

The HP 48 Catalog

of Independently Developed Products

DIGILOOP™
Digital Level data collection
8000 Lines
for the HP 48CII

HIGHRAIL+™
for the HP 48SX/GX
Data Collection and
Computer Aided Stakeout
Manual Data Entry

SURVcalc™
Manual Data Entry ROM card
© Copyright Cartesian Systems Ltd. 1995.
All rights reserved.
Note: Make sure calculator is off
before inserting.
Insert with this side out.
Programmed
in
CANADA

HIGHRAIL+™
for the HP 48SX/GX
Data Collection and
Computer Aided Stakeout
Total Station

SURVcalc™
Total Station ROM card
© Copyright Cartesian Systems Ltd. 1995.
All rights reserved.
Note: Make sure calculator is off
before inserting.
Insert with this side out.
Programmed
in
CANADA

Cartesian Systems Limited

Cartesian Systems Limited

March 1997

- Books
- Classroom displays
- Math and Science cards
- Navigation software
- Graphics software
- Engineering software
- Leather cases
- Memory cards
- Surveying software
- User groups

And much more! See inside ➡

Note: This catalog contains paid advertising for products that are originated, manufactured and sold by companies entirely independent of Hewlett-Packard Company ("HP").

Inclusion of these advertisements does not in any way imply affiliation, familiarity or endorsement by HP nor by any of its appointed or authorized agent(s) charged with administering and/or preparing these advertisements on behalf of the advertisers.

Neither HP nor its agent(s) is responsible or liable for the accuracy of any of the information contained in these advertisements, nor for the availability or performance of any of the products advertised therein.

The prices, availabilities and ordering information herein may change without notice. For further information, sales or technical support for any of these products, do not contact HP. Contact the advertisers or their authorized sales outlets, as directed by the information in their respective advertisements.

The fastest, easiest way to get up-to-speed on the HP 48 G/GX!

An Easy Course in Using and Programming the HP 48G/GX

It's a true Grapevine *Easy Course*: First, learn problem-solving with matrices, complex numbers, vectors, units, algebraic objects, and more—with examples, illustrations and clear explanations. Next, begin simple programming, with looping, branching, flags, etc. Then program with built-in applications, such as SOLVE. Finally, design your own applications—directories, custom menus, and more! If you read just one book, this is it!

Easy Course in Using & Programming the HP 48G/GX.....\$19.95

An Easy Course in Using & Programming the HP 48G/GX



by Chris Coffin

Graphics on the HP 48G/GX



by Ray Depew

Graphics on the HP 48G/GX

Here's a "must-have" if you want to use the full potential of that big display on your HP 48G/GX. This book shows you how to build graphics objects ("grobs") and how to use them to program and customize displays with diagrams, pictures, and data plots. First, the book gives you a great review of the built-in graphics tools. Then you build your own grobs and combine them in programs for some very impressive HP 48 graphics.

Graphics on the HP 48G/GX.....\$19.95

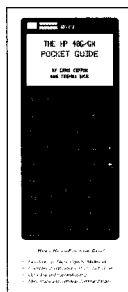
The HP 48G/GX Pocket Guide

Don't take your calculator anywhere without this handy quick-reference booklet! *It fits right in the case with your HP 48G/GX*, and it's packed with the kind of information and reminders you need most:

- Alpha keyboard • Object types/syntax • Constants/reserved names
- Names, variables, directories & paths • Menu diagrams/summaries
- Custom menus/key assignments • System flags • Command index

You get all this—and more—in one handy quick-help booklet. It's a must-have companion to carry with your favorite calculator!

The HP 48G/GX Pocket Guide \$ 9.95



All Grapevine books are GUARANTEED or your money back.
Save when you order! See page 4 for special discounts. →

Grapevine Publications, Inc.

P.O. Box 2449

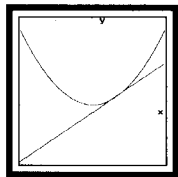
Corvallis, OR 97339-2449 U.S.A.

Fax: 541-754-6508

Orders: 800-338-4331

The easiest math learning curve = You + HP 48G/GX + Grapevine

Algebra & Pre-Calculus on the HP 48G/GX



by Dan Coffin

Algebra & Pre-Calculus on the HP 48G/GX

Grab your calculator, grab this book, and you're all set for math class. You'll get lots of lessons, examples and advice on graph-ing and problem-solving with these (and more!):

- Functions: Linear, quadratic, rational, polynomial
- Trig • Coordinate and analytic geometry • Conics
- Equations of lines & planes • Inequalities • Vectors
- Great programmed tricks and tips for plotting and solving
- Written by an experienced classroom math teacher.

Algebra & Pre-Calculus on the HP 48G/GX.....\$19.95

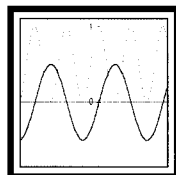
Calculus on the HP 48G/GX

Get ready now for your college math! Plot and solve problems with this terrific collection of lessons, examples and program tricks from an experienced classroom math teacher:

- Limits, series, sums • Vectors and gradients
- Differentiation: Formal, step-wise, implicit, partial
- Integration: Definite/indef., improper, parts, vectors
- Rates, curve shapes, func. averages, constraints, gr./decay force, vel., accel., arcs, revol., surfaces, solids, and more!

Calculus on the HP 48G/GX.....\$19.95

Calculus on the HP 48G/GX



by Dan Coffin

The Grapevine Math Disk

Here's a handy way to quickly load the programs in Grapevine's two math books (see above)—a shortcut alternative to keying them in one-by-one: Produced by popular demand, this 3.5" disk (either PC or Mac format) has all 181 programs listed in the math books.

Note: This is only an option offered for your convenience; you don't need this disk in order to use the above math books. It just saves you time when keying in the programs shown in those books. To use this disk, you must have HP's *Connectivity Kit* or Sparcom's *CalcWare Link* software.

The Grapevine Math Disk\$19.95

All Grapevine books are GUARANTEED or your money back.

Save when you order! See page 4 for special discounts. →

Grapevine Publications, Inc.

P.O. Box 2449

Corvallis, OR 97339-2449 U.S.A.

Fax: 541-754-6508

Orders: 800-338-4331

Save when you order now!

*When you order any Grapevine book at full price,
receive \$3.00 off each additional item in your order.*

"I want to order:"

_____ copy(s) of **An Easy Course Using & Programming the HP 48G/GX** @ \$19.95 = _____
_____ copy(s) of **Graphics on the HP 48G/GX** @ \$19.95 = _____
_____ copy(s) of **Algebra and Pre-Calculus on the HP 48G/GX** @ \$19.95 = _____
_____ copy(s) of **Calculus on the HP 48G/GX** @ \$19.95 = _____
_____ copy(s) of **The Grapevine Math Disk** (choose: ☐ PC ☐ Mac) ... @ \$19.95 = _____
_____ copy(s) of **The HP 48G/GX Pocket Guide** @ \$ 9.95 = _____

_____ copy(s) of **HP 48S/SX Graphics** @ \$19.95 = _____
_____ copy(s) of **HP 48S/SX Machine Language** @ \$19.95 = _____

Special Package Discount:

The first item in your order is at full price.

Then subtract **\$3** for each additional item S(_____)

Shipping/Handling:

☐ **U.S. 1st Class Mail** (allow 10 days for delivery).....\$4 PER ORDER
☐ **International Air Mail**..Canada/Mexico \$5/ITEM; Other \$10/ITEM.....\$ _____ > ENTER ONE \$ _____

.....**TOTAL ENCLOSED** →\$ _____

Please make checks payable to Grapevine Publications, Inc. International orders must be in U.S. funds drawn on a U.S. bank. Thank you!

☐ Check enclosed ☐ VISA/MC# _____ Exp. Date _____
Signature _____

"Please ship to:" Name (print) _____

Address _____

City _____ State _____ Zip _____

Country _____ Phone (important):(_____) _____

To obtain the discounts offered here, please clip out and use this coupon. You may either take it to a participating HP dealer or order directly:

Grapevine Publications, Inc.
P.O. Box 2449
Corvallis, OR 97339-2449 U.S.A.

Orders: 800-338-4331
Fax: 541-754-6508
Email: gpi@proaxis.com

Guarantee: Take 10 days to examine our books when you receive your order.
If you're not satisfied, just return them for a full refund of the purchase price.

***Learn with the books that are
really different—and really better.***

3/97

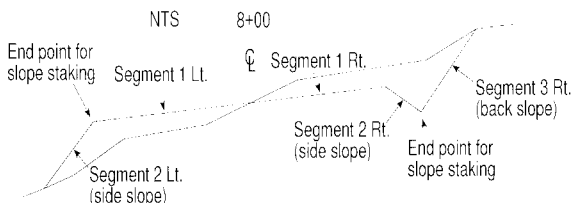
HIGHRAIL+™ v. 3.0 on ROM card

Surveying software for the HP 48SX/GX.

The ultimate in construction stakeout and data collection routines.

Station and offset stakeouts? HIGHRAIL+ is for serious surveyors doing serious stakeouts. To our legendary continuous horizontal and vertical alignment routines we have added **continuous multi-segment** templates. Enter any station anywhere in the alignment along with the segment to stake and HIGHRAIL+ will calculate the hinge point and crossfall through any widening and/or superelevation change and show you the layout data.

Remote slope staking? Press just two softkeys to get into slope stake mode. HIGHRAIL+ will calculate the interpolated side/back slope for the current station. You can now choose to use the traditional **horizontal** or the new **on-the-slope** slope stake move calculation.



Some of the other upgrade features? Vertical alignment, template, raw data and cutsheet files now linked **independently**. The **setup data can now be changed** from within the sideshots, point layouts and alignment routines. Optionally use a **secondary control point** file. Get an **optional check shot** after a setup change and save it to the cutsheet file. **Description pick list**.

Other routines? • **Data Collection** with raw data, coordinates or coordinates plus a raw data backup • **Point Layouts** from the current **primary** or **secondary** job file • **Traverse** with multiple readings and auto-closure and auto-adjustment with optional data collection • **Two Point Resection** • **Inverse Traverse** with straight or circular curve segments • **Curve Fit** fits a circular curve between two intersecting tangents. Can optionally store points for *automatic* alignment creation • **Remote Elevation** • **Clearances** • **Vertical Curves** • **File Editing** • **File Manager** can be used to view, edit, rename and purge files.

Also includes **Kermit** for file transfer and PC-based utilities for **Coordinate Conversion** to generic ASCII and DXF formats and **Raw Data Conversion** to popular raw data formats.

Package contains ROM card, user manual/tutorial, 3.5" PC-based utilities diskette and keyboard overlay.

\$275 MANUAL DATA ENTRY

\$575 TOTAL STATION

Shipping and handling is not included in prices. Prices are in US\$. **VISA** accepted.

Call/write/fax/e-mail for a brochure. e-mail: cartesian@lightspeed.bc.ca

Cartesian Systems Limited The *surv•ability* company.

Box 40057, New Westminster, B.C. V3M 6J7 CANADA Tel/Fax 604-540-7973

USER	PRG
{ HOME HR3T }	
Station	
800+	
D L/D L/D TRY COORD CHAN END	

USER	PRG
{ HOME HR3T }	
TEMPLATE	
▶LEFT=left side	
▶C/L=centerline	
▶RIGHT=right side	
▶OTHER=any HP	
LEFT C/L RIGHT OTHER	

USER	PRG
{ HOME HR3T }	
Right segment #	
2+	
LEFT C/L RIGHT OTHER	

ST 8+00.000 SEG 2	
H1 30.000 H2 0.000	
HL 144.830 GL 154.831	
Back 0.010	
Right 0.007	
C 10.001 @ 50.003	
Slope 2.000:1	
D L/D L/D TRY COORD CHAN END	

SURVcalc™ version 3.0 on ROM card

Surveying software for the HP 48SX/GX.

Land surveying, data collection and construction stakeout routines.

```
CONFIGURATION
Angles .....DEGREES
Elevations .....OFF
Descrip. ....ON
# Decimals .....3
SOFTKEY to change...
[ANG] [ELEV] [DESC] [DECI] [ ] [↑]
```

SURVcalc can be configured for the way you work.

Set DEGREES/GRADS, elevations and descriptions ON/OFF; now also set the number of decimals.

Now with 2-segment **TEMPLATES**.

Our amazing *continuous* horizontal and vertical alignment stakeout system now has a *continuous 2-segment TEMPLATE* option. It automatically interpolates the hinge point and crossfall for any station in the alignment.

```
CONFIGURATION
Auto/Manu. ....AUTOMATIC
Total Sta. ....SOKKIA
SOFTKEY to change...
[Auto] [Manu] [Sta] [ ] [↓] [↑]
```

```
TEMPLATE
▶LEFT=Lt. Side.
▶C/L=centerline
▶RIGHT=Rt. Side.
▶OTHER=any HP
[LEFT] [C/L] [RIGHT] [OTHER]
```

```
press...
▶TYPE to type in
a file name or use
the PICKED file name.
▶FILES to see a list
of existing files.
▶END for MAIN menu.
[TYPE] [FILES] [ ] [END]
```

Now with file choose lists.

You can now either type in a known file name or choose the file name from a list of existing files.

SURVcalc also contains the following routines:

- **Data Collection** with raw data, coordinates or coordinates plus a raw data backup
- **Point Layouts** from the current job file
- **Traverse** with multiple readings and auto-closure and auto-adjustment with optional data collection
- **Intersections**
- **Two Point Resection**
- **Inverse Traverse** with straight or circular curve segments
- **Curve Fit** fits a circular curve between two intersecting tangents. Can optionally store points for *automatic* alignment creation
- **Remote Elevation**
- **Clearances**
- **Radius Points/Circular Curve Data**
- **Vertical Curves**
- **Areas**
- **Volumes**
- **Coordinate Transformation**
- **Triangles**
- **Predetermined Areas**
- **File Editing**
- **File Manager** can be used to view, edit, purge and transfer files with **Kermit**.

Also includes **FREE** PC-based utilities for **Coordinate Conversion** to generic ASCII and DXF formats and **Raw Data Conversion** to popular raw data formats.

Package contains ROM card, user manual/tutorial and 3.5" PC-based utilities diskette.

\$145 MANUAL ENTRY (\$115 STUDENTS) \$475 TOTAL STATION

Shipping and handling is not included in prices. Prices are in US\$. **VISA** accepted.

Call/write/fax/e-mail for a brochure. e-mail: cartesian@lightspeed.bc.ca

Cartesian Systems Limited The *surv•ability* company.

Box 40057, New Westminster, B.C. V3M 6J7 CANADA Tel/Fax 604-540-7973

DIGILOOP™ version 1.0 on ROM card

Surveying software for the HP 48SX/GX.

The Digital Level Data Collection system.

Works with Leica®, Topcon® and Zeiss® digital levels. DIGILOOP can also be used with manual data entry.

From Stockton, New Jersey to Redondo Beach, California to Brisbane, Australia surveyors all over our planet are discovering how DIGILOOP can simplify running their digital level lines or level nets.

Each DIGILOOP file can contain a single level line or a number of lines for a level net. Files can be temporarily stopped and re-started any time after tying in to a benchmark.

Use the actual alphanumeric names and descriptions of benchmarks.

```
Backsight BM NGS2415
Rod .....7.631
Avg. rod .....7.630
Distance .....87.456
Avg. Dist. ....87.455
Grd. Elev. ....210.457
# Readings .....8
SHOOT +/- ADD DESC SAVE QUIT
```

Get intermediate foresights and do set-outs. The set-out shots will be tagged so the DIGILOOP fieldbook file can be used as a cutsheet.

```
►FS for a foresight
to a turning point.
►FSBM for a foresight
to a benchmark.
►IFS for intermediate
foresights.
►S/O for set-outs
FS FSBM IFS S/O
```

```
Set-out 6
HI Elev. ....120.689
S/O Elev. ....118.000
Rod .....2.507
Move down .....0.182
(To SAVE S/O to file
press ADD first.)
SHOOT +/- ADD DESC SAVE QUIT
```

The DIGILOOP editor can be used to quickly edit or purge a shot.

Also includes PC-based file transfer and conversion utilities for creating, merging and printing DIGILOOP fieldbook files. The converter will also output a file in STAR*LEV summary format for least squares adjustment.

STAR*LEV is a trademark of STARPLUS SOFTWARE, INC.

Package contains ROM card, user manual/tutorial and 3.5" PC-based utilities diskette.

```
Ident. IFS
Name 6
Rod .....8.357
Distance .....94.275
Elevation .....233.960
Descrip. TOP OF PILE
Purge 6?
YES NO
```

Don't just level it. DIGILOOP it!

\$185

Shipping and handling is not included in price. Price is in US\$. **VISA** accepted.

Call/write/fax/e-mail for a brochure. **e-mail:** cartesian@lightspeed.bc.ca

Cartesian Systems Limited The *surv•ability* company.

Box 40057, New Westminster, B.C. V3M 6J7 CANADA Tel/Fax **604-540-7973**

Professional Engineering Examination Review Package, 48GX/SX

Each package is a perfect study material and calculator tutorial, a combination that creates a tool for the highest level of preparation for the examination. It includes an **Application Card** containing over 800 engineering fundamental equations for **EIT-FE**, over 750 for **PE-ME**, 380 for **PE-EE**, or 400 equations for **PE-CE**; the **user's manual**, listing the equations and providing guide-lines; calculator assisted **problems and solution book** with 301 problems for **EIT-FE**, 250 for **PE-ME**, 180 for **PE-EE**, or 180 for **PE-CE**; examples of keyboard calculations; **START-UP** solved problems; and examples of built-in functions.

CHOTKEH, 1793 Riverside Drive suite 3H, New York, NY 10034. Call: 1 - 888 - CHOTKEH



ADCM-48: A-to-D converter and I/O Interface

Imagine using your HP 48 to read and control real-world devices! Read in sensor signals such as temperature, pressure, pH, current or voltage. Control lamps, relays and motors. Monitor and control a laboratory process. All under the control of the HP 48.

Rugged, portable, battery-operated A-to-D converter and I/O controller. Easy to use—no cables—uses the 48's IR link. Provides four analog inputs (8-bit), four digital inputs (TTL), four digital outputs (.5A). Uses include data logging, instrument prototyping, experimentation, research, education, etc.

Price \$275, plus shipping (NC Residents-State Tax)

**Information and ordering contact: Travtech Electronics Instrumentation
127 Barriedale Circle • Apex, NC 27502 U.S.A. Ph/Fax: (919) 303-5742**

HEUSON SOFTWARE[®]

Diskette Software for the HP48 G/GX

HP48 MATH-PACK / P (HP48G/GX) professional version: \$89

programs of the B-version plus differential geometry, equations, special functions, nonlinear systems, Laplace-, Fourier-, Z-transformation, utilities (programming tools, libraries, misc.).

HP48 MATH-PACK / B (HP48G/GX) light version: \$69

algebra, geometry, calculus 1,2, complex numbers and functions, plot utilities, symbolic vectors, matrices, integration, statistics, constants, periodic table (6 prop.), text, database-program.

HP48 PHYS-PACK (HP48G/GX): \$69

calculus 1,2, symbolic matrices, vectors, integration, special functions, errors, equations with constants, tensors, physical data, constants, periodic table (6 prop.), text, database-program.

HP48 CHEM-PACK (only HP48GX): \$69

chemical equations, expandable compound table (10 properties), equations with constants, chem. reactions, constants, expandable periodic table (25 properties), text-, database-program.

Technical support: HEUSON SOFTWARE. Orders (VISA, check +\$6 mailing), information:

HEUSON SOFTWARE

Zugspitzstr. 4, D-87493 Lauben, Germany

Phone: +49-8374-8299

Fax: +49-8374-8299 or 6712

e-mail: Clemens.Heuson@allgaeu.org

STOLTE DATENTECHNIK

Tannenstr. 23, D-34119 Kassel, Germany

Phone: +49-561-773362

Fax: +49-561-773361

e-mail: dirkstolte@aol.com

For detailed information see also: <http://members.aol.com/hp48ggx/www/heuson.htm>

48 CVCE Construction Five Enhanced

Slope stake in 1/4 the time and with
1 less person

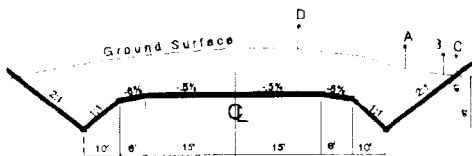
You no longer need to stake
the centerline before you:

Set slope stakes - Set blue tops - Collect cross
sections - Stake points by station and offset

You no longer need to worry whether you are in a
tangent, simple curve or spiral curve . . .

You need not know whether you are in a super
elevation, or transition . . . SMI Software knows!
SMI Software displays after each shot specific
information for the point at the prism.

SMI Construction V Software is so smart - it's
simple!



STA 10+00
Road Cross Section
Design Template

Construction V can turn a large construction
job into an easy task. It handles setting grade
stakes, slope stakes, bluetops, staking center
lines, side lines, boundary points, and collects
data, including cross sectional data, easily and
efficiently.

With **Construction V** several construction sites
may be contained simultaneously in an HP 48,
and within a site several chains may exist (spurs,
laterals, cloverleaf sections, etc.); the HP 48 may
contain control data for road sections many
miles long.

Construction V allows the use of station and
offset or point numbers, whether staking or col-
lecting data. It greatly reduces the time to do field
work - a job which would take 3 - 4 days with
conventional methods can be done in one day
with **Construction V**.

This program permits you to work with tangents,
simple curves and spiral curves in the horizontal
control. In vertical control it allows you to work
with percent slopes, vertical curves, or vertical
break points. The template handles several so-
phisticated functions: superelevations, changes
in road width, flat ditch bottoms, etc. **Construc-
tion V** automatically interpolates between tem-
plates.

For more information and a complete brochure
call today.

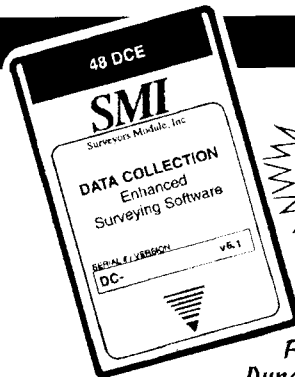
Wherever you take a shot SMI Software
knows where you are!

In the road cross section template shown A, B, C,
and D represent shots taken with the rod from the
instrument. Take a shot at A and the SMI Soft-
ware knows you are in a cut section, and the you
are outside the shoulder. It gives station, offset
elevation, slope to the ditch bottom. It also gives
the cut to the shoulder and to the ditch bottom.
Last it gives the out (or in) distance to the catch
point. the second shot you take gives similar
information except this time the slope of the
ground is computed from A to B and you are
given the "slope distance" to "C" (the catch point).

If you take a shot inside the shoulder of the
road such as at "D" in the illustration, you get
blue top information: Station, offset, elevation,
and cut or fill to the grade.

SMI

412 Payne Ridge - Church Hill, TN 37642
Orders, Information and Technical Support:
(800) 234-0123 or (423) 357-8931
Fax (423) 357-3299



Featuring:
Dynamic Memory

48 DCE Data Collection Enhanced

**Software
ONLY
\$1,000.00**

Includes:
Software card,
Manual, Overlay
& Video

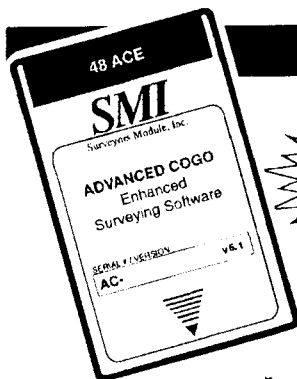
One of the outstanding features of this package is the ability to set the program to operate the way the surveyor wants to work. Some features which can be turned on or off are: notes, codes, elevations, consecutive point numbers, earth's curvature, or raw data. Other optional settings are: setting the fix point output, setting angle turning tolerances, south azimuth on, or choosing between azimuth or angle right survey.

48 DCE Data Collection Enhanced . . .

is one of the most powerful software programs on the market today, interacting with your electronic total station to perform almost any field survey function required.

The DCE is the most flexible and user friendly data collection module for the HP 48 on the market today.

For more information call today!



Featuring:
Dynamic Memory

**Software
ONLY
\$600.00**

Includes:
Software card,
Manual, Overlay
& Video

48 ACE Advanced Coordinate Geometry Enhanced

rule program will adjust side shots as well as traverse points.

Two-point resection allows the user to set up anywhere in view of two control points, enter readings to those points, get a precision, and store the instrument coordinates. The HP 48 can now manually collect data or stake points from this new position.

The 48 ACE contains a program that will transfer an elevation from a benchmark to the instrument.

Trig leveling allows meaning the direct and reverse to a point; mean reciprocal leveling is also possible from the other end of the line.

An offset program stores points at an offset distance from a series of lines — used when you shoot the road centerline and want to immediately stake the road sideline, curb line, or a building offset line.

Now you can also stake to a line as well as to a point.

For more information call SMI, today!

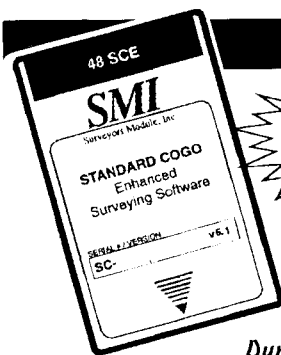
48 ACE Advanced Coordinate Geometry Enhanced . . .

contains all the features of the 48 BCE and 48 SCE. In addition, it stores and codes. Notes, codes, or elevations can be turned on or off at any time.

There is an angle adjustment program which adjusts the angles of a traverse while holding the angles to the side shots constant. The compass

SMI

412 Payne Ridge - Church Hill, TN 37642
Orders, Information and Technical Support:
(800) 234-0123 or (423) 357-8931
Fax (423) 357-3299



**Software
ONLY
\$300.00**

Includes:
Software card,
Manual, Overlay
& Video

**Featuring:
Dynamic Memory**

48 SCE Standard Coordinate Geometry Enhanced . . .

has COGO power second to none including 3D surveying earth curvature and refraction and a built-in sunshot program with its own ephemeris and computes astronomical or grid north.

48 SCE Standard Coordinate Geometry Enhanced

The 48 SCE incorporates all the features of the 48 BCE plus inverse by coordinates or by point number, multiple angles, screen plot, and south azimuth. The stakeout program not only gives angle to turn and distance to go, but also gives GO or COME and RIGHT or LEFT values. If elevations are on it gives CUT or FILL values. Predetermined area uses both the hinge and slide method. Points may be stored consecutively or randomly. Standard COGO performs such functions as: perpendicular offset, trig leveling, and angle windings. SCE and above cards now feature angle point and X point which stores a remote object without a prism.

The 48 SCE is the second step up in the SMI family of surveyor designed programs.



**Software
ONLY
\$150.00**

Includes:
Software card,
Manual, Overlay
& Video

48 BCE Basic Coordinate Geometry Enhanced . . .

is a lot of power at a very affordable price to introduce you to the SMI family of products.

The 48 BCE is extremely easy to use in such functions as: inverse, traverse and side shot,

48 BCE Basic Coordinate Geometry Enhanced

computing acres, square feet, perimeters and closure. The 48 BCE stores hundreds of points without additional memory, in fact several jobs may be stored at the same time. With the 48 BCE you can enter bearings, angles right, azimuths, deflection angles, horizontal or slope distance, zenith or vertical angles. The 48 BCE performs bearing-bearing, distance-distance, or bearing-distance, and perpendicular offset intersections in just seconds. You can easily convert decimal degrees to degrees, minutes and seconds or vice versa.

All SMI cards now feature English and metric readouts and will stake station & offset on a curve.

Version 5.1 is now shipping for all cards.

For more information on the BCE and other exciting products call today!



Structural Engineering Program Application

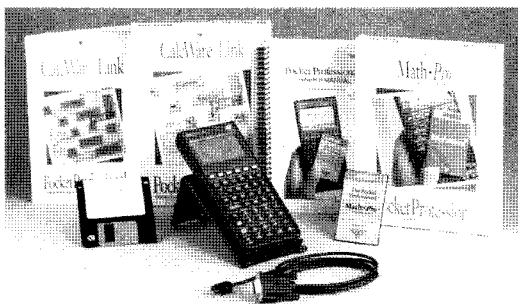
The Structural Engineering Program Application Card (SEPC) contains seven powerful and full-featured programs, with an extremely large database. SEPC is only \$150. For more information on the SEPC and other available programs call today.

SMI

412 Payne Ridge - Church Hill, TN 37642
Orders, Information and Technical Support:
(800) 234-0123 or (423) 357-8931
Fax (423) 357-3299

The Leading Calculator Software...

Now, HP 48 calculator owners can take advantage of an extensive list of calculator software products and accessories. We are pleased to announce that BB Marketing and da Vinci Technologies Group, Inc., formerly Sparcom Corporation, have joined to provide each companies products world-wide.



PocketProfessional[®]

Plug-in Software for HP 48GX

Plug-in software offers the most convenience for the HP 48GX owner.

Mathematics

- Math•Pro[™]
- Calculus Pac
- Statistics Pac

Engineering

- EE•Pro[™]
- Spice48
- EE Reference Pac
- Mechanical Engineering Pac
- ME Reference Pac

Physical Sciences

- General Chemistry Pac
- General Chemistry Reference Pac
- Physics Pac
- Celestial Navigation Pac

Other

- Advantage Pac
- Games48
- Personal Information Manager
- 256K RAM - Memory Card

CalcWare[™]

Diskette Software for HP 48G and IIP 48GX

Diskette software is economical and allows for easy feature selection.

Link Software

- CalcWare Link for PC
Windows/DOS Compatible
- CalcWare Link for Macintosh

Windows95[™]

Mathematics Series

- PreCalculus
- Calculus

Physics Series

- Mechanics & Thermodynamics
- Electricity & Magnetism
- Optics, Waves & Relativity

**For HP 48 owners in
North America, Central and South America,
Australia and Pacific Countries, call:
da Vinci Technologies Group, Inc.**

da Vinci Technologies Group, Inc.

Formerly Sparcom Corporation

899 NW Grant Avenue - Corvallis, OR 97330 USA • Phone (541) 757-8416 • Fax (541) 753-7821
Email: sales@sparcom • website: <http://www.sparcom.com>

...Worldwide



BRINGSLID[®] APPLICATION SOFTWARE

Mathematics Pac 1:

- Symbolic integration

Mathematics Pac 2:

- Linear algebra w/ symbolic manipulation and symbolic matrix writer

Mathematics Pac 2:

Professional Extension

- Math Pac 2, Plus programming capabilities

Geometry Pac:

- Geometry and Surveyor Pac

CalcWriter:

- HP 48 rich text and graphics editor

Business Pac:

- Add a business calculator to your HP 48.
- Includes HP 19B functions

Choose from over 30 different plug-in cards and diskette products for your HP 48G Series calculator. Students and professionals can save time and eliminate the need to program by enhancing the HP 48 with software from BB Marketing and da Vinci Technologies Group, Inc.

OTHER SOFTWARE AND ACCESSORIES

Navigare Pac:

- A seaman's navigational tool, with GPS connection

Flight Navigation System:

- A flight management system, with GPS connection

Oil Cargo Calculation Pac:

- Calculates any tanker loading under American Society for Testing and Materials Standards

RAM Cards for the HP 48GX

Drive95

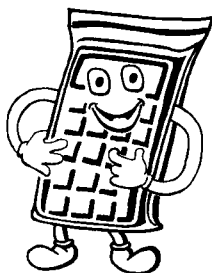
- Portable disk drive for the HP 48



**For HP 48 owners in
Europe, Africa, Indian subcontinent and
Middle Eastern countries, call:
BB Marketing Ans.**

BB Marketing Ans.

Ensjoeven. 12 b, Oslo, Norway • Phone (47) 22 67 11 57 • Fax (47) 22 68 05 05
Email:bbm@sn.no • website: <http://www.sn.no/home/bbm>



COMP-U-BAG®

*Disposable
Environmental
Protector*

- **PROTECT** your HP-48 from dirt and moisture with a flexible reclosable poly-bag that allows full use of all features while maintaining keyboard 'feel' and serial port connectivity for data collection and I/O devices.
- **PRESERVE** the newness of your investment from destructive elements imposed by exposure to the outdoors or liquids in the lab.

FREE SAMPLE! - As a **PROFESSIONAL** purchaser of a new HP-48 you are entitled to one complimentary bag. Simply send a copy of **sales receipt** and a **SEALED (wet professional seal on back) BUSINESS CARD** to the above address. Card must be sealed to qualify.

ANTI-STATIC [PINK]

\$3.75ea./ 10 for \$30.00

Include \$5.00 for S & H on each order

STANDARD [CLEAR]

\$2.75ea./ 10 for \$22.00

California orders add 8% sales tax.

Quality and Satisfaction Guaranteed - Quantity Discounts Available - Call (619) 729-2300

Send Check to: **COMP-U-BAG • 2763 VICTORIA AVENUE • CARLSBAD, CA 92008**

TRY ME FREE !!

Sell Us Your HP 41C/CV/LX Calculator and Accessories.*

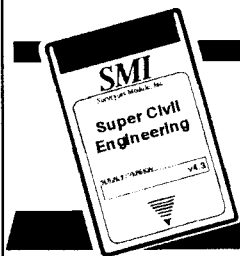
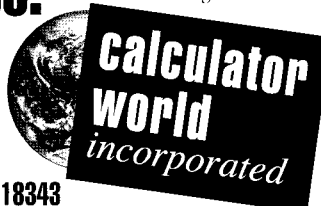
*working or not.

We also buy other HP calculators.
Call today for a fast, friendly quote.

Phone: (610) 588-4444

FAX: (610) 588-1727

1086 S. Delaware Drive, Mt. Bethel, PA 18343

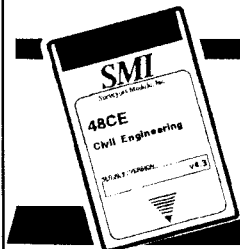


Super Civil Engineering Program

Super Civil Engineering is an affordable program for most CE applications. The custom program includes hydrology, utilities, sun and polaris observations for azimuth, flood routing, vertical and horizontal curves, earthworks and much more for only \$250.00. Available for \$105 is Civil Engineering. For more information call (800) 234-0123.

SMI

412 Payne Ridge - Church Hill, TN 37642
(800) 234-0123 or (423) 357-8931 • Fax (423) 357-3299

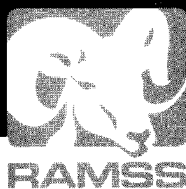


Civil Engineering Program

Civil Engineering is an affordable program for most CE applications. The custom program includes flood routing, runoff, geodesy, astronomical observation, hydraulics, vertical and horizontal curves, earthworks, spiral curve layout and much more for only \$105.00. For more information call (800) 234-0123.

SMI

412 Payne Ridge - Church Hill, TN 37642
(800) 234-0123 or (423) 357-8931 • Fax (423) 357-3299



Tackling the toughest jobs

AFFORDABLE SURVEYING SOFTWARE

Student Cogo allows you to do everything you did on the HP41 and much more. It includes a complete set of

Cogo routines including Baseline intersections with angles and offsets, 3-D Radial Stakeout with cut/fill, straight grades, vertical curves, DMD Area, Traverse Adjustment, Trig in DMS format, store thousands of XYZT points without a RAM card.

HYDRATOOLS included FREE!

w/purchase of Student Cogo
Limited time offer

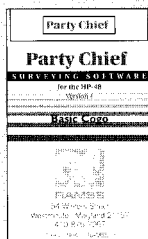
A \$79 Value!



SITE STAKE provides all the features of Student Cogo plus the ability to interface with Total Stations and computers. Includes powerful radial stakeout routines allowing you to stake by coordinates, point numbers, or station/offset.

Party Chief Basic Cogo module includes complete Cogo including intersections, area, powerful 3-D radial stakeout routines for roads, utilities, and more, with CUT/FILL calculations, and will interface with your instrument. Also includes Slopestaking, Traverse Adjustment and Predetermined Area. Includes a keyboard overlay. Party Chief software requires a RAM card.

Party Chief Advanced Cogo module adds Road Templates, Gradesheets, Rotate/Translate, Match, and Cogo Collection. Includes all the tools you need for advanced stakeout work and cogo.



HYDRATOOLS is an easy-to-use, menu-driven **Hydraulic Calculator** for the HP48. Just fill in the blanks to compute full and partial pipe flows. Also computes channel flows having trapezoidal, triangular, rectangular, parabolic or other cross-sections. Other equations include gutter capacity, orifice flow and weir flow. Works in English or metric.



Now includes
Metric capabilities

256K and 512K RAM Cards for the HP48GX provide increased data storage with Party Chief or other software.



ALL PRODUCTS COME WITH A 30 DAY MONEY BACK GUARANTEE.

Tackling the toughest jobs



RAMSS Inc.
Surveying & Engineering Software
54 Winters St. Westminster, MD 21157

800-617-7267 Sales
410-876-7267 Support
410-876-7603 Fax



148 Environmental Case

148 Nylon Carry Case

148 Tripod Bracket

48 Softcase

48 Tripod Bracket

Instrument Cables

PC Cables

Program Cards

RAM Cards

The #1 Choice of Field Professionals

- Surveying and Construction Software
- Environmental and Soft Cases
- RAM (Memory) Cards
- Cabling

TRIPOD DATA SYSTEMS provides a wide variety of the best selling surveying software and accessory items for the surveying market. That's why more surveyors, schools, dealers, and equipment manufacturers choose TDS, the industry standard in data collection.

TDS Software for The HP-48GX:

COGO Card: The most complete COGO package for the money.

Survey Card: The most popular data collector. Full COGO, Repetitions, Staking including Point, Offset and Slope, Adjustments, Curve Solutions, and much, much more.

Contractor Card: Complete COGO and data collection from all brands of total stations, digital levels and lasers. Building Pad Layout, Level Loops, Cross Section Topo and more.

Survey Pro: The TDS powerhouse. All the functions of the Survey and Contractor Cards.

TDS Accessories:

Cases: The rugged 148 Environmental Case protects your calculator while still allowing full access to the keys and screen. The case provides a solid 9-Pin serial port with screw down lugs that will eliminate communication problems. Soft cases are also available.

RAM Cards: 256K, 512K and 1 Meg cards are available.

Cables: TDS also provides instrument and PC cables that are the best in the business.

Tripod Brackets: TDS makes brackets for the HP-48GX or SX, 148 Environmental Case, Husky FS/2 and the HP-95/100/200 LX.



The Way To Go

TRIPOD DATA SYSTEMS

1853 SW Airport Rd. Corvallis, OR 97333

(800) 426-8026 (541) 753-9322 FAX (541) 757-7439

Call for a free General Catalog and Newsletter

Customize Your 48

The Leather Desk

Sumptuous black napa leather coddles your HP 48, with extra padding for instrument protection. Software and memory cards fit into six slots, two pockets hold notes and diary. There's a compartment for important documents and loops for your pen and extra batteries. Detachable carry straps. 8.25 x 5 x 1.75 in.

Stock #2763 [Leather Desk] \$57.95

The HP 48 Handbook 2nd edition

If you intend to make your 48 dance and sing, this is for you. It condenses more than 1400 pages of HP manuals into a portable collection of concise, convenient tables, tips and facts. More than example programs illustrate the power of the HP 48G/GX with an emphasis on interactive programming and graphics. Includes a huge new chapter on System Programming and expanded Command Reference. Written by James Donnelly.

Stock #2900, HP 48 Handbook \$19.95

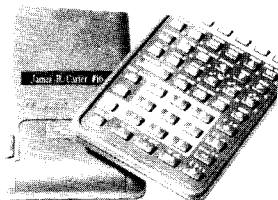
Stock #3068, Intro to 48 System RPL & Assembly Language Programming. . . \$24.95



HP 48 Nameplate

Personalize your calculator with this elegant black-background, self-adhesive nameplate. It installs quickly in the recess on the back of your instrument. A big plus—now your borrowers will know where to return your HP 48. Just tell us the 18 standard characters to engrave for you and allow 2 weeks for delivery. Please indicate whether all caps or upper/lower case is preferred.

Stock #2786 [HP 48 Nameplate] \$5.95



HP 48 Goodies Disks

Nine 1MB floppy disks of public domain (some shareware) HP 48 programs collected, tested and documented by Joseph Horn. Each disk covers approximately 6 months of material from the HP Corvallis BBS and other sources, starting from 3/90 with Goodies Disk #1. The first GX programs appear on Disk #9. Please specify 3.5" or 5.25" size.

Goodies Disk #1-9 \$4.95 ea

The HP 48 PocketBook

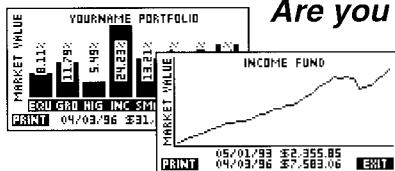
This handy pocket-sized reference for the HP 48 goes where you go! Covers flags, program structures, menus, and much more. Contains an abbreviated reference to all commands in the HP 48G/GX. The perfect reminder that doesn't fill your backpack or purse. Written by James Donnelly.

Stock #2901, HP 48 PocketBook \$6.95

To order these products, or a FREE catalog of more than 144 other accessories for your HP 48, call EduCALC at (800) 679-7001

EduCALC

Outside U.S. (714)582-2637
Fax (714)582-1445
Laguna Niguel, CA



Are you an investor?

SMKT: Stock Market Database & Analysis Plug-in Software for 48GX

- Finger tip access to daily market values of your stock & mutual fund investments
- Calculate annualized growth rates
- Compare past and present portfolio performance using text or chart format
- Display barplot of portfolio investments
- Explore future investment strategies
- User-friendly, completely menu driven
- Password protection, IR printer support
- 128K card, 132 page manual

Price \$129.95 To order call:

(800) 677-7001

EduCALC • 27953 Cabot Rd.

Laguna Niguel, CA 92677 USA

Voice: (714) 582-2637 Fax: (714) 582-1445

Stay Up-to-Date on New Products For Your HP 48!

This catalog is updated quarterly. If you would like to stay up-to-date on new HP 48 software and accessories as they are developed by independent manufacturers, you can be included on a mailing list to receive future editions of this catalog.

For a full-year subscription to anywhere in the U.S., Canada or Mexico,* send a check or money order for **\$6.95**, with your name and mailing address, to:

Grapevine Publications, Inc.

Attn: Catalog Subscriptions, Dept. 48

P.O. Box 2449

Corvallis, OR 97339-2449 U.S.A.

Phone: (541) 754-0583 Fax: (541) 754-6508

email: gpi@proaxis.com

*Other international rates:	Central / South America:	\$ 8.95
	Europe:	\$ 9.95
	Asia and Africa:	\$11.95
	Pacific Rim:	\$11.95

Payments for international orders must be made by VISA or MasterCard, or by an International check or Money Order, in U.S. dollars, drawn on a U.S. bank.

Join a Club – Meet Other HP 48 Users!

HPCC is a club supporting users of HP handhelds around the world since 1982. For details of the club, a sample copy of our journal (6 issues a year), an application form, and a list of other clubs so that you can look for one near you, send UK£3 (UK bank check or VISA/MC details) to:

HPCC, 8 Stratford Court, Salisbury Road, Farnborough, Hants EN8 9HY, UK

From the US, send club inquiries (with SASE or \$1—no sample journal) to:

CHIP • c/o Jack Stout • 1946 N. 18th Ave. • Melrose Park, IL 60160 U.S.A.

Advertiser Index

Advertiser	Page(s)
BB Marketing Ans.	13
Calculator World, Inc.	14
Cartesian Systems, Limited	5-7
CHOTKEH	8
COMP-U-BAG	14
da Vinci Technologies Group, Inc.	12
EduCALC	17-18
Grapevine Publications, Inc.	1-4, 18
Heuson Software	8
RAMSS, Inc.	15
Surveyors Module, Inc.	9-11, 14
Travtech Electronics Instrumentation	8
Tripod Data Systems	16

Product Index

Product Category	Page(s)
Books	1-4, 17
Business and Finance	13, 18
Cases	17
Catalog Subscriptions	18
Chemistry, Chemical Engineering	8, 12
Clubs/User Groups	18
Communications and I/O	8, 12-13
Electronics, Electrical Engineering	12
Engraving	17
Environmental Protectors	14
Games	12
Graphics	1, 3-4, 13
Holders/Standards	16
Hydraulic Engineering	15
Mathematics	2, 4, 8, 12-13
Mechanical Engineering	12
Memory Cards/Drives	12-13
Navigation/Aviation	13
Personal Information Management	12
Physics	8, 12
Professional Engineering Exams	8
Programming	1, 4, 17
Statistics	12
Structural Engineering	11
Surveying/Civil Engr.	5-7, 9-11, 14, 16
Text Editing	13
Used Equipment	14

Note: *This catalog contains paid advertising for products that are originated, manufactured and sold by companies entirely independent of Hewlett-Packard Company ("HP").*

Inclusion of these advertisements does not in any way imply affiliation, familiarity or endorsement by HP nor by any of its appointed or authorized agent(s) charged with administering and/or preparing these advertisements on behalf of the advertisers.

Neither HP nor its agent(s) is responsible or liable for the accuracy of any of the information contained in these advertisements, nor for the availability or performance of any of the products advertised therein.

The prices, availabilities and ordering information herein may change without notice. For further information, sales or technical support for any of these products, do not contact HP. Contact the advertisers or their authorized sales outlets, as directed by the information in their respective advertisements.