COMPUTER FOCUS

PC Instruments

Bringing Instrumentation To Personal Computers

COMPUTER FOCUS

HEWLETT PACKARD

On the Cover:

HP introduces PC Instruments — a practical and versatile solution for the automated-test-and-measurement requirements of a wide range of technical professionals. See articles beginning on page 6.

Marketing Exchange

Consultants: The invisible high-leverage marketing channel

by Ihab Abu-Hakima, market manager
Vertical Market Development

At a recent major convention and exhibit for the nation's retailers, the key speakers were consultants. They also represented 10 percent of the total attendees to the convention.

This isn't a chance occurrence. As the marketplace grows and becomes more specialized, consultants are becoming increasingly influential. Their expertise is being sought not only by the industry, but by the customer — **your customers** — and if you're not working with consultants, you could be missing out on sales opportunities.

For example, at the convention mentioned above, consultants were leading workshops on such topics as how to choose the right computer solutions, or the use of software packages and turnkey solutions to reduce implementation time. Most importantly, they were constantly being approached by computer users who were bewildered by the myriad of solutions available. They were being asked to recommend a particular solution or solutions for use in specific industry applications. What happens if the consultant has never heard of your solution? — you're not even mentioned.

If that isn't enough, consider the fact that these same consultants are chartered to assemble detailed listings and analyses of computer solutions that they are aware of and consider viable for a specific market. These listings are generally made available to trade association members.

This recurring theme of the importance of consultants is especially evident within specific vertical markets. During our research into various industries, we've discovered that MIS consultants have an undeniable influence at both the macro- and micro-levels within industries. Through their publications, workshops, and information gathering activities (e.g. attendance at trade shows), they've positioned themselves as almost quintessential reference points and information resources on available MIS solutions within their industries of specialization.

The message is clear: if you don't keep key consultants in your target industry informed, or make an effort to cultivate a good working relationship with them, you could be stifling the growth of your company.

Why not use this medium as an additional marketing channel to leverage incremental sales and market visibility? Consultants can be an extremely cost-effective lead-generation channel, especially for companies with a small sales force and limited marketing capabilities. Some companies receive 10-20 percent of their leads through vertical market specific consultants. If you can position your solution clearly and effectively — you could get even better results. How do you go about this effective positioning? The recommendations that follow should give you a head start.

Step 1: Identify the key consultants specializing in your target industry or market. Sources include:

- Articles they have written for trade publications focused on your target market.

- Industry trade associations.

- Contacting the major consulting firms and asking for the director(s) of consulting for your target industry (e.g. the big eight CPA firms: Arthur Andersen, Price Waterhouse, etc. and management consulting firms: Arthur D. Little, etc.).

- Directories of consultants available at local libraries that also specify industry/area of specialization (e.g. Consultants and Consulting Organizations Directory from Gale Research Co., Detroit).

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

Marketing Exchange

Step 2: Initiate and nurture a close relationship with those key consultants.

- Contact them personally.
- Meet and brief them. If possible give them a product demo at your facility, or better yet at one of your customer installations. A customer visit is usually more feasible when a consultant is working on a client's time rather than his/her own.
- It is critical, and to your advantage, to identify clearly the target markets your solution is designed to serve. This will differentiate your product from the competition and save the consultant time (a valuable asset of which a consultant never seems to have enough).
- Supply them with literature and customer references.
- Keep them up-to-date with product enhancements and your new successes.
- Demonstrate your ability to support non-local installation, if applicable.
- Solicit feedback.

Step 3: Respond to the Requests for Proposals (RFP) submitted by them.

- Keep in close contact with the consultant during this activity. You can receive assistance in completing the response properly and keep your solution at the forefront of the consultant's thoughts.
- Don't let them down. If you can't respond, let them know why — otherwise your leads could dry up.

Step 4: When possible, send business their way, too.

- Invite them to seminars you arrange. Approach their participation as a business opportunity for them — it will gain you additional leverage.
- Suggest to your prospects that they contact the consultant for objective opinions on your solution, or for MIS studies.

Take the time to carefully position your solution in the minds of your industry consultants and regularly reinforce it. Leads you otherwise wouldn't have received will start flowing your way.

Remember: If they don't know you, they won't recommend you.

[hp]

SUPPORT

HP product support life extended to 10 years

Over 200 HP instrument and computer products have been selected for an increased support life of 10 years. While all HP products are supported for 5 years beyond manufacturing discontinuance, many of them have been supported even longer through special arrangements.

Now we have formally identified products which are automatically eligible for 10 years of support after obsolescence. Government customers, major accounts, and other users in the aerospace and telecommunications industries can count on HP support for the long term without special arrangements. This new policy should help you get business from customers who require corporate commitment to long-term support in order to maximize use of their HP solutions.

Contact your HP sales rep for more information.

SUPPLIES

CSO becomes Direct Marketing Division

HP's Computer Supplies Operation (CSO) has a new name — Direct Marketing Division (DMK) — which more clearly identifies its role as a complementary channel of low-ticket product distribution.

Over the years, CSO has developed an effective and responsive off-the-shelf service which makes it easy for you to order supplies and accessories, as well as selected low-cost software and hardware products.

The new DMK organization will serve computer users *and* traditional instrument buyers. We'll be exploring with various sales/marketing management teams how we might use the leverage of non-personal direct marketing to further complement direct selling efforts.

While we may be changing our name, we're not changing the can-do spirit and responsiveness that has built CSO's positive reputation. We're still here to help you.

DMK DIRECT ORDER	

DMK Fast Phones — the easy, direct way for you to order supplies, accessories, media, furniture, and software.

Location	Telephone Number
Austria	(0222) 2500615
	(0222) 2500616
Belgium/Luxembourg	(02) 762 32 00
Canada	
Toronto Local	416-671-8383
Ontario	1-800-387-3417
Quebec	1-800-387-3417
British Columbia	112-800-387-3154
Other Provinces	1-800-387-3154
Denmark	(02) 816640, ext. 258
Finland	(90) 4550211
France	(6) 928 32 64
Greece	(01) 6473360-1
Italy	(02) 92 36 91
	(06) 5 48 31
Middle East	
Athens	(01) 808-0359
Norway	(02) 171180
South Africa	
Johannesburg	(011) 8025111
Cape Town	(021) 537954
Durban	(031) 284178
Spain	(01) 6384013
Sweden	(08) 7502028
Switzerland	(057) 31 22 54
	(057) 31 22 59
The Netherlands	(020) 470639
United Kingdom	(0734) 697201
United States	800-538-8787
California	408-738-4133
West Germany	01303322

HP 100 SERIES

Introducing HP's new PC Instruments

A new concept in instrumentation was announced by Hewlett-Packard with the introduction of PC Instruments to the worldwide markets on March 26, 1985.

The components of the personal-computer-based PC Instruments system include up to eight technical instruments, offered in modular, stackable cases.

PC Instruments, a fully-integrated system of hardware and software, is HP's new line of personal-computer instrumentation products designed to work with the HP 150 personal computer and the IBM PC, PC XT, and PC AT. PC Instruments initial product line includes eight modules:

P/N	Description
HP 61010AA	16-bit digital I/O
HP 61011AA	8-channel relay MUX
HP 61012AA	12-bit dual voltage D/A converter
HP 61013AA	4½-digit digital multimeter
HP 61014AA	5MHz function generator
HP 61015AA	100MHz universal counter
HP 61016AA	50MHz digitizing oscilloscope
HP 61017AA	8-channel relay actuator

PC Instruments' key benefits

- Test, measurement, computation, spreadsheet analysis, and word processing can be performed using the same personal computer.
- Easy-to-use BASIC I/O Library makes programming simple and fast. (See article on p. 9.)
- Soft Front Panel makes manual mode operation simple. Parameters can easily be "touched-in" rather than entered through cumbersome key strokes.
- Multiple instruments can be monitored and controlled through a single personal computer screen.
- Optional Data Acquisition Software makes the PC Instruments' solution complete; data can be collected and displayed instantly without having to write a program. (See article on p. 8.)
- The same personal computer can also control HP-IB instruments. (See articles on p. 9.)
- More precise measurements can be obtained since the instruments are housed outside the personal computer, where signal noise and interference are lower.
- New level of affordability.

Traditional instruments have many of the same features as those found in personal computers, such as displays, human interface, and internal microprocessors. PC Instruments were designed to take advantage of these attributes of the personal computer by eliminating the redundancies from the instrument modules. This enables a single user interface (the personal computer) to control instruments of simpler designs, which translates to lower cost and higher reliability.

The personal computer communicates with PC Instruments via the Personal Computer Instruments Bus (PC-IB). For each PC-IB interface card plugged inside the personal computer, the computer can control up to eight PC Instruments modules. The system can be expanded to include more instruments with additional PC-IB interface cards.

P/N	Description
61060AA	PC-IB Interface for HP 150 personal computer
61061AA	PC-IB Interface for IBM PC

Software — the heart of PC Instruments

Software is the key to PC Instruments' power and flexibility. The system software consists of programs for both manual and programmatic control of instruments and data conversion to commonly used formats. In the manual mode, the Soft Front Panel program provides instrument-control panels displayed on the CRT screen. Through the Soft Front Panel, users can operate any of the instruments connected to the PC-IB using an HP 150 personal computer, mouse (IBM only), or cursor keys.

The BASIC I/O Library offers a rich collection of easy-to-use commands for programmatic control of instruments. These high-level commands allow you to create application programs tailored to your specific needs.

Data Conversion Utilities format data acquired from PC Instruments into a form compatible with popular application packages such as 1-2-3™ from Lotus™, NWA STATPAK™, VisiCalc®, and WordStar®. The following three commonly used formats are supported: BASIC, Stripped ASCII, and Data Interchange Format (DIF).

Modularity — key to PC Instruments system hardware

Each of the PC Instruments is contained in a separate stackable plastic enclosure housed outside the personal computer. This distinctive hardware design reduces bench clutter, conserves valuable expansion slots, and saves work space.

A separate mainframe or power supply is not needed for PC Instruments. Each instrument module is equipped with its own power pack that provides isolated power.

An optional system power unit is available, which provides convenient and space-effective storage for up to eight power packs. The unit serves as an ideal base for PC Instruments on the bench and is also rack mountable.

A separate rack shelf is available for mounting up to four PC Instruments in a standard 19-inch rack.

P/N	Description
61001A	System power unit
14801A	Rack shelf
14802A	Terminal block

A versatile system designed for a wide range of technical professionals

The new PC Instruments are designed for use in a variety of technical environments. These include areas in manufacturing, R&D, and other scientific and engineering environments.

Some of the typical applications consist of production test, subassembly test, incoming inspection, component evaluation, prototype testing, process monitoring, data logging, and experimental control.

1-2-3™ and Lotus™ are US trademarks of Lotus Development Corp.

NWA STATPACK™ is a US trademark of Northwest Analytical, Inc.

VisiCalc® is a US registered trademark of VisiCorp.

WordStar® is a US registered trademark of MicroPro International Corporation.

Data acquisition software for PC Instruments

PC Instruments can be operated in the manual mode (Soft Front Panel) or in the programmatic mode through a BASIC program. This capability is provided through the system software shipped with the PC Instruments Interface. However, those with general-purpose data-logging and data-presentation requirements can purchase the Data Acquisition Software package to simplify their programming tasks.

The key benefit of the Data Acquisition Software package is that it provides a method by which you can collect and display data from PC Instruments without having to write a program.

The Data Acquisition Software package (HP 14855A for the HP 150 personal computer, HP 14856A for the IBM PC) contains BASIC programs which will perform common engineering workbench test applications. This package includes the following programs:

- *The Voltage Scanner* program links the PC Instruments digital multimeter (DMM) with up to two relay multiplexers to form a general-purpose 16-channel voltage scanner. The data from the 16 channels can be presented in two output formats — graphical or tabular.

- *The Thermocouple Scanner* program is similar to the Voltage Scanner but the thermocouple compensation and linearization are built-in. The program supports K, J, R, E, S, and T-type thermocouples. A temperature reference (in the relay multiplexer) is read on one of the multiplexer channels, thus reducing the available input channels to seven per relay multiplexer.

- *The Analog Recorder* program links up to three PC Instruments digital multimeters to perform the function of a traditional, three-channel, X-Y or Y-T recorder. With this package, data is acquired and output on a user-configured graph. Data can also be sent directly to disc for later analysis.

- *The Engineering Graphics* program is used by the three application programs. This general-purpose line-chart graphics can also be incorporated into user-written BASIC application programs. The graphics utility allows up to two Y axes and supports linear, semi-log, and log-log plots. Built-in scaling allows for automatic data conversion to engineering units.

All these programs are configured through menus so you do not have to do any programming at all. Simply type the run parameters into a configuration menu, set up an output template for data presentation, and then hit a softkey to start running the test. It's that simple.

The Data Acquisition Software package also fully supports both the HP 7470 and 7475 plotters for hard copy output. Also, hard copy outputs can be obtained from the primary printer for the personal computer.

The Data Acquisition Software can be customized to better fit your specific application. Portions of the program can be modified, in BASIC, to add new program lines for data conversion or scaling. Also, other PC Instruments or HP-IB instruments can be added to the programs for providing stimulus or monitoring other types of signals.

Model No.	Description
14855AA	Data acquisition software for HP Touchscreen personal computer
14856AA	Data acquisition software for IBM PC

HP-IB I/O Library turns personal computers into instrument controllers

The HP-IB I/O Library for MS™-DOS adds another computer to the spectrum of instrument controllers. With this library, the HP 150 personal computer, IBM PC, PC XT, PC AT, and other MS-DOS compatible computers join the HP 9000 Series 200 and the Series 80 computers as HP-IB instrumentation controllers.

In the past, the HP 150 personal computer and other MS-DOS computers were unable to communicate with instruments over HP-IB. Our users needed to have an instrument controller as well as a computer to work for them in the office.

Now, with the HP-IB I/O Library, the HP 150 personal computer and the IBM PC move into a new realm. Not only can the personal computer work in the office but it can now move into the laboratory as well.

The HP-IB I/O Library gives the HP 150 personal computer and the IBM PC all of the capabilities essential for most instrumentation applications. If the system design requires portability or higher performance, those options still remain available. But a designer no longer needs to buy one computer for office work and another for the laboratory.

The software provides over 20 different commands which can be used in either GW™ BASIC (BASICA on the IBM) or MS™-PASCAL. These commands are similar to the high-level commands already implemented on the Series 80 and the HP 9000 Series 200 computers, so users experienced with those computers should feel very comfortable with the HP-IB I/O Library.

P/N	Description
14857AA	HP-IB I/O Library for HP 150 personal computer
61062AA	HP-IB Interface and I/O Library for IBM PC

The HP-IB I/O Library for the HP 150 personal computer provides software on 3½-inch discs. The HP-IB Interface and I/O Library for the IBM PC provides software on 5¼-inch discs and an HP-designed HP-IB interface card to plug into the IBM PC. A manual is included that contains instructions on installing the HP-IB card and the I/O Library files, and programming with the Library in BASIC and Pascal. In addition, complete syntax references are provided for both languages, as well as programming examples.

PC Instruments use HP-Plus software program and sales

HP is committed to increasing the availability of software that supports our PC Instruments in order to present a total instrumentation solution to our customers.

To achieve this, we offer an incentives program that encourages developers of software for HP PC Instruments to become official listed or referenced suppliers under the HP-Plus third-party software program.

To encourage participation in our third-party software program, HP offers qualified software vendors:

- A 40 percent discount on the purchase of an instrument system to assist them in the development and demonstration of their software.
- Technical support on PC Instruments during the software development period.
- Eligibility for free merchandising exposure through our marketing programs.
- Closer working relationship with HP's PC Instruments divisions.

The independent software vendors retain all revenues, proprietary rights to the software, and responsibility for its marketing, distribution, and support.

If you would like to participate in this program, please contact your local HP sales rep.

Personal Computers

VT100 Emulation available for HP 150 personal computers

Only available in the US, Canada, and Europe.

The HP VT100 Terminal Emulator (P/N 45412A) allows the HP 150 personal computer to emulate most VT100 features, with several advanced features not available on a VT100, such as disc logging, local printing, and file transfer.

A VT100 is a low-cost (character-mode, no graphics) terminal that is widely used in DEC environments. VT100 terminals can be used with many other vendors' systems as well, including systems from Burroughs, Prime, and Tandem.

Using the HP VT100 Terminal Emulator, you can connect your HP 150 personal computers to both an HP 3000 and a DEC (or other VT100 compatible) machine. It is then a simple matter to exit from the VT100 Terminal Emulator and access the HP 3000 through Terminal Mode on the HP 150 personal computer. Remember, the DEC host must be connected through Port 1 and the HP 3000 through Port 2.

Contact your local HP sales rep for more information.

HP-HIL support for HP 150 and HP 150 MAX personal computers

All HP 150 and HP 150 MAX personal computer users will be able to use all family of HP-HIL (Human Interface Link) input devices such as the HP Mouse (P/N 46060A) with the new HP-HIL Interface Card (P/N 45914A). This accessory board can be plugged into either of the two slots available on the HP 150 personal computers.

The HP-HIL Interface Card has to be used in order to run any software programs written for the HP-HIL interface. Contact your HP sales rep for more information.

hp

HP1000

New version of HP 1000 A-Series 8-channel MUX released

The HP 12040C is now on the HP Price List. The product itself is very similar to the old HP 12040B and is functionally backward compatible. Therefore, the HP 12040B will be removed from the HP Price List in June 1985.

Although the HP 12040C product has the same features as its predecessor, the parts which comprise the product are different. The MUX printed circuit assembly has a new part number (P/N 12040-60004). The RS-232 connection panel is different along with the MUX-to-panel cable and the 19-inch mounting bracket. There is also a new version of the firmware (EPROM, P/N 5180-7228).

The new firmware incorporates the following changes:

Change — Both baud rate generators on the card will have a default setting of 9600 baud. The old interface default setting programmed baud rate generator "zero" to 2400 baud and baud rate generator "one" to 9600 baud at card power up.

• *Situation* — Where device (printer) is connected to a port of the MUX and is printing, the last command received was an X-off (DC3). If this receive-only device is turned off (to clear a buffer), the port of the MUX will be left in a state requiring an X-on (DC1) and no way to send it.

Change — The new firmware will allow an X-on to be sent to a port via a different port using a command (CN,LU,34B,3). This will force an X-on on the specified port.

• *Situation* — During the MUX initialization, if the devices attached to the ports are powered off, and odd/even parity is used, there is a chance that the port could end up in a confused state. The typical cause has been that a parity error interrupts the on-card Z-80 CPU at the same time the Z-80 is trying to initialize the port.

Change — The new firmware disables interrupts while initializing the ports.

• *Situation* — If a break key is hit while the MUX is transmitting to an odd parity terminal, the port may hang. The noise on the receive line while an odd parity terminal is powered off may also cause the same problem. This is because the old firmware (P/N 5180-1970) did not correctly handle the rare occurrence of simultaneous parity error and break when configured for odd parity.

Change — The new firmware ignores the parity error when the error occurs because of the use of the break key on odd parity-configured ports.

• *Situation* — If the length of the receive data is greater than the read request length and the character set is Katakana, the MUX may hang.

Change — The new firmware corrects this situation.

Ordering information

Product/ Option	P/N	Description
HP 12040C		
	12040-60004	PC assembly
	12040-90022	Manual
	28658-60005	RS-232 panel
	28658-63002	MUX-panel cable
	5001-5278	Mounting bracket
	1252-0508	Cable ext. kit
HP 12040C Opt. 002*		System modem cable
		Delete RS-232 panel
HP 12040C Opt. 003		Delete panel and cable

The 37214A system modem is purchased separately.

Technical Computers

New version of HP 1000 A-Series downloadable MUX released

The HP 12041B Downloadable MUX used with the PCIF/1000 Programmable Controller Interface software package is now on the HP Price List. The product itself is very similar to the old HP 12041A and is functionally backward compatible with the HP 12041A. Therefore, the HP 12041A will be obsolete and removed from the HP Price List in June 1985.

The HP 12401B has a new hardware interface (P/N 12041-60002) and comes bundled with the RS-232 connection panel (P/N 28658-60005) and cable (P/N 28658-63002). So it will no longer be necessary to order the HP 12828A connection panel product. The HP 12828A will be obsoleted and removed from the HP Price List in June as well.

Ordering information

Product/ Option	P/N	Description
HP 12041B*		
	12041-60002	PC assembly
	12041-90001	Manual
	28658-60005	RS-232 panel
	28658-63002	MUX-panel cable
	5001-5278	Mounting bracket
	1252-0508	Cable ext. kit
HP 12041B Opt. 003		Delete panel and cable

The 12041B is used solely with the 94200A HP Programmable Controller Interface/1000 product.

HP 9000

Announcing TK!Solver®/HP-UX for HP 9000 Series 200 and HP Integral PC

TK!Solver, an equation solving software package, is now available on HP 9000 Series 200 HP-UX computers and the HP Integral PC. TK!Solver allows you to solve complex mathematical models that cannot be easily done with programming languages, spreadsheets, or calculators. Define the model with equations written in your usual form, then TK!Solver uses direct or iterative techniques to solve the model.

All the tools needed for problem-solving are built into the program, including mathematical functions, facilities for converting units of measurement, and the ability to produce graphics and tables.

Key features of TK!Solver include:

- Backsolving: TK!Solver lets you enter your problems once and then solves for the unknowns, no matter where they are in the equations.

- Iterative Solving: TK!Solver lets you use a "guesstimate" for the answer, and then performs repeated approximations to converge on the actual answer.

- List Solving: TK!Solver allows you to input values in list form, then calculates the answer for every value in the list.

- Unit Conversions: TK!Solver allows you to define the numerical relationship between two types of units of measure and then uses those definitions so you don't have to modify your equations.

- Tables and Plots: TK!Solver can plot or print the answers to the screen or a printer. No special output devices are required.

To make the most effective use of this program, four TK!SolverPacks* (sophisticated templates for use with TK!Solver) are available:

- Mechanical Engineering: Analyzes topics like elastic beam bending, springs, area moment of inertia, Mohr's circle, rotational systems, heat transfer, fluid flow, and hydraulics.

- Financial Management: Topics include compound interest, net present value, debt service, cost of equity capital, financial statement analysis, stock option pricing, bond swaps, convertible debt, and bond refunding decisions.

- Building Design and Construction: Topics include beam and column design, mortgages, payment on energy-saving investments, heating costs and solar heat gain, construction cost estimation, and calculations for rafters and stairs.

- Introductory Science: Covers topics in chemistry, biology, physics, thermodynamics, and population studies.

TK!Solver runs on HP 9000 Series 200 computers running HP-UX 2.1 or 2.2, and the HP Integral PC.

TK!Solver is distributed standard on a double-sided microfloppy and is also available on ¼-inch tape as Option 022.

P/N	Product
45515G	TK!Solver/HP-UX (single-user)
45515H	TK!Solver/HP-UX (multi-user)
TK!SolverPacks: (Note: TK!SolverPacks are not single-user or multi-user specific since they are data files only.)	
45516G	Financial Management
45517G	Mechanical Engineering
45518G	Building Design and Construction
45519G	Introductory Science

Contact your local HP sales rep for more information about TK!Solver.

TK!Solver is required to operate a TK!SolverPack template program.

TK!Solver™ is a US registered trademark of Software Arts, Inc.

Introducing Picture Perfect for HP 9000 Series 200 workstations

Picture Perfect, the popular HP 150 personal computer graphics software, is now available for the HP 9000 Series 200 workstations. This new release brings all of the ease, flexibility, and power of the HP 150 version, with the addition of an advanced bar/line chart type.

Picture Perfect (P/N 45462B) is a data-driven presentation graphics package that produces professional-quality charts. Its modules provide the capability to produce high-quality pie charts, vertical or horizontal bar charts, line charts, and combined line and bar charts.

You can place data values in many different locations on a chart with Picture Perfect. Legends, footnotes, titles, and annotations may be moved to where they work and look best. Single or multiple charts on one page allow for easy inclusion in a report or review. An independent Y axis allows for charting of different data types for comparison purposes.

A tutorial is provided with Picture Perfect that lets you get started easily and quickly. Extensive on-line, context-sensitive HELP screens answer questions promptly, eliminating the need to search through a manual.

HP 9000 Series 200 Picture Perfect provides its own Pascal operating environment so no particular language environment or installation is required. It runs on HP 9000 Models 216, 217, 220, 236A/C with 512K bytes memory, and supports a wide range of peripherals.

Picture Perfect is available worldwide; however, it will work with the keyboard in US mode only.

Technical Computers

Terminal emulator upgrade offer begins April 1

Now HP 9000 Series 200 users can upgrade their HP 2622A (P/N 98790A) or VT100 and HP 2622A (P/N 98791A) terminal emulators to the new HP 2392A and VT100 terminal emulator (P/N 98791B). Those who want to run their terminal emulators under Pascal 3.0 or who want to use peripherals supported by Pascal 3.0, such as the HP 9122D or the HP 35721A/C monitor should take advantage of this limited time offer. From April 1 through June 30, 1985, part numbers will be placed on the HP Price List to allow you to get the new emulator.

You must own either the 98790A or 98791A emulator and an HP 9000 Series 200 Model 216, 220, or 236 with a 98203A/B keyboard to take advantage of this offer.

The upgrade kit contains:

- Program disc for HP 9000 Models 216, 220, and 236
- Pascal 3.0 Environment Disc
- HP 2392A terminal emulator manual (for HP 9000 Models 216, 220, and 236)
- VT100 terminal emulator manual (for HP 9000 Models 216, 220, and 236)
- Certificate for one code word
- VT100 numeric keypad overlay.

The kit does not include software or manuals for use with HP 9000 Models 217, 237, and 220s with HP-HIL keyboards.

If you purchase Software Materials Subscription (SMS) for the HP 2622A or the VT100 and HP 2622A, you will receive the upgrade automatically. For a small monthly SMS fee, you can receive any further upgrades to the HP 2392A and VT100 Terminal Emulator.

Contact your HP sales rep for more information.

Incorrect ID PROMs shipped in HP 9000 Model 217s

Due to a manufacturing error, a large quantity of HP 9817H systems were shipped with an incorrect ID PROM. While this does not affect normal performance of these systems, it does prevent you from being able to execute any of HP's secured software programs, such as HP EGS/200 or HP's new terminal emulator.

To determine if you have such a machine, check the system console during the "boot" process. The correct boot ROM will identify the system as an HP 9817A. An incorrect boot ROM will identify the system as an HP 9817.

If you are experiencing this problem, contact your HP sales rep, who can replace the ID PROM with the correct version. This upgrade will be done at no charge to you.

[hp]

HP 260

New HP 260 literature in stock

Large quantities of HP 260 sales literature are available for your HP 260 merchandising activities. Your HP sales rep can obtain for you the following new HP 260 literature:

P/N	Description/Title
5953-4360*	HP 260 management brochure, *Offering Solutions Tailored to Fit Your Needs*.
5953-4361**	HP 260 flyer, *Is Your Management Tool Kit Complete?*
5953-4372	*Guide to the HP 260 Family*, presents an overview of the HP 260 Models 15, 24, and 55 plus a description and photograph of HP 260 peripheral products.
5953-4373	Full color poster of the HP 260 in an inventory/warehouse environment.
5953-4374	Full color poster of the HP 260 in an office environment.
5953-4375	Full color poster of the HP 260 in an auto repair shop. All posters are available in quantities of 10 which may include an assortment.
5953-4363	Asynchronous Data Communications data sheet
5953-4364	QUERY Data Base Inquiry data sheet
5953-4365	Text Processing data sheet
5953-4366	Decision Support Graphics data sheet
5953-4367	Report Writer data sheet
5953-4368	Graphics Plotting Library data sheet
5953-4369	Synchronous Data Communications data sheet
5953-4370	IMAGE Data Base Management data sheet
5953-4371	Textual Plotting Program data sheet

*Please add the following suffixes to the 5953-4360xx Management Brochure for localized versions:

D	=	United States
	=	Universal English (no code)
FR	=	French
SW	=	Swedish
IT	=	Italian
SP	=	Spanish
NO	=	Norwegian
DU	=	Dutch
FI	=	Finnish
DK	=	Danish

AU/NZ/AS = Australia, New Zealand, Asia (English)

**Please add the following suffixes to the 5953-4361xx Flyer:

NO	=	Norwegian
SP	=	Spanish
IT	=	Italian
AS	=	Asian (English)

AU/NZ = Australia, New Zealand (English)

Note:

No code is required for a universal English version.
Both literature pieces are also available in the German language.

HP 7906H disc not supported on the HP 260 system

An error was made in the new HP 260 Product Training and Configuration Guides. The HP 7906H, 20Mbyte disc drive, is *not* supported on the HP 260 system. The new HP 260 Product Training Guide and Configuration Guide incorrectly lists the HP 7906H as a supported peripheral on the HP 260 system. Please correct these manuals.

Business Computers

HP 3000

Upgrade all HP 3000 Series IIs by August 1

Upgrade not available in Europe

Effective March 1 through August 1, 1985, HP is providing an aggressive program to make upgrades more attractive to the HP 3000 Series II installed base customers.

In addition to the normal credits allowed for the HP 3000 Series II to Series IIIR upgrade, and for the HP 7906/7920 to 7925MR/SR/MT/ST upgrades, additional savings can be realized when you purchase one of the following bundles:

- An HP 3000 Series IIIR with 1M byte of memory.

- An HP 3000 Series IIIR with 1M byte bundled with an HP 7925MR.

This upgrade promotion is an excellent opportunity for HP 3000 Series II installed base users looking for a more efficient system at a lower cost. With a five-year lease, the HP 3000 Series IIIR pays for itself with maintenance savings. Compared to the HP 3000 Series II, this multiuser system provides twice the performance and no investment in incremental peripherals or software.
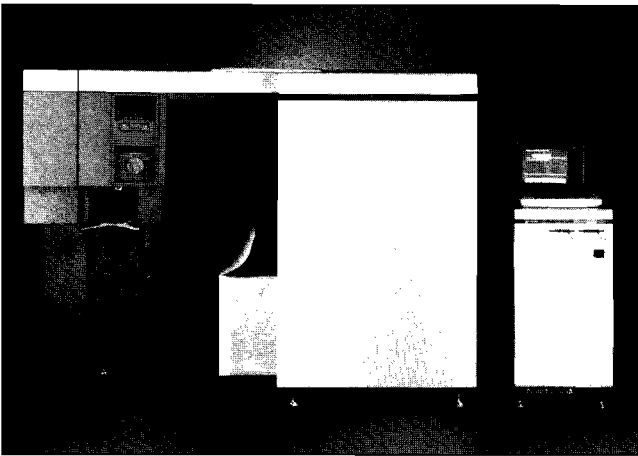
The HP 3000 Series IIIR is one of HP's most widely accepted computer systems and HP's aggressive pricing makes it an unbeatable opportunity.

Contact your HP sales rep for more information regarding the upgrade.

[hp]

PRINTERS

Announcing HP's IBM plug-compatible laser printing system

The HP 2689A subsystem combines the HP 2680A laser printer with a separate control unit that plugs into an IBM mainframe.

HP is pleased to announce the HP 2689A laser printing subsystem. The HP 2689A is designed to be a high-speed line printer replacement for connection to IBM systems. It combines the field-proven HP 2680A laser printer with a separate control unit which allows interfacing to an IBM mainframe.

The HP 2689A is a natural extension to our already broad laser printer product line. From the HP LaserJet printer to the HP 2685 and 2689, HP has the largest and most diverse laser printer offering of any vendor on the market. The HP 2689A will keep HP in the limelight rightly earned by the HP LaserJet printer.

See following article for more information on the HP 2689A.

Positioning the HP 2685A and HP 2689A laser printers

With the introduction of the HP 2689A laser printing system, you have another good reason to go with HP for their printing solutions: direct channel connect. The HP 2689A complements the existing HP 2685 product offering by providing a straightforward, high-speed connection for local printing applications on IBM mainframe systems.

The HP 2689A: The local system printer replacement

The HP 2689A was designed to replace impact printers as the primary local system printer. The HP 2689A uses the command set of the popular IBM 3211 line printer (2,000 lpm) and can replace it (or others in the same class) in most applications.

Typical uses would be for system dumps, program listings, financial reports, parts explosions, product listings, order processing, payroll, and personnel reports (in general, preprinted forms replacement).

Primary selling points are reduced operator intervention, excellent print quality, forms cost savings (using electronic forms), speed, and paper size.

The HP 2685: The remote line printer replacement

The HP 2685 allows you to locate printer capacity where needed without being constrained by cable distance limitations. The HP 2685 supports a variety of communications software (RJE, MRJE, SNA, X.25) to satisfy just about everyone's configuration needs.

The data communications controller of the HP 2685 (an HP 3000 in disguise) can also print graphics (no graphics on the HP 2689). Users connected to the print station can generate their own graphics images or download files from the host for printing.

The HP 2685: Variations on a theme

The HP 2685 comes with printer and controller options. You have a choice of printers (the HP 2680A or the HP 2688A), as well as controllers (HP 3000 Series 37/48/68). In addition, multiple printers can be attached to a single controller. In remote applications where special applications need an impact printer (privacy envelopes, color forms, and odd paper sizes or weights), any one of the high-speed dot-matrix printers from HP can also be connected.

The HP 2685 offers you the greatest flexibility in terms of hardware configuration and software capability in remote printer applications.

Product/Application Matrix		
	HP 2689	**HP 2685**
Local line printer (forms, listings, financial reports, etc.)	XXX	X
Remote line printer (as above, remote or long line configuration)	—	XXX
Graphics output (business graphics, drawings)	—	XX
Distributed printer server	—	XXX

XXX: best application
XX: good application
X: possible application
—: no application

HP 2611A and 2619A removed from the HP Price List

Due to the great success of the HP 2565A and 2566A, the HP 2611A and 2619A will be removed from the HP Price List on May 1, 1985. You will have a 30-day grace period to buy an HP 2611A or 2619A. Remarketed HP 2611A and 2619As will soon be available from HP's Finance and Remarketing Division (FRD). For more information on the pricing and availability, please contact your HP sales rep.

hp

Software Packages Available and Wanted

If you have a software package available for cross-licensing, or are looking for a package to cross-license, this section will help you. Your entry will appear for two months; the most recent additions are shaded. To list your company in the Cross-Licensing Classifieds (at no charge), see the address at the end of this section.

Software Packages Available

Industry: *Stock Market Analysis*

Abstract:
- FORMIS **Market Analysis Charts** plots daily stock indices in the form of a line chart. The following analytical calculations can be incorporated and plotted against a daily index:
  - Twenty- and fifty-day moving averages
  - Cumulative Advance/Decline Indicator
  - On-balance volume
  - Overbought/Oversold Indicator
  - Coppock Indicator
- FORMIS **Stock Analyser** is designed to simplify any security analyst's computation and analysis of fundamental stock information. This versatile system begins with raw data input of a company's financial statements such as balance sheet, profit and loss, and sources/uses of funds statements. The raw data can be from several years and for a large number of companies. Data format is rigid to provide for manipulation. A total of 23 financial ratios in four categories: operating, liquidity, shareholders' performance and gearing are computed automatically.
- FORMIS **Stock Charts** plots bar charts of daily high, low and closing prices together with daily volume for a selected stock. The plotted chart appears on the screen of the terminal covering up to nine months of daily transactions. Using an HP 7475 or 7470 plotter, 16 months of daily transactions can be plotted. FORMIS **Stock Charts** also incorporates moving averages against the daily bar charts and need only be updated once daily to update the plot.

Company Name: Formis Computer Services Sdn Bhd

Address: 19B, 19th Floor
Resource House
Jalan Raja Laut
Kuala Lumpur

Phone Number: 03-933666 (10 lines)

Contact Person: Jon Chen

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Industry: *Cross-Industry—Accounting*

Abstract:
- FACTS Project Management is a multi-company project management system designed for general contractors. It interfaces with the FACTS accounting system and uses Image, Cobol and HP V/3000.
- FACTS Accounting System is a complete multi-company accounting system, including general ledger, accounts payable, accounts receivable, fixed assets and payroll modules. Each module may be purchased separately. Uses Image, Cobol and V/3000.

Company Name: Windemere Systems Corporation

Address: 18952 Bonanza Way
Gaithersburg, MD 20879

Phone Number: 301-948-2684

Contact Person: Bruce Lisle, James Sinkovic

Type of Distributor Wanted: Expertise with HP 3000

Geographic Coverage: North America

Industry: *Ferrous and Non-ferrous foundries*

Abstract: FPS/3000 is the most updated foundry production system for the operation control of order entry, production scheduling, pattern/part/process, perpetual casting inventory, shipping, invoicing, and accounts receivable.

Company Name: Metech Co.

Address: 22300 Hawthorne Blvd.
Torrance, CA 90505
USA

Phone Number: 213-373-6622

Contact Person: Joe Chuang

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Cross-Licensing Classifieds

Industry: *Cross-Industry*

> **Abstract:** The SYNERGIST. Application: Program Generator. Product overview: the SYNERGIST is an on-line non-procedural applications development system that integrates shared processing between personal computer networks and the HP 3000. Custom applications are built and executed directly on the PC, with simultaneous on-demand access to IMAGE data bases. The SYNERGIST supports multi-page and nested forms, with provision for local program variables. By using an extended dictionary, database and screen generation is dramatically simplified. Editing, data manipulation, forms presentation, and calculation resolution are all handled at the key-stroke level. This unique global information approach reduces initial programming redundancy and subsequent maintenance tasks, allowing complex applications without relying on traditional procedural languages.
>
> **Company Name:** Gateway Systems Corporation
>
> **Address:** 2277 Science Parkway
> Okemos, MI 48864
>
> **Phone Number:** 517-349-7740
>
> **Contact Person:** Beth Baerman
>
> **Type of Distributor Wanted:** Open
>
> **Geographic Coverage:** Worldwide

Industry: *Cross-Industry*

> **Abstract:** CP/M-68K: An extension of the popular CP/M™ operating system for the HP 9000 Series 200 machines. CP/M-68K supports from 128K bytes to 16M bytes of RAM, from 1 to 16 disk drives of up to 512M bytes each, and the C language. (C Compiler and run-time library are subset compatible with UNIX™).
>
> Languages supported under CP/M-68K include: 68K BASIC, 68K Forth, SVS FORTRAN 77, SVS Pascal, SVS BASIC-Plus, and Whitesmiths' "C".
>
> **Company Name:** Empirical Research Group, Inc.
>
> **Phone Number:** (206) 874-4844
>
> **Address:** 1112 S. 344th Street, Suite 301
> Federal Way, WA 98003
>
> **Contact Person:** Jack Hardison
>
> **Type of Distributor Wanted:** Open
>
> **Geographic Coverage:** Worldwide
>
> *SVS is a trademark of Silicon Valley Software.*
> *CP/M-68K and CP/M are trademarks of Digital Research, Inc.*
> *UNIX is a trademark of AT&T Bell Laboratories.*

Industry: *CAD/CAM*

> **Abstract:** DGS-2000 is an easy to operate, menu driven, 2D CAD package with high performance capabilities running on HP 9000 Series computers.
>
> **Company Name:** Data Automation
>
> **Address:** 10731 Treena Street, Suite 106
> San Diego, CA 92131
>
> **Phone Number:** (619) 695-0806
>
> **Contact Person:** Rick Hackworth, President
> Allen Elowe, Product Manager
>
> **Type of Distributor Wanted:** Open
>
> **Geographic Coverage:** Worldwide.

Industry: *Cross-Industry*

> **Abstract:** Coda-IAS is the leading Integrated Accounting System in the UK with 150 licenses sold. The package addresses the main functional areas of accounts receivable, accounts payable, and general ledger. A powerful financial reporting system is included for management accounting/budgeting purposes.
>
> **Company Name:** Coda Limited
>
> **Address:** Aire House
> 12 Swinegate
> Leeds LS1 4AG
> United Kingdom
>
> **Phone Number:** 0532 461726
>
> **Contact Person:** Rodney Potts, Managing Director
>
> **Type of Distributor Wanted:** Software houses, OEMs, consultants with strong accounting expertise.
>
> **Geographic Coverage:** Worldwide

Industry: *Insurance, Property and Casualty Companies*

> **Abstract:** For HP 250 Computers — a complete property and casualty insurance system for the small to medium insurance company. It is an integrated data-base-driven policy issue and administration system. Areas covered include: policy input, rating, printing, renewals, claims, investments, inspections, agents, and accounting. Also available are word processing, spreadsheet, business graphics.

Company Name: ForceTen Enterprises Inc.

Address: 3845 Dutch Village Road
Halifax
Nova Scotia, Canada B3L 4H9

Phone Number 902-453-0040

Contact Person: Mr. Trygve Arnason

Type of Distributor Wanted: HP 250 OEM/Software Supplier

Geographic Coverage: US, Canada

You can list your company in the **Cross-Licensing Classifieds** (either Software Packages Available or Software Packages Wanted) by sending the information in the format used here to:

> Hewelett-Packard Company
> Value Added Solutions Marketing
> Attn: Marilyn Rauchle
> 10520 Ridgeview Court
> Building 49C
> Cupertino, CA 95014
> USA

Entries will run for two months. The most recent additions are shaded. Be sure to send the information in at least one month before you wish it to appear.

HEWLETT PACKARD