

On the other (wrong) side of the tracks, one can only afford one Hp, or worse, have to use a Ti.

railroad tracks

*Message #6 Posted by **Ellis Easley** on 20 May 2003, 5:05 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

I think this was a reference to Norm's advice on how to repair a 32SII:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/archv010.cgi?read=33664

Time sweeps our sins away - into the Archives!

Re: railroad tracks

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2003, 5:37 p.m.,*
in response to message #6 by Ellis Easley

Hi, Ellis;

that was my first guess... A mention to Norm's post or a possible "name"/person confusion.

Best regards.

Luiz C. Vieira - Brazil

i have fixed clock radios

*Message #8 Posted by **Norm** on 20 May 2003, 10:39 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

U guys are really skeptical of that advice about using train tracks to repair stuff.

Listen, I have fixed clock radios, televisions, and old modem boards using the same techniques.

I did it mostly when I was a teenager in high school, but even nearing 40, I still occasionally fix things by the same method.

Definition of "FIX"

*Message #9 Posted by **glynn** on 20 May 2003, 11:02 p.m.,*
in response to message #8 by Norm

-- To make stable or unchangeable.

Yeh, I can see how that would do it. ;-)

Ever heard of Dictionary.com ?

*Message #10 Posted by **Norm** on 21 May 2003, 3:20 a.m.,*
in response to message #9 by glynn

Ever heard of Dictionary.com ?

http://www.dictionary.com

I've been using it ever since my dictionary got buried underneath a landslide of old vinyl records and dirty laundry.

"FIX" as a term comes up fine:

fix P

Pronunciation Key (fks) v. fixed, fix·ing, fix·es v. tr.

1. a.To place securely; make stable or firm: fixed the tent poles in the ground. See Synonyms at fasten.

1. b.To secure to another; attach: fixing the notice to the tracks.

2. a.To put into a stable or unalterable form: tried to fix the conversation in her memory.

2. b.To make nonvolatile or solid.

2. c.Biology. To kill and preserve (a specimen).

3. To direct steadily: fixed her eyes on the railroad ahead.

4.To capture or hold: The train engineer with the long beard fixed our attention.

5. a.To set or place definitely; establish: fixed her residence in a coastal village.

5. b.To determine with accuracy; ascertain: fixed the date of the repair of the calculator.

5. c.To agree on; "I will fix your calculator using that train track method".

Re: HP15c - HELP

*Message #11 Posted by **Patrick** on 20 May 2003, 3:50 p.m.,*
in response to message #1 by Mitch Linne

The machine has gone into "Complex" mode wherein it performs operations with complex numbers. There are a number of reasons why it might do this, the most common being that you pressed: f I

To go back to normal calculation mode (Real mode), clear flag 8: f CF 8

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HP42 S - Latest Generation?

*Message #1 Posted by **Brendon Hutton** on 20 May 2003, 11:54 a.m.*

Hi All,

Please excuse this VERY stupid question.

I have used an HP42S for many years and finally, I want to get a new HP calculator...

I LOVE the HP42s and the complex function/speed/ease of use that I experienced with this calculator.

I also have the 48SX but have been very unhappy with this and do not really use it much...:o(

PLEASE can someone advise what I can buy now that is VERY VERY similar to the HP 42S and offers ease of use, robust, complex features and RPN.

Thank you for your time...

Re: HP42 S - Latest Generation?

*Message #2 Posted by **Dave Shaffer** on 20 May 2003, 12:09 p.m.,*
in response to message #1 by Brendon Hutton

Brenda,

Unfortunately, it appears that there isn't any good news. At the moment, your best (expensive!) bet is to buy ANOTHER 42S on Ebay.

There are rumors of new HP RPN calculators, to appear "real soon now," and we are all waiting hopefully, but not too optimistically, that they will be the equal of past products.

Re: HP42 S - Latest Generation?

*Message #3 Posted by **D. Webster** on 20 May 2003, 12:13 p.m.,*
in response to message #1 by Brendon Hutton

As a long time 42S user, IMO there is simply nothing else like it. HP has no current RPN scientifics. Not a one. "New ones coming" is the marketing speech. No dates, no models. Ugly situation, but then the ugly truth is better than a pretty lie.

Buy a used 42S and be happy. Buy a new one and be happier. HP made a batch of service spares as late as 2000. They can still be found, albeit at high prices.

I second the others...

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2003, 2:12 p.m.,*
in response to message #1 by Brendon Hutton

Hello, Brendon;

your question is not stupid at all. We all in here that already have an HP42S and, mostly, those who had and/or still have an HP41 are waiting for this day long before you post your question.

There is nothing like the HP42S so far. The only upgraded version is a custom HP42S with 32KRAM, but this is not an official HP upgrade (I call it HP42S+). I am not sure about who was the first one, but names like Paul Brogger, Tony Duell and Randy Sloyer, amongst others (if I mispelled someones' names, please, correct me; thanks) are directly dealing with this. I myself have upgraded at lesast three HP42S to 32KRAM, and it's a stable upgrade (except for my own HP42S that is not working but I guess it's another cause). Your HP42S will be able to hold extra 24KBytes, and it's quite cool.

Many things have been discussed here about the HP42S, and both I/O (mostly) and expandability are the most desirable features we would like to see in an upgrade. So far, nothing official comes from HP headquarters. Gen. Fiorina signed no signs.

As mentioned above, we're waiting for new models. If they are following existing ones, most of us in here will remain waiting. Me included.

Best regards. And keep using your HP42S; do not get tired of it.

Luiz C. Vieira - Brazil

Thank you

*Message #5 Posted by **Brendon Hutton** on 20 May 2003, 3:26 p.m.,*
in response to message #4 by Vieira, Luiz C. (Brazil)

Hi Dave, Mr/Mrs Webster, Vieira,

Thank you so much for this insight. I thought that I was way behind the times... I guess now that I am not so... I LOVE the 42S and would not want to change it for anything else.

Thanks to the three of you, I am up to speed.

Kind regards, Brendon

H-P: Are You Listening?

*Message #6 Posted by **Paul Brogger** on 20 May 2003, 4:54 p.m.,*
in response to message #5 by Brendon Hutton

Another vote for appropriate technology, exhibiting the kind of loyalty that you just can't engender by outsourcing *every*thing in a half-hearted attempt at playing the other guy's game . . .

Re: HP42 S - Latest Generation?

*Message #7 Posted by **Ernie Malaga** on 20 May 2003, 10:24 p.m.,*
in response to message #1 by Brendon Hutton

Brendon:

If you can work with a calculator that has less features (but otherwise works like the 42S), you can try to get a 41CX. The 42S was designed to be "41-compatible", so that programs written for the 41 could be ported to the 42 with a minimum of effort.

It works the other way too, provided that you're not using any of the features available to the 42 only -- like hyperbolic functions, variables, and alpha strings longer than 24 characters.

Check the museum's information about the 41 and see if it fits your needs. I believe that getting a 41 is somewhat easier than a 42.

-Ernie (a happy 41CX owner)

Re: HP42 S - Latest Generation?

*Message #8 Posted by **Johnny Billquist** on 21 May 2003, 8:01 a.m.,*
in response to message #7 by Ernie Malaga

The HP-41 is both more and less than the HP-42. Variables and long alpha strings. Larger display and soft keys are HP-42 stuff you won't find in a HP-41.

On the other hand, the HP-41 have more computer-like functionality. Very extensive I/O, ram disk, clock and calendar functions, extended functionality with modules...

Personally, I'll take the 41 over the 42 any day of the week, but that's just my very personal opinion.

But in order to have a very good HP-41, you really want a CX with the Advantage module. You might want to throw in the MATH and STAT modules as well. A card reader, and you have a nice setup.

A better approach, indeed

*Message #9 Posted by **Vieira, Luiz C. (Brazil)** on 21 May 2003, 1:57 p.m.,*
in response to message #8 by Johnny Billquist

Hello, Johnny;

I'm a devoted HP42S user, mostly because I'm an Electrical Engineer, I deal with surveying data and programming and I like having "redy-to-use" tools. The HP42S has a set of resources that ar hard to beat: matrices and complex arithmetic plus numeric integral, and these are desirable tools for an electrical engineer. Also, the BASE set is handy if you want to develop a concise set of programs to deal with binary data.

Still the biggest handicap: no I/O facilities. Increasing RAM to 32K and stuffing it in creates a headache bomb: if memory is cleared somehow, you'll have to stuff it in again by the keyboard.

The better approach I'm refering to is the Advantage module. Brendon's first request was about complex and matrix abilities, and the Advantage is the closest answer. There are other ROM's that allow some matrix arithmetic, like the CCD, but the Advantage adds significant power to the stand-alone HP41CX.

Just my thoughts.

Luiz C. Vieira - Braxil

Re: A better approach, indeed

*Message #10 Posted by **Chan Tran** on 21 May 2003, 5:25 p.m.,*
in response to message #9 by Vieira, Luiz C. (Brazil)

I believe matrices, complex arithmetic and numerical integral are the strong points of the 48 series.

Re: A better approach, indeed

*Message #11 Posted by **Johnny Billquist** on 22 May 2003, 7:10 a.m.,*
in response to message #10 by Chan Tran

Well, with advantage, the 41 have very nice matrix operations. Complex math works fine too, as does numerical integration.

What the 48 have is the ability to do symbolic stuff, a large stack (with complex numbers, the 41 only have two levels), and graphing.

But I must say, that after using my 48 for about ten years, I'm now back with my 41.

Re: A better approach, indeed

*Message #12 Posted by **Ernie Malaga** on 22 May 2003, 11:50 a.m.,*
in response to message #11 by Johnny Billquist

>But I must say, that after using my 48 for about ten years, I'm now back with my 41.

I don't blame you. I _tried_ to use a 28C, a 48GX and a 49G, but RPL drove me absolutely up the wall. Maybe I'm myopic or old-fashioned, but to me there's nothing like the 4-level-stack RPN.

And the HP-41 keyboard is superb.

-Ernie

Re: A better approach, indeed

*Message #13 Posted by **Ernie Malaga** on 22 May 2003, 11:48 a.m.,*
in response to message #10 by Chan Tran

Chan:

Brendon wanted to know an RPN machine, not an RPL. That's why I didn't mention the 28C/S, 48S/SX/G/GX, 49G, and all that nonsense. 8^)

-Ernie

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HP-48GX <==> Macintosh: help, please!

*Message #1 Posted by **Simon Lockyer** on 20 May 2003, 11:52 a.m.*

I would like to connect my HP-48GX to my Macintosh (blue & white G3, OS 10.2.6); would some kind and knowledgeable person, or persons, please e-mail me some information to assist me in this endeavour? I am not familiar with either the software, or the hardware involved. When I search the HP site, there is a choice of more than one cable that appears to be designed for this application, but there is no accompanying information about which model(s) of Mac they are intended for, or with which OS the software is intended to function. In short, I am no wiser for having visited the HP site.

As all readers will know, there is also the problem of obtaining the part(s), if they are HP, so I would also appreciate some pointers on where to obtain what it is that I need.

I know I'm asking a lot, but HP customer support referred me here, so I am hoping that the answers will be found here.

Please e-mail: slockyer@cox.net

Many thanks in advance, Simon

Re: HP-48GX <==> Macintosh: help, please!

*Message #2 Posted by **Steven Kutoroff** on 26 May 2003, 10:16 a.m.,*
in response to message #1 by Simon Lockyer

I have an HP-48SX with a similar (not same) serial cable and I used to use it with my older Macintosh computers. Let me offer what I know.

The calculator to Mac cables used the Apple serial round connector. The calculator to PC cable used the 9-pin D shell serial style connector for PCs. This connector is not compatible with your Blue and White (or any other recent Macintosh) which use USB ports and not serial ports.

A company (name is out of head for the moment) makes serial to USB converters. I have used the original model of this adapter to mate my calculator, printer, and Newton to the computer (years ago now). The later versions of the USB serial adapter offered both Apple style and PC style connectors.

That may help you solve the physical connection problem. Now comes the software problem. You need a program to talk to a serial port. In the old days, Mac OS 7, 8, and 9, this was done with a modem program like KERMIT or the terminal application in the older AppleWorks program.

The HP-48SX used KERMIT file transfer, the GX may be similar.

The last time I did any of this stuff was under OS 9 on an iMac long before even the beta release of OS X!

I may look for my old serial to USB adapter and try it out, but I think the version I have is no longer supported and I haven't even thought about how it might work under OS X (I too used 10.2.6 now).

If I have an answer, I will add a new post. Contact me if you wish.

Good luck.

Re: HP-48GX <==> Macintosh: help, please!

*Message #3 Posted by **Steven Kutoroff** on 26 May 2003, 12:18 p.m.,*
in response to message #1 by Simon Lockyer

I found the USB to Serial converter! It is made by a company called Keyspan. The model I have is the USA-28 and I know it was replaced by one called the USA-28A and probably others. Look for www.keyspan.com (I haven't bothered yet).

I also dug up my HP-48SX serial cable and the software disks, but the HP disk is the old 800K flavor and my USB floppy disk drive only reads the 1.44MB flavor disks. I will be taking the disks to work and converting them. I am going to see if the program it came with the cable will run under Classic (now I am curious). Then I will see if the old Keyspan will work with OS X at all.

This is something I have been wondering about myself. I have an old Macintosh in the basement that the software and the cable will work with, but that is no use to you nor is it of interest to me.

Re: HP-48GX <==> Macintosh: help, please!

*Message #4 Posted by **James M. Prange** on 27 May 2003, 1:43 a.m.,*
in response to message #1 by Simon Lockyer

I can confirm that the 48S series and 48G series use the same Kermit protocol and the same cable. The 48G series also includes a built-in XModem protocol that the 48S series doesn't have. I may be able to help on the various I/O settings on the calculator, but I've never had a Mac, so I can't help you at that end of the connection

Re: HP-48GX <==> Macintosh: help, please!

*Message #5 Posted by **Steven Kutoroff** on 31 May 2003, 7:48 p.m.,*
in response to message #4 by James M. Prange

There was a post last week or so on using the HP48 calculators with a Mac, I have been playing with this for a week now.

You need a KeySpan USB to serial adapter as well as the cable for the calculator. I have a KeySpan USA-28. The latest software from them installs and behaves as they describe. In OS X, the two ports appear in the /dev directory as soon as the unit is plugged in.

If you have the KeySpan USB adapter and the latest software from them, you may be able to use AppleWorks 5 for OS 9 to link to a HP48G series. AppleWorks 5 (but not 6) had a communications module with XModem, but not Kermit. I have an HP48SX and could not test this.

I have searched for OS X applications that support modem operation and have two candidates.

One is the original C-Kermit program, but this is a terminal (no GUI) application and it is anything but user friendly, just installing it from the download takes several not so obvious commands.

Not only that, but the command to connect to the port is not accepting any of the device names I have tried. I have a trouble report open with them asking about this.

There is an alternative called PowerTerminal, and I trying to get the demo version to download, but it times out each time I try. You can find it with Version Tracker by searching for "terminal emulation".

If anyone has this or tries it, let us know. I will be trying again.

Once I get something to work, I'll be back with a post.

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Voyager Logo Transfer

*Message #1 Posted by **Patrick** on 19 May 2003, 3:52 p.m.*

I have two HP-15C's. One is in very nice condition, other than the fact that it is missing the HP logo / badge. The other is in ok condition (some scratches/indents on the metal bezel) but, you guessed it, it has a pristine logo.

Of course, I would like to move the logo from one machine to the other.

Does anyone out there have experience doing something like this? How is the removal performed safely? Am I likely to ruin the badge? There are so many Voyagers on eBay with missing logos that I'm thinking it can't be *that* hard to get the darn thing off!

Re: Voyager Logo Transfer

*Message #2 Posted by **Ellis Easley** on 19 May 2003, 3:57 p.m.,*
in response to message #1 by Patrick

I once got some replacement logos from EduCalc that came with very thin double sided foam tape on them, I've never been able to find foam tape that thin (not just clear double sided tape which would be too thin).

From what I have seen, HP used something like RTV to attach them at the factory. That's the kind of job where you need to make sure you apply just enough, and not too much, to stick without creating a mess. (in a factory setting)

Someone here has recommended using ShoeGoo for the purpose.

Re: Voyager Logo Transfer

*Message #3 Posted by **Ellis Easley** on 19 May 2003, 4:00 p.m.,*
in response to message #2 by Ellis Easley

Forgot to say, it should pry off pretty easily with your fingernail or something narrow to get in the gap. You should find that the logo is "floating" in a shallow pit.

Re: Voyager Logo Transfer

*Message #4 Posted by **Katie** on 19 May 2003, 7:43 p.m.,*
in response to message #2 by Ellis Easley

The tape that I use for this and lotS of other calculator repairs is carpet tape. It's very thin, super strong and incredibly cheap. Try it you'll like it!

Re: Thin Double-stick

*Message #5 Posted by **Paul Brogger** on 19 May 2003, 7:48 p.m.,*
in response to message #2 by Ellis Easley

I've been using "carpet tape" in some applications, and it works very well. It's thin, heavier than regular "Scotch tape", clear, and very double-stick. It comes in a too-big roll, with white backing. (It's meant to hold rugs in place so they won't slide.)

I think it would be adequate for holding logo plates on pampered Voyagers . . .

Re: Thin Double-stick

*Message #6 Posted by **Randy Sloyer** on 19 May 2003, 9:29 p.m.,*
in response to message #5 by Paul Brogger

Some of the Voyager logo plates are etched zinc, not molded plastic. They are commonly found on early versions, before big production quantities got cranking.

You'll need to use glue, as the badge is hollow. The edges will not provide enough surface area for a secure bond with double-stick'em.

the problem is getting it off.

*Message #7 Posted by **NH** on 20 May 2003, 1:35 a.m.,*
in response to message #6 by Randy Sloyer

You guys are telling him how to stick it back on. That's easy, doublesided 3M tape, but the problem is how to get the logo OFF.

I will now speculate, having zero experience:

Method #1: Get the frame taken all the way apart, bend the tar out of the metal, until the logo peels away from the metal.

Method #2: Use a brand-new single-edged razor blade to gently slide under the logo, presumably, cutting thru the doublesided tape or the epoxy that is already there.

Method #3: X-acto knife, cut into at just one edge, then use it as a pry-bar , if its an epoxy-bond, it will all of a sudden pop-off of there.

dont forget about method #4

*Message #8 Posted by **NH** on 20 May 2003, 1:44 a.m.,*
in response to message #7 by NH

dont forget about method #4

this can solve no end of calculator ailments:

1. Carefully balance the calculator atop the train tracks of the mainline Burlington Northern going thru town.

2. Wait for the train to come thru.

3. After the train has passed, everything should be okey-dokey.

:o]

Don't forget, since there are two rails, it is possible to fix two calculators simultaneously using this technique.

why not epoxy

*Message #9 Posted by **NH** on 20 May 2003, 1:48 a.m.,*
in response to message #7 by NH

also, there is a push here to use 3M double-sided tapes, BUT, arent they kind of goooey , and a little too thick?

Whats wrong with gently roughing up the metal surface, and also, roughing up the back of the plastic logo (sandpaper roughing is needed for establishing a mechanical bond with epoxies). When roughing the metal, could use some masking tape to rough only the area where the bond is desired. (oooooh smarter yet, drill little teeny holes that allow the epoxy to push thru)

Go ahead and use a colored 2-part epoxy. Shucks, use clear if that suits. Apply a sufficiently thin amount that the logo can be pressed down the correct amount, such that the side-squeeze-out is not objectionable, so that you dont get into trying to touch the epoxy and smooth it over (bad idea) try to get a bead that is slightly squeezing out, then leave it alone.

All things considered, I think thats what I would do. Any 'big box' home hardware store has got 2-part epoxies in all sorts of color blends.

Re: why not epoxy

*Message #10 Posted by **james** on 20 May 2003, 8:29 a.m.,*
in response to message #9 by NH

Be very careful to use only a very miniscule amount of expoxy if using method #4 to prevent too much side squeeze out as your pride and joy might get stuck to the rest of the train and disappear.

Re: the problem is getting it off.

*Message #11 Posted by **Ellis Easley** on 20 May 2003, 5:43 p.m.,*
in response to message #7 by NH

"Method #1: Get the frame taken all the way apart, bend the tar out of the metal, until the logo peels away from the metal."

I don't know whether this would alter your plans, but the logo is actually glued to the plastic of the case top. It sits in a square hole cut in the aluminum bezel.

Re: Thin Double-stick(HP41 feet)

*Message #12 Posted by **Chris(FLA)** on 20 May 2003, 9:42 a.m.,*
in response to message #5 by Paul Brogger

I've been using "carpet tape" in some applications, and it works very well. It's thin, heavier than regular "Scotch tape", clear, and very double-stick. It comes in a too-big roll, with white backing.

I have my originaly bought 41 (2051AXXXXX - high top keys) that I opened years ago (I like to know how things like this are made). I opened the unit a couple more times and then used a double sided tape that turned to goo and the feet feel off. The tape also softened the feet. I will get the "carpet tape" but my question is:

What do you folks use for new feet? I read awhile back about bicycle tubes. But this seems like it will

be somewhat ugly. You know tire tubes aren't designed to be seen and have powder on them.

Has anybody found anything better for this fix?

This is my prized unit that never leaves the house and I would like to return it to "near" new looking condition.

Any suggestions very, very welcome.

Thanks,
Chris

Feet -- Consider getting them made

*Message #13 Posted by **Norm** on 20 May 2003, 1:01 p.m.,*
in response to message #12 by Chris(FLA)

When U bring up the topic of new rubber feet, this seems quite pertinent. I sold an HP-25C to a happy buyer, but in noting that the unit was well-worn, one of the most worn portions was the feet, and I wished there was a way of replacing them.

So far, I have just felt lucky and thankful, everytime I buy a used HP-34C and the feet are in pretty good shape. But perpetual hope is not the way to build a railroad .

HERE's my suggestions:

1. If there are units that have ivory feet (hp-25C) then be willing to substitute black material. That is, always go with black, even if it wasn't originally. That type of alteration is too minor to perceive, and it avoids trying to locate oddball colors.

2. At least some products could use ordinary "3M" rubber feet, which are extremely mass-produced, stuck to the bottom of millions of items made currently, and available from Digi-Key etc etc in many shapes and thicknesses.

3. Even if you could locate the material (a sheet or roll-stock) I doubt you could cut it acceptably by any manual method. It would look terrible. You need a cutting die that cuts under pressure.

4. Expecting that you CANNOT get a suitable match, and noting that the original feet were die-cut, here is what I personally would suggest doing..... Go to an authentic die-cut shop (they make labels and other cutouts on roll-stock) and PAY THEM to make authentic rubber feet. The problem is your tooling charge. Well, they might want $400 to prepare dies that cover a variety of HP calculators. Well, make sure that the top 10 HP applications are covered, thru a variety of die sizes. NOW, find 9 buddies who feel the same way, and split up the costs, so its only $40 each, and now you have got rubber feet.

I can't think of anything else on this subject. Maybe somebody else knows where to buy an authentic exact match without creating it full-custom.

It would be fairly trivial to locate the bulk (sheet/roll) stock, just by asking a rubber foot vendor to part with some material, or locating it as a commodity. The problem is cutting it up.

Which ones would be most popular ?

*Message #14 Posted by **Bob** on 20 May 2003, 2:26 p.m.,*
in response to message #13 by Norm

I have access to the expertise required to fabricate a cutting die. If I had a set of die cutters made, what would the most popular footprints ?

I assume: 41, 42, 34, 45. What else ?

Bob

Re: Which ones would be most popular ?

*Message #15 Posted by **Patrick** on 20 May 2003, 3:11 p.m.,*
in response to message #14 by Bob

Since I started this thread about Voyagers, I have to say that the Voyager series would be a good one to support!

There are a bunch of models in the series, all of which take the exact same feet. The fact that one of the models (12C) is still in production and selling well means that there would likely be even more demand for this foot than others (I dunno if 12C platinum uses the same feet... anybody?).

One of my (pampered) Voyagers is missing a foot as well that I would sure like to fix with a quality replacement.

Re: Which ones would be most popular ?

*Message #16 Posted by **Ellis Easley** on 20 May 2003, 5:38 p.m.,*
in response to message #14 by Bob

71B, 75C/D, 82143A printer for HP41C, 82161A tape drive and 82162A printer for HPIL all use the same type of rectangular, flat rubber foot, in different dimensions.

Also, Pioneers had different rubber feet at different times or on different models (all made as strips with rounded ends). Of the ones I have, most have one long strip about 1/4" wide near the top, then two short narrower strips at the bottom, side by side. But one of mine, a 14B, has a narrower long strip at the top and two pairs of even narrower short strips at the bottom (one of each pair above the other). I don't know if this variation is by model or by year, since you would think the different models would share the case bottom, and all the feet fit in recesses molded in the case bottom.

BTW, the original feet (at least the rectangulat flat ones) are made in two layers: thin vinyl on the inside, rubber on the outside. I guess this is to match adhesives to materials better. The joint between the vinyl and the rubber is another layer of adhesive.

Re: Which ones would be most popular ?

*Message #17 Posted by **Holger Weihe** on 20 May 2003, 6:30 p.m.,*
in response to message #14 by Bob

I have about 20 HP calculators now. Only one of them is missing a rubber food: The HP-49G which is the newest of them all. And it's not only missing one food - ALL OF THEM have dissapeared...

I hope that the rubber keys also dissapear over time. ;-)

To stay with the subject: If there was a self-adhesive rubber sheet of the right thickness, it

should be possible to cut out fitting feet with a sharp knive. Would they really look so terrible?

Holger

Re: Which ones would be most popular ?

*Message #18 Posted by **Ellis Easley** on 20 May 2003, 11:42 p.m.,*
in response to message #17 by Holger Weihe

I don't think so - especially the rectangular ones, you should be able to do about as well as a die with a sharp knife blade.

Re: Thin Double-stick(HP41 feet)

*Message #19 Posted by **David Smith** on 20 May 2003, 4:34 p.m.,*
in response to message #12 by Chris(FLA)

Go to the garden center of your local Home Depot. You will find a big roll of EPDM roofing rubber for use in lining garden ponds. A linear foot (15 feet wide!) costs $15. If you are carful, you can probably cut more than one calculator foot out of it.

For Woodstock feet used a Sanford eraser from an office supply store. They come in several styles and colors. One is a very close match for them birdie feet.

Re: Voyager Logo Transfer

*Message #20 Posted by **Erik Wahlin (USA)** on 20 May 2003, 1:39 a.m.,*
in response to message #1 by Patrick

Patrick I have a spare unused logo I got from Jim Carter a while back. Contact me if you would like to purchase at a reasonable price. Regards, Erik

Re: Voyager Logo Transfer

*Message #21 Posted by **David Smith** on 20 May 2003, 4:37 p.m.,*
in response to message #1 by Patrick

To remove all things adhesive use a substance called UnDu available at most office supply stores. It causes adhesives to temporarily become unsticky. Place a drop in the logo well and a drop on a exacto knife blade. Slide the blade under the logo and (if it was held down with sticky adhesive and not glue) it should come up easily. Keep the UnDu off of the keyboard background as it can leave "water" marks.

Re: Voyager Logo Transfer

*Message #22 Posted by **dave** on 21 May 2003, 1:45 a.m.,*
in response to message #1 by Patrick

From my experience, either of the following is likely to liberate the logo:

1) Use the calculator in a public place. Pay no attention to the logo (this is important). It will fall off. Have a friend follow you to look for the logo.

2) Spend days restoring your more worn calc to pristine condition. Show it off to a friend. The logo will fall off.

Good luck,

Dave

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More eBay Madness!

*Message #1 Posted by **Todd G** on 19 May 2003, 2:07 p.m.*

I know we've beaten this dead horse, but this as got to take the cake:

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3024550097&category=11713&rd=1

Re: More eBay Madness!

*Message #2 Posted by **Patrick** on 19 May 2003, 2:12 p.m.,*
in response to message #1 by Todd G

That guy has been outbidding me all over eBay. He's really annoying. ;-)

I just wish he'd run out of money.

If we keep seeing prices like this, maybe the counterfeiters will get into the act!?

Re: More eBay Madness!

*Message #3 Posted by **hugh** on 19 May 2003, 2:14 p.m.,*
in response to message #2 by Patrick

... or even hp maybe :-)

Re: More eBay Madness!

*Message #4 Posted by **ToddG** on 19 May 2003, 5:41 p.m.,*
in response to message #2 by Patrick

Well, if you're a seller, he's the guy you want to sell to.

Looks like he's paid several hundred dollars for a couple of 41C wands. A bit much, IMHO, but to each his own. I got mine a few years ago from an Educalc closeout for $20 NIB. I think I got a few 41 ROM wallets for free in the deal too.

Re: More eBay Madness!

*Message #5 Posted by **Chan Tran** on 20 May 2003, 11:22 a.m.,*
in response to message #4 by ToddG

The company that I work for is in business making boxes similar to the HP97 box. So I HP decides to make money selling boxes we can make them cheap and it's 100% legal. It's kind of genuine counterfeit.

Copyright infringement ??

*Message #6 Posted by **NH** on 20 May 2003, 1:04 p.m.,*
in response to message #5 by Chan Tran

Are you really sure that you could legally re-print the HP logo on such boxes, without infringing on their copyright ??

I think the Carly types have got a roomful of lawyers just waiting eagerly to tell you that you cannot do what you just said.

Remember, when they got rid of their engineering staff, they hired lawyers to replace them, so that the chairs would stay warm.

Re: At double $$$

*Message #7 Posted by **Ron Ross** on 20 May 2003, 2:03 p.m.,*
in response to message #6 by NH

And at double the salary of the engineers, since they are so valuable to keep around.

try ten times

*Message #8 Posted by **Norm** on 20 May 2003, 8:26 p.m.,*
in response to message #7 by Ron Ross

Try 10 times, the lawyers make 10 times what the engineers make. Thats because Carly-types figured out that they can make more money by manipulating the corporate world (mergers, staged bankruptcies, selloffs, bonuses, perks) than by building better products.

Since their primary personal money-engine involves the boardroom shake-ups, then sure, the lawyers make 10 times. All the engineers do, after all, is build things, make them better, figure out how to keep a rocket-engine from collapsing under the stress, etc etc. And nowadays, who gives a rip about stuff like that.

Re: Copyright infringement ??

*Message #9 Posted by **Chan Tran** on 20 May 2003, 7:06 p.m.,*
in response to message #6 by NH

Oh Norm! You did not read my post correctly. Let me rephrase it. I said IF HP(not us) wants to get into the business of selling empty boxes (instead of selling calculators), they can contract us to make the boxes for them (They sure didn't make the original boxes either). We can guarantee supply them with boxes that are identical in quality and appearance of the original boxes. Thus I would call them boxes GENUINE (sold by HP) and yet COUNTERFEIT (they are not the original boxes).

Re: More eBay Madness!

*Message #10 Posted by **Mike** on 19 May 2003, 10:06 p.m.,*
in response to message #2 by Patrick

Bid higher!

Re: More eBay Madness!

*Message #11 Posted by **Ellis Easley** on 19 May 2003, 2:15 p.m.,*

in response to message #1 by Todd G

That's what I paid (+/- $1) for a 97 with the original open-air AC adapter, brand new manual (still had chad stuck to the punched holes), and two boxes of blue printer paper.

Well, the box DOES look perfect!

*Message #12 Posted by **Gene** on 19 May 2003, 2:24 p.m.,*
in response to message #1 by Todd G

Some collectors want everything. I've seen calculators traded for BOXES before, so this isn't too surprising (to me) given the box looks great.

I have boxes for several HP's...29C...25C...25...97...67 etc.

I got some boxes

*Message #13 Posted by **NH** on 19 May 2003, 2:30 p.m.,*
in response to message #12 by Gene

That is impressive, an empty HP-97 box for $138 . The bidders must've all won the lottery.

I got some perfect boxes, nice big perfect cardboard boxes,

I got one says 'Campbell Soup 4 dozen" got another says 'Dole Bananas'

Any takers?

Re: I got some boxes

*Message #14 Posted by **gifron** on 19 May 2003, 3:56 p.m.,*
in response to message #13 by NH

Mint condition????

Re: I got some boxes

*Message #15 Posted by **Patrick** on 19 May 2003, 4:58 p.m.,*
in response to message #14 by gifron

I have some "After-8" boxes which are "minty" ?

Re: More eBay Madness!

*Message #16 Posted by **David Smith** on 19 May 2003, 7:29 p.m.,*
in response to message #1 by Todd G

With very few exceptions, very nice calculator boxes are worth more than the contents.

Re: More eBay Madness!

*Message #17 Posted by **Ellis Easley** on 20 May 2003, 6:03 p.m.,*
in response to message #16 by David Smith

Does that (higher value put on boxes than contents) apply to other kinds of collectables?

I can think of one explanation for the phenomenon: boxes tend to get thrown away (more than the contents anyway), so at any point in time you can probably find more contents than boxes, making the boxes more rare and so more valuable (to someone who wants one!)

Is the value of boxes more pronounced for HP calculator boxes? Some of them (like the Classics) have fairly plain graphics but use stylized numbers and text that are representative of the times. TI boxes tend to have photographic images showing affluent office settings (seems to me).

Re: More eBay Madness!

*Message #18 Posted by **David Smith** on 20 May 2003, 7:22 p.m.,*
in response to message #17 by Ellis Easley

Most certainly... particularly in things like old toys and any item where the box gets thrown away. An old toy in its original box can be worth easily 2-10 times as much as a bare toy. Watch your Antiques Roadshow for many other examples.

The box looks mint

*Message #19 Posted by **Mike** on 19 May 2003, 10:09 p.m.,*
in response to message #1 by Todd G

Do you have a mint box you want to sell for what you think is a fair price? If you do, I'll give you the $20 you probably think a Mint box is worth.

Didn't think so!

Do you even have a mint box? Do you even care if you have a box? Many collectors want everything mint or near mint.

but does it taste minty fresh?

*Message #20 Posted by **db(martinez,california)** on 20 May 2003, 12:22 a.m.,*
in response to message #19 by Mike

mike and david; i believe that you guys know what you are talking about when you say something is or can be worth a (to me) seemingly crazy price. if someone wants to bid a hundred and thirty bucks on a box it doesn't affect me either way. people think that i'm nuts for having a display cabinet full of obsolete technology that i usually paid a few of bucks each for. well, maybe there are a few other reasons. anyway, i live in a glass house so i won't throw rocks.

however i would like to say this: therwil, meet texas pyro. texas pyro, meet therwil. you two have a lot in common. you both have seventeen of everything hp ever made. now can you both go somewhere and bid against each other so a few people can get one of something.

I'll sell you mint boxes

*Message #21 Posted by **NH** on 20 May 2003, 1:30 a.m.,*
in response to message #20 by db(martinez,california)

I'll sell you mint boxes,

an affordable $35 a box, and the mints will even still be in the boxes !!

:o)

My favorite is "after eight".

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HP41 Brain Transplant (CV vs CX)

*Message #1 Posted by **Michael Fink** on 19 May 2003, 11:51 a.m.*

I recently "inherited" a used 41CX with a sticky keyboard and corroded battery contacts. After some inside cleaning and soldering the battery contacts, it seems to be almost working. It does not recognize the Math module in any slot, though, but it works well with the card reader and the printer.

Well, there is still the sticky keyboard. So I wonder if I can risk upgrading my good old 41CV to a CX by transferring the CX's logic board into the CV? Both models are fullnut. Any suggestions?

Sincerely, Michael

Re: HP41 Brain Transplant (CV vs CX)

*Message #2 Posted by **Vieira, Luiz C. (Brazil)** on 19 May 2003, 12:29 p.m.,*
in response to message #1 by Michael Fink

Hello, Michael;

if both 41's are fullnut, the LCD assy is exactly the same for both of them. The CX's mainboard should work fine in any C/CV keyboard/LCD, provided they are fullnuts, of course.

You should take special care with both:

1- the zebra connectors between the mainboard and the keyboard
2 - the pressure over them;

in the second case, using plastic washers will help if you build the CX's mainboard in the C/CV case and have problems switching the "franken"calc on. I do not know the thichness, but others in here will surely post the measure. The washers are required only if after rebuilding it, the calcualtor does not switch to on or freezes/shoot off by its own.

Oh, yes; if you can, keep the original CX's back plane. The CX's back label shows active ED's keys instead of regular ALPHA keyboard, shown in the C/CV's back label.

Success!

Luiz C. Vieira - Brazil

Re: HP41 Brain Transplant (CV vs CX)

*Message #3 Posted by **Randy Sloyer** on 19 May 2003, 1:49 p.m.,*
in response to message #2 by Vieira, Luiz C. (Brazil)

If the keyboard zebra is a single piece with round connectors, you shouldn't need the washers. If they are two separate flat pieces, the washers used by HP were 0.015" thick. These are impossible to find in the standard places. I believe they were HP custom. You can find 0.032" nylon washers of approximate ID/OD

in most hardware stores. The extra thickness will result in less than perfect case tightness, but the CPU board will certainly be in positive contact. You will absolutely need longer screws (3/8") when using the washers, or you'll strip the posts out.

I have found #2 x 3/8" sheet metal screws in the lower posts without the washers will do the job. They have enough engagement to prevent striping and provide more clamping pressure.

You can find #2 hardware in hobby shops in the R/C model section in small quantities.

Re: HP41 Brain Transplant (CV vs CX)

*Message #4 Posted by **David Smith** on 19 May 2003, 7:32 p.m.,*
in response to message #1 by Michael Fink

The 41C/CV/CX fullnut CPU boards are interchangeable. Some very early 41C CPU's for use with the LCD modules that have the square black epoxy blobs over the chips are an exception.

A little work with some UnDu adhesive "remover" and a strong thread will let you remove the front CX label and transfer it to the new machine.

Re: HP41 Brain Transplant (CV vs CX) - Thanks

*Message #5 Posted by **Michael Fink** on 21 May 2003, 7:58 a.m.,*
in response to message #1 by Michael Fink

Thanks all for your kind replies and suggestions! The surgery was successful, the patient is alive (and via card reader even got back part of its previous personality :-)).

Sincerely, Michael

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12c platinum again - from comp.sys.hp48

*Message #1 Posted by **Gene** on 19 May 2003, 10:05 a.m.*

Saw this over the weekend. It confirms the "bug" in the solution for the interest rate in an annuity. I had called this to HP's attention, but doesn't seem like they could or wanted to fix it. --Gene

---

There is something very strange about the new 12c platinum. Resolving for i is, one could say, no longer possible. My one displays "running" for so long I have to press the ON key. I have tried many simple examples now.

If indeed it does resolve, before running bateries flat, it must take a very long time.

Oh, it did work n=10 i=10 pv=100 fv=0 solve for pmt=-162.745 resolve for i ... it seems to take 40 seconds. [Gene: Note, on my 12c platinum, it returns 10 for i almost instantly...however, if I store 0 into i and then resolve for it, it takes about as long as the poster indicates]

On the classic gold 12C it takes 4 seconds.

This is, believe me, an example that is favourable to the 12c platinum.

Unfortunately this does make it a returnable item, unless one really likes bugs like this.

Re: 12c platinum again - from comp.sys.hp48

*Message #2 Posted by **Ron Ross** on 19 May 2003, 10:40 a.m.,*
in response to message #1 by Gene

This might not be a good sign for Hp's testing or coding for the new machines. The 12c should have been a piece of cake to get on the market since they already have it there to begin with. Just imagine Hp's NEW RPN entries onto the market. I SHUDDER!!!

I hope for a decent pocket RPN calculator that advertizes Hp's quality and is a product that is both a pleasure to use and has great features.

My 49G has great features, but it is not all that great to use (My 48G is a nice machine, BUT IT DON"T FIT IN A POCKET). I would love an Hp15c with 32K (hell 128K!!!!) and Hp48 units conversion and misc. other Hp48 features (clock, beeper, 48g type programming with a selectable RPN/RPL programming flag, etc) with ONLY a TWO line 42s type display and a serial port. Every thing else would come via third party programs if something like this were available.

What we'll probably get is a LOSER HP9G RPN piece of CRAP that we'll have to be glad to get THAT!

I would be happy with an Hp15c retro (I'd like some extra RAM), but I'd take it the way it was for $40-$50 ($30 sounds even better). Price it any higher (and while I would still buy one) people will buy algebraic and suffer, since PC's do most of the serious number crunching.

Hp makes the new 12c BS model, why not a retro Hp15c (and I'd be happy with the BS colors if I had no choice, though again, I would prefer the more elegant and mature OLDER Styling).

Re: 12c platinum again - from comp.sys.hp48

*Message #3 Posted by **Tom (UK)** on 19 May 2003, 1:21 p.m.,*
in response to message #1 by Gene

If the 12c is sold as a premium product, how do HP think they are going to get away with this kind of problem?

If the calc doesn't do one of the examples in the manual then I'd want my money back.

(OK HP might just try to take the money and run, but is HP realy that bad now?)

More from c.s.hp48 - 12c plat

*Message #4 Posted by **Gene** on 19 May 2003, 4:12 p.m.,*
in response to message #3 by Tom (UK)

Example f CLEAR FIN n=10 pv=100 pmt=-20 solve for i. On the original 12C this takes 15 seconds. Solving for i again takes 4 seconds, as the original 12C uses the existing i as part of its initial guess.

On the new 12c platinum it takes 35 seconds.Pressing i again takes another 35 seconds. This implies that the new platinum 12c does not re-use the existing i as part of the initial guess strategy.

Re: More from c.s.hp48 - 12c plat

*Message #5 Posted by **james** on 22 May 2003, 5:35 p.m.,*
in response to message #4 by Gene

In a spirit of scientific investigation:

For clear fin, N=10, PV=100, PMT= -20 and solve for i, my calculator takes 15 secs as for the original 12C, but solving for i again takes another 15 secs so it doesn't seem to use the original i as part of the initial guess - sort of hybrid between the 12C and the 12CPt.

My calculator - a HP-41CV running the Real Estate module.

Thanks for the info on the HP 12CPt - very interesting if saddening seeing HP losing it in such a big way. Don't think I'll be giving Carly any of my money soon.

A question: are you using a Beta HP12cP?

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 22 May 2003, 11:40 p.m.,*
in response to message #1 by Gene

Hi, folks;

I read these posts and I felt myself confused: are u running final, commercial HP12cP versions or Beta ones?

I just wnat to know, because Gene posted some info in here about a Beta unit, that would switch to off when runnning a program and finding [R/S] or [GTO]000 step code. Maybe other Beta models contain other, different bugs. As Gene mentioned, I also hope HP is carefull enough as for detecting and correcting these bugs before putting HP12cP units for sale.

Thank you.

Luiz C. Vieira - Brazil

HP quality

*Message #7 Posted by **Renato** on 23 May 2003, 12:58 a.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

This "feature" proves that we should not expect "old hp quality" from "current hp". These two entities are completely different animals.

It is sad, and brings mixed emotions: 12CP looks like a voyager on the outside and maybe even internal HW, but sadly "intelligence" on it is on the 30s/6s/... league

I wonder: will the product manager get yelled at for this "feature" ? Not at "current HP", I think.

Renato

Re: A question: are you using a Beta HP12cP?

*Message #8 Posted by **Paul Brogger** on 23 May 2003, 1:06 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

Jordi Hidalgo amswered my similar question via email with a reference to this message. From this I take it that his unit does not exhibit the turn-off problem.

Re: A question: are you using a Beta HP12cP?

*Message #9 Posted by **RB Jones** on 23 May 2003, 4:52 p.m.,*
in response to message #8 by Paul Brogger

I have a production shipping model hp 12 Platinum. I ran the calcs mentioned above clearing FIN register first. I got i in 16.7 seconds. Second punch on i was in 1.5 seconds.

RB

Re: A question: are you using a Beta HP12cP?

*Message #10 Posted by **tony hutchins** on 26 May 2003, 6:11 a.m.,*
in response to message #9 by RB Jones

What's the serial number on your 12cpt? Mine is CN31301335 - maybe they fixed the i-solutions for PMT<>0!!!

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41CV Repair Service

*Message #1 Posted by **John Smith** on 18 May 2003, 3:46 p.m.*

Does anyone know on this board whether HP still service their vintage product like 41CV calculator? If yes, what is their web site address, and phone number?

I searched HP web site, but I could not locate any info on 41CV at all?

Thanks.

Re: 41CV Repair Service

*Message #2 Posted by **John Smith** on 18 May 2003, 4:07 p.m.,*
in response to message #1 by John Smith

I did not mention in my original post why did I need service to my 41CV?

The condition of my 41CV is just like I opened it from the brand new box just came out from the factory even though I bought it in 1983. It has been just well kept. No corrusion in the battery terminal at all. A few months ago when I tried to turn the calculator on, it did not come on. Immediately I changed the batteries, still did not come on. What a disappointment? I guarded this calculator with my life all this time, now I'm at a loss. That is the reason I posted the original message.

If there are any 41CV technical expert on this board, your help or suggestion would be greatly appreciated.

41CV Repair Service: unfortunately...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 18 May 2003, 4:23 p.m.,*
in response to message #1 by John Smith

... HP no longer support the HP41. But you may read this post first:

HP41 Gone Wild!

It's not the same situation as yours, but the first steps you should take in order to repair (at least start) are described there. Please, read the posts in that thread and reson about the mentioned procedures. Also, check if your HP41 is a fullnut or a halfnut.

Chances are we can get your HP41 repaired if you have the skills to delve into the solution.

Best regards and success.

Luiz C. Vieira - Brazil

Re: 41CV Repair Service: unfortunately...

*Message #4 Posted by **John Smith** on 18 May 2003, 6:16 p.m.,*

in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz, I think I found the problem. I unplugged all four modules from the compartments, then I cleaned them with ethylene alcohol and dried them, and then plugged all the modules back. Then put the battery chamber back in and turned the power on. Nothing happened. Then I put the calculator back on the table and hold it by left hand and turned the power on by right hand. It came back on. As soon as I lifted my left hand power went away. I pressed with my left hand again, power came back. After I searched through I found out that the left bottom corner is no longer snuggly fit the back layer of the calculator from the keyboard layer of the calculator. They are coming loose.

However, I could not see any screw anywhere. Screws are not visible at all from the outside. And I don't have any service manual for how to take a part without damaging it. Do you know how to get to that screw? Anyone? Can any hardware expert guide me through this operation? If can give me a link for step by step operation would be highly appreciated.

John

Re: 41CV Repair Service: unfortunately...

*Message #5 Posted by **Ellis Easley** on 18 May 2003, 6:51 p.m.,*
in response to message #4 by John Smith

As it says on the cover of a great book, "DON'T PANIC"

The screws are under the rubber feet. Peel them off carefully and stick them on the paper that stickers come on, like the ones that come with a video cassette. The feet are actually made with two layers: the outer one is rubber and the inner one is thinner vinyl. Peel the vinyl layer from the plastic case.

More help is on the way!

Re: 41CV Repair Service: unfortunately...

*Message #6 Posted by **Tony Duell (UK)** on 18 May 2003, 6:57 p.m.,*
in response to message #4 by John Smith

The HP41 is assembled using connectors that are clamped together by the case -- if this is older ('Fullnut') unit, there's a connector between the logic board and the keyboard PCB at the front of the machine. All machines have a connector between the 'I/O assembly' (the battery contacts and the module connectors) and the keyboard PCB. The case is held together by 4 self-tapping screws under the feet. Peel off the feet and remove the screws. Carefully separate the case parts, and clean the contacts with propan-2-ol (ispropyl alcohol). Then put it all back together. Don't overtighten the screws, but you do need to ensure the case is clamped together tightly. It often helps to turn the screw 'backwards' (counterclockwise) so as to engage the original threads before tightening them -- this will reduce the risk of stripping the threads in the plastic case. If the threads are stripped, or the plastic pillars in the top (keyboard part) of the case are damaged, then often all you need to do is fit a longer screw (it's a #2 self tapping screw), which I suspect you can get from a local hardware shop. Oh yes, please take anti-static precautions when working insde the 41 -- this machine uses relatively delicate CMOS circuitry, and _all_ the chips are HP custom and unobtainable.

Re: 41CV Repair Service: unfortunately...

*Message #7 Posted by **Ellis Easley** on 18 May 2003, 7:19 p.m.,*
in response to message #6 by Tony Duell (UK)

If the plastic pillars are cracked, and this is causing the screws to be loose, there are some

techniques that can be used to repair them. They involve using a solvent that will melt the surface of the plastic. By binding the parts together so the broken edges are in contact, and then applying some solvent, the edges will melt a little and then when the solvent evaporates, the pieces will be welded together - as strong as when they were newly made, I have read. Some people recommend wrapping the pillar with fine wire to make it even stronger, but it must be very fine so the diameter of the pillar is not increased much, or things won't go back together as they should. I think the reason the pillars tend to crack is because HP designed them with a smaller diameter than was most wise. The type of self-tapping screws HP used were new at the time and all the design requirement might not have been known.

The solvent is methylene chloride, also known as dichloromethane. It is sold in small bottles at hobby shops, I found some at a plastic distributor that sells primarily to sign companies.

If the pillars are broken off and not just cracked, there is a contributor here who has a way to replace them with a piece of plastic rod (I think that's what he is describing!)

Re: 41CV Repair Service: unfortunately...

*Message #8 Posted by **John Smith** on 18 May 2003, 8:08 p.m.,*
in response to message #7 by Ellis Easley

Thanks, Ellis and Tony. You both are helpful.

John

Re: 41CV Repair Service: unfortunately...

*Message #9 Posted by **John Smith** on 20 May 2003, 12:11 a.m.,*
in response to message #8 by John Smith

Luiz, Ellis, and Tony,

I would like to ask a dumb question. Please don't laugh. Just give your honest and expert opinion.

As you all advised for fixing the broken or cracked plastic post, indeed an excellent one. How about if I press and hold the left corner such a way that the display starts to appear, then I apply just enough super glue at the meeting line of the upper and lower case (of that corner and its close proximity) and long enough to dry the super glue completely. Danger that I see of that I won't be able to take a part this calculator again. Is there any other downside for this permanent sealing?

Thanks, and waiting to hear from you.

John

Re: 41CV Repair Service: unfortunately...

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2003, 2:40 a.m.,*
in response to message #9 by John Smith

Hello, John;

I am almost sure everybody else will tell you the same: don't!

You'll leave watermarks, it's gonna be almost impossible to open it again without cracking the case and the separator, you'll need to "glue" twice or in both surfaces at the same time, chances are you'll experience the same problem later because you did not actualy solve it... and you're gonna do nothing but cause dammage to your calculator. If the glue leaks to the keyboard or internals it's gonna be hard to clean the mess.

What's bothering you, afterall? If you believe you can't accomplish the task in an easy way, others (me included) will offer to do it. I know, I'm in Brazil, it's a bit far from you, but I succeed repairing some calculators for a few fellows in here. Exception made to Scott Pritchard because I am still working on two of his calculators. And there are others closer to you than I am that would gladly offer themselves to repair your "unit". Mostly because it is working, it's only a craft job you need there.

Please, do not risk it. It "sounds" so easy to repair...

Anyway, if you want to do it, go for it. I would not, and I would never suggest this sort of solution to anyone. I used superglue sometimes to repair broken parts and even to replace broken posts because I did not find the type of glue that people at this forum use. It's a chemical "melting" solution that fuses plastics with each other. But I got good results when broken parts are kept under pressure for about three hours with superglue. And I never used any sort of glue to do this sort of "joining" you are trying to.

Be patient and I am sure you will succeed repairing your HP41 the best way.

Luiz C. Vieira - Brazil

Re: 41CV Repair Service: unfortunately...

*Message #11 Posted by **Ellis Easley** on 20 May 2003, 6:11 p.m.,*
in response to message #9 by John Smith

If you are not ready to do the permanent repair now, instead of superglue, why not use a rubber band? If it goes just below the display, or just below the top row of switches, or both, it wouldn't interfere with operation. The top feet would tend to keep it in place. Be sure to keep you programs backed up, because the rubber band might give up at a bad time! (So might the superglue)

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Decoding new serial numbers

*Message #1 Posted by **jose goncalves** on 18 May 2003, 2:29 p.m.*

Ok, I understand the structure of traditional serial numbers for HP calculators. But what about the new format ? Those numbers that begin with IDxxxxxx or these with CNxxxx. Those Chinese numbers are quite strange ! They are too low to really individually identify several calculators manufactured in a high volume production line. For instance, s/n for my HP9S is CN0246 and for my 9G it is CN0248. One of my HP17BII's s/n is ID04901440. What to this all mean ?

Re: Decoding new serial numbers

*Message #2 Posted by **Scuba Diver** on 19 May 2003, 12:55 a.m.,*
in response to message #1 by jose goncalves

Well, as I understand it, this is how you decode the new serial numbers:

First two characters; country of manufacture (US, CN and ID are the ones I've seen)

Next character is the LAST digit of the year of manufacture (ie. ID0 would be 2000 in Indonesia)

The next two characters are the week, then finally the last digits are just like the last 5 digits on the old serial number.

Hope that helps! B.

Re: Decoding new serial numbers

*Message #3 Posted by **jose goncalves** on 19 May 2003, 8:15 a.m.,*
in response to message #2 by Scuba Diver

Hi, Scuba

So I have to conclude that those short Chinese numbers (CN0268, for instance) are really truncated numbers. The last portion (the real serial part of the thing) is missing, right ?

Re: Decoding new serial numbers

*Message #4 Posted by **Julián Miranda (Spain)** on 19 May 2003, 10:36 a.m.,*
in response to message #3 by jose goncalves

I have a HP30S with serial number CN0043, that is similar to the HP9x you mention. My guess is the first two digits (00 in my 30S) are the year and the last two (43) are the week, and there is no actual serial number. I don't know if HP has keep the serial number the way Scuba described in more "important" machines as 49G or the new 12C which are also manufactured in China.

Re: Decoding new serial numbers

*Message #5 Posted by **Scuba Diver** on 19 May 2003, 7:27 p.m.,*
in response to message #4 by Julián Miranda (Spain)

Well, I don't have a calculator with the new numbering sequence, but I thought that there was more than just the CN0043...

I've seen a few Chinese 12Cs, and their serial numbers are something like:

CN20812345

Where 208 means 2002 and the 08 means the 8th week...

I could be wrong, however...as I mentioned I don't have any calcs with a new serial number, but I'm pretty sure that this is how it works...

Hope this helps! B.

Re: Decoding new serial numbers

*Message #6 Posted by **James M. Prange** on 19 May 2003, 9:23 p.m.,*
in response to message #4 by Julián Miranda (Spain)

Close. CN is the country (China, apparently using ISO two-letter country codes). The first digit is the year code. I guess that they don't expect to continue manufacturing the same model in the same country for more than ten different years, or they could rely on a changed serial number format or some other way of identifying the calculator. Wierd color schemes come to mind. The next two digits are the week code, and the last five digits are the unit (serial) within that week code.

Re: Decoding new serial numbers

*Message #7 Posted by **James M. Prange** on 19 May 2003, 9:12 p.m.,*
in response to message #3 by jose goncalves

Well, perhaps some people don't like to let everyone know their calculators' serial numbers, so post only the country, year, and week codes, CN026, for example, and leave off the last five digits (the serial part). In other cases, perhaps the serial part doesn't seem relevant, so is left out for the sake of brevity. After all, it seems reasonable to expect that if the country, year, and week codes of two units of a given model are the same, then they should be very nearly identical.

Re: Decoding new serial numbers

*Message #8 Posted by **jose goncalves** on 19 May 2003, 10:05 p.m.,*
in response to message #7 by James M. Prange

Almost, almost. My 3 calculators from China that I mentioned have only the first, non serial part of the serial number. IMHO, this should no longer be called serial number but only source id number or something for that purpose. I also think that even if the calculators manufactured in the same week of the same yaer in the same manufacturing facility are suposedly quite similar, they should be individually for identification purposes, But this would be the case for high quality products that deserve and are served with good repair services, if they are needed. I'm afraid recent HP calculators will not fit in this last classification, so there is no need for such elaborated control scheme. Umph !

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Key Click

*Message #1 Posted by **Howard** on 18 May 2003, 1:58 p.m.*

Does anybody know how to put the click back into the keys of HP Calculators. My HP65 barely clicks at all on the 0-9 keys most probably from use. The other keys have the normal crisp click.

Re: Key Click

*Message #2 Posted by **David Smith** on 18 May 2003, 9:14 p.m.,*
in response to message #1 by Howard

MOst likely your HP65 key strips have developed vertical splits on the left hand side of each place whre the strip rises up into the key "dome" contact. Onlt fix is VERY drastic and not at all easy to pull off properly. You must find another machine with good click (an HP35 or 45 will do), slice the key strips off the keyboards, and transplant the good ones onto the HP65 keyboard. The old strips were spot welded in place. You need to solder the new ones down.

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Using HPIL/RS232 converter and PC

*Message #1 Posted by **Harold Climer** on 18 May 2003, 11:10 a.m.*

I have just aquired a HP IL to RS232 converter. Are there any programs for the 41 and PC to allow one to talk back and forth to each other? Is this capibility built into the converter? I am also thinking of connecting my 41 to a Vernier Universal Lab Inteface and taking temperatur or other type of measurments.

Re: Using HPIL/RS232 converter and PC

*Message #2 Posted by **Alain** on 18 May 2003, 11:33 a.m.,*
in response to message #1 by Harold Climer

Hello Harold,

if you get LifUtils from Tony Duell, a subdirectory called "Hardware" has all the requiered information to transfert files from and to HP-41 using RS232/HPIL converter (HP41-PC-serial-transfer).

The link to get LifUtils is below :

http://www.hpcc.org/hpil/lif_utils.html

Regards !

Alain

Re: Using HPIL/RS232 converter and PC

*Message #3 Posted by **Dave Shaffer** on 18 May 2003, 7:17 p.m.,*
in response to message #1 by Harold Climer

Harold,

I'm as HP-biased as anybody here, but ....

If all you want is to interface to Vernier equipment, you might be ahead to get a (voice of doom here) TI-8x series calc. Vernier equipment can interface directly to these TI calcs. I think all you need extra is a $5 cable.

HP41 / PC / hardware measurement

*Message #4 Posted by **Christoph Klug** on 19 May 2003, 3:49 a.m.,*
in response to message #1 by Harold Climer

Dear Harold,

nice solutions for interfacing HP41 to PC is the HP-PC gateway & emulator solution. Refer to HP-museum articles forum item 311.

For advanced hardware interfacing with HP41 there exist I/O-Board and IL2000 system. This powerfully interface hardware includes digital and analog input/output and some power supply lines. Two manuals (300 + 150 pages)describes the systems

Best wishes from Germany - Christoph Klug

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HP-41 CV Charger?

*Message #1 Posted by **ValHallA|SW** on 18 May 2003, 10:44 a.m.*

Hey, I've got an HP-41 CV, an i want to let it run from the power outlewt... i know i have toput a connector in de hole on the left side (with cap over it), but what foes that connector look like? Anybody got a pic? I already know ill heve to put 8V~ on it.

Re: HP-41 CV Charger?

*Message #2 Posted by **Diego Diaz** on 18 May 2003, 12:41 p.m.,*
in response to message #1 by ValHallA|SW

There are one only type of connector for the whole 41 system (82240A/B printer apart), anyhow, and regarding the 41C, earliest models had a gold plated small balls with springs that allowed the calc to be powered (directly) thru a suitable connector. Those components were removed somewhere along 1980, the corresponding PCB golden contacts remains during the Fullnut production run so, if this is your case, you can still open your calc and place a pair of apropriated sized balls and springs (I did). Halfnut design changed the keyboard PCB layout and the required pads were no longer present.

AFAIK HP did never release such a connector to the market, tough lots of users made their owns (I also did... ;-). The power thru this kind of connector MUST be 6v DC.

HP 82120A is a rechargeable battery pack that fits into the 41's N-cell battery compartment, and it's thru this pack how the calc obtains its power. Inside the 82120A are the corresponding rectifier and charging circutry that provides the 41 with the apropriate 6v DC power supply. Thus, 82120 carries the male connector where the female plug fits.

If you need further info, please post back with some details about your calc.

Kind regards from Spain.

P.S. I'll send you a picture of the HP-82066B (it's 220v, 8v AC, 3VA according to Europe's standard), you can see the connector there.

Re: HP-41 CV Charger?

*Message #3 Posted by **ValHallA|SW** on 18 May 2003, 2:37 p.m.,*
in response to message #2 by Diego Diaz

Hey, thx, i rcvd your pic, but how can you put it in the calculator? I reckon there isnt enogh space for it... :-?

Anyways, about the balls, you need to clear that up for me, i dont really understand i guess.... maybe another pic would help :)

Anyways, yuor pic for avry1 else: <img src="http://home.hccnet.nl/orion.boot/junk/HP41_Power.jpg"> <-- if HTML-tags work ;) else: http://home.hccnet.nl/orion.boot/junk/HP41_Power.jpg

Cheers, ValHallA

Re: HP-41 CV Charger?

*Message #4 Posted by **Ellis Easley** on 18 May 2003, 3:57 p.m.,*
in response to message #3 by ValHallA|SW

If you have the balls, or can find the balls, or can even use the balls (what's happened to this discussion group?!!), I can send you an article from the PPC Journal detailing how to use an even earlier HP calculator AC adapter to power the 41C via the connection Diego is talking about. You just need a stable 6VDC but this article show how you can make the connector to mate with the... balls!

Re: HP-41 CV Charger?

*Message #5 Posted by **Diego Diaz** on 18 May 2003, 5:08 p.m.,*
in response to message #4 by Ellis Easley

Well... er... about the balls, I can swear I've got no pics of'em... Ok, just kidding, let's say first I used a pair of seteel balls out from a bearing, they are 3'15mm diameter, the springs are 8mm length x 3,25mm diameter, I know for sure as I still keep a pair of each as spares.

The main question here, prior to attepmt any task, is to determine if your 41 is a Halfnut or a Fullnut, Half's have a rounded corner bezel in the display... (Luiz, some of your great pics may help a lot in here!) while Fullnuts have a squared corner display.

If yours is a Halfnut theres nothing you can do with the "balls/spring" solution, unless you *really* want re-engineering your 41 guts (Well, not that serious but somewhat messy). If it's a Fullnut then the PPC article Ellis mentioned should be of great help.

The standard HP connector shown in the picture I sent you comes into the 82120A Battery Pack installed in the calc thru the rigth side small port. This is obviously useless if you dont have the said 82120A. Anyhow if you remove this small port cover you'll see two small holes from wich the said balls shows a bit and make their contact with the (so called) "DIY" unnofficial connector.

I'm sorry but I've got no pictures of my calc (neither... ;-) nor my camera handy.

Keep the contact and kind regards.

Re: HP-41 CV Charger?

*Message #6 Posted by **Chan Tran** on 18 May 2003, 8:51 p.m.,*
in response to message #5 by Diego Diaz

Why not just use the 82120 battery and charger? If you don't want the battery you can remove the battery and install in the pack regulation cicuitry to regulate the power. That way you don't have to mess with the inard of the calculator.

Re: HP-41 CV Charger? (sorry I'm late...)

*Message #7 Posted by **Vieira, Luiz C. (Brazil)** on 19 May 2003, 12:41 a.m.,*
in response to message #5 by Diego Diaz

Hi folks;

I simply did not pay enough attention to the thread's main theme, only now I woke up for it.

I think all important issues have already been discussed here: the stable 6Vcc power supply, the (originally golden plated) connecting balls and springs, the difference between full- and half-nuts, and so.

There is only one thing I'd like to mention about Chan Tran's suggestion of using the regulator only. I thought about using the 82120A without batteries and simply plugging it in so it would rectify and stabilize the inward voltage. The only problem is that the rechargeable cells are "part" of the regulating circuit. You can remove them and the only active component that will keep voltage under the 6.2 Vcc is a single zener diode. It goes in parallel with the batteries. I'm affraid it's too much responsability for a single component. If it fails, 12Vcc through a low-value resistor (about 300 ohms) will reach the circuits...

I think I understand that Chan Tran suggests not to open the calcualtor to add balls and springs (is it correct?), and I agree with the fact that it's necessary a bit of care and skills to accomplish the related tasks. Hey, ValHallA (from Switzerland, sounds "godish"), do you have the skills to open it and try? I have some pictures that show an HP41 being disassembled. I'll find them and post them soon.

Good luck!

Luiz C. Vieira - Brazil

Re: HP-41 CV Charger? (sorry I'm late...)

*Message #8 Posted by **Chan Tran** on 19 May 2003, 8:54 a.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Yes Luiz. I suggest not to open the calc to intall balls and contacts. I think if we install a 3 pin voltage regulator and a capacitor we can be quite sure that we will get a stable supply.

Re: HP-41 CV Charger? (sorry I'm late...)

*Message #9 Posted by **Ellis Easley** on 19 May 2003, 12:32 p.m.,*
in response to message #7 by Vieira, Luiz C. (Brazil)

Also, the internal charging circuit in the 82120A will only provide about 16 mA, not enough to run the card reader.

Re: HP-41 CV Charger?

*Message #10 Posted by **Diego Diaz** on 18 May 2003, 5:22 p.m.,*
in response to message #4 by Ellis Easley

I've found this pic, from a later post of Luiz, that surely helps you to determine your type of calc.

This image is an original MoHPC.

Cheers!

Re: HP-41 CV Charger?

*Message #11 Posted by **ValHallA|SW** on 19 May 2003, 8:26 a.m.,*
in response to message #10 by Diego Diaz

Got both a halfnut (my new HP-41) and a fullnut (my old HP-41) :)

Uhm, i'm from the Netherlands by the way, ValHallA|SW is jus a bit stolen from RedHat: ValHallA is 7.2 and SW = SeaWolf=7.1, im not sure 'bout the versions ;)

Where can i find a battery with charger? ATM there arent any @ ebay I guess...

and 'bout the balls, if i'm right, you put those springs IN those holdes with a ball on top of it? :)

Re: HP-41 CV Charger?

*Message #12 Posted by **Diego Diaz** on 19 May 2003, 9:40 a.m.,*
in response to message #11 by ValHallA|SW

Right: one end of the springs relys on the keyboard PCB golden pads, the othed end pushes the small balls against the case hole, making them to rise about 0,3mm wich is enough for the appropriated sized connector to have a good electrical contact.

I'm sorry not having pictures of the "real thing", anyhow you seem to got the main idea.

Remember this is only suitable for the Fullnut!

One more thing, if you decide to face the task, remember to check the screw-post and make sure they are in good shape, as springs will require a little more strength to hold both case's halves tighten.

I agree with Luiz regarding the battery-less 82120. By the other hand regulated 78xx circuit re-design, though simple in concept, may fall far beyond the common user skills. Please ValHaLa, let's know if you feel comfortable with soldering irons and pliers in your hands, if this is the case, we may have a lot more to talk about.

Kind regards from the Canaries.

Diego.

Re: HP-41 CV Charger?

*Message #13 Posted by **ValHallA|SW** on 19 May 2003, 11:34 a.m.,*
in response to message #12 by Diego Diaz

I'm comfortable with soldering irons, but i'm gonna try something else firt; i'll take onde of the battery-cases, drill a hole whare the hole in my calculator is, make some sort of connector there & connect it to a transformat. Voilá! (i hope :))

Anyhow, i'm at least /interested/ in your HP41-wirering, so please post it.

Thx.

Re: HP-41 CV Charger?

*Message #14 Posted by **Vieira, Luiz C. (Brazil)** on 19 May 2003, 12:40 p.m.,*
in response to message #13 by ValHallA|SW

Hello, ValHallA;

just to tell you that exactly in the same direction of the square hole there is a "male-type" connector so you can directly connect an original AC adapter; this AC adapter is the one reated 8VAC, 3W, as you mentioned in your first post. I'm not sure you'll be able to drill it, otherwise you can remove the 82120A male connector, instead. I'd suggest, if you don't mind, keeping it as it is and try to build a connector to be used with the existing 82120A male connector. Just another possibility, you're the one that knows better what to be done. As you mentioned, what matters is your HP41 working.

A bit off-topic: I have many Philips tape-decks form the 70's, some of them disassembled and others ready to play/rec. They are still good equipments, and looking at their schematics, you could teach how to design basic amplifiers, pre-amplifiers, oscillators and (in some cases) power-supplies. I still have an operational N-2510, a stereo-cassette recorder that uses a motor with a mechanically-coupled generator. Bothe are built in one single piece and share the same axes. It's a piece of engineereing design. I am shure Norm would like having a look at it.

I hope you have success, my friend.

Best regards from Brazil.

Luiz C. Vieira

Re: HP-41 CV Charger?

*Message #15 Posted by **Ellis Easley** on 19 May 2003, 1:08 p.m.,*
in response to message #13 by ValHallA|SW

ValHallA|SW, I have emailed the PPC Journal articles to you. They are gif files and I don't have anywhere to host them.

Re: HP-41 CV Charger?

*Message #16 Posted by **ValHallA|SW** on 19 May 2003, 3:00 p.m.,*
in response to message #15 by Ellis Easley

<getting-tired@check-one-of-my-earlyer-posts.com> :-)

I rcvd it, dont worry 'bout the size, i got DSL :) (btw, it was only 700K)

Uhm, i dont really understand it i guess.... if i understand it right, the idea (part 1) is to make a connector for those golden balls (???) part 2 is for the charger adaptor (if i'm right)--

I guess a pic woukld help :(

Re: HP-41 CV Charger?

*Message #17 Posted by **Vieira, Luiz C. (Brazil)** on 19 May 2003, 3:36 p.m.,*
in response to message #16 by ValHallA|SW

Hello;

you're right: these are different subjects.

The "golden balls and springs" connectros allow you to directly connect a pure, glitchless, noiseless 6VDC directly to the batteries terminals. SPECIAL care is needed here. I use a spare set of four D-size cells so when I have to read cards or use the wand I simply plug it in, regular batteries inside or not. Works great.

The 82120A rechargeable battery pack use an 8VAC, 3W AC adapter. The first thing you have is a four-diode complete-wave rectifier and an electrolytic capacitor. At its terminals you have about 18VCC. After this you have a 12VCC regulator, a 1W, 390 ohms (about that) resistor, a 6.2V zener diode and the four rechargeable batteries.

The rechargeable pack uses AC current, and you MUST use DC in the balls connectors.

Hope this clarifies a bit more.

Success!

luiz C. Vieira - Brazil

Re: HP-41 CV Charger?

*Message #18 Posted by **Ellis Easley** on 19 May 2003, 4:23 p.m.,*
in response to message #16 by ValHallA|SW

ppcv7n2p25-27 is an early article describing how to modify an AC adapter for an HP Classic calculator so it can be used to run an HP41C via the "balls connector". The pictures aren't very good but the description of how to build the plug to mate with the balls is very detailed.

pssch is just the schematic of the original Classic recharger from this article.

ppcv13n9p11-12 is a later article discussing the reason why the card reader causes alkaline N cells to have a very short life in the 41C. At the end of the article is a discussion about a possible AC adapter to run the 41C and another description of how to make a connector to mate with the balls.

82120sch2 is my schematic of my 82120A rechargeable HP41C battery pack charging circuit (I've heard there are different versions). Chan had suggested you could just use this circuit, without the NiCads, to run the calculator. It biases a 6.2V, 400 mW Zener at about 100 mW, so I think it would be reliable, but it will only provide about 16 mA which is enough to run the calculator but not the card reader (6mA, 250 mA per ppcv13n9p11a). This would only be an option for you if you had an 82120A anyway.

Re: HP-41 CV Charger?

*Message #19 Posted by **Howard** on 20 May 2003, 7:47 a.m.,*
in response to message #2 by Diego Diaz

I must have missed something. How do the gold balls get the power from the charger plug into the calculator circuits? Do they perform the same sort of function as the gold (brass) plate does on the HP45,

HP67 etc.? If so how?

Re: HP-41 CV Charger?

*Message #20 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2003, 8:50 a.m.,*
in response to message #19 by Howard

Hi;

the golden-platted balls are connected to the keyboard by two golden-platted springs that also keep them in place. Only the fullnuts are "balls-ready", what means they already have the (-) and (+) pads under each "ball+spring" set. You can use an external 6Vdc power supply to "feed" the circuits.

Many fullnuts and all halfnuts do hot have the balls, and no halfnut has the pads. One can use extra self-adherent copper trails and create these pads, taking care not to shorten existing trails, and connect these extra pads to the batteries connectors with extra wiring. I have not done it so far, but I have fed halfnuts under repair through external batteries set. Not hard to add.

Hope this answers your questions. If not, let us know.

Best regards.

Luiz C. Vieira - Brazil

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Looking for LCDLEX source file

*Message #1 Posted by **Alain** on 18 May 2003, 8:43 a.m.*

Hello all,

I'm looking for the source file of the LCDLEX. This lex for the 71b changes the display behavior. I looked in all the LIF files I have and couldn't find the source file.

If anybody of has it, can you email it to me ?

Thanks !

Alain Robillard

Re: Looking for LCDLEX source file

*Message #2 Posted by **Chris Catotti (Florida)** on 18 May 2003, 10:14 p.m.,*
in response to message #1 by Alain

Have you read the users' clubs' Swap Disks README file and looked in the users' clubs' Swap Disks folders?
Chris Catotti
http://home.earthlink.net/~kd4ace/images/PPC_Logo.jpg

Re: Looking for LCDLEX source file

*Message #3 Posted by **Alain** on 19 May 2003, 7:37 a.m.,*
in response to message #2 by Chris Catotti (Florida)

Thanks Chris,

based on you suggestion, I had a closer look at the files in the swap archives and noticed that there was another LEX with the exact same list of function. I cross-checked with the version reported with VER$ and concluded that LCDLEX and DSPLEX are the same. Good news, DSPLEX source file is there !

Alain Robillard

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Re: HP 41 battery/port connector

*Message #1 Posted by **ValHallA|SW** on 18 May 2003, 6:35 a.m.*

Uhm, I've got a card reader, an im getting pretty tired of not being able to work with it, and i a too lazy to go run to the store and buy those really expensive betteries. Has anybody a pic of the connector from the charger? Plz post it here :)

Thx, ValHallA|SW

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Re: PDF files (yes, the Reader is a different story)

*Message #1 Posted by **James M. Prange** on 17 May 2003, 6:40 p.m.*

The PDF files are often huge, but I expect that a lot of this depends on how the file was made. PDF does have its advantages, but sometimes a plain text or HTML file would serve just as well.

Regarding Acrobat Reader, it seems to exit ok if I use it for a local file, but if I click on a URL and then go to something else or close the browser, I still have a process, acrord32 if memory serves me, that keeps running until I kill it myself. If I don't stop acrord32 and click on another PDF URL, I'll have yet another instance of it running.

I don't know whether the problem is really in Acrobat Reader or in MS Windows 98SE or the browser, but certainly something isn't working the way it should. But for know, I've gotten in the habit of killing acrord32 myself.

Regards,
James

Re: PDF files (yes, the Reader is a different story)

*Message #2 Posted by **Vassilis Prevelakis** on 18 May 2003, 2:28 a.m.,*
in response to message #1 by James M. Prange

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James M. Prange wrote:
> I don't know whether the problem is really in Acrobat Reader or in MS Windows 98SE or
the browser [...]
```

My stock answer is "Don't like it, don't use it." :-)

Seriously, Windows 95/98/ME is a pathetic collection of legacy code and band-aid fixes that sort of work.

Use a real operating system such a Windows NT or 2000, or if you cannot afford one of them, an Open Source Unix clone (e.g. Linux or one of the BSD varieties).

**vp

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41CV Gone Wild!

*Message #1 Posted by **gifron** on 17 May 2003, 6:15 p.m.*

I just bought a 41CV from the other side of the world (I like to take risks). Supposedly it worked great, but here's the rest of the story...

Usually, it works. Sometimes though: 1. The tan key (and less often, the sin and cos) has to be pushed several times for it to function. After it works one time though, it does fine for a good little while. 2. The display goes crazy, displaying weird symbols, lots of dim commas, this is especially true when I use the card reader (but sometimes it works just fine with the reader). 3. When the display goes crazy, I usually (but not always) can't CLx or turn it off. I have to remove the batteries. It maintains its short term memory, so that if I replace the batteries pretty quickly, it will once again display the weirdness. 4. Sometimes, when it goes crazy, I can hear a faint buzzing/tweeting sound. 5. There haven't been any crop circles in my back yard for over three months now, so I doubt that has anything to do with it.

There's no visible damage or corrosion.

Any help will be greatly appreciated.

Re: 41CV Gone Wild!

*Message #2 Posted by **Diego Diaz** on 17 May 2003, 8:11 p.m.,*
in response to message #1 by gifron

X files apart (wich includes the classical "User error. Please replace user and press any key" (excuse me for the old joke), the 41 trouble-shooting is usually a question of:

a) Chemical (Corrosion -visible or not-)

b) Mechanical (Case tightness)

c) Electrical (Cap's, Transistors, IC's...)

a) and b) beeing the *winners* for a huge score. Symptoms you've described are more likely to be also on their count.

In the c) case Fullnuts still have some chances for minor repairments, while Halfnuts are mostly "unserviceable".

So my advice should be:

Take your 41 apart, clean thoroughly every contact area you see (Iso-Propyl Alcohol, diluted venegar, etc.) Make sure the plastic poles where screws fit are in good shape, without cracks and every hole have a good thread for the screws to thighten properly, fix them if needed.

Once you've cleaned and checked/fixed the above, chances are you get a nice working 41 after reassembling.

Hope this help in anyway.

P.S.: O.K. I'll tell my "coleagues" to stop "circling" in your backyard. ;-)

Diego

Re: 41CV Gone Wild!

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 17 May 2003, 11:04 p.m.,*
in response to message #1 by gifron

Hello, Gifron (I remember I saw your name in posts here sometime ago... Is it correct?);

I'd ask you where does your 41 come from, but I prefer this to be kept between you and the seller.

I agreee with Diego Diaz, but I want to ask you: is yours a fulnut or a halfnut?

This image is an original MoHPC.

If yours is a fullnut (original, earlier HP41 LCD) that you may also check for the zebra connectors (there are at least four types) between the mainboard and the keyboard.

The main difference from both types is not the LCD, but the LCD "look" is the best way to identify both types. For their guts, fullnuts have a separate mainboard with all components except LCD assy, while hafnuts (except for the CX) have only one PCB with keyboard, main "nut" CPU (not a nutz CPU... thanks to Doc. Mike, I could not resist; sorry) and LCD assy built in. This characteristic makes the fullnuts "serviceable", while halfnuts allow minor maintenance.

If you need extra advice, provided the type you have, let us know.

Success!

Luiz C. Vieria - Brazil

Re: 41CV Gone Wild!

*Message #4 Posted by **Wayne Brown** on 18 May 2003, 1:47 a.m.,*
in response to message #1 by gifron

You've already gotten good advice from Diego and Luiz, but I wanted to bring up one more possibility. You said sometimes the problems are worse when you use the card reader. Do you leave the card reader plugged in all the time, even when you're not using it? If so, try removing the reader (and any other modules) and see if the problems still happen. Many of the symptoms you describe (especially the "faint buzzing/tweeting sound" and weird displays) can appear when a module is not making good contact in one of the four module ports. The port used by the card reader is especially susceptible to this kind of problem, because the reader only fits one port and people usually remove and reinsert the reader more often than other modules, so the contacts in this port may suffer more wear and tear than in the other ports. If the problems *only* happen when something is plugged into one of the ports, then try gently cleaning the contacts on both the module and the port and see if that makes a difference. (You may find that some modules work better in some ports than in others, so it might help to switch them around a bit. Unfortunately you don't have a choice with the card reader.)

Since testing the ports doesn't require opening the calculator, I suggest that you try my suggestions first beofre looking for more serious problems.

Very good points, indeed! Read this first.

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 18 May 2003, 2:31 a.m.,*
in response to message #4 by Wayne Brown

Hi Gifron, Wayne, folks;

Wayne is 100% correct, and I must admit I was lazy with this concerns. Nothing else to add, just my complete support.

Good reminds, Wayne; thanks.

Luiz C. Vieira - Brazil

Re: Very good points, indeed! Read this first.

*Message #6 Posted by **Diego Diaz** on 18 May 2003, 7:24 a.m.,*
in response to message #5 by Vieira, Luiz C. (Brazil)

I have to agree, Wayne's and Vieira's advices are really on the good track.

They've both pointed out what I simply express by: "every contact area", thus including I/O ports block as well as zebra strip connectors between processor board and keyboard PCB (I should have been more precise indeed on my first post, excuse me).

Anyhow, it's my opinion that *every* unknown, previosly owned, 41 (or whatever) MUST be taken apart, thorougly cheaned/checked, and reassambled, even if it works perfectly at first glance. Well I'm a "hardware nut" after all... ;-)

This is to be sure that no hidden corrosion is eating your precious 41's guts and to prevent minor cracks in the screw poles to become a bigger problem when they (sooner or later) fully break down.

Please confirm if our advice has been of any help.

Cheers from the Canaries.

Re: 41CV Gone Wild!

*Message #7 Posted by **gifron** on 19 May 2003, 10:46 a.m.,*
in response to message #4 by Wayne Brown

Thank you all for your suggestions.

1. The module ports looked good as far as I could tell.

2. The screws were tight, but I took it apart and checked the posts for cracks anyway. No cracks found.

3. I cleaned all the contacts and reassembled to test. Screws held tight. Turned it on. Different garbage than before, but still garbage. I figured I needed to clean it a little better.

4. Disassembled, and recleaned. Reassembled. Different garbage #3. Hmmm...

5. Wondering about making good contact along the zebra strips, I pressed hard on the lower portion of the

keyboard, and the garbage changed to a regular display! Kept up the pressure while running a card through the reader - No problem!

6. Disassembled. Sure enough, the left bottom post was cracked. I guess I didn't check it good enough. There's also a teensy tinsy crack at the top of the right bottom post.

7. Next step is to repair the posts. I've seen several suggestions for this repair, from longer screws to plastic weding solvent, to adhesive. Which is best? I know, it depends who you ask ;) Any STRONG opinions though?

Thanks.

Re: 41CV Gone Wild!

*Message #8 Posted by **Diego Diaz** on 19 May 2003, 10:57 a.m.,*
in response to message #7 by gifron

My answer goes to the top of the forum...!? I can't really tell what has gone wrong!!

Anyhow you can follow your thread there.

Sorry about the "misplacement".

Regards.

Re: 41CV Gone Wild!

*Message #9 Posted by **David Smith** on 19 May 2003, 11:12 a.m.,*
in response to message #7 by gifron

Do NOT use superglue. It will not hold for long. Use the plastic welding solvent.

Longer screws (if you can find them) are definitley a good idea. The screws are a #2-28 selft tapping screw. If they are long enough they can reach into the reinforced area of the keyboard frame below the posts. I have fixed several machines with totally sheared off posts with longer screws. The posts are now only bushings that keep the CPU card centered in the screws.

Plastic washers!

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 19 May 2003, 12:59 p.m.,*
in response to message #9 by David Smith

Hi;

some fullnuts come with two plastic washers thicky enough to maintain pressure over the mainboard. They come between the mainboard and the back case, having the screw posts "inside" it. I built at least three sets with the same plastic used in current calcualtor "blisters", their thickness is enough. If you cannot find washers that precisely fit around the screw posts, you should anly take care when cutting the "custom" washers so they are not large enough so they will fit right under the back case screw holes and supports, as you'll easily see.

I can add some scanned images, if you need so.

Success!

Luiz C. Vieira - Brazil

Re: Plastic washers!

*Message #11 Posted by **David Smith** on 20 May 2003, 4:46 p.m.,*
in response to message #10 by Vieira, Luiz C. (Brazil)

First came HP41's where the CPU board was held down by two nuts. Problem was you could only undo the nuts once and still be able to have them hold the board down. These machines have two flat bottom screw bosses that touch the top of the bottom screw posts.

Next came the fat washers. They replaced the nuts. They are a teeny tiny bit taller than the screw posts. The flat screw bosses touch the top of the washers that hold the CPU board to the zebra strip.

Next came the no washer units. They had a modified screw boss with an indention in it that was as deep as the fat washers were thick. The CPU board was held down by the screw bosses.

Next the CPU boards were made of a slightly thinner material. Then appeared two very thin little shim washers to take up the slack.

Finally came the half-nut machines that had no CPU board to hold down agains those pesky little zebra strips.

And now it comes...

*Message #12 Posted by **Vieira, Luiz C. (Brazil)** on 20 May 2003, 5:41 p.m.,*
in response to message #11 by David Smith

... the nut*less* HP12C Platinum! cheers

Luiz C. Vieira - Brazil

Re: Can't find the solvent!

*Message #13 Posted by **gifron** on 23 May 2003, 10:25 a.m.,*
in response to message #9 by David Smith

The solvent recommended is methylene chloride, aka methylene dichloride (MDC), dichloromethane (DCM). I've found out that it is used in paint strippers, as a blowing agent in polyurethane foams, and as a decaffeinating agent, and that it causes cancer (depending upon whom you listen to). Nevertheless, I can't find any to use on my calculator. I found some paint strippers that contain it, along with a host of other unpronounceables, but not the straight stuff. As expected, any time I ask a store employee for help finding dichloromethane, they look just as lost as I do. Where can I find this stuff? Is there a brand name I can ask for?

Thank you in advance.

Re: Can't find the solvent!

*Message #14 Posted by **Frank Wales** on 23 May 2003, 5:23 p.m.,*
in response to message #13 by gifron

I bought some recently over the counter in a pharmacy. The smallest size they sold was 500ml, and they had to order it in from their supplier, so it took a day to get. No hassle, though.

Re: 41CV Gone Wild! - Update

*Message #15 Posted by **Diego Diaz** on 19 May 2003, 10:49 a.m.,*
in response to message #1 by gifron

As far as I've got to understand those crack's must not be too conspicuous, otherwise you'd have seen them at first glance.

So may be a single Superglue drop should be enough, let it fill the gap in the crack, then, wire-wrap the pole to turn it to its original shape and let it dry overnigth.

Longer screws are a good idea, but remember they are self-tapping, so you must screw them whith extreme care going back and forth in no more than 1/8 or 1/4 of a turn on each step as the new thread is forming, take your time.

Even the original shorter screws must be treated with the same care, due to possible Superglue filling of the old thread inside the plastic post.

This is my approach, hope it helps you.

Cheers!

Diego.

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Re: a matter of degrees of tickle

*Message #1 Posted by **Christof** on 17 May 2003, 5:02 p.m.*

I'll have you know that we at AOL do not advocate nor provide customer support for ROTFLMAOWMP

For lesser levels of amusement we have a remedy. It only take a few days. just open you mailbox and the bill with a happy envelope should calm you down.

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Two versions of the HP-17BII ?

*Message #1 Posted by **jose goncalves** on 17 May 2003, 1:33 p.m.*

I read somewhere in the Museum that there are two versions for the HP 17BII: one is English and the other is International. Is this correct ? How can we tell the difference if we can check the machines ? What are those differences really ?

Re: Two versions of the HP-17BII ?

*Message #2 Posted by **Neil** on 17 May 2003, 6:47 p.m.,*
in response to message #1 by jose goncalves

Hi Jose,

In the international version, you have an extra option in the modes menu called 'INT'. When you select this, you come to a menu with the choice of German, English, Spanish, French, Italian, and Portuguese languages. Additionally, when you run the self-test, there is an extra ROM called ROM2 (I guess this is where all the international stuff is kept.

Re: Two versions of the HP-17BII ?

*Message #3 Posted by **jose goncalves** on 17 May 2003, 8:21 p.m.,*
in response to message #2 by Neil

Well, I assume then that the English version will not have neither this option nor the second ROM. Is this correct ? I'm pretty shure both my HP17BII are int version.

Are there any other HP calc with such particular variety of choices ?

Re: Two versions of the HP-17BII ?

*Message #4 Posted by **Vieira, Luiz C. (Brazil)** on 17 May 2003, 10:37 p.m.,*
in response to message #3 by jose goncalves

Hello, Jose; tudo certo? (kinda Howdy? in Portuguese)

I was not aware of this Intl. HP19BII against the English-only. I have an HP19BII (Clamshell, like the HP28) that has the international choice (messages and menu labels in five languages, Portuguese included). I am not sure if there is an English-only HP19BII since it offers this international choice from it's very first appearance.

Good to know about it.

Hey, have you updated your HPcalcs timeline? There are a few new addings, and you may insert the HP12C Platinum... unless they find a parking place and smash the existing units with a hammer. And Gene, keep yours for now! No one knows what passes over HP's staff. Maybe they are, in fact, testing hammers' marketplace since the Xpander.

Best regards.

Luiz C. Vieira - Brazil

Re: Two versions of the HP-17BII ?

*Message #5 Posted by **James M. Prange** on 18 May 2003, 4:49 a.m.,*
in response to message #3 by jose goncalves

Well, the 49G doesn't come in different language versions, but it does have some multilanguage message tables. Some tables are English, French and Spanish, some are English and French, and some are English only. If you set it up for French or Spanish and the particular message table doesn't have the chosen language, then it will default to English.

I gather that for any 48 series or 49G, it's not all that difficult to install your own message tables, but I've never tried it as, being rather language impoverished, anything but English would be pretty much "Greek to me". If you're interested enough to write your own message table, then I suggest that you contribute it to hpcalc.org; other users may appreciate it.

Regards,
James

Re: Two versions of the HP-17BII ?

*Message #6 Posted by **jose goncalves** on 18 May 2003, 10:23 a.m.,*
in response to message #5 by James M. Prange

Hi. Thanks for all your comments. As always, I learn a lot every time I visit the Museum. Well, my main interest is as a calc collector. I don't have the intention or the knowledge to write my own messages or tables. What I know now is that I have to look for an English only HP17BII to include in my collection.

Re: Two versions of the HP-17BII ?

*Message #7 Posted by **Christoph Giesselink** on 18 May 2003, 4:19 p.m.,*
in response to message #3 by jose goncalves

Well, I assume then that the English version will not have neither this option nor the second ROM. Is this correct ? I'm pretty shure both my HP17BII are int version.

You can also check the version numbers of the ROM(s).

```
- Press <CLR> + <SK4> for single test mode
- Press <- to enter memory browser.
- Press . to eval shown address (021E8:71...)
```

On the top left side you see one or two letters, the 1st is the ROM rev. of the main ROM, the 2nd is the ROM rev. of the language ROM.

Both of my HP17BII (Malaysia/Indonesia) have rev. BA.

BTW, the number on top right is an error code (of last restart?).

> Are there any other HP calc with such particular variety of choices ?

Yes, there are. The predecessor of the HP17BII the HP17B was also build in these two versions. My

two HP17B (both Singapore) have rev. BB.

The HP19B and HP19BII was always sold in the international version. Here it had make no sense because the was enough room (128KB) in the ROM for the international version, whereas the international versions of the HP17B(II) need the additional 32KB ROM chip.

Christoph

The HP-17BII also has a memory browser !

*Message #8 Posted by **jose goncalves** on 18 May 2003, 7:14 p.m.,*
in response to message #7 by Christoph Giesselink

Here I go again ! Learning all the time. I knew the HP42S had this feature, but the unsuspected HP17BII too ! That's something ! Well, then my natural question is this: which other Pioneers have the memory browser ?

Re: The HP-17BII also has a memory browser !

*Message #9 Posted by **Christoph Giesselink** on 18 May 2003, 7:24 p.m.,*
in response to message #8 by jose goncalves

HP17B, HP17BII, HP27S, HP42S

So all high end Pioneer series calculators base on the Lewis chip.

Minor difference, the HP17B amd HP27S don't support arrow up and down for #01000 steps like the HP17BII and HP42S do.

Christoph

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Recalibration of HP-01

*Message #1 Posted by **Thomas Reins** on 17 May 2003, 12:30 p.m.*

Hi. I have a 1977 model HP-01 watch that is losing much more than the 30 seconds per year these were originally calibrated for. I'd like to recalibrate it, if possible. Does anyone here have any knowledge, either direct or as a web reference of this procedure? I can't seem to locate any potentiometers on the board at all, there seems to be no adjustments to tweak - though admittedly I've been unwilling to completely disassemble it without further information... I'd really like to get this thing back up to specs - as it is now, it loses about a second per day - 00:06:15 per year. Does anyone here remember anything about the method to correct this?

The crystal oscillator engineer speaks

*Message #2 Posted by **NH** on 18 May 2003, 4:28 p.m.,*
in response to message #1 by Thomas Reins

Hello,

I have done design work on little crystal oscillator circuits previously. Some of them were for 32.768 kHz, others were for 14.31818 MHz .

Anything I came up with was strictly ho-hum, using a dedicated CMOS cell that was designed on a silicon chip layout software. Little more than a 2-transistor logical inverter really.

You bias it to the halfway point, like, if it is a 3V supply, then you bias it to 1.5V . It acts like a little amplifier, and with the right load capacitors, you get a reliable oscillator. If you mind your P's and N's, maybe low-current consumption also.

BACK TO YOUR CALCULATOR WATCH, I have 3 suggestions, and the 3rd suggestion is the one to focus on:

1. you might conceivably try to change out the crystal. Probably it is in some tiny oddball metal-can, but I have seen some very small packages for 32.768 kHz. NO, I dont even know if your HP-01 runs on 32.768 kHz it might be something else. Also, if you did replace it the result may be worse than if you left it alone. You could solder the original back in, unless you had destroyed it with the extra handling, which is a 50-50 chance.

2. If you can see little load capacitors (typically there are two) each of which goes from either terminal of the crystal, to ground, then you may have something. Increasing the capacitance typically slows it down, less capacitance increases the speed. Since yours is running too slow, you'd need to have less capacitance. BAD NEWS, these capacitors are often integrated onto the custom silicon die (thats how I did the ones I designed).

3. You could leave it alone. If you lose one second per day, that's nuthin'. Twice a year you have to reset it for daylight savings time. And what most of us do with a watch that runs a little slow, is you set it about 3 minutes fast. After a couple months, it will be right on, and after that, it will be a little slow.

Perfectionism is a dangerous game when dealing with old nostalgic items. You have something thats pretty good, and it works. Start messing with it and you break it, then you have nothing (because its been discontinued by those clueless marketeers so there is no factory building you more).

Good luck,

- Norm

Re: Recalibration of HP-01

*Message #3 Posted by **Ellis Easley** on 18 May 2003, 5:33 p.m.,*
in response to message #1 by Thomas Reins

30 seconds per year is less than 1 part per million! The "pretty good" canned oscillators that go in computers are spec'ed 100 ppm, I think - I don't know how that compares to "broadcast standards". My DigiKey 2000 catalog has oscillators in +/- 100, 50 and 25 ppm. Also 32768 cylindrical can crystals in three sizes: 5.1mm long X 1.5mm dia, 6.2 X 2.1 and 8.2 X 3.1.

I wonder how they got such a high accuracy on the HP-01? It must have some kind of adjustment, but as David Smith says the module is non-repairable, maybe it is a thick film hybrid, laser trimmed.

Re: Recalibration of HP-01

*Message #4 Posted by **Dave Shaffer** on 18 May 2003, 7:07 p.m.,*
in response to message #3 by Ellis Easley

I've never seen the inside of an HP-01, but many other digital watches, even the cheap Casios, have a little variable capacitor somewhere inside for diddling the oscillator frequency. If you can get inside, look for something with a screwdriver-like slot. Try turning it (carefully, and not too much!) and track the time for a few days to see if things got better or worse. Repeat as necessary.

If you just want accurate time, for $30 you can get a desktop clock that receives the low frequency (60 kHz) signals from WWVB. It stays within a few microseconds.

If that's still not good enough, let me know. I'll take you with me the next time I go (radio astronomy) observing. We know the time to within a few billionths of a second at most of our stations. After we do a Very Long Baseline Interferometry experiment, we know the relative time betwen antennas all over the world to about 0.1 billionth of a second. (Or, at least what it was a week ago, when we did the experiment!)

Re: Recalibration of HP-01

*Message #5 Posted by **Chan Tran** on 18 May 2003, 8:58 p.m.,*
in response to message #4 by Dave Shaffer

I didn't know that the HP01 has such a good accuracy. Most of the watches I can find have the spec of +/- 15 seconds/month which is a lot worse. May be the 01 was calibrated using software similar to the AF factor in the 41 clock module. By adjusting the AF factor in the 41 I can achieve similar accuracy. Actually my 2 HP41 gain less than 5 secs a year.

Re: Recalibration of HP-01

*Message #6 Posted by **David Smith** on 18 May 2003, 9:19 p.m.,*
in response to message #1 by Thomas Reins

The HP01 crystal is not 32768KHz. I think it is 768KHz, but dont know for sure. It has been ages since I opened up my HP01. I seem to remember that the crystal is one of the few components that could possibly be changed. I don't remember if there is a tuning cap on the crystal either.

Re: Recalibration of HP-01

*Message #7 Posted by **Thomas Reins** on 19 May 2003, 12:01 p.m.,*
in response to message #6 by David Smith

Well, it's cased in plastic at the moment, and I don't even know how it's supposed to be removed, whether it pops out or screws out, and I don't want to force it either way. Most of the electronics I've calibrated/repaired were larger things - oscilloscopes, spectrum analyzers, &c... Bigger parts, and a schematic diagram... How did you go about getting the innards out of the case without damaging the whole board?

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HHP EPROM

*Message #1 Posted by **Kim** on 17 May 2003, 11:28 a.m.*

I have just bought myself a HHP combo 64k Ram 32k Rom (what would life have been without ebay). The RAM works great in port 5 (01 & 02) and it even tells me with SHOWPORT that port 5.00 has 32k (type 2=ROM). Has anybody here tried to program an EPROM for HHP (or know how it's done), what type EPROM is it 27256?.

I have considered using it as a hardwired or memory mapped I/O.

Kim

Re: HHP EPROM

*Message #2 Posted by **Ellis Easley** on 17 May 2003, 12:56 p.m.,*
in response to message #1 by Kim

My Hand Held Products brochure comes in Handy again! It says the following:

```
Using Your EPROM Carrier


  If you wish to add EPROM capability to your
HP71, three different Memory Modules are
available:


* 32K EPROM Carrier
* 32K EPROM Carrier with 32K RAM
* 32K EPROM Carrier with 64K RAM


  EPROM functions are identical in all three
versions.
  You may install up to 32K of EPROM in your
71M/M EPROM Carrier. The Carrier will accept the
following: Intel compatible, CMOS, 27256, 200
nanosecond or faster.


  Addressing the Memory ...
  Memory in each EPROM Carrier version is parti-
tioned in 32K increments and addressed in these
locations:


* 32K EPROM ... Port 5.0
* 32K EPROM/32K RAM ... Ports 5.0 and 5.01
* 32K EPROM/64K RAM ... Ports 5.0, 5.01, and 5.02


  Programming the Memory ...
  Hand Held Products offers SDS (System
Development Software) for programming your 71
M/M EPROM. The EPBURN SDS may be pur-
chased for a nominal charge if you wish to burn
your own programs into EPROM.
  Hand Held Products can also perform quick
EPROM burns for you at our facilities. Call or write
if you'd like additional information on this low cost
service.
```

prices (August-September 1988 discount letter):

```
32K EPROM Carrier - $95 reduced from $115
32K EPROM Carrier with 32K RAM - $225 / $275
32K EPROM Carrier with 64K RAM - $300 / $375
  (typo - says "32K RAM/64K EPROM" - in letter only)
```

I have a Psion Organizer which comes in a slide-out case, has a two line LCD display and a rectangular-array keyboard and runs on a 9V battery. I bring it up because one of the types of memory modules that can be plugged into it is EPROM modules and the Organizer has the ability to write to the EPROM. It treats it as write-once mass storage. The modules have the quartz window exposed so you can erase the EPROM and start over. Psion sold a UV source for this purpose.

Psion (O.T.) question

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 17 May 2003, 3:09 p.m.,*
in response to message #2 by Ellis Easley

Hello, Ellis;

I remember I saw a Psion Organizer that follows your description, but it happened in the 80's (earlier version?). Anyway, I remember that the owner told me (and showed me) it was able to instantly recognize modules connected to it while it was switched to ON, smoething like PCM_CIA management. Do you (or anyone else) know if this is indeed a correct procedure? I remember he showed me the current configuration and then he plugged a RAM module in and checked again the configuration: instead of EMPTY it had an 8KRAM. What I want to know if this sort of procedure is correct.

Best regards.

Luiz C. Vieira - Brazil

Re: Psion (O.T.) question

*Message #4 Posted by **Ellis Easley** on 17 May 2003, 8:27 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I would call that "hot-swapping" although that is a term usually applied to high power devices like disk drives. I don't know if that is allowed or possible with my Psion, I'll have to look for the manual and see.

Re: Psion (O.T.) question

*Message #5 Posted by **Ellis Easley** on 19 May 2003, 2:07 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

I looked in the Psion Organizer manual. It never says in so many words that it is OK to plug in a module while the unit is on, but it never warns you not to, as many manuals for many products do over and over!

In some procedures, it does imply strongly that you can plug in modules without turning the machine off. For example, the manual describes invoking the procedure to save a file to the internal RAM, called device A. Without any warnings to turn off the machine, it says if you now plug in a module into the socket for device B, and press "MODE", the destination displayed for the pending operation will change from A to B. Not only that, if the module you plug in is a never-used (since erasure) EPROM module (called a "Datapak"), when you press "MODE" the machine first displays "SIZING PACK B PLEASE WAIT". "Sizing" creates the file system on a blank sevice.

So I would say the manual takes pains never to express surprise that it is OK to plug in a module with the machine turned on! It does advise against pressing any keys while inserting a module.

My machine is the Organiser II model CM (note UK spelling of "Organiser"). It is the bottom of the line with 8K internal RAM. Then there is a model XP with 32K internal RAM. Both have LCD displays with 2 lines of 16 characters. Some of my application program pack manuals mention models LZ and LZ64 which have 4 line LCD displays - maybe the LZ64 has 64K RAM?

There are three kinds of modules that can be used in the two device sockets: Datapaks, which are blank EPROMs in sizes from 8KB to 128 KB (only up to 64 KB usable with the CM), Program Packs, which are just Datapaks with commercial programs stored on them, and Rampaks which contain 32K battery backed RAM. The manual for the machine says the Rampaks come with instructions that must be read and followed before use - maybe they have a power sequencing requirement.

They must have run out of space in the mainframe ROM: it contains the trig functions SIN, COS, TAN and ATAN. The Maths Program Pack adds ASIN and ACOS! along with numerical integration, root finding, hyperbolic functions and more.

Psion calls the process of erasing the EPROM in a Datapak "Formatting" and they sold a UV light source called a "Formatter"! I don't know what they charged for the Formatter but they also provided a mail order Formatting service, charging £5 to Format one device! The price of the Datapaks was US$100 for a 64KB and $60 for a 32KB, according to an insert that came in my package. The copyright dates in the various manuals are 1986 - 1989.

Psion (O.T.) question - thank you

*Message #6 Posted by **Vieira, Luiz C. (Brazil)** on 19 May 2003, 3:45 p.m.,*
in response to message #5 by Ellis Easley

Hello, Ellis;

I've been curious about Psion since I saw one of them when I was at the university. I remember I already had mi HP41 and the guy with the Psion told me he wuold never trade its Psion for an HP41. I kept that in mind, but I never saw another one again.

What about nowadays? Any e-address so I can have a look at the new models? Or Psion also quit calculators as well?

Thank you. Good, valuable information you post here.

Luiz C. Vieira - Brazil

Re: Psion (O.T.) question - thank you

*Message #7 Posted by **Ellis Easley** on 19 May 2003, 5:20 p.m.,*
in response to message #6 by Vieira, Luiz C. (Brazil)

The last I remember hearing of Psion was in the EduCalc catalog. I just looked at my oldest one (#42, 1988) and it has my model! I didn't know that, I got my Psion in a set from a closeout catalog, just out of curiosity. It has an interesting programming language like structured Basic and can be programmed in machine code (Hitachi 6303, based on Motorola 6800). The same ad is in the 1989 EduCalc catalog(#43) , then in 1990 (#48), they added the LZ models, they have 32K and 64K of RAM. EduCalc dropped some of the prices in #49 (1990). In my next catalogs, #53 and #54 (1991) they only have the LZ (32K) along with a smaller assortment of accessories

than before. Then in #56 (1992) they introduce the Psion Series 3, a V30 (8086/Z80 compatible processor from NEC) based clamshell palmtop with graphics - which they have extended their OPL language to include - and an MS Word compatible word processor, 384K ROM, 256K RAM, two slots for some kind of Flash memory cards and RAM cards, QWERTY keyboard, 8 lines X 40 characters text display. The same ad is in #57 (1992) and #61 (1993), my last catalog.

Museum CD-ROM 5 has catalog #29 (1985) which doesn't have any Psion products - it pretty much only has HP and TI. BTW, it has the HPIL parts from the 82166C kit listed separately on page 23. Catalog #66 (1995) and #72 (1996) on the Museum CD-ROM has a Psion Series 3a with double of most specs of the Series 3, plus a Lotus 123-compatible spreadsheet.

There is a Psion website:

http://www.psion.com/

with the same logo, now they specialize in mobile connectivity and digital radio.

Re: Psion (O.T.) question - thank you

*Message #8 Posted by **Ellis Easley** on 19 May 2003, 5:32 p.m.,*
in response to message #7 by Ellis Easley

The Psion website has a link for an online store, you can see some of their recent/current products:

http://www.expansys.com/psion.asp

Re: HHP EPROM

*Message #9 Posted by **Ellis Easley** on 17 May 2003, 8:44 p.m.,*
in response to message #2 by Ellis Easley

I don't have any HHP product - the brochure came to me in a box with a 71B. But after reflecting on the description in the brochure, I think it would not be very hard to make a custom ROM because of what appears to be an equivalence between the RAM and ROM implemented in the combo device. First, I would build the set of files I want to ultimately have in the ROM, in a 32K block of RAM. Then I would write a program using PEEK to copy all the bytes out of the 32K block of RAM and save them in a binary file. Then I would use that binary file (converting into S-records or whatever is required by my EPROM burner) to burn a 27256. It sounds like there is a socket inside the module so you can change the EPROM at will. My scheme probably falls apart because there is some kind of file system written in the block of memory that makes it not relocateable. In that case it would be necessary to figure out where the pointers are and change them before burning the EPROM. The hardest part of my scheme is getting the data out of the 71 - I hope you have an 82164 HPIL/RS-232 interface (I wish I did!) If you do, and a freestanding EPROM burner with serial port, you could run everything from the 71.

Re: HHP EPROM

*Message #10 Posted by **Kim** on 18 May 2003, 11:27 a.m.,*
in response to message #9 by Ellis Easley

Thanks a bunch Ellis (again).

The thought I had was to make my own JPC image on an EPROM, the content is fun and good.

I would believe (NOT know) that the JPC is made for ROM which should make things a bit easier. The location 5.00 is taken care of by the firm:, hardware, so in it goes (socket at will).

Making an image of the JPC should be relatively accomplishable.

Now the next issue is to make the DUMP to the RS232 port and the connected burner. (Got the RS232, not the burner).

would anyone know where to get a cheap burner (and the ROM) could FRYs help? Maybe I could find one @ebay

Thanks again for you help, awesome place this is...

Kim

Re: HHP EPROM

*Message #11 Posted by **Ellis Easley** on 18 May 2003, 4:56 p.m.,*
in response to message #10 by Kim

There have been a lot of them on Ebay, I have bought a few myself! When I was shopping, the greatest interest seemed to be in certain small systems that plugged into PC's - I think Jameco might have been one brand that was commanding high prices - I remember them as a mail order electronics company. I was mainly interested in programming PLDs and I bought a standard Data I/O mainframe model that I had used before - I want to say 29C but that is an HP calculator! - anyway, what I got came with a PROM/EPROM plugin and I hoped to find a LogicPak plugin later to do PLDs The unit was in very bad shape, at least the plugin, it wouldn't reliably read an empty EPROM.

The problem with professional equipment like that is that it needs to be calibrated and sometimes isn't supported by the manufacturer's website unless you first pay to bring it up to a certain revision level. (The voice of my experience with Data I/O and Advin Systems) All this is compounded by the fact that in-circuit-programmable logic devices (including Flash EEPROM) are putting the manufacturers out of business.

There is a very simple EPROM burner that plugs into an old ISA PC slot and has a ZIF socket on a ribbon cable that sits next to the computer, made by Needham's Electronics. They have moved on to bigger and better things but were still supporting the little unit last time I looked. I bought one of these new a long time ago for $130 and it still works fine. It is very general purpose in design and they have been able to add new devices (not all!) via software and sometimes simple socket adapters (they do some EPROM microprocessors this way).

I just looked up Needham's and they are still in business, I even downloaded software for my unit which is called PB-10. They don't sell it any more, or any unit that needs a bus connector, but they have a number of systems that plug into a parallel port. The bottom end system is called EMP-10 and they call it an upgrade to the PB-10 (the software I downloaded includes files with EMP in the name), it does a limited number of devices and sells new for $220. I can only vouch for the PB-10, it is easy to use and reliable and well supported, and the company has been in business for over 10 years.

I'm looking at the software I downloaded (the machine is in another room) and it can use binary files or Intel Hex or Motorola S-records or two other file types I don't recognize.

Here is Needham's web site:

http://www.needhams.com/index.html

Re: HHP EPROM

*Message #12 Posted by **Ellis Easley** on 18 May 2003, 6:44 p.m.,*
in response to message #10 by Kim

On the EPROM (I assume it needs a 28 pin DIP - Dual Inline Plug - part) - the Fry's near me has a small selection of electronic parts in individual bags hanging from pegboards, including some EPROMs. Not the "NTE" replacement line, which Fry's also carries, but just Fry's own bagged parts. That might be as good a place as any to get one part. Or you could try DigiKey:

http://www.digikey.com/

This page has Fairchild DIP EPROMs for $3.62:

http://dkc3.digikey.com/pdf/T032/0459.pdf

Note that "OTP" means "one time programmable", an erased EPROM in a plastic package without a quartz window that can't be erased again. This page has Atmel DIPs for $1.94, but they are OTP:

http://dkc3.digikey.com/pdf/T032/0463-0464.pdf

Another place is Mouser Electronics:

http://www.mouser.com/

This page has ST DIPs for $3.30:

http://www.mouser.com/catalog/614/164.pdf

This page has Fairchild DIPs for $6.44:

http://www.mouser.com/catalog/614/32.pdf

This page has Atmel OTP DIPs for $3.30:

http://www.mouser.com/catalog/614/170.pdf

Both catalogs have 32 pin PLCC OTP's. My HHP brochure doesn't specify, so I assume it uses 28 pin DIP EPROMs.

If it does have a PLCC socket - they do (or used to) make PLCC-type EPROMs in ceramic packages with quartz windows, but they never fit in the sockets very well - the "P" in PLCC means plastic and the real similar part in ceramic is the "leadless chip carrier", so the compromise ceramic PLCC is really a leadless chip carrier with "J" leads brazed on, it just doesn't take the socket's spring force as well as a real PLCC.

The Mouser website is better - you can browse lists of part numbers for categories like "EPROMs", then after selecting a part, you go to a PDF of the catalog page with prices and more specs.

You can find EPROMs in various old electronic equipment like VGA boards, motherboards, disk drives - if it has a paper label, peel it off and see if it has a quartz window and the right part number. Then you'd need to erase it - I've heard you can erase EPROMs by leaving them in the full sun for some time (days?) Whether with sunlight or a proper eraser, to erase it completely you have to remove every bit of adhesive left by the label, 91% rubbing alcohol is good for this.

BTW, DigiKey carries the Needham's programmers, this pdf is the page from their online catalog:

http://dkc3.digikey.com/pdf/T032/0264.pdf

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Why Adobe is a good thing

*Message #1 Posted by **Bill Platt** on 16 May 2003, 3:32 p.m.*

I forgot to mention one of my opinions regarding ADOBE Acrobat.

Considering that Microsoft has a(n increasing) monopoly on more of the business of software every year, I am glad that some other company is out there with a universally accepted business product---ACROBAT! And for business, it is great--as is HTML mail by the way---Plain text does not have bold, italic, fonts and all that stuff, which is so very necessary at times when doing business.....

But the KISS system is a good system, which is what *is* good about plain text.

Interesting fact: Many of the (U.S.) Federal government sites are set up with a clear understanding of the advantages both in bandwitdh and universal access, of plain text.

If you go looking for tax info, or CFR (code of federal regulations) info, or United States Code info, you have a choice whether to fetch plain text, or PDF.

regards,

Bill

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Re: Inventions . . .

*Message #1 Posted by **Bill Platt** on 16 May 2003, 2:00 p.m.*

Paul,

That's not such a bad idea. What do you think of mine: You know how microwaves leave some foods soggy? I think a microwave oven with built-in alpha/beta ray surface charring would be great. And the slight increase in radioactivity of the food will help with treating stomach and colon coancer.

Re: Inventions . . .

*Message #2 Posted by **David Smith** on 16 May 2003, 4:44 p.m.,*
in response to message #1 by Bill Platt

My idea was to pave local "expressways" with nuclear waste. No need for street lights, just follow the purple glow. And all those ^&&*(%$% drivers who rubberneck or cause traffic slowdowns will get their just rewards...

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Announcing the new HP-10U!

*Message #1 Posted by **Ernie Malaga** on 16 May 2003, 1:09 p.m.*

Hello, all:

We minimalists believe that less is better, and that least is best. So we are proud to present the HP-10U, a minimalist's dream come true.

It's so minimal that doesn't have numeric input keys except for 0 and 1 -- which is no handicap, as the HP-10U works in binary only. It can perform the 4 basic operations (algebraic entry, neither precedence nor parentheses), change the sign of the number, enter the -- uh -- binary point, and that's about it. To clear the calculator, you press 0 and then =.

That said, there's no more to say about the machine. Only what the "U" in the model number stands for -- useless.

-Ernie

Re: New HP-10U!

*Message #2 Posted by **Ron Ross** on 16 May 2003, 1:19 p.m.,*
in response to message #1 by Ernie Malaga

Why not HP-10 PU

Pretty Useless.

I love the calc.

Re: New HP-10U!

*Message #3 Posted by **Bill Platt** on 16 May 2003, 3:47 p.m.,*
in response to message #2 by Ron Ross

How about

HP-10 PUDD pretty useless digital device.

The first Binary calculator! Perhaps it's a sequel to the 16c?

*Message #4 Posted by **Gene** on 16 May 2003, 1:33 p.m.,*
in response to message #1 by Ernie Malaga

Hilarious!

Re: Announcing the new HP-10U!

*Message #5 Posted by **Ellis Easley** on 16 May 2003, 2:04 p.m.,*
in response to message #1 by Ernie Malaga

Might not the name be confused with "IOU" as in "I owe you", or does the name mean that after you buy it, HP still owes you a calculator?

Would it be possible to add programmability based on the Turing machine?

Re: Announcing the new HP-10U!

*Message #6 Posted by **Jürgen (CH)** on 16 May 2003, 2:42 p.m.,*
in response to message #1 by Ernie Malaga

01001100 01001111 01001100

Re: Announcing the new HP-10U!

*Message #7 Posted by **Bill Platt** on 16 May 2003, 3:45 p.m.,*
in response to message #6 by Jürgen (CH)

76 79 76 ? 4c 4f 4c ? 114 117 114?

?????

Re: Announcing the new HP-10U!

*Message #8 Posted by **Ellis Easley** on 16 May 2003, 3:51 p.m.,*
in response to message #7 by Bill Platt

4C 4F 4C = "LOL"

I was off by one at first and was trying to figure out what "MPM" meant.

Re: Announcing the new HP-10U!

*Message #9 Posted by **Paul Brogger** on 16 May 2003, 3:35 p.m.,*
in response to message #1 by Ernie Malaga

Given the presence of the "CHS" key, I think the "-" function must be considered an irresponsible and wildly extravagant bit of excess.

Minimize, *minimize*, ***minimize!***

;^)

Re: Announcing the new HP-10U!

*Message #10 Posted by **Gordon Dyer** on 16 May 2003, 5:01 p.m.,*
in response to message #1 by Ernie Malaga

Maybe it should be called HP-10Bin
It is either of 2 states: either in the hand or in the bin...

I have added it to my collection of minimalist designs.
Any one got others?

Re: Announcing the new HP-10U!

*Message #11 Posted by **Patrick** on 16 May 2003, 5:04 p.m.,*
in response to message #1 by Ernie Malaga

I think it is a real travesty that the only information you can get about this new model is here on-line. HP used to write such *good* user manuals! How is anyone supposed to figure out, say, how to do backward error analysis using the HP-10U?

Obviously, just another Carly-esque sign of the times...

Re: Announcing the new HP-10U!

*Message #12 Posted by **Christof** on 17 May 2003, 11:39 p.m.,*
in response to message #11 by Patrick

what's the 0 key for?

101 is easily entered as 1 + 1 + 1 + 1 + 1

Re: Announcing the new HP-10U!

*Message #13 Posted by **glynn** on 18 May 2003, 2:09 a.m.,*
in response to message #12 by Christof

That's right! Heck, no numeric buttons at all. Just shake the calculator, until the number you want comes up on the display! Come on, 111... baby needs a new pair of shoes!!

Re: Announcing the new HP-10U!

*Message #14 Posted by **Ernie Malaga** on 18 May 2003, 5:06 a.m.,*
in response to message #12 by Christof

>what's the 0 key for?

Well, if it comes to that, the truly minimalistic HP-10U would have just one key. To operate the machine, you tap that key using Morse code!

Or, no keys at all -- just a microphone, so you can tell the calculator what you want to do...

8^)

-Ernie

You could design one simpler, the HP-0C

*Message #15 Posted by **NH** on 18 May 2003, 4:17 p.m.,*
in response to message #14 by Ernie Malaga

You could design one much simpler than the HP-10U.

It would calculate only in base 0 . Therefore, the only number it would accept is 0.

Since no matter whether you add or subtract or multiply by zero, then the result is still zero, so it doesn't need any buttons at all. Also it doesn't need any display, since you can just presume that the display, if it had one would be reading "0".

I think HP executive management is working on a close cousin to a calculator of this nature....

reflecting the need for increasing profits while having less to manufacture, they may soon release a virtual base zero calculator. You buy it for $150, and when you open the cardboard box there is nothing inside.

I hear that marketing and management are very favorable to the increase in projected quarterly earnings that this new model might create, with executive perks and bonuses all around .

:o]

If anybody should question the wisdom of such a unit, like, wonder if they got a good deal, they would have to take that up with the virtual online owner's manual. Since the website disconnects when you try to access it, then there wont be any complaints from the customers.

I think it is going to be called the "HP-0C" .

Re: You could design one simpler, the HP-0C

*Message #16 Posted by **james** on 18 May 2003, 5:13 p.m.,*
in response to message #15 by NH

ROTFLMAO - I like it! C in honor of Carly presumably?

Sounds good James, HP-0C

*Message #17 Posted by **NH** on 19 May 2003, 1:45 a.m.,*
in response to message #15 by NH

Yes, I think "C" should stand for Carly on that HP-0C .

It's going to really boost profits. She is going to get a $50M bonus perk as soon as the first 100,000 HP-0C units are manufactured

Also, since there actually isn't anything coming off the production line, and there isnt anything inside the box, then it is presumed as soon as the ink dries that the first 100,000 were already manufactured from the first day.

So Carly's $50M bonus perk is assured on this one from the moment this brilliant idea popped into her head (unlike other boardroom deals where there might be some uncertainty about getting the perk).

Carly's bonus for the HP-0C

*Message #18 Posted by **james** on 19 May 2003, 2:29 p.m.,*
in response to message #17 by NH

Yeah - the one thing that won't be virtual will be Carly's slice of the action!

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Re: PDF files (yes, the Reader is a different story)

*Message #1 Posted by **Bill Platt** on 16 May 2003, 12:00 p.m.*

Glynn,

Thanks for your description of the problems with AR5.1. Sorry I took so long to respond--had a business trip (and i didn't bring a lap-top and sure didn't miss it!;).

What you describe regarding trouble with your acrobat installation is a perfect example of the **nonlinearity** of the current "windows" / "INTELx86" architrecture/OS approach. I have on numerous occasions, with various windows systems, had a crash or an error event which was unrepeatable. In other words, starting with a set keystroke sequence, the first time, a crash happens; next try, identical key sequence after boot, and no crash.

So, "computers" are now so complex that they are actually chaotic systems. Your system especially ;-0(.

But I also noticed one certain fatal flaw--you allowed yourself to get bullied into installing a software item "on the fly". In my experience, this is a very dangerous activity and often leads to trouble (as foreshadowed by the spooky music..).

I think you are stuck with the only real solution:

Format & Reload.

BTW, I have over the years found that ALL windows systems degrade (inexplicably) over time, and that a Format & Reload will bring performance back up dramatically. I have even done testing of this business in the past, for instance, time to load and open an excel file-----before F&R, say, 30 seconds, after F&R, say, 15 seconds.

Apparently, the "registry" system in windows just gets corrupted a little bit further every time you use your computer.

I have not even started to discuss a favorite aspect of this business, but will mention it: software compatiblilty and load sequencing i.e. which software should be loaded first. It can make a HUGE difference on post W95 systems.

Note that I am not a true compudude, but just another regular (like mechanical type) engineer who has been trying to make computers do my bidding since 1983.

-regards,

Bill

Windows system deterioration

*Message #2 Posted by **Ellis Easley** on 16 May 2003, 1:58 p.m.,*
in response to message #1 by Bill Platt

I haven't had access to "inside information" since just before Windows 95, and I didn't understand most of what I heard before that, regarding how Windows works. But I remember that Windows 3.X had a control

panel where you could specify how virtual memory is handled - how Windows uses space on the hard disk to swap programs in and out of RAM to facilitate multitasking. You could tell it to use a fixed amount of contiguous disk space and if Windows could find such a chunk, it would allocate it as a file (something.386, I think) and only use that for disk swapping - or you could let Windows manage it on its own. The latter seems to be the only option on Windows 9x+. I think Windows now uses any part of the disk it wants any time it wants. The more RAM you add, the greater the volume of disk swapping needed (it seems) and as the disk gets fragmented, the more thrashing is involved in the simplest operations. Newer versions of Windows seem to do much more of all this, it seems like each revision attempts to maintain a constant response time on the latest generation of hardware - I suspect this is Microsoft's effort to sell new computers, since that is the only time most people upgrade their OS. You use your computer until the hard disk is full, then you get a new computer with a much bigger hard disk and copy everything over. It's like buying a new car because the ashtrays are full, then emptying the old ashtrays into the new ones! I'm keeping Windows 95 on this computer, mainly because I can't get a newer driver for my little laser printer. I have upgraded the MS browser several times but I think I'm at the point that MS doesn't support it with newer versions for Windows 95 any more. That's OK with me, this one is working pretty well. I also need to reformat and reinstall periodically - that is much easier now with a newer computer with a huge hard disk connected via $10, 100 Mb/s Ethernet cards, to use as temporary storage! Also, my little printer works fine via the network - it shows up on the other computers as an HP LaserJet IIp.

I love how cheap computers get when the new chip, etc. comes out (plus the economy slows!). I'm astonished by what you can get for $300-$400 for a not-very-latest-generation PC compatible with bigger hard disk than I'll ever need, CD-R, DVD, new OS, etc. The latest motherboard I bought came with a CPU (2.4 GHz) literally more than 10 times the speed of the one I'm using right now (233 MHz) [which is nominally more than 100 times the speed of the first personal computer I worked with, the TRS-80 (model 1), 1.77 MHz, and that cost 600 old dollars]. The only truly awful part is the little speakers they sometimes include.

win system thermodynamics

*Message #3 Posted by **glynn** on 16 May 2003, 11:04 p.m.,*
in response to message #1 by Bill Platt

Bill;

Oh, yes. I am indeed aware of the degradation over time of a windows installation. I am on maybe my eighth reload of W98se. This is a great improvement of reliability over W95, though.

Microsoft wants, of course, to sell me on the improved reliability of XP. But each and every time they come out with a new system, I go through the "new needs" syndrome: I must buy a new printer, because my old one is no longer supported. I must buy a faster processor and more memory, in order for it to run. I must give up on the motherboard that still had that one EISA slot, because none of the new processors will fit the old board, and the new boards don't have EISA. The $600 EISA DAC board, thus, must go-- and the new PCI-based boards are only $600 to do the same thing.

I estimate that my cost of going "current" is NOT the $150 or so for the OS; it is four to five times that, and I would spend considerable time getting it all "right".

Are my experiences unusual, or am I alone there? I dunno. All I have heard of XP has left me underwhelmed when not dismayed.

Apparently, it IS somewhat more reliable, when the installation has gone right. But that does not mean it will not suffer "degradation" and get progressively flakier over time, just like its predecessors.

Go Linux? Possibiity-- except Linux, as yet, hasn't got all the applications I want, or drivers for the devices I want.

And now I see SCO is suing or threatening to sue, over what they claim is pieces of ATT Unix code in the Linux kernel. So the Linux community may well be held hostage to a court battle over whether some who participated in Linux development should have been ALLOWED to.

(note that, if SCO *REALLY* wanted Unix and Linux to coexist, they would have HELPED replace whatever offends them in the kernel-- or given the opportunity for the Linux community to do so. They're not protecting the sanctity of intellectual property for U and Me... Litigation means they want the licensing of Linux and royalties. That's ALL it means.)

Oh well. Yeah, I'll probably go through reload hell again, see if Acrobat works afterward. Wish me luck.

;-)

Re: win system thermodynamics

*Message #4 Posted by **Dave Shaffer** on 17 May 2003, 10:42 a.m.,*
in response to message #3 by glynn

Glynn,

re: " I must give up on the motherboard that still had that one EISA slot, because none of the new processors will fit the old board, and the new boards don't have EISA"

I, too, yearn for that EISA slot. I am using an old Logitech bus mouse, which has the best feel I've ever experienced for a mouse. which requires an EISA slot. I figure I am destined to live with PII/PIII architecture for the rest of my life, although I have seen a celeron motherboard at the local Frys which has a single EISA slot. I have plenty of old PC boxes in which to try putting a new-fangled board.

I'm also sticking with 98SE as long as I can, with my old Gateway Pentium Pro's (3 of 'em, one with an overdrive to get to 333 MHz). I have a newer Sony with XP, and despite its 5x speed advantage, I hardly ever use it 'cause I can't stand an OS that thinks it is smarter and knows better than I do what I want to do next!!! I've been using computers for 40 years, and am quite capable myself, thank you. Well, usually - I have yet to reliably write a CD with XP! Besides, it's easy to crash XP, too.

EISA?

*Message #5 Posted by **Ellis Easley** on 17 May 2003, 11:04 a.m.,*
in response to message #4 by Dave Shaffer

glynn, Dave:

Just out of curiosity, do you guys mean EISA or ISA?

I've got a Tandy EISA system and some EISA bus SCSI adapters for it, but I never heard of a special EISA bus mouse! (not that I'm saying there never was one)

Also, the things you say apply equally to ISA - it has pretty much disappeared from motherboards. Another reason I am keeping this 233 MHz system running - my scanner needs an ISA slot (and I probably can't get a driver for it above Windows 95).

Re: EISA?

*Message #6 Posted by **Dave Shaffer** on 17 May 2003, 1:24 p.m.,*
in response to message #5 by Ellis Easley

Ellis,

I don't think it matters: ISA or EISA. My mouse has a card which plugs into an (E)ISA slot, and the mouse connects to the card. Mine's a Logitech, but (at least) Microsoft also made several versions of bus mice. I think the original intent was to save the serial connector for other devices. The intro of the PS2 version of mouse connection ultimately superseded all other kinds of mice.

I don't know how complicated it is to put the (E)ISA slot on a motherboard, but it sure would be nice to have it. Another option would be some kind of a PCI/ISA adapter. I have no idea if voltages and logic are compatible, but if so, somebody should make one and I'd buy it (I might buy three of them, for my various PCs).

Re: EISA? ==>ISA, sorry...

*Message #7 Posted by **glynn** on 17 May 2003, 2:04 p.m.,*
in response to message #6 by Dave Shaffer

My current mobo is just that-- Has one ISA slot, but that is the one consisting of two connectors-- sort of a long slot followed by a shorter one. I can see the card in my mind, though I haven't got the box open. I presume there is something out there called EISA I just borrowed the name from, which is totally different.

The mobo, BTW, is a Tyan Trinity 400, which has been rock-solid, a great machine. 4 PCI slots plus one combo slot area (that has a PCI AND a ISA, but you use one or the other, not both). It is a slot 1 system and could also use a socket 370 cpu (again, not simultaneously; it is not a dual-cpu design). But alas--my combo of Peripheral stuff in it will not run faster than a 66MHz bus speed without the odd occasional lockup, which I can't permit. So I am running a Celeron 533. If I boosted the bus to 133, I could drop a Pentium up to 1024MHz in it.

But what I have has been just great for what I do. I am loathe to mess with new memory, new DAC, new SCSI card, etc. If only it had a nice stable OS that would not crumble like a sand-castle in the rain.

I've been dreaming, in fact, of a product a friend of mine told me about.. He works for a school district, and oversees a bunch of PCs in classrooms. They apparently bought a product (Win-based) that allows the kids to use the machines, mess around, stick their own software in it, and basically wreak havoc on their OS installations.

At the end of the day, the PCs are rebooted, and this software returns the PC *magically* to exactly the same as before the kids got hold of it. A special set of directories on a network drive holds files the kids generate for class; but the PCs themselves stay pristine. The software sounds simply wonderful. But I think it is likely fairly expensive.

OS_protection

*Message #8 Posted by **Bill Platt** on 17 May 2003, 4:29 p.m.,*
in response to message #7 by glynn

glynn, Please post the name of the software that you mentioned that protects the OS--it sounds very interesting indeed!

Re: OS_protection

*Message #9 Posted by **James M. Prange** on 17 May 2003, 6:01 p.m.,*
in response to message #8 by Bill Platt

The name of the product is GoBack Deluxe Edition, recently sold from Roxio to Symantec. http://www.roxio.com/en/products/index.jhtml lists it for US$29.95. The feature referred to is "autorevert", and I can see that it could be very useful for classroom PCs or demonstration items, but I don't think you'd want to use that feature on your home PC. But you can also use GoBack revert your PC to some time of your own choosing, as long as the drive hasn't changed so much that GoBack hasn't been able to keep track of all of the changes. If you defrag your hard disk for example, you probably won't be able to revert to a time previous to the defrag. You may have to disable GoBack before installing some MS Windows updates. You can also use the deluxe edition to recover files that have been deleted or overwritten, subject to the same limitations. It's definitely not a replacement for backing up your hard drive, but it has saved me considerable grief a few time. It's very useful for recovering from recent changes, for example, a software installation gone bad, or a file inadvertently deleted or overwritten. It does have its limitations, but even so, I highly recommend it if you're using an MS Windows system that it supports. Norton SystemWorks 2002 came with GoBack Personal Edition which, if I recall correctly, doesn't have the autorevert or file recover options. I think that there may be a trial version available on the Roxio site.

I do hope that Symantec continues to improve and market this product.

Regards,
James

Re: OS_protection

*Message #10 Posted by **James M. Prange** on 17 May 2003, 6:20 p.m.,*
in response to message #9 by James M. Prange

PS:

Actually, GoBack keeps track of changes in a "hidden" "system" file, gobackio.bin, in the root directory of the drive. I think that the default size of this file is about 10% of the drive size. GoBack also begins running before MS Windows itself, so you can recover from changes that prevent MS Windows from running. If I recall correctly, it modifies the partition table, so you should check on compatibility before using it with multi-boot systems.

Regards,
James

Re: OS_protection

*Message #11 Posted by **glynn** on 17 May 2003, 9:09 p.m.,*
in response to message #10 by James M. Prange

The one my friend recommended was Deep Freeze Professional. Don't know how exactly it differs from GoBack, but I think it IS a differnt system.

Re: OS_protection

*Message #12 Posted by **James M. Prange** on 18 May 2003, 4:22 a.m.,*
in response to message #11 by glynn

Thank you. I meant to mention that I thought that there was more than one

application that does this. Looking at the Deep Freeze web site, I get the impression that Deep Freeze always reverts to a a particular state at reboot, rather like GoBack with autorevert enabled. Good for classroom and public access computers, but not what I'd want on my own personal computer. Single-copy pricing is higher than GoBack, but I notice that Deep Freeze offers discounted pricing for corporate-government, library, and educational licensing. The Roxio site is offline at the moment; I suppose that Roxio might offer discounts for site licences, but I really don't know.

Regards,
James

Re: win system thermodynamics

*Message #13 Posted by **unspellable** on 19 May 2003, 1:21 p.m.,*
in response to message #4 by Dave Shaffer

Cotter's law:

The length of time it takes a desk top computer to perform a given task is directly proportional to the speed of the processor.

(Processor speed increases linearly with time, while the software to be processed increases as the square of the time.)

Cotter's Law-Win Sys Thermodynamics

*Message #14 Posted by **Bill Platt** on 20 May 2003, 10:19 a.m.,*
in response to message #13 by unspellable

That sounds about right. Why is it "Cotter's" law?

Re: win system thermodynamics

*Message #15 Posted by **unspellable** on 20 May 2003, 1:26 p.m.,*
in response to message #13 by unspellable

It's Cotter's Law because that's my last name.

The name is Noël Cotter. The first name, Noël, is Noel with a dieresis (Two little dots as you see on Christmas cards.) over the "e". Software people, not being members of the real world, tend to view this mark as something found only in French and German whereas it is really a perfectly legitimate part of English spelling as well. Hence, a lot of software chokes up when given this character. Specifically, when I first joined a Yahoo group the Yahoo software choked up, and in a fit of pique I chose the handle "unspellable". Tha Yahoo software has since improved somewhat on this point.

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HP 41C fixes?

*Message #1 Posted by **Paul Pickett** on 16 May 2003, 11:26 a.m.*

Thanks for all the responses!

On second thought I'm beginning to think that maybe reviving my 41 to its original glory is the way to go. Can I apply a little 409 to the body and keypad or is 409 a calculator solvent?

I put the card reader on and slipped a card and yuck. It went halfway through and came out gunky. I've browsed the articles forum and I see some instructions on how to repair card readers. My question is could some first-timers tell me how their experience at using these techniques worked? The whole sequence looks a little daunting to me. Is this something "anyone" can do if he follows the instructions?

Also I have some corrosion on the battery contacts. It still works but it's ugly. Is there anything to do besides rub it off?

Re: HP 41C fixes?

*Message #2 Posted by **Randy Sloyer** on 16 May 2003, 12:13 p.m.,*
in response to message #1 by Paul Pickett

Never use 409. It contains sodium silicate. Etches glass, discolors plastics, especially old black 41's. Mild glass cleaners without additives are best. Don't soak them, spray lightly and invert to allow it work so it does not get into the keyboard.

The hardest part of card reader repair is avoiding loss of the little bits that come out upon disassembly. Take it slow, make notes if you feel the need. Cleaning the goo just takes time. It must be spotless with no stickiness remaining or you'll have problems. If you run into trouble, don't panic, put it aside and ask questions. Re-visit with a clear head and it will go back together.

Best to clean the battery holder out of the calculator in a dilute solution of vinegar. Follow up with a solution of water and baking soda to neutralize. It should remove the green without scraping. You may have to resort to a copper foil patch if the original gold/copper is gone.

Re: HP 41C fixes?

*Message #3 Posted by **Ellis Easley** on 16 May 2003, 12:29 p.m.,*
in response to message #1 by Paul Pickett

On the battery contacts, this recent thread mentioned two ways to repair serious corrosion:

http://www.hpmuseum.org/cgi-sys/cgiwrap/hpmuseum/forum.cgi?read=33949

I haven't rebuilt a 41 card reader yet but I have done a 97 and a 67 which have a similar mechanism, although I understand the 41 card reader enclosure is a little tricky to open. Actually cleaning the goo was not difficult and you need to get rid of all of it. I used a lot of Q-Tips and 91% isopropyl alcohol. I used silicone rubber tubing to replace the wheel and it was very easy. I found the tubing at an RC model shop, they didn't have the

sizes marked, just large and small, so I bought some of both and one was right. The pieces I used are not as concentric as they might be (machines "chug" a little) and since I have several feet of tubing, I'm going to select some more concentric bits some time and put them on.

I wouldn't use 409 on my calculators. I don't know what's in it or other cleaners that are intended to be used without rinsing. I use dishwashing soap solution on a clean sponge squeezed almost dry. For the keyboard, I use a brush with short bristles (~1/2") bigger in area than the calculator (~5" X 4") and load it with just soap suds - just damp with water and a little suds. I hold the brush with bristles up and lower the keyboard onto it and move it in small circles. Then keeping the keyboard facing down (laying it on a towel) I rinse the brush, shake out all the water I can, and use it to rinse the keyboard in a similar manner - I do this two or three times. Then, still holding the keyboard facing down, I use a vacuum cleaner with the small brush attachment (cleaned for the purpose!) to dry the keyboard and remove any water, suds, or loosened crud.

Re: HP 41C fixes?

*Message #4 Posted by **David Smith** on 16 May 2003, 4:40 p.m.,*
in response to message #1 by Paul Pickett

I used to use Novus plastic cleaner on my keyboards, but ran out. I also use Windex. Spray it on (I dont worry too much about it getting under the keys... HP keyboards are fairly well sealed against minor spills), clean with a soft toothbrush, wipe off with small wads of paper towels (change often, like between each row of keys). Blow keyboard with canned air, wipe off liquid blown out of keys. Repeat. If you can find it, do a final cleaning with a lens cleaner called ROR (residual oil remover).

Re: HP 41C fixes?

*Message #5 Posted by **Ellis Easley** on 17 May 2003, 9:31 a.m.,*
in response to message #4 by David Smith

I got a pamphlet about Novus plastic care products at the plastic supply house I went to recently. It is a system - cleaners and polishes. Are you talking about "Novus No. 1 Plastic Clean and Shine"? The place I went to is called Regal, it is on the east loop in Fort Worth and they have a place in Dallas on Merrell Rd. (also San Antonio, Austin and Houston, and that's just the southern region!) They have a $25 minimum but I might go back because they have a scrap pile of plastic sheet odds and ends they sell for 75¢ a pound.

Re: HP 41C fixes?

*Message #6 Posted by **David Smith** on 18 May 2003, 9:24 p.m.,*
in response to message #5 by Ellis Easley

Yes, that's the stuff. I usually buy it from a place on Ebay that sells it for cleaning up pinball games. They also have a coarse and fine plastic scratch remover good for cleaning LED/LCD windows... but I don't like it becuase it is hard to get it out of the corners of the window.

Re: HP 41C fixes?

*Message #7 Posted by **Paul Brogger** on 16 May 2003, 5:40 p.m.,*
in response to message #1 by Paul Pickett

I just did my -97's card reader for the first time a few weeks ago. It all went pretty smoothly, but I had to do it twice -- the first time thru, I left some ArmorAll on the read/write head, and maybe that was enough to keep it from working. (It passed the cards fine, but gave an Error with each read attempt.)

Also, one of the references suggested I lightly sand the ends of the "little gold fingers" (switch contacts) inside. So, somewhere between a cleaner read/write head and cleaner switch contacts, the second time worked

like a champ.

Re: HP 41C fixes?

*Message #8 Posted by **Ellis Easley** on 17 May 2003, 9:17 a.m.,*
in response to message #7 by Paul Brogger

I had to clean the fingers too but I used the famous "Pink Pearl" pencil eraser that is frequently recommended for cleaning the gold plated card edges on option boards.

Thanks to everyone!

*Message #9 Posted by **Paul Pickett** on 19 May 2003, 4:40 p.m.,*
in response to message #8 by Ellis Easley

My 41C is looking and feeling like new again! And with no etching from 409!

I've assembled my tools for the card reader and will do that soon.

Re: Thanks to everyone!

*Message #10 Posted by **Patrick** on 19 May 2003, 4:59 p.m.,*
in response to message #9 by Paul Pickett

With a name like yours, Paul, why aren't you collecting slide rules??

Re: Thanks to everyone!

*Message #11 Posted by **Paul Pickett** on 19 May 2003, 6:23 p.m.,*
in response to message #10 by Patrick

I started to ask how Paul was a good name for collecting slide rules but then I got it! Obviously I'm hanging out with a sophisticated crowd here and I'm going to have to think before I reply to anything!

If I had been born about five years earlier I might have used a slide rule. Perhaps even one of those famous PAUL slide rules! :-)

Re: Thanks to everyone!

*Message #12 Posted by **Ellis Easley** on 19 May 2003, 5:26 p.m.,*
in response to message #9 by Paul Pickett

Congratulations! Ain't it great?

Re: Tools for Card Reader Repair

*Message #13 Posted by **Paul Brogger** on 19 May 2003, 8:02 p.m.,*
in response to message #9 by Paul Pickett

I should have mentioned, some of the cross-head screws on my '97 card reader were surprisingly tight. I had to exert more force than I would have expected to keep the screwdriver in the slots and get enough torque to loosen them.

So, Get yourself a good array of quality screwdrivers with sizeable handles. I found the regular jeweller's screwdrivers' handles were way too small for the kind of pushing and twisting that was

required. (And take this all slow -- the kind of pushing I'm talking about was performed with the card reader "body" in my left hand -- you don't want to be stressing other parts unnecessarily, but neither do you want to punch a driver through your palm . . .)

Also, I never quite understood the pinch roller hub. It's kind of a hard nylon axle with a screwdriver slot at one end. It's supposed to help adjust the pressure on the pinch roller, but I couldn't come up with a theory as to how. (Maybe some knowledgeable person could hold forth on this topic?)

Re: Tools for Card Reader Repair

*Message #14 Posted by **Katie** on 20 May 2003, 11:03 a.m.,*
in response to message #13 by Paul Brogger

The white nylon axle that the pinch roller rides on is actually call the "eccentric cam". Take a close look at it and you'll see that it's not quite symmetric. By turning it (that's why the screwdriver slot is there) you can very slightly vary the distance between the pinch roller and the head.

Great stuff! Thanks!

*Message #15 Posted by **Paul Pickett** on 20 May 2003, 3:41 p.m.,*
in response to message #14 by Katie

I'm ALMOST ready to attack this.I'm going to get some better screwdrivers tonight.

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HP 48gx scatterplot?

*Message #1 Posted by **Karen Gibson** on 16 May 2003, 10:54 a.m.*

Any help with this question is greatly appreciated. I apologize now for my lack of knowledge on this calc. I've only had it a month, I've figured most of the things out on my own, but this one has me stumped.

I am doing a scatterplot, that part I have down. I need to get the equation for the data after I have plotted it. I've tried using the STATL button on the menu, then FCN VIEW to get the equation. For some reason it is returning an incorrect equation. I know this because I've tried several out of my Algebra book and do not get the correct answer. When I do the STATL instead of following the data plotted it does a diagonal line accross the screen and this is the equation it returns. Can anyone help? Thank you, Karen

Re: HP 48gx scatterplot?

*Message #2 Posted by **R Lion** on 16 May 2003, 11:26 a.m.,*
in response to message #1 by Karen Gibson

Hi Karen: Could you mail me with the data and the answers (the correct and the incorrect ones) More help about hp48 in http://groups.google.com/groups?as_ugroup=comp.sys.hp48

Raul

Re: HP 48gx scatterplot?

*Message #3 Posted by **Karen Gibson** on 17 May 2003, 11:09 a.m.,*
in response to message #2 by R Lion

Hi Raul, Here is the info: x values: 0, 7, 14, 20, 24 y values: 26.2, 19.2, 16.6, 18.8, 19.5 Plot is stretched u shape opening upward. Correct answer is: f(x) = .0402302792x^2 - 1.214631021x + 26.02596908 Answer on my HP: 23.2788829787 -.247606382979x

Thanks for the help. Karen

Re: HP 48gx scatterplot?

*Message #4 Posted by **R Lion** on 17 May 2003, 12:16 p.m.,*
in response to message #3 by Karen Gibson

You are getting the Linear regression but you want a polynomial regression. You need some extra software (i.e.: http://www.hpcalc.org/hp48/math/statistic/bfit.zip) I have got your expected results with that. Hope this helps.

Raul

Re: HP 48gx scatterplot?

*Message #5 Posted by **Karen Gibson** on 17 May 2003, 2:05 p.m.,*

in response to message #4 by R Lion

Thanks Raul, I'll try that, need to get some more hardware first.

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Infra red

*Message #1 Posted by **Nacho** on 16 May 2003, 9:43 a.m.*

Does anybody know if there is a way to transfer information from a laptop to the hp48g+ via infra red? I lost the cable.

Re: Infra red

*Message #2 Posted by **Christoph Giesselink** on 16 May 2003, 9:55 a.m.,*
in response to message #1 by Nacho

http://www.hpcalc.org/hp48/docs/misc/hpirda.zip

Christoph

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Need some 9114 drives & batteries? On ebay...

*Message #1 Posted by **Gene** on 16 May 2003, 8:04 a.m.*

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=3024082188&category=11713

Looks like this could be a good deal.

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It was 20 years ago today...

*Message #1 Posted by **Patrick** on 16 May 2003, 2:54 a.m.*

With all due respect to Sargeant Pepper...

In May of 1983, HP published articles introducing and describing the HP-15C and HP-16C, two of my current favourites.

Despite HP's current inert state with respect to quality RPN engineering calculators, I'd still like to say Thank-You, HP, for the wonderful legacy you have created. These old but still functional machines have provided this engineer with a lot of joy over the years.

Re: It was 20 years ago today...

*Message #2 Posted by **Valentin Albillo** on 16 May 2003, 3:12 a.m.,*
in response to message #1 by Patrick

If you like the HP-15C as much as I do, I suggest you don't miss my commemorative 6-page article "Long Live the HP-15C !", to be published in the next issue of HPCC Datafile (V22N3).

You'll love it ! :-)

Re: It was 20 years ago today...

*Message #3 Posted by **Jordi Hidalgo** on 16 May 2003, 12:30 p.m.,*
in response to message #2 by Valentin Albillo

Valentin Albillo wrote:

> *You'll love it ! :-)*

I look forward to reading it - I certainly enjoyed your articles on the HP-11C and 12C in V20N5&6 and V21N1&2 ... and also your "article" on the 10C in V20N6... ;-)

Regards,

Jordi Hidalgo
HPCC #1046

Re: It was 20 years ago today...

*Message #4 Posted by **Valentin Albillo** on 16 May 2003, 10:09 p.m.,*
in response to message #3 by Jordi Hidalgo

Bona tarda, Jordi:

Thanks for your kind comments, I must say that I've also enjoyed a lot all of your very interesting

articles and contributions to Datafile, and I'm eager to get every issue to read more of them.

I sincerely hope you'll like the HP-15C article, and would recommend you get one to try the accompanying program, it's quite satisfaying to see it in action, specially in such tiny machine as the HP-15C. :-)

Best regards and adeu.

Re: It was 20 years ago today...

*Message #5 Posted by **J.Manrique Lopez de la Fuente** on 16 May 2003, 12:44 p.m.,*
in response to message #2 by Valentin Albillo

Hi!

Sure, 6 pages article, I'll love it!

Time for hp15c platinum? Or perhaps, full Voyager Platinum line :-)

As far as I remember, on 19th May 1999 (or was it the 21st May?), hp49 was presented .. Looks like May is a good month for new devices...

Best regards,

J.Manrique. 1077 HPCC Member

Re: It was 20 years ago today...

*Message #6 Posted by **Valentin Albillo** on 16 May 2003, 10:19 p.m.,*
in response to message #5 by J.Manrique Lopez de la Fuente

"Time for hp15c platinum? Or perhaps, full Voyager Platinum line :-)"

I think that would be a really good idea *if and only if* the keyboard would be as reliable as in the original Voyagers. Else, with the extremely many keycodes and key combinations available in the HP-15C (more than 400), it would be a nightmare to try and discover just what key didn't register properly at what step. Just think of RCL A, RCL+A, RCL DIM A, RCL MATRIX A, RCL (i), RCL + (i), RCL DIM (i), RCL 9, RCL .9, etc. to see what I mean ... :-)

Thanks for your interest and best regards.

HPCC

*Message #7 Posted by **Patrick** on 16 May 2003, 5:09 p.m.,*
in response to message #2 by Valentin Albillo

I am an ex-PPC member (#4820) but don't know much about HPCC. I'd love to read the articles you mention but I suspect this requires membership/annual dues?

Re: HPCC

*Message #8 Posted by **Valentin Albillo** on 16 May 2003, 10:02 p.m.,*
in response to message #7 by Patrick

Patrick wrote: "I'd love to read the articles you mention but I suspect this requires membership/annual dues?"

I'm afraid you're right. HPCC is an HP-fan club, more or less in the same spirit as old PPC and CHHU, trying to survive in the not-so-favorable-for-HP-calcs present, though somewhat scaled down, of course. If you want additional info, please visit

http://www.hpcc.org

My only relation to HPCC is trying to help it survive: I contribute funds by being a member, and I contribute materials by writing articles/programs for publication, but I have no responsibilities or 'charge', nor do I have a say as to publication or pricing policies. Ideally, I would prefer that HPCC would not charge anything for membership, but I understand this is simply unrealistic, if only to help compensate the cost of publishing Datafile six times a year.

Anyway, I intend to make available online in a near future all of my articles so that anyone interested will be able to download them for free. I'll post a message to the list announcing it when ready.

Thanks for your interest and best regards.

Re: HPCC

*Message #9 Posted by **Frank Wales** on 17 May 2003, 9:06 a.m.,*
in response to message #7 by Patrick

Valentin is correct about needing membership of HPCC to get current *Datafile* issues.

If you want to read articles from 1982-2002, Jake Schwartz has scanned the first 20 years of *Datafile* onto CD-ROM.

http://www.waterw.com/~jakes/ppccdrom.htm

A full table of contents for all issues is on the HPCC web site:

http://hpcc.org/datafile.html

Re: It was 20 years ago today...

*Message #10 Posted by **Trent Moseley** on 16 May 2003, 11:16 p.m.,*
in response to message #1 by Patrick

I am confused about the intro of the 15-C in May of 1983. I bought mine in December of 1982; serial no. 2242A...

tm

Re: It was 20 years ago today...

*Message #11 Posted by **Patrick** on 17 May 2003, 12:57 a.m.,*
in response to message #10 by Trent Moseley

Yes, you are right that the HP-15C came out in 1982. I was referring only to the articles in the HP Journal which delved into the innards of the machine: "Scientific Calculator Extends Range of Built-In Functions".

This, and many other wonderful memories, are available on the museum's DVD/CD set.

It was 20 years ago today...

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Design Submitted

*Message #1 Posted by **Ben Salinas** on 15 May 2003, 10:51 p.m.*

Well, on Wed the 14th I mailed in my design. I saw them postmark it. I ended up putting it in a binder. It totaled to 37 pages plus the C size schematic, and the CD with AVI, Java, and Inventor files on it.

Now that it is the 15th, and too late for anyone to steal my ideas, I am trying to find someone to post the 20-30 megs of files. If anyone has some web space I can upload to, or send them a CD of the files, please let me know. (there might be some people at school i can "steal" some from.)

Thanks -Ben

Re: Design Submitted

*Message #2 Posted by **david** on 16 May 2003, 12:26 a.m.,*
in response to message #1 by Ben Salinas

what the hell are you talking about?

Re: Design Submitted

*Message #3 Posted by **Scuba Diver** on 16 May 2003, 12:00 p.m.,*
in response to message #1 by Ben Salinas

CONGRATULATIONS!

You've obviously done a huge amount of work on this, and I for one am very interested in seeing the fruit of your labour.

I wish I had the ability to host this for you; I'd do it in a heartbeat!

Are there any generous members out there that can help???

B.

Re: Design Submitted--ya hadda be there

*Message #4 Posted by **glynn** on 18 May 2003, 6:59 p.m.,*
in response to message #3 by Scuba Diver

Rick, David, everybody--

What Ben said, and S.Diver applauded, was a submission to HP's Design-A-Calculator Contest, held in concert with Scholastic Magazine. It was only open to students, but typically these affairs are full of pie-in-the sky NON-STARTERS (i.e., "I'd like a calculator that has built in OCR and printer, so that you slide it over a math paper and it fills in the answer automatically"...).

But Ben Salinas is a savvy calculator user, deep into real utility and KNOWS WHAT HE IS DOING. His design, which he gave us a peek at before he submitted it (rare, and Thanks, Ben, for doing so) was both doable and quite useful. He really researched and made design selections that HP designers themselves would be proud to have made.

If Ben doesn't win, there's no justice in this world. If the contest were up to me, I'd grant him a scholarship and a date with Kelly Clarkson.

Anyway, that's what the hell it's about. ;-) Go Ben!

Re: Design Submitted--ya hadda be there

*Message #5 Posted by **Rick** on 18 May 2003, 9:34 p.m.,*
in response to message #4 by glynn

My apologies, just that there was nothing to indicate what Ben was referring to, hope he does well.

Rick.

Re: Design Submitted

*Message #6 Posted by **Rick** on 18 May 2003, 5:46 p.m.,*
in response to message #1 by Ben Salinas

I'm with David.

What the hell are you talking about???

Re: Design Submitted

*Message #7 Posted by **Ellis Easley** on 18 May 2003, 6:55 p.m.,*
in response to message #6 by Rick

david, Rick:

Ben has been working on a calculator design for submission to a contest HP is conducting. The threads where he talked about it before have probably been swept into the latest Archive, you can go there and look for them if you'd like to know more about it.

Re: Design Submitted

*Message #8 Posted by **Ben Salinas** on 19 May 2003, 12:16 a.m.,*
in response to message #1 by Ben Salinas

I should have a version of my design up before the end of this week. I am currently adding all the bookmarks, and arranging the files in the pdf. It will be about a 1 meg file without the inventor viewer (not necessary) or the avi file. For those who haven't seen this contest, some infor can still be found at www.hp-calculators.com I should be able to post it on my geocities account (ugh) -ben

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Due to popular demand

*Message #1 Posted by **Mike Hicks** on 15 May 2003, 9:56 p.m.*

I'm looking to scan the instruction manual sometime this weekend. So far I've got Gordon, db and Katie requesting the scans. Anyone else ?

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TI-1786 & the Datamath Museum

*Message #1 Posted by **Trent Moseley** on 15 May 2003, 4:53 p.m.*

Joerg,

What's the Datamath Museum?

tm

www.datamath.org - great site

*Message #2 Posted by **Gene** on 15 May 2003, 5:32 p.m.,*
in response to message #1 by Trent Moseley

There ARE other good calculator sites out there besides Dave's museum, you know.

www.rskey.org (Viktor's site) www.rskey.org/gene (My site) www.datamath.org (Jorge's site)

and Craig Finseth's site and Rick Furr's site, etc.

Check out the Museum's link section.

Re: TI-1786 & the Datamath Museum

*Message #3 Posted by **Trent Moseley** on 15 May 2003, 6:43 p.m.,*
in response to message #1 by Trent Moseley

Joerg,

I gather that the Datamath Museum dosn't have the TI-1786 listed.

It is solar powered about the size of a credit card and about two thicknesses. It has the usual four functions plus a memory register that you can add or subtract from; plus square root and percent keys. On the front in big letters is printed: TI CARD. It was assembled in Taiwan. On the back in the corner is a serial no. I-0586. I bought it new in the mid-eighties.

Great little machine.

tm

Re: TI-1786 & the Datamath Museum

*Message #4 Posted by **Joerg Woerner** on 16 May 2003, 6:39 a.m.,*
in response to message #3 by Trent Moseley

Thanks for your comments...

If you just compare the different calculators introduced by TI and HP between 1972 and today, you'll

notice a ration of more than 10:1. That's the reason why it is much more difficult to locate a specific product in my TI museum than in Dave's HP museum. (A great "Thanks" to Viktor, his RS-KEY site inspired me to define the Datamath layout).

The TI-1786 is featured here:

http://www.datamath.org/BASIC/LCD_Modern/TI-1786.htm A good friend of mine, Otto Herzig donated me pictures of it. I own "only" the ESSO promotional model.

How to locate the TI-1786 in the Datamanth Museum ?

Two possibilities:

Click the Datamath as Icon for "Basic calculators - the four-bangers" and scroll down to the 1985-1987 time frame.

OR

Click the Alphabetical list and scroll down to TI-1786 TI CARD. If your Internet access is slow - the list some 100kBytes...

Thanks for visiting the Datamath Museum.

Regards, Joerg

Re: TI-1786 & the Datamath Museum

*Message #5 Posted by **Ellis Easley** on 16 May 2003, 12:57 p.m.,*
in response to message #4 by Joerg Woerner

Joerg, your promotional model is especially interesting since the company changed its name to Exxon. As I heard it, either "Esso" or "Enco" sounded like a bad word in Japanese, so they selected a word that meant nothing in any language. Since then a lot of companies have done the same thing. I'm sure "Agilent" is an example - "agile" has a good meaning in English (my pocket dictionary says "nimble; quick" - just like Jack, who jumped over the candlestick!) but I'll bet they checked to make sure it didn't imply anything negative in any language. I heard the following horror stories relating to marketing to Spanish speaking people in the US: The Chevrolet "Nova" automobile - "nova" in Spanish can mean "it doesn't go". And once a local Coca-Cola distributor in Florida wrote an advertisement in Spanish, the way they translated the slogan "Coke Adds Life" suggested that Coke contained evil spirits!

Re: apocryphal marketing translations

*Message #6 Posted by **glynn** on 16 May 2003, 7:47 p.m.,*
in response to message #5 by Ellis Easley

The "No Va" is at least based on some resemblance to the language-- so we'll give that a thumbs up.

Of course, in English, we have partisans who will tell you what F.O.R.D. is supposed to mean, so take at least a little of the supposed marketing errors with a salt-rimmed margarita. More incomprehensible might be why Toyota would have marketed a "Cressida" in English-speaking countries, naming the car after the main female character in a Shakespeare play, the archetypal unfaithful lover.

"Enco" was the word that the Japanese were said to have had trouble with. I do not know the situation to be fact, though; babelfish doesn't help here, but maybe babelfish won't repeat smut.

The story *I* heard about a soft-drink parallels yours, except in the details. I was told (by a marketing guy) that when Pepsi first marketed their product in China, their slogan was then "Pepsi... Lifts your Spirit"-- which was duly literalized into chinese pictograms, without regard to the meaning imparted. The Chinese were supposedly bemused and disturbed at the exhortation that "Pepsi-Cola will bring your Ancestors back from the grave."

Ahhh, those urban legends. How can you track down the truth, when the legends sound so good? ;-)

Re: apocryphal marketing translations

*Message #7 Posted by **Joerg Woerner** on 17 May 2003, 4:22 a.m.,*
in response to message #6 by glynn

European language creates similar things:

Toyota introdudes in the 80's a sporty two seater with mid-placed engine. They called it MidRace2 or MR2. If you read MR2 in french it it "merde" - the translation of SHIT !

Mitsubishi introduced same time the Montego (I believe this is US name of a 4WD utility) in Europe as "Pajero". If you read Pajero in spanish language - sorry can't tell you the translation here ;-))

Greetings from Germany,

Joerg

Re: apocryphal marketing translations

*Message #8 Posted by **Ellis Easley** on 17 May 2003, 9:40 a.m.,*
in response to message #6 by glynn

For what it's worth, I heard the stories I recounted on NPR some years ago. I might have made up "Florida" but it was definitely some US state with a large Hispanic population.

Re: apocryphal marketing translations

*Message #9 Posted by **Trent Moseley** on 17 May 2003, 1:55 p.m.,*
in response to message #8 by Ellis Easley

I believe Florida got its name from Ponce de Leon. He discovered it on Easter Day 1513; "Pascua de resurrecion o florida".

tm

Re: apocryphal marketing translations

*Message #10 Posted by **Ellis Easley** on 17 May 2003, 9:21 p.m.,*
in response to message #9 by Trent Moseley

I know Florida is a US state, if that's what you mean. It's one of the 7 states I've actually been to, and not just passed through! I saw the SkyLab take off, at the time it was the biggest payload ever launched. We were supposed to get to see two launches, but as you might remember, things went wrong on the SkyLab so they didn't send the crew up for a

while.

There is a company, General Steel, that advertises all the time on the radio. They sell steel buildings and they have been having a half price sale for a while. At one point in their ad, the announcer is describing the different facings you can have applied to the walls of your steel building and he says "... you can have brick ...", every time I hear that I remember the Marx Brother's movie "The Coconuts" and Groucho's sales pitch: "You can get brick or you can get stucco - boy, can you get stucko!"

Re: apocryphal marketing translations

*Message #11 Posted by **Trent Moseley** on 17 May 2003, 10:48 p.m.,*
in response to message #10 by Ellis Easley

Ellis,

I'm sorry that I misinterpreted your orignial message.

tm

Re: apocryphal marketing translations

*Message #12 Posted by **Ellis Easley** on 18 May 2003, 5:05 p.m.,*
in response to message #11 by Trent Moseley

No problem, you gave me an opportunity to bring up the Marx Brothers! I should have mentioned that "The Coconuts" is about crooked land dealing in Florida.

Re: TI-1786 & the Datamath Museum

*Message #13 Posted by **Trent Moseley** on 16 May 2003, 3:36 p.m.,*
in response to message #4 by Joerg Woerner

I found it!

tm

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Re: HP-21 Circuit Diagram Schematic

*Message #1 Posted by **Gordon Dyer** on 15 May 2003, 2:45 p.m.*

Thanks for all of your replies.
I would be interested in some articles which summarise knowledge on a calculator family or model.
If anyone can produce new accurate schematics then please post them!
Best regards to all...

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Re: HP-28S -- Are Connecting Pins Mushroomed, Glued or ???

*Message #1 Posted by **Paul Brogger** on 15 May 2003, 2:43 p.m.*

I'm hoping to eventually fix my broken-apart HP-28s, but I'm wondering, if I were to try to dismantle one, would I be forced to break all of the plastic connecting pins?

Put another way, does anyone know for sure whether the pins are mushroomed (melted over) or glued to hold the calculator halves (*quarters?*) together, or is it a "snap fit"?

I've not taken the labels up on my unit to see what's underneath. There are three pins apparently intact on the back of the alpha side, and those don't show obvious signs of melting or glue. The broken-off ends of most of the posts are still in their inside-faceplate sockets, and some rattle around, but won't come out. This leads me to believe there is no glue involved, and makes me suspect no melting either.

Has anyone successfully dismantled and reassembled an HP Clamshell calculator? Is there a reference on the subject available? (My internet searches have turned up nothing.)

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9114A vs 9114B disk drive

*Message #1 Posted by **Jon** on 15 May 2003, 1:08 p.m.*

I would like to buy a 3"1/2 disk drive. I have seen auctions for these two models. Does anybody know the diference?

Thanks in advance

Jon

Re: 9114A vs 9114B disk drive

*Message #2 Posted by **Grant Goodes** on 15 May 2003, 1:42 p.m.,*
in response to message #1 by Jon

THe 9114B is preferrable, but it's not that major: It has lower power-consumption, so will last longer on a single charge (I believe this is due to a different floppy-drive unit being used). There are some other minor differences.

grant..

Re: 9114A vs 9114B disk drive

*Message #3 Posted by **Mike (Stgt)** on 16 May 2003, 4:05 a.m.,*
in response to message #1 by Jon

The 9114B acts a bit faster (not measured, just an impression).

Ciao.....Mike

Re: 9114A vs 9114B disk drive

*Message #4 Posted by **Diego Diaz** on 17 May 2003, 12:08 p.m.,*
in response to message #1 by Jon

There are also differences regarding the power supply and the battery charge gauge.

9114A uses 88014A battery pack with a very simple charging circuit.

9114B uses 88014B wich includes a more alaborated circuitry.

Anyhow you can swap them as they both have the same physical dimensions and the same connector.

9114A has one only led to display battery/power status, while 9114B has a three led gauge to tell the users the "amount" of charge still remainig in their batteries.

Also the drives are different, both mechanical and electrically.

Cheers.

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HP-01 Repairs

*Message #1 Posted by **Randy Sloyer** on 15 May 2003, 12:00 p.m.*

Does anyone out there know of any repair resources for a dead HP-01?

Any help or information appreciated. A post here or direct email is fine.

Thanks in advance.

Re: HP-01 Repairs

*Message #2 Posted by **David Smith** on 15 May 2003, 4:38 p.m.,*
in response to message #1 by Randy Sloyer

Basically the electronics module is not repairable. About all you can do is swap the keyboard/case/electronics module with another unit. Occasionally one can fix a bad battery contact or stuck key.

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Re: Navigation cards for HP 48 series

*Message #1 Posted by **Frank Travis** on 15 May 2003, 9:21 a.m.*

A place that has several types of HP 48SX/GX plug-in navigations cards (with accompanying manuals) is Calcpro website www.calcpro.com. I have bought several calculators, HP 48 plug-in applications cards (w/manuals), books, and accessories from them.

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Re: just ugly

*Message #1 Posted by **Chris(FLA)** on 15 May 2003, 8:17 a.m.*

I agree with you Patrick & Wayne. That has got to be the most eye effending thing I have ever seen.

Whomever designed that thing must have been on some wierd drug that affects eye sight.

Luckily it is a 12C. If that was a 41 and I had to spend the time I have programming my 41 I probably would be seeing white flashes for days after a heavy session of banging on the keyboard.

HP has lost its way and I have no confidence that they will find there way back to a simple utility device that does a job. This is just sad.

HP is just another PC box company thanks to Carly.

There is no way I am going to buy one.

Chris

Agree it's ugly, but how do we convince HP?

*Message #2 Posted by **Gene** on 15 May 2003, 9:19 a.m.,*
in response to message #1 by Chris(FLA)

If they fired any and all designers of their recent calculators, they'd improve 100%.

Consider:

```
12c platinum - enough said.

49G - Frozen Hampster? Terrible contrast of shift functions?

10B - who on earth thought teal would work on a dark background?

32SII - teal again?

48GX - I consider the colors a step back from the 48SX and 48S
```

Why not just make things that work?

Who needs to hear this and how do I/we speak to them?

Re: Agree it's ugly, but how do we convince HP?

*Message #3 Posted by **Ernie Malaga** on 15 May 2003, 12:59 p.m.,*
in response to message #2 by Gene

>Who needs to hear this and how do I/we speak to them?

Your question makes the assumption that someone at HP cares. I'm convinced they don't.

And it was such a nice company before. Here's a paragraph from the HP-65 Owner's Handbook (July 1974), which pretty much shows the enormous difference in attitude since then:

"If the manual does not answer all of your questions, contact your nearest HP Sales and Service Office, or, if you are in the U.S. dial (408) 996-0100 and ask for Customer Service. We want you to be completely satisfied with your HP-65."

Can anyone imagine finding _that_ today? Too bad Messrs. Hewlett and Packard aren't running the company anymore.

-Ernie

CONVINCE HP LIKE THIS.....

*Message #4 Posted by **Norm** on 15 May 2003, 1:44 p.m.,*
in response to message #3 by Ernie Malaga

You can convince HP like this:

1. DONT buy their crummy HP home PC's that they sell to the masses, and if you know any masses personally, tell those masses not to buy crummy HP home PC's, and tell them why. I have seen people buy them and be fairly unhappy. The same brain-damaged losers that designed the last of the calculators have also put out a fairly unpleasant combination of popup advertisements, bad software, and lack of help on those #$%#$% trash HP home PC's. You would do MUCH better not to buy one.

2. DONT buy their latest calculator garbage like 48G+, and if you own one, SELL IT, to reduce HP's profitability.

3. IF YOU ARE AN ENGINEER, DONT buy their test equipment. Need a scope, and RF generator, a spectrum analyzer? Just buy somebody else's.

WHAT'S THAT SPELL? bye bye customers. If all the customers say 'bye bye' thats got to have an effect, someday, when the crooks in the boardroom run out of stock swindles to feed their paychecks.

Don't exagerate, please

*Message #5 Posted by **R Lion** on 15 May 2003, 2:04 p.m.,*
in response to message #4 by Norm

The 48 series is not garbage. If you don't like RPL, well, but it is not garbage. If you don't like its colours, well, but it is not garbage. The fact: one of the most powerful calculator in the world.

Greetings

Raul

Re: CONVINCE HP LIKE THIS.....

*Message #6 Posted by **Ernie Malaga** on 15 May 2003, 5:10 p.m.,*
in response to message #4 by Norm

>You can convince HP like this:

Unfortunately, none of those methods would tell HP _why_ customers are unhappy. It takes actual communication between customer and manufacturer, using one-on-one talk, to drive the point home. If HP's profits suddenly disappear, the company disappears and we've gained nothing.

>1. DONT buy their crummy HP home PC's that they sell to the masses,

Oh, I haven't bought one ever. I'm a Macintosh user myself. 8^)

>2. DONT buy their latest calculator garbage like 48G+, and if you own one, SELL IT, to reduce HP's profitability.

Norm, I fail to see how selling a calculator you've already bought and paid for would hurt HP's profits. They've made their profit already (as soon as you ka-chinnng flash your credit card). They don't care if you use the machine, give it away, use it as doorstop, or drop it from the top of the Empire State Building.

>3. IF YOU ARE AN ENGINEER, DONT buy their test equipment. Need a scope, and RF generator, a spectrum analyzer? Just buy somebody else's.

Unfortunately, HP _does_ make good scientific/technical equipment, and it's hard to find others as good as theirs.

No, what we need is a friendly ear somewhere at HP -- someone who will listen carefully, take notes, really care, and take whatever action is necessary to satisfy the customer's needs. The trouble is that that person seems to be on sabbatical or got fired!

-Ernie (Just my 2 cents)

DON'T Convince HP like this...

*Message #7 Posted by **Michael F, Coyle** on 15 May 2003, 8:30 p.m.,*
in response to message #4 by Norm

Sorry Norm, I can't agree with you here.

1. DONT buy their crummy HP home PC's that they sell to the masses, and if you know any masses personally, tell those masses not to buy crummy HP home PC's, and tell them why. I have seen people buy them and be fairly unhappy. The same brain-damaged losers that designed the last of the calculators have also put out a fairly unpleasant combination of popup advertisements, bad software, and lack of help on those #$%#$% trash HP home PC's. You would do MUCH better not to buy one.

What should we tell them? That their PC's are crummy? Or not to buy their PC's because we don't like their calculators?

It's been a while since I've used an HP PC. Are they really worse than everything else out there or are they all this bad?

2. DONT buy their latest calculator garbage like 48G+, and if you own one, SELL IT, to reduce HP's profitability.

Sorry...I like the 48; a lot of other people do too. Many of us consider it the Last Of The True HP's.

3. IF YOU ARE AN ENGINEER, DONT buy their test equipment. Need a scope, and RF generator, a spectrum analyzer? Just buy somebody else's.

WRONG! Agilent now has the old HP Test & Measurement business. Agilent != HP. Two separate companies. By all means buy Agilent whenever possible. (They make dandy LED's too.)

WHAT'S THAT SPELL? bye bye customers. If all the customers say 'bye bye' thats got to have an effect, someday, when the crooks in the boardroom run out of stock swindles to feed their paychecks.

A little angry, are we? If the customers go bye-bye will HP management ever learn why? And that would kill their calculator business as a side effect. Sinking the ship is kind of a drastic way to kill off the rats.

How about this: if you don't like what HP is doing with their calculators, buy someone else's. Then write a polite letter to Carly, explaining what you bought, why, and why HP machines are not meeting you needs. Send a copy of the letter to that guy who's in charge of the calculator business, I forget his name, you know, the guy who keeps issuing all those press releases.

You may get just a form letter back, but at least you'll have the satisfaction of having taken the high road with your complaint. And maybe, just maybe, someone may listen.

Sorry to get down on you like this, but I usually like your posts and I feel this one is way, way off the mark.

- Michael

Agilent

*Message #8 Posted by **Ellis Easley** on 15 May 2003, 8:55 p.m.,*
in response to message #7 by Michael F, Coyle

It's too bad the calculators didn't go with Agilent, they are set up to sell to a small but discriminating market. I was poking aroung the Agilent website a while back and they had some information files on porting HP85 programs to their VXI systems. Imagine anything like that on HP's website today! (Does anybody know if there are still some old goodies on any HP FTP site?)

Does HP care?

*Message #9 Posted by **Patrick** on 15 May 2003, 7:57 p.m.,*
in response to message #3 by Ernie Malaga

I think it is an unfair comparison to look at the HP-65 handbook and point to the level of customer service it supports.

I'd wager that most people here would scoff if asked to pay the equivalent in today's dollars what that machine cost for a unit with similar quality and functionality. HP's products had a higher profit margin in the past, which allowed them to offer the services they did. Today, expectations are that calculators are cheap. You can't fuel a huge customer support department based on the money people are currently willing to pay.

Re: Does HP care?

*Message #10 Posted by **Ernie Malaga** on 16 May 2003, 12:06 a.m.,*
in response to message #9 by Patrick

>I think it is an unfair comparison to look at the HP-65 handbook and point to the level of customer service it supports. [snip] . HP's products had a higher profit margin in the past, which allowed them to offer the services they did. Today, expectations are that calculators are cheap. You can't fuel a huge customer support department based on the money people are currently willing to pay.

Good point. But the point I'm making is that, although the level of Customer Support offered originally for the HP-65 was extremely high, the level of today's support is virtually zero. Heck, there doesn't seem to be even an email address anywhere to voice your opinions, compliments, complaints -- whatever -- about HP calculator products.

Today it's considered okay to sell calculators without a decent manual. Need a manual? You better have access to the Internet so you can download a huge PDF file that probably won't answer all your questions. Is this level of "support" acceptable?

But you're right; today, no company would publish the CEO's private cell phone number so that any Joe Schmoe with a question can call for help at 3:30 AM.

-Ernie

Re: just ugly

*Message #11 Posted by **Ernie Malaga** on 15 May 2003, 12:52 p.m.,*
in response to message #1 by Chris(FLA)

>Luckily it is a 12C. If that was a 41 and I had to spend the time I have programming my 41 I probably would be seeing white flashes for days after a heavy session of banging on the keyboard.

Especially if using the calculator outdoors on a sunny day, which the LCD display encourages.

It isn't just ugly -- it's STUPID to use a light-colored background. I wonder who was the "creative genius" who designed it.

-Ernie

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I'm Jealous D.B.

*Message #1 Posted by **Norm** on 15 May 2003, 6:24 a.m.*

I'm jealous D.B., found at a garage sale where nobody wanted it.

Sounds like it works normally.... it is supposed to forget the 4 stack registers when U shut it off.

It remembers the display format (F sci 4 or whatever) and the registers and the program.

Try typing in 8.8888888 You will see the display go dark each button press. Now try typing in 2.2222222 Do you see the display flash (and the minus flash) each press? Luiz is calling that "2 disease". Its a weird bug present in only some units.

Try typing in sin(45) does the display blink with commas & stuff, or is it dark until displaying the answer?

You want display blanking. It seems like if it has the bug, the display is not blank all the time.

The healthiest units would not have the bug. Suggest at the first hint of trouble (most of these units were built w/o solder joints) dont use it unless it is restored by somebody.

Personally I think the display drivers DEGRADE into that condition when the connections all start getting loose and the chip subjected to flaky voltages, so dont run it if it acts squirrely.

Oh yeah and clean the power switch contacts and lubricate the metal with a drop of tri-flow each on a Q-tip.

- Norm

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Re: Nuts about HP41's

*Message #1 Posted by **Johnny Billquist** on 15 May 2003, 5:08 a.m.*

1. Yes. Halfnut or Fullnut doesn't have any functional implication. You might stumble on to different revisions of the ROM code in a CX, but that isn't related to the nutty-factor of the calculator. (I have a fullnut CX with the latest rev. rom that i know of).

2. It might. Execution speed is pretty varying any way you put it. And people have speeded them up themself as well. I believe that you can speed the fullnut more, but that's a very vague memory.

3. Sortof. Nothing from a normal user point of view. But if you program machine code, the halfnut have some new stuff that isn't in the fullnut.

4. My fullnut is very happy with it self, and it's stuffed with every goodie you can think of.

Bascially, from a normal users point of view, the fullnut/halfnut comes down to a slightly different look of the segments in the display, and the rounded corners of the display. There is no other externally visible way of telling wether it's a halfnut or a fullnut. If you open it up, it's more obvious. And if you program in machine code, there are some new things to play with in the display, but that's it.

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Re: Commodore SR4921 manual

*Message #1 Posted by **Katie** on 15 May 2003, 4:05 a.m.*

Mike,

If you scan the manual I'd like to make it into a PDF and post it on my "manual" page. I've got a bunch of non-HP, non-TI manuals there including several hard to find ones.

Here it is: http://www.wass.net/manuals

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Re: Coyote ugly

*Message #1 Posted by **Christof** on 15 May 2003, 2:46 a.m.*

now that I'm back from house hunting trip-

tell dori I say Hi :) and thanks!

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Re: Why II, que?

*Message #1 Posted by **Frank Wales** on 14 May 2003, 10:33 p.m.*

I can see how the HP calculator suffix thing can be confusing, but it's all really quite straightforward, if you understand the big picture.

'II' just means 'second edition' or 'second version'. Hence, the 32SII followed the 32S just as the 19BII followed the 19B and the 10BII followed the 10B.

Early machines' part numbers did end in 'A', but they weren't designated that way on the calculator faceplates, mainly due to the Great Alphabet Famine of 1973.

Of course, 'C' started to be used when the miracle of continuous memory first arose as a magic distinguishing feature. The Spice models were originally 'E' for "it's the Economy, stupid", but even they got some 'C's eventually; so the 33E become the 33C, the 38E became the 38C, and 'Mel E' became 'Mel C'.

After the 41C, everything got continuous memory, so 'C' lost its differentiating purpose. This allowed various bits of early plot-losing to happen: the 75C has a variant called the 75D, but it doesn't have some amazing distinguishing feature beginning with 'D', it was just the letter after 'C'. Similarly (but more obscurely), the 71B was so-called because there was a 71A (with less RAM) in the works along with the 71B, but the 'A' version got canned. So, by the miracle of retro-active continuity, 'B' came to mean 'BASIC'.

I have heard it rumoured that the true meaning of the 94F is too disgusting to report in polite society. So if any of you know about it, please post it in a follow-up to this message.

Always the early pioneer, the 41C begat the 41CV, which had fives times as much RAM as the 41C, hence 'V', which is Roman for '5', which is Arabic for 'five' (except apparently it's really Indian, but that's not important right now). The 41CV then begat the 41CX, which incorporated eXtended functions and memory, thus starting the great 'E'-avoidance tradition that continues to this day, due mainly to the War on Drugs.

Then the real Pioneers came along with the 'B' 'S', and ran off with the 'X' for their piece-de-resistance, the 48SX, which was both 'Scientific' and 'eXpandable'. Wooo.

By the early 1990s, HP seem to have settled on 'II' for all their second editions. So, the second edition of the 48S was the 48G, the second edition of that was the 48G+, the second edition of the 12C is the 12C Platinum, and the second edition of the already-second-edition 19BII looks like it'll be the 19BII+.

Seems all pretty consistent to me, at least compared with things like 'V42 bis', where 'bis' is International Standard Lingo(*) for "second edition, but in a smug, smartypants kind of way".

I hear that the second edition of the 9S will be the 'Richard Feynman special quantum edition 9S+ Unobtanium turbo, with extra bongos too'. How all this will be printed on the face of the calculator is left as an exercise for the reader. God knows, the designer won't get it right. At least it will finally allow the support staff who run HP's price list system to forget about the long-standing bug that prevented the entry of hyphens in calculator product names.

----- (*) Strictly speaking, this should be "International Lingo for Standardisation", but I just worked out the number of people who actually care about this on my new 12C Platinum, and the answer was 0.000000000000531,

which is pretty close to zero, even for accountants.

Re: Why II, que?

*Message #2 Posted by **Ellis Easley** on 15 May 2003, 8:45 p.m.,*
in response to message #1 by Frank Wales

"I hear that the second edition of the 9S will be the 'Richard Feynman special quantum edition 9S+ Unobtanium turbo, with extra bongos too'. How all this will be printed on the face of the calculator is left as an exercise for the reader."

Maybe the name will be molded into the slide-on cover.

Thanks for explaining the 71B and 75C, I didn't know where they fit in the discussion. Could it be there was a 75B (for Basic) that was scrapped when they added the slot for the 8K memory upgrade behind the battery?

Re: Why II, que?

*Message #3 Posted by **Raan Young** on 16 May 2003, 1:22 p.m.,*
in response to message #2 by Ellis Easley

>> Thanks for explaining the 71B and 75C, I didn't know where they fit in the discussion. Could it be there was a 75B (for Basic) that was scrapped when they added the slot for the 8K memory upgrade behind the battery? <<

Frank asked me to comment...

First, the "C" designation on the "75C" actually did refer to continuous memory -- the design goal for the HP-75 was to package the features of the HP-85 (a desktop BASIC computer with tape backup that lost all memory when turned off) in a portable form which kept everything in memory even when off. Further, HP-75 development was well underway when the 41C came out and "C" designation was still a big deal.

Anyway -- as far as I know there were never any serious plans for a "B" version (altho I remember a few prototypes floating around with that label). And, again AFAIK, the 8K memory expansion module was part of the plan, not added later (remember the days when 8K was considered a big enough perk to bother making it an option).

On the other hand, minor changes such as "B" vs "C" and adding 8K memory modules don't stick in my memory like watching the design concept evolve from a palmtop/docking-station to the final product that hit the shelves.

Speaking with some authority, but probably not enough...

75 vs. 71

*Message #4 Posted by **Ellis Easley** on 16 May 2003, 2:22 p.m.,*
in response to message #3 by Raan Young

Maybe you can comment on this: I have been struck by the "terseness" of the 75 OS, for example the inability to catalog ROM modules or display program lines containing non-present XROM references, both of which I believe the 71 can do. Is this because of the limited addressing range of the Series 80 type CPU in the 75 vs. the 512 KB addressing range of the 71's CPU? In other words, is that distinction the reason the 75 didn't have a bigger OS ROM (possibly via page swapping) or is it the fact that it's design took place earlier, when larger ROMs would have had a big impact on cost? Or is it just that the 75 is meant to be a computer user's system as opposed to an engineer's system (as the 71 can

certainly be described).

Re: 75 vs. 71

*Message #5 Posted by **Raan Young** on 16 May 2003, 4:38 p.m.,*
in response to message #4 by Ellis Easley

Boy, you are really testing the old memory cells. I think most of this is correct, but that was 20-odd years ago.

By today's standards, "terse" is an understatement. The HP-75 had a maximum address space of 64KB -- you can't sneeze in that much space these days, let alone write an entire OS. And that space includes the RAM!

The address space was allocated thusly -- 32K of fixed ROM for all those "gotta be there" routines. 8K of swappable ROM, 16K of RAM and 8K of optional RAM. The final system had 48K of ROM, so two 8K segements swapped in and out of the 8K window -- along with every plugin ROM (all of those having 1 or more 8K chunks).

When code in a swap ROM wanted to call something in the 32K block things worked pretty easily. When code in the 32K block wanted to call a routine in a swap ROM, it had to make sure the right ROM was enabled, but it still wasn't too bad. But when a swap ROM wanted to call another swap ROM things started to get interesting -- there's a reason why we had routines with names like xyzzy and plugh. I'll leave it as an exercise to the reader to imagine what it's like when you are several layers deep into this swapping business.

So -- yes, the limited address space caused a lot of problems and yes, fixing that in hardware was outside the realm of yesterday's reality, because of costs, scheduling and so on -- it would have required redesigning the CPU (which was a custom chip). Physical size was another big issue -- an 8K ROM was a LOT bigger in those days.

The 71 project started about 3 years after the 75, with all the benefits of improved technology and learning from previous mistakes.

As far as listing program lines linked to missing ROMS -- the 75 ROMS had the parse table (ASCII listing of keywords, used to parse input and "decompile" tokens for listings) stored at the head of each ROM. As a result, it was pretty much impossible to display a program line if the ROM wasn't plugged in.

As far as a ROM catalog, that could have been done, but wasn't because we needed the room for more important things. Somewhere, floating around the internet, there are copies of the HELP LEX file I wrote long ago, which does do a catalog of any and all ROMS in the machine. (No, I can't send you a copy, I have yet to get that old stuff into a form that is communicable in today's world -- it's on my todo list, just after ...)

Re: 75 vs. 71

*Message #6 Posted by **Ellis Easley** on 17 May 2003, 10:31 a.m.,*
in response to message #5 by Raan Young

Thanks for all the answers! I understand Dave Hicks has lots of notes detailing the 75 design that are very interesting and fun to read, maybe they will make their way onto the CD's - or DVD - or ExD! - one day.

Regarding the missing ROM references, I understand why they can't be listed explicitly but the

41 (at least, I'm not sure about the 71) displays them as "XROM xxyy" so you can figure out which ROM is missing. Not only does the 75 not do this, it won't display any part of a program line that contains such a reference (it just beeps and says there's a ROM missing). Since the line might contain other statements, you can miss a lot if a ROM is missing!

I think your HELP LEX file is on the SwapDisks and one way or another, I'm going to get them so I can use them! (I have a few that I got from EduCalc years ago.) The SwapDisks are on the HP Museum FTP site in two forms: separate LIF files, and images of the complete disks that Tony Duell made, along with Linux utilities to reconstitute the disks.

It's the files on the SwapDisks that prompt my question about missing ROMs: many of the HP75 programs on the SwapDisks and the PPC Journal need the I/O ROM and when it is missing, it is very hard to work around it because of the "quiet". But if all goes well, I'll have an I/O ROM soon and all will be revealed!

I'm not complaining, just curious. I like all the calculating machines HP made and I understand nothing is perfect, the world is full of limitations. I think the uniqueness of each HP model (along with the consistency of the RPN operation in those models) is what makes them so interesting - you get the feeling that people sweated over the details trying squeeze in a little more value. I applaud the effort!

Thanks again.

Re: 75 vs. 71

*Message #7 Posted by **Christof** on 17 May 2003, 12:59 p.m.,*
in response to message #4 by Ellis Easley

I seem to recall that the 75 (which I love, by the way) was pretty much compatible (at leas tin thinking about doing stuff) with the series80 machines.

If maintaining some - if not code compatibility, at least style compatiblity- with the series 80 machines was desirable, it would help to explain some of the design choices.

Re: Why II, que?

*Message #8 Posted by **Frank Wales** on 16 May 2003, 2:19 p.m.,*
in response to message #2 by Ellis Easley

Maybe the name will be molded into the slide-on cover.

I doubt it. According to my grapevine, for environmental reasons, and not at all in order to keep costs low, the RFsqe9S+UoTweb2 will come with three sheets of multi-coloured Saran Wrap (a.k.a. 'cling film') in place of a cover.

Unless they're planning to use the documentation that will be printed on these sheets as the identification for the calculator, of course.

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If you need an HP 19Bii

*Message #1 Posted by **CZ** on 14 May 2003, 10:18 p.m.*

If you need an HP 19Bii,

there's some brand new ones over on eBay.

Bid aggressively. I need the money.

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No more insulting the coyotes and raccoons

*Message #1 Posted by **Norm** on 14 May 2003, 10:16 p.m.*

no more insulting the coyotes and raccoons,

I never saw no coyote or raccoon that was ugly as a "WALMART 9G" or a "PLATINUM 12C"

In fact, the average coyote or raccoon is pretty kool looking. I mean, a raccoon looks like a bank-robber..... hmmmm... so does Carly.

HEY I just figgered it out, I saw a digital wristwatch for 8 year olds and the digits all looked like they were melted. I mean, on purpose, they were all different sizes and crooked and warped. To make it look cool.

WELLLLL HP should feature a "MELTED" display on their new calculators. After all, its boring and stodgy and dumb of those engineers to want the digits all in a neat tidy row.

Time to give them something else.

Re: No ROOM for YOU at my Kingdom

*Message #2 Posted by **Carly 'the QUEEN'** on 15 May 2003, 9:42 a.m.,*
in response to message #1 by Norm

ARE YOU LOOKING FOR A JOB AT HP! While your comments sound brilliant, we will not listen to them (well we may just rip them off, cool colors and other great gimmicks ARE IN). You can forget it! No amount of Bootlicking or A$$ kissing is going to get YOU ON THE Payroll after your other comments.

Carly

aka.(Ron Ross)

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Freeware RPN Windows Calculator

*Message #1 Posted by **Patrick** on 14 May 2003, 8:15 p.m.*

There are a number of Windows-based calculator emulators out there which try to look and behave like various HP models. For the last few years I have used Excalibur for Windows. It doesn't try to look like anything else, which for me is fine, and it does everything I ask of an RPN calculator. It is an amazing piece of freeware and the developer is definitely one of the good guys.

Recommended.

Re: Freeware RPN Windows Calculator

*Message #2 Posted by **GS Leong** on 15 May 2003, 11:25 a.m.,*
in response to message #1 by Patrick

I have the hp 41 issued by Warren Furlow which I got off the museum web site and it is really nice

Re: Freeware RPN Windows Calculator

*Message #3 Posted by **Paul Guertin** on 15 May 2003, 4:49 p.m.,*
in response to message #1 by Patrick

The Windows RPN calculator I've used for years is called xcalc and is available here:
http://www.tordivel.no/xcalc/

It has a very useful miniature mode that uses very little screen space.

Paul Guertin

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Serial number question

*Message #1 Posted by **Eric Davis** on 14 May 2003, 5:09 p.m.*

I was wondering how old a calculator is. Its an HP 15C with the serial number 2326A02031. Also any idea on its value?

Thanks

Re: Serial number question

*Message #2 Posted by **Holger Weihe** on 14 May 2003, 5:25 p.m.,*
in response to message #1 by Eric Davis

This calculator is from 1983. The first two digits of the serialnumber are the years since 1960.

I think this HP has no value at all. You should give it to me for recycling. :-)

To be honest: The value depends very much of the calculators condition. At Ebay germany you get an average price of 164 Euro. (1 Euro = 1,16 US$ yesterday) Even defect HP-15s go for 60 Euro or more. The prices at ebay.com are even higher.

Holger

Re: Serial number question

*Message #3 Posted by **Eric Davis** on 14 May 2003, 5:50 p.m.,*
in response to message #2 by Holger Weihe

Wow! Thanks!

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Is RPN dead?

*Message #1 Posted by **Paul Pickett** on 14 May 2003, 4:47 p.m.*

I use a HP41C RPN calculator but when I went to buy a new calculator I couldn't find one except for a business model. Am I looking in the wrong places? Some people I talked to didn't even know what RPN was. What happened? Did HP drop the ball? Is there an upgrade for my beloved 41?

Re: Is RPN dead?

*Message #2 Posted by **Michael Meyer** on 14 May 2003, 5:24 p.m.,*
in response to message #1 by Paul Pickett

"RPN is dead. Love live RPN!" Yes. For the most part, IMHO, RPN is dead.

Latin is also a dead language. Does that mean that it's forgotten? It is still studied, used, and appreciated by many, and it's influence remains.

Even if HP releases some RPN calcs, it will never again be seen as the quintessential calculating language.

It will live on in the hearts, minds, and machines of those who still love it.

Michael

Re: Is RPN dead?

*Message #3 Posted by **Ernie Malaga** on 14 May 2003, 5:25 p.m.,*
in response to message #1 by Paul Pickett

> use a HP41C RPN calculator but when I went to buy a new calculator I couldn't find one except for a business model. Am I looking in the wrong places? Some people I talked to didn't even know what RPN was. What happened? Did HP drop the ball?

Unfortunately for us, RPN is not popular and, therefore, calculators that use it are not good sellers. In a profit-driven industry such as electronics, that spells trouble. Poor sellers stop being marketed and manufactured; as a result, HP calculators nowadays typically offer Algebraic entry only (although there are exceptions).

>Is there an upgrade for my beloved 41?

Nope. You could try to get a second-hand HP-42S, which also uses RPN, or some of the newer models such as a HP-32S, but for the most part you're out of luck. The graphing models (example, the HP-48GX) use a variation of RPN called RPL (unlimited stack registers and a different way of approaching problems), but it's not the same and, personally, I dislike it. I've had 3 RPL calculators and have kept only one for sentimental reasons (HP-28C).

For everyday use, I still pull out my trusty HP-41CX or the 32S.

Good luck.

-Ernie

Re: Is RPN dead?

*Message #4 Posted by **Rick** on 14 May 2003, 5:39 p.m.,*
in response to message #1 by Paul Pickett

According to HP, RPN is not dead. The successor to the 41 is the 48G series. These can be found, but are in short supply. HP has indecated that they will be releasing some new RPN scientific calculators this fall. If you can't find a 48G/G+/GX at a local store try Calcpro.com for mail orders. If you are looking to replace your 41C, or looking for a different HP RPN calculator look at eBay. Prices and compition can be steep, but it is the best place to get some of the older HPs.

Welcome to our HP Tree Fort

*Message #5 Posted by **Norm** on 14 May 2003, 10:27 p.m.,*
in response to message #1 by Paul Pickett

Hello Paul, welcome to our HP tree fort.

Man U have got some catching up to do.

Carly Fiorina, some mafia boss woman, took over HP and is getting rid of anything classy or cool. She hates engineers because we flew a rocket to the moon. To get revenge, she will make us all type on 'HP' personal computers that crash every 30 minutes.

YES, there is still ONE HP Classic calculator still being made. The HP-12C. It's the one for MBA business majors like Carly Fiorina. All other such classics were discontinued (like the ones for engineers).

YES, RPN is the best thing on Earth, NO, they had no business dropping it, or 32S or 42S or even the ones with the RED LED's.

YES, HP could've made a killing if they would just keep making them.

NO, the graphical calculators aren't worth their weight in landfill.

NO, there is nothing to replace your 41C from the factory, Carly Fiorina left U high and dry and she is laughing at you.

YES, you may now begin to drain your bank account, to fight with the other tree-fort members of the club, over a dwindling supply of used units going for ever-higher prices on eBay.

That process is somewhat like the original movie 'Highlander'. We're friends in between fights, and we chat and compare notes, but then comes the next battle over a classic HP calculator and we have to fight each other to the death for it.

- Norm

Re: Welcome to our HP Tree Fort

*Message #6 Posted by **Frank Wales** on 14 May 2003, 10:46 p.m.,*
in response to message #5 by Norm

That process is somewhat like the original movie 'Highlander'...

I remember: "There can be only forty-one..."

Re: Welcome to our HP Tree Fort

*Message #7 Posted by **Patrick** on 14 May 2003, 10:50 p.m.,*
in response to message #5 by Norm

Depressingly truthful analysis, Norm. Quit it.

OK Patrick i'm sorry

*Message #8 Posted by **Norm** on 15 May 2003, 6:14 a.m.,*
in response to message #7 by Patrick

OK Patrick i'm sorry

it wont happen again.

:o)

Re: Welcome to our HP Tree Fort

*Message #9 Posted by **Dave Shaffer** on 15 May 2003, 1:36 a.m.,*
in response to message #5 by Norm

Paul,

Norm is mostly right, but you have to ignore the foam around his mouth! (Just feed him an occasional 34C and he'll be happy/calm down. Or, maybe, just wave some RED LEDs in his direction.)

You probably should be looking for another '41 variant on E-bay.

I can't help myself...

*Message #10 Posted by **Vieira, Luiz C. (Brazil)** on 15 May 2003, 7:57 a.m.,*
in response to message #9 by Dave Shaffer

... not laughing out loud. Neighbors will never take me as a normal guy because of you.

...wave some RED LEDs in his direction I'll try not to reveal my in-deep preferences too openly in front of you, guys!

Gee! 8^)

Luiz C. Vieira - Brazil

Not ALL MBAs are like Carly!

*Message #11 Posted by **Gene** on 15 May 2003, 9:23 a.m.,*
in response to message #5 by Norm

```
YES, there is still ONE HP Classic calculator still being made. The HP-12C. It's the
one for MBA business majors like Carly Fiorina. All other such classics were
discontinued (like the ones for engineers).
```

Gene: I am an MBA and love the 15c as much as the next engineer. :-)

Re: Welcome to our HP Tree Fort

*Message #12 Posted by **Randy** on 16 May 2003, 11:09 a.m.,*
in response to message #5 by Norm

Secretly, Carly has stocked that old HP garage full of NOS HP-41CXs and peripherals. She will use the sale proceeds for an even cushier retirement than you might have expected.

Re: Is RPN dead?

*Message #13 Posted by **Vieira, Luiz C. (Brazil)** on 15 May 2003, 4:09 a.m.,*
in response to message #1 by Paul Pickett

Hi, Paul;

there is always a way when HP41 is the issue.

If you wnat to know about the HP12C have a look here. This calculator is still being produced, but it has been "upgraded" recently to be an HP12C Platunim. Love "her" or hate "her", it's the only one RPN available from HP so far. There is a possible HP12C's clone found by Renato comming from another brand, but it's still being hunted.

If you are lucky finding, there is a Financial Decisions Pack, ROM module included, where many of the HP12C's features are available in the well-known HP41 style.

Module's major subjects are:

Compound Interest Solutions
IRR
Modified IRR
NPV
Loan Amortization Schedules
Straight Line Depreciation - SL in the HP21C
Declining Balance Depreciation - DB in the HP12C
S.O.Y.D. Depreciation
Bonds
Date Arithmetic

Module's # ID is 00041-14026.

As mentioned by Rick, RPN is not dead, and the HP48G has standart TVM menu with [n] (# of periods), [i] (interest rate), [PV] (Present Value), [PMT] (PayMenT) and [FV] (Future Value) softkeys plus AMORTization features. If you know how to deal with the HP41, you'll need a bit of time and practice to hold the HP48G's new functionality. Although many others in hear stated against this, I have both of them and I feel no harm usnig the HP41 or the HP48 anywhere.

Hope this helps.

Best regards.

Luiz C. Vieira - Brazil

Re: Is RPN dead?

*Message #14 Posted by **unspellable** on 15 May 2003, 8:32 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

I will draw a distinction. RPN is a form of notation, or in the case of a calculator, a form of entry.

RPL is a language and also an operating system that uses RPN.

A number of computer languages use RPN.

We should not confuse the notation with the language.

Re: Is RPN dead?

*Message #15 Posted by **Robert** on 15 May 2003, 9:11 a.m.,*
in response to message #13 by Vieira, Luiz C. (Brazil)

I'm with Luiz. The 48 may be the last "professional" quality RPN/RPL machine produced by HP. (I REALLY hope I'm wrong.)You can pick up one for 1/3 the price of a 32SII these days.

It does take some getting used to though. The good news is that there is info all over the web on how to make it go.

Try the emulator EMU48 first to see if you like RPL.

Re: Is RPN dead?

*Message #16 Posted by **JimC** on 15 May 2003, 9:48 a.m.,*
in response to message #1 by Paul Pickett

Sorry Paul, but as others have told you, there is no joy in RPNville tonight. Some have indicated that you can easily/happily move on to the 48 series as the next step (RPN as a subset of RPL). Maybe its 'cause I'm old, but I tried moving to the 48GX. I disliked the display (mine was blue), the colour scheme, the keys(!) and the length (it wouldn't fit in my shirt pocket - not that my 41 did though - I seem to make a lot of excuses for the 41 - must be true love....).

I was also underwhelmed with the documentation. Tons of software though (www.hpcalc.org)

In a (half)nutshell then, from my perspective, your quest for the 41 replacement will be fraught with hardship and danger. Oh, and if you should want to buy a 48GX, I've got one for sale.

Jim U sound just like me...

*Message #17 Posted by **NH** on 15 May 2003, 1:31 p.m.,*
in response to message #16 by JimC

Jim U sound just like me...

U tried using the graphing calculator and said 'whats the use'.

I was using 48G+ ..... Couldn't stand it.

The solution, my friend ? SELL IT! You reduce HP's profits if you dont let their graphical paperweight gather dust at your house.

Re: Is RPN dead?

*Message #18 Posted by **DougT** on 15 May 2003, 12:01 p.m.,*
in response to message #1 by Paul Pickett

Newbie here. Norm's description of the current state of HP RPN is accurate, and yes, somewhat depressing. As others have pointed out, right now Paul is limited to buying a 12C for RPN capability, or trolling eBay or thrift stores for used calculators.

It's hard to believe how HP has let RPN, or at least, *scientific* RPN, fall by the wayside. This really snuck on me, sad to say. Luckily, I bought a 15C back in college and have babied it for two decades. It stays in my desk at work, and ten years ago I bought a 32SII just to balance my checkbook at home!

Thanks to everyone for the helpful and entertaining information posted on the site.

Re: Is RPN dead?

*Message #19 Posted by **GS Leong** on 15 May 2003, 12:19 p.m.,*
in response to message #18 by DougT

Doug i started collecting hp's when i heard they were stopping production of the 32sii

Re: RumPelstiltskiNs

*Message #20 Posted by **Paul Brogger** on 15 May 2003, 4:37 p.m.,*
in response to message #1 by Paul Pickett

We've had a few people surface recently, wondering why they couldn't find an HP RPN replacement unit after years of faithful service from a much-loved earlier model. Makes one wonder how many others are out there . . .

I guess "both HP's" could read their own lessons from the experiences of these folks:

The Old H-P would take satisfaction in the fact that even though several generations of product have come & gone, an older model has quietly soldiered on for the customer, satisfying their needs completely, and leading them to think of *nothing other than H-P* when it finally came time for a replacement.

The New H-P will take umbrage at the realization that for all these years a crusty old rock-solid calculator has been so dependable that the customer hasn't seen the need to buy any more product in the interim. (A TI user might have had to buy 4 or 5 calculators in the same time period!)

Re: RumPelstiltskiNs

*Message #21 Posted by **Bill Platt** on 16 May 2003, 12:51 p.m.,*
in response to message #20 by Paul Brogger

I am one of those who found this museum and group while looking in vain for a currently in production RPN calculator. I was astounded that the 32sii was taken out of production with no replacement.

Re: Is RPN dead?

*Message #22 Posted by **Euclid** on 16 May 2003, 11:49 p.m.,*
in response to message #1 by Paul Pickett

Fear not, RPN will never die, it's all over the web in the form of software. As computers continue to decrease in size and weight, they are replacing the need to carry a separate calculator. So..

CheerUp,

Euclid

www.livingsoftware.net

Re: Is RPN dead?

*Message #23 Posted by **Robert** on 17 May 2003, 7:53 a.m.,*
in response to message #22 by Euclid

There are at least a couple decent RPN calcs for the palm OS, if you want to go that rout. I find it hard to do any real engineering "crunching" on the Palm, but it's always with me (like my 42S used to be). The Palm is darn handy on it's own anyway.

Re: Is RPN dead?

*Message #24 Posted by **Mitch** on 20 May 2003, 6:32 p.m.,*
in response to message #1 by Paul Pickett

It's wonderful to see how many die-hards there are. I still have the 41CX I bought in the early '70's and would not part with it. I acquired a 15c when an office where I worked closed. I now feel "blessed" to have a choice of RPN units. I had no idea that HP had dropped the whole system. I knew when they discontinued the 41 series and nievely assumed they replaced it with bigger and better. Until recently I figured I was operating in the old world of some system which had advanced well beyond. Instead I find I am one of the fortunates who retained one of the best. Thanks for all of the info. I'll check in once in a while. Also, I have an extra Advantage Pack still in the wrapper somewhere. Looking for a trade for another useful module or other stuff. I also have the catalog of hp41 programs if anyone could use it for nostalgia purposes. I hate to admit that I also had an IL cable, printer and cassette recorder that went somewhere (dump?) long ago. Wish I had known!

Re: Is RPN dead?

*Message #25 Posted by **Ernie Malaga** on 20 May 2003, 10:27 p.m.,*
in response to message #24 by Mitch

>I still have the 41CX I bought in the early '70's

You didn't buy it in the '70s, Mitch. You mean the '80s. (Unless HP made a prototype HP-41CX at the same time the HP-35 was released. Now, that's an interesting thought.)

-Ernie

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Re: HP 41 battery/port connector

*Message #1 Posted by **David Smith** on 14 May 2003, 4:25 p.m.*

Actually, I use brass "U" channel from hobby shops. It is much heavier than foil, much easier to find, and should last a life time.

The battery contact assemblies are all interchangeable. I have seen revision numbers A-E, but they are all compatible.

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Help with 9114A disk drive?

*Message #1 Posted by **Peter Buff** on 14 May 2003, 4:14 p.m.*

Hi,

I have a disk drive that appears to be dead. I think the battery may be the entire problem with it but it's a very strange battery. Is there a common replacement?

Re: Help with 9114A disk drive?

*Message #2 Posted by **David Smith** on 14 May 2003, 4:19 p.m.,*
in response to message #1 by Peter Buff

There is a 6 volt sealed lead-acid battery in the battery holder. It is a very common battery. Take the battery holder to your local battery store (Batteries Plus, Batteries, Etc, etc) and they will know what to do.

You can buy the battery here:

*Message #3 Posted by **Gene** on 14 May 2003, 4:36 p.m.,*
in response to message #2 by David Smith

http://www.batterystation.com/gelcell.htm

But, sadly, I can't remember which one it is! It's either the PS-628 or PS-632...I think it's the PS-628. I should know, since I bought one 2 months ago, but I can't. Can anyone help me help Peter?

Re: You can buy the battery here:

*Message #4 Posted by **Peter Buff** on 14 May 2003, 5:22 p.m.,*
in response to message #3 by Gene

Thanks guys! You're quick!

Well, dont' order it until someone confirms I have the right #!

*Message #5 Posted by **Gene** on 14 May 2003, 5:42 p.m.,*
in response to message #4 by Peter Buff

:-)

Re: Well, dont' order it until someone confirms I have the right #!

*Message #6 Posted by **Terry Ingram** on 14 May 2003, 6:39 p.m.,*
in response to message #5 by Gene

PowerSonic PS-628 is the right replacement battery. I purchased one a around a month ago for

my 9114b. Please note, the battery holder of the 9114b disk drive is required.

There is also a previous post providing the web site & phone numbers where I purchased mine.

Terry

Re: Well, dont' order it until someone confirms I have the right #!
*Message #7 Posted by **Peter Buff** on 14 May 2003, 7:12 p.m.,*
in response to message #6 by Terry Ingram

Wonderful! Thanks again everyone!

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Online Photo Album - Update

*Message #1 Posted by **Mike** on 16 May 2003, 10:56 a.m.*

UPDATE: I've changed the idea from Online Museum to Photo Album but it serves the same purpose. I've combined a couple of posts and have deleted the previous post on this subject.

I've made some improvements to the Photo Album software. It now vBCode, to add color, bolding, URLs, Images, etc to the description area and , **can be seen here.**

If you don't know what BBCode is **go here for examples**. It's similar to the "advanced formatting techniques" used on this forum.

I have also added a "**More Information**" field in the upload form that allows inserting a link to get more information on the subject. This **can be seen here.**

Uploads require an account and password verification.

If you wish to test this, you can log in with the following temporary information, just for today:

Username: **test-photos**
Password: **testph7**

Note: If I run into problems with multiple people using the password simultaneously, I may have to block this account. But for now, we'll see how it goes.

Online Photo Museum

What's coming?

- Automatic resizing of photos (to 500 pixels wide max)
- Searchable database
- Add, Edit, Deleting of photos and information

Anyway, I'm open to suggestions. Let me know what you think.

Mike

Online Photo Album - Screenshots

*Message #2 Posted by **Mike** on 19 May 2003, 11:53 p.m.,*
in response to message #1 by Mike

Here are some screenshots that you won't see until logged in. Wanted to show what it looks like. You can now edit your own photo descriptions, if you need to make a change.

http://www.msdsite.com/upload/album.jpg

http://www.msdsite.com/upload/view.jpg

http://www.msdsite.com/upload/upload.jpg

http://www.msdsite.com/upload/edit.jpg

Online Photo Album

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HP41 MLDL2000 website update

*Message #1 Posted by **Meindert Kuipers** on 14 May 2003, 3:16 p.m.*

For those who are interested, my website now contains the updated information on the MLDL2000 developments:

- working (you will have to believe me) prototype photographs, schematics and VHDL design files. The prototype is a simple interface to use the 'old' L8 and U2 EPROMs

- updated specifications for the final product

- current design files for the final product

All is available at www.kuipers.to/hp41 under the GNU license and with no warranty or support ;)

Meindert

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Re: Inconsistent results #1: 12c vs. 12c Platinum

*Message #1 Posted by **hugh** on 14 May 2003, 2:16 p.m.*

i get fv = 25*(1.15^40-1)/(1.15^(1/26)-1) = 1,237,786.9304496213

By "correct" answer, I meant...

*Message #2 Posted by **Gene** on 14 May 2003, 3:22 p.m.,*
in response to message #1 by hugh

The answer listed in the PPC Journal. You're quite right.

I note that the calculators with greater precision (19BII, 48GX, etc) give the answer similar to the one you show.

The 12c and 12c platinum really should give the same answers, especially if they are sold as "compatible".

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Stack Holding in Continuous Memory Calc

*Message #1 Posted by **Katie** on 14 May 2003, 2:02 p.m.*

Curiously, the 29C and 19C hold the X register in continuous memory but not the Y, Z, T nor LASTX registers. I wonder why they didn't go for the whole shebang? Or why they didn't even bother holding the X register in the Spice "C" machines.

My guess is that all the stack registers in the Woodstocks are on the CPU (ACT) chip. But in the 29C and 19C they keep a copy of it in the CMOS chip as well. (Probably this was a design compromise between CMOS storage space cost and wanting to keep the whole stack in CMOS.) Upon power-up they copy back from the CMOS chip. In the Spice machines they went for low cost and consistency of design so gave up on this idea.

And the 25c only saved LASTX

*Message #2 Posted by **Gene** on 14 May 2003, 3:23 p.m.,*
in response to message #1 by Katie

I never understood THAT choice at all. :-)

Re: And the 25c only saved LASTX

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 14 May 2003, 4:08 p.m.,*
in response to message #2 by Gene

Hi;

after Katie's wise words and your observation, I add the fact that the ACT chip, if containing stack registers, may not contain the LASTx. Both HP21 and HP37E have no LASTx access, maybe no LASTx register too. Are there others without LASTx?

Then we conclude (hopefully in a correct reasoning) that the LASTx register is in fact in RAM, not in the ACT chip, what explains the fact it is kept in the HP25. As it is not so practical, maybe a remanagement in the HP19C/29C exchanged their places. I agree with Katie but I believe that as RAM was an expensive resource at that time, they have simply used LASTx holding feature and rearranged addresses so users would take the advantage of having at least the X-register back.

Wrong reasoning? Maybe. This would not need a new internal ACT design, just new ROM coding with the X-register addressed in RAM and LASTx addressed inside ACT.

My 2¢ (now I know how to get it...)

Luiz C. Vieira - Brazil

Re: And the 25c only saved LASTX

*Message #4 Posted by **Trent Moseley** on 14 May 2003, 9:40 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

Luiz,

I love your 2¢ now that I know how to get it!

tm

You bet it's because of you!

*Message #5 Posted by **Vieira, Luiz C. (Brazil)** on 15 May 2003, 1:14 a.m.,*
in response to message #4 by Trent Moseley

Hello, Trent;

thank you. If it is not for you, I'd never notice it.

You, guys, are gold!

Best regards.

Luiz C. Vieira - Brazil

Re: And the 25c only saved LASTX

*Message #6 Posted by **David Smith** on 14 May 2003, 4:31 p.m.,*
in response to message #2 by Gene

The ACT and ROM chips in the 25 and 25C are identical. The only difference is the RAM chip and it's backup supply connection. Therefore the HP25 must save LASTX in the RAM chip and the stack in the ACT which is not backed up with the battery.

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Re: HP-48g

*Message #1 Posted by **Daniel Kekez** on 14 May 2003, 1:42 p.m.*

Sorry, I haven't found the Advanced User Guide online. If I had a copy, I would volunteer to scan it for Dave's CD set.

Try posting a WTB in the Classified Ads.

Good luck!

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to mike and ellis

*Message #1 Posted by **db(martinez,california)** on 14 May 2003, 1:33 p.m.*

Re: Commodore SR4921 RPN

Mike; if you are making scans - me too please! i thought i had the only one in the world. not so it seems. you may have the only manual though.

Ellis; w doesn't replicate so you just get a zero there.

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Re: Shockingly new HP41CX !

*Message #1 Posted by **Mark Ordal** on 14 May 2003, 12:22 p.m.*

I just read this thread about Randy Woodbury's recently purchased, but dead, 41CX.

One possible option for repairs might be:

http://www.internationalcalculator.com/

They specifically say that they do repairs of both the 41 series and the peripherals. I have a recently deceased 41CX myself and am eager to learn if anyone has experience with these guys.

Randy: if you give up on the idea of repair and decide to use this pristine 41CX for parts, I might be interested in the upper part of the case if the price is right. (-:

Back when I got my 41CX, I deliberately defaced it by applying a white plastic-based paint to the edges of the top of the case---I figured that way any cretin stupid enough to steal my 41CX would at least have to avoid using it in public on campus. Now I'd kind of like the "original look" back for my 41CX.

My interest in the top part of the case may be premature---I need to find out if my 41CX is repairable first!

Re: Shockingly new HP41CX !

*Message #2 Posted by **Randy** on 16 May 2003, 10:59 a.m.,*
in response to message #1 by Mark Ordal

I spoke (by email of course, no one actually speaks anymore it appears) with said company, and they seem very good. But, they ask a fair price just to have a look that is more than the calculator is worth (not their fault of course), and many in-the-know on the halfnuts have got me convinced that any repair attempt would be a lost cause. Having looked inside my working halfnut, I can see that it would not be unreasonable to have that standard note, "No Servicable Parts Inside." And, there is about 3,000 heat-fused posts to unfuse even to have a look at the other side of the PCB. I probably won't get rid of any or all of it -- I think having it encased in a Lucite block would be cool for a paperweight, either in its pristine assembled state or taken apart to simulate a holographic exploded view. Then it could go on ebay under Art Sculptures instead of Vintage Scientific Calculators. Thanks for your comments, and best regards.

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HP Forum Archive 13

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Re: Did the 34c precede the 41c?

*Message #1 Posted by **Gene** on 14 May 2003, 10:40 a.m.*

Thanks, Valentin.

It appears that was the same date as the 41c, since Craig's database lists 7-1-1979 as the 41c's intro date too.

34c - 7/1/1979

41c - 7/1/1979

Re: Did the 34c precede the 41c?

*Message #2 Posted by **Valentin Albillo** on 14 May 2003, 12:08 p.m.,*
in response to message #1 by Gene

They both were certainly introduced at the same time here in Spain, decades ago.

Though I was primarily interested in the HP-41C at the time, I clearly remember that I also borrowed and HP-34C from local HP, for which I wrote a Solutions Book ("HP-34C Advanced Mathematics") which Hewlett-Packard published locally, and in the process I grew to appreciate the HP-34C a lot, it still is one of my favorite HP calcs.

The book was introduced at a large trade show and sold very well, so HP wanted a couple of similar Solutions Books for the HP-41C, "Advanded Mathematics" and "Advanced Physics". Regrettably, even though both were duly written, some changes at the top of local HP resulted in them not being published. Both original manuscripts are still fondly filed in my cabinet ...

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HP Forum Archive 13

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Schematic and Woodstock Data

*Message #1 Posted by **Michael F. Coyle** on 14 May 2003, 10:25 a.m.*

Hi Gordon,

Yes, it's very interesting. I just got back into collecting by getting a 21 last week. This is a very timely contribution.

The schematic does contain one error. On the ACT (big chip), pins 13 and 14 are shown connected to two capacitors in parallel. That should be a capacitor and inductor in parallel. According to a message in the Archives, the values are 330 pF and 150 uH, giving a resonant frequency of 715 kHz.

I've been going through the Forum Archives looking for Woodstock-related material. I'm thinking of summarizing it all as an Article. Two questions: is there any interest in such a summary? And, would it be necessary to cite each individual message for each item I report? It could be done but would add substantially to the effort. I could cite contributions by name instead, to give proper credit. How about that?

Thanks again for the schematic.

- Michael

Archive summaries

*Message #2 Posted by **Ellis Easley** on 14 May 2003, 11:08 a.m.,*
in response to message #1 by Michael F. Coyle

Luiz and Dave Hicks and I have talked about finding a way to group info from the Archives into FAQs or something like that. It's a daunting task in general! My interest originally arose because I was searching the Archives to look up specific subjects and thought I would just keep an index of the useful messages I found categorized by the subject. I'm afraid I haven't made any progress on the big project. However, I have a system I use to save interesting threads: rather than just save an HTML file for each message, I copy the text from the subject line to the end of the body of the message and paste it into a Word document (to preserve fonts, etc.). I type two newlines between messages and put a complete thread in one document. By copying as much as I do, there is enough information to see the order of the messages in the thread. I want to experiment with automating this process, then grouping threads on the same topic with a keyword search. The problem I always come up against when I ponder this idea is that to summarize to any degree, I would need to apply some editorial judgement. But Dave pointed out that he won't be able to keep the complete set of Archives online forever, so some kind of summarization will have to take place in order to keep the most useful information available online. The Articles Forum is the logical place to put such summaries. I wonder if there is some way to make this interactive or a group activity - so anybody who uncovers a useful thread or message in the Archives can add it to the relevant FAQ, for instance.

Indeed...

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 14 May 2003, 12:49 p.m.,*
in response to message #2 by Ellis Easley

Hi, Ellis;

some months ago, last year, I sent an e-mail to David telling him I was p... off because I lost a large text file, about 8MB large (text only) with colllection of calculators usage posts. I simply overwrote it for a new 100K without seeing. Waste of about three months of work and I decided to give a break for a while. It's indeed a daunting task...

My primary interest was collecting realted data in a "big file" allowing subjects being read separately.

Ellis wrote:

I wonder if there is some way to make this interactive or a group activity - so anybody who uncovers a useful thread or message in the Archives can add it to the relevant FAQ, for instance.

At the moment format is stablished and contributors can do it in a regular basis, it is actualy great idea! Fun and obscure, unrelated comments are inportant at the moment the subject is rising, but when other subjects come to the arena, it's good idea to "filter" existing texts, allowing a faster read.

I'm getting back to business soon...

Luiz C. Vieira - Brazil

FAQ alternative

*Message #4 Posted by **Katie** on 14 May 2003, 1:42 p.m.,*
in response to message #3 by Vieira, Luiz C. (Brazil)

At least some of the more useful threads end up as articles in the "articles" area here. There's quite a bit of useful information already there, so why not simply add to it by condensing other useful threads into articles. Editorial oversight would be provided by whomever is condensing that set of articles, hopefully someone on this forum who has expertise in that area.

Re: Archive summaries

*Message #5 Posted by **Michael F. Coyle** on 14 May 2003, 11:26 p.m.,*
in response to message #2 by Ellis Easley

Thanks all, for your comments so far.

You're right -- indexing the entire Archives is a daunting task. That's why I'm not doing it. By concentrating on just one topic, I think I can reduce the task to something reasonable.

Katie, with all due respect, I don't think the contents of the Articles really reflects the knowledge base out there. In the time I've spent here (about three months active participation preceded by perhaps six months of lurking), I have seen many people write stuff of lasting value. Others chime in and suggest that the material be reposted as an Article. This is almost never done. The material is not exactly lost, but it's not really accessible unless someone spends the considerable effort to wade through the Archives. (You are the exception, someone willing to take the time to make your information readily available as an Article. I've found them very helpful. Thanks!)

I've only looked through the last two archives so far, yet I've found lots of interesting material. Much of it consists of little tidbits; not enough to justify an Article. Yet the sum total of all the tidbits is not inconsiderable. And who knows -- some little fact sitting around in Archive 4 might hold the key to someone trying to bring, say, an HP-25 back to life. If only they could find it.

I don't want to solve the problems of the whole world, or even of this Web site. But since I've always had a thing for Woodstocks, gathering all the existing material on them would be useful. It would also allow me

to give something back to this community and make it better. And, yes, it would also serve my sefish desire to learn as much as possible about these wonderful machines. Which around here, I suspect, needs no explanation nor apology.

- Michael

Re: Archive summaries

*Message #6 Posted by **Dave Hicks** on 15 May 2003, 12:03 a.m.,*
in response to message #5 by Michael F. Coyle

I too would like to see more postings show up in the articles forum in some fashion. Luiz and Ellis are struggling with doing something in the broader sense but I'm sure they'd be happy to have someone take on the Woodstock part. (And they probably wouldn't mind a few more volunteers...)

Authors should be cited if you quote anything directly (unless you talk to them and they tell you they don't care). If instead of quoting, you learn from posts and then rephrase it in a cohesive article of your own words, then a detailed list of citations is not strictly necessary but I would really like to see people who contributed major ideas getting credit.

As Ellis mentioned, it's best to suck everything into an article rather than pointing into the archives. The archives are still a manageable size but I can't guarantee they'll stay that way "forever".

Re: Archive summaries

*Message #7 Posted by **Michael F. Coyle** on 15 May 2003, 10:19 p.m.,*
in response to message #6 by Dave Hicks

I would paraphrase the stuff I use. Original authors would be credited. I may include my own comments where appropriate.

I don't think I'll end up with a "cohesive article," to use Dave's phrase. It will probably end up as a collection of small items, similar to MIT's old HAKMEM. (Recommended reading if you're really into math and computers.)

Here's a possible sample; found near the end of Archive 9, 29 Aug 2002.

Covering Charger Port
(Dave Smith) To keep from accidentally plugging the battery charger into a calculator, cover the charger port with Kapton tape. (Used when flow soldering printed circuits; leaves no residue.) Especially useful if lithium batteries are being used. *[If I want to add my own comment, it would be in this format - mfc]*

I'm trying to keep it simple. Anyway, I'm going to start collecting material now. Maybe in the future, when the Archives are indexed my compilation will still be useful.

I do have a couple of questions about the Articles Forum. When something is posted there, is it possible to revise the article later? Or are we stuck with it forever? And is there any way to include drawings, diagrams, or photographs in Articles?

- Michael

Re: Archive summaries

*Message #8 Posted by **Vieira, Luiz C. (Brazil)** on 16 May 2003, 1:18 a.m.,*
in response to message #7 by Michael F. Coyle

Hi, Michael;

as mentioned, I and Ellis offered ourselves to build "something" related to ease the job of finding literature based on existing contributions. I wrote *build "something"* because part of our discussion was exactly the way subjects would be found and shown.

I think final documents in plain text with related graphical support (as you wrote) is the best when memory use is also an issue. As an example, if we have specific articles about usage and programming techniques in FAQ format (as Katie mentioned in this thread) mainly based on facts found in posts, these articles should complement already existing Dave's database for each calculator series. You see, how many times I wrote posts (I already have the basic text saved, for instance) when newcomers or even regular contributors ask about how to change comma for period in some models, or how to perform sef-tests, or how to change number format, or... If we have these subjects already condensed in one or more articles (calculator basic operation), it would be easier to add the link. Also, at the Forum's Welcome header, Dave could add a fourth line to the three existing ones ("Classified Adds", Advanced Format Techniques" and "e-mail me") inviting people to [italic]"check for existing FAQ-like articles at the MoHPC site"[/itlaic] for main subjects because maybe the answer for their question is already there, among other important facts. I believe this would be complementary data, and the name of those who contributed would be relevant only when actual addition (something not found in manuals) is made; something like: [itlaic]"According to Peter's researches..."[/itlaic] and the text describing Peter's founds. This would lead to further corrections, changes for additional credits and new material whenever needed.

I think final read-me text with existing MoHPC format is fine, but a more elaborated PDF to be downloaded, with specific TTF and additional text format, would also be desirable. This sort of document could be generated after we have a concise, refined, error-free (or almost) document. And this is what I think that should be a goal, because existing HP related material is available at the MoHPC CD's/DVD's, but MoHPC own PDF's or part of them might be available to be downloaded directly from the site and also available at the CD's/DVD's. And this would lead us to complete documents, with authors and contributors. Something to be thought about.

Well, I had a large plain text with many basic posts (main text) already "set-up" and ready to be refined when I inadvertently overwrote it! I wish I could kick my own a.. for that, but thanks God I have no such ability. More than a month of spare time on reading, collecting, comparing, cutting-and-pasting... thrown away. Tha heck! I'll do it again. I was a lot p... off at the time it happened, now I just need to synchronize watches and start again.

At the time, a brief discussion about finding themes was the starting fire, as we have in this thread. I thought I could show a first concluded task and ask for comments, suggestions, etc., so we could focus on each and every additional suggestion over an existing start point. Sometimes it's easier having a reference so we can build our own concept. In this case, there are already many good suggestions and no place to make them happen; if at least an actual text is ready as a target, shooting would be easier, don't you think?

I'll soon find a way to get something ready.

Thank you all and best regards. I'm willing to read more and more suggestions.

Luiz C. Vieira - Brazil

Re: Schematic and Woodstock Data

*Message #9 Posted by **David Smith** on 14 May 2003, 4:28 p.m.,*
in response to message #1 by Michael F. Coyle

I don't know if 715KHZ is the right freq unless the ACT then divides it by 4 to get the 180 KHz PHASE1 and PHASE2 clocks.

Woodstock Clock

*Message #10 Posted by **Michael F. Coyle** on 14 May 2003, 9:17 p.m.,*
in response to message #9 by David Smith

Hi David,

My 21 is in pieces so I measured it. The oscillator frequency (ACT pins 13 and 14) is 695 kHz and is divided by 4 to get 174 kHz on the phases (ACT pins 16 and 17). (I don't know which pin is which phase though.)

The Classics work in exactly the same way.

- Michael

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HP Forum Archive 13

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Re: You're correct. 12cp Date instructions wrong on back

*Message #1 Posted by **Ellis Easley** on 14 May 2003, 10:10 a.m.*

Twice! Three times really, because the two 12C's have different artwork but the same error. But is your unit a beta? Maybe they have fixed it. Or would those digits even matter (those that can be entered)?

Re: You're correct. 12cp Date instructions wrong on back

*Message #2 Posted by **Gene** on 14 May 2003, 10:39 a.m.,*
in response to message #1 by Ellis Easley

Mine had BETTER be a Beta.

It turns OFF everytime it hits a R/S or GOTO 000 instruction in a program.

If that bug is in the final product, HP is hopeless!

Scary comments... (n.t.)

*Message #3 Posted by **Vieira, Luiz C. (Brazil)** on 14 May 2003, 12:52 p.m.,*
in response to message #2 by Gene

<8^O

Don't worry - yours is a collector's item :-)

*Message #4 Posted by **Jordi Hidalgo** on 15 May 2003, 11:35 a.m.,*
in response to message #2 by Gene

Gene wrote:

> If that bug is in the final product, HP is hopeless!

Not in my recently purchased CN313 Platinum.

Regards,

Jordi Hidalgo
HPCC #1046

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