

HP CHANNELS

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1988
Commercial
Value-Added Reseller
Conference

HP CHANNELS

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Editor
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HP Channels is published monthly for Hewlett-Packard's value-added businesses to provide you with information about HP's products and services to help you be more successful.

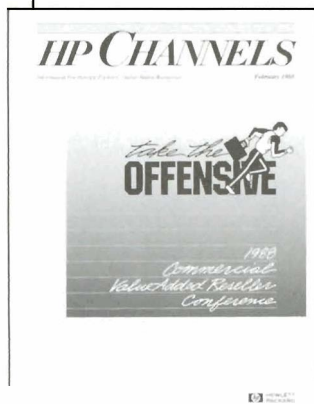
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See back cover for subscription information.

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On the cover



Commercial VARs should be sure to attend "Take the Offensive," HP's 1988 Commercial VAR Conference that will be held on March 13-15 at the Fairmont Hotel in San Jose, California. See the article on page 1 for more information about this important event.

HP CHANNELS
February 1988

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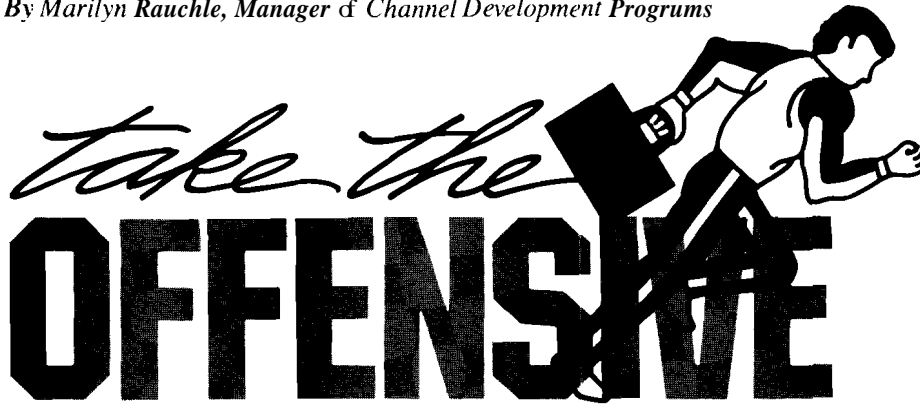
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"Take the Offensive" - Commercial VAR Conference, March 13-15

By Marilyn Rauchle, Manager of Channel Development Programs



Make your plans now to attend HP's 1988 Commercial Value-Added Reseller Conference, "Take the Offensive." This important event will take place March 13-15, at the Fairmont Hotel in San Jose, California.

As many of you know, "Take the Offensive" is the HP companywide theme for 1988. The theme reflects the fact that in the business computer marketplace, Hewlett-Packard has taken the offensive with Precision Architecture, the advanced NewWave environment, and industry-standard networking. This theme will become reality throughout the year as HP introduces many innovative new products. In the words of John

Young, "We have the best product portfolio in my memory, which is going on 29 years at HP." We're especially excited about generating new orders aggressively for 1988, and this conference is your opportunity to join our offensive game plan.

HP executives will welcome VARs to the conference at a reception on Sunday, March 13, at 6 p.m. The conference will be kicked off on Monday, March 14, by HP President and Chief Executive Officer John Young. Other HP executives will discuss product and business strategies. In addition, VARs can participate in interactive workshops

as well as a hands-on product fair that will highlight HP's newest products.

A special, added attraction is the NewWave Developer's Seminar that immediately follows the VAR Conference. You'll learn more about integrating your software into a truly advanced environment that will give you a competitive edge at this free, one-day seminar at the Fairmont Hotel on Wednesday, March 16.

Commercial VARs will receive formal invitations, registration forms, and hotel accommodation cards early this month. To take advantage of special hotel rates, you must make reservations by February 26. Contact Room Reservations at the Fairmont at 408-998-1900 for information or questions about hotel accommodations. Call your HP sales rep for more information about the conference agenda or for additional conference invitations.

Mark your calendars and come prepared for an information-packed conference and learn how you can join HP to "Take the Offensive" in the marketplace in 1988.



Customer Support

General

Support Reseller Program for dealers: a new dimension in service offerings

HP's new Support Reseller Program offers an innovative way to share hardware support resources, through a working partnership, with value-added channel dealers. With the Reseller Program, authorized dealers can sell HP hardware support service agreements to their HP workstation product customers and earn a commission.

The program provides greater support options to maximize dealer service revenue and satisfy customer service needs. Dealers can elect to service all their HP workstation customers using the Support Reseller Program, or they can use the program to complement their own service offerings. They can take advantage of the program in conjunction with HP's Dealer Cooperative Support and Dealer Repair Center Programs.

Participating dealers can sell HP's Priority On-Site, Next-Day On-Site, and Customer Return Service to their workstation product customers. Dealers can sell these agreements to their new workstation customers as well as their installed base, if the product has not been under an HP service agreement in the preceding 12 months.

All currently supported HP workstation products, including the HP LaserJet

2000 printer and the Draftmaster plotter, are eligible for agreement sales at current HP list prices.

Dealers receive a one-time commission of twenty percent (20 percent) of the first year's standard list price for that service for each new agreement forwarded to and accepted by HP.

The U.S. program introduction began in December 1987, and all authorized dealers recently received a complete, promotional training package in the mail. The package included an easy-to-read, individual training sales guide and all materials needed for program enrollment. International offerings of the program are expected in the next few months.

To enroll in the program, dealers simply meet with their HP sales rep to sign the Support Reseller Program Exhibit included in the package. They are then ready to sell HP service agreements and reap the benefits of flexibility of service offerings, improved customer satisfaction, enhanced competitiveness, and maximized profitability.

Contact your HP sales rep for more information.

Support

Support structure changes for HP 3000 LAN products

The support structure for several HP 3000 LAN products changes on February 1, 1988. In addition to simplifying the ordering process, the restructuring makes support pricing consistent with the base product and support structure of other datacom link products.

Support prices will be assigned only at the option level, instead of the current pricing at both the product and option level. With no impact on users' support costs for affected products, the changes should be implemented at contract renewal.

Affected products

Product No.	Description
30240A	OfficeShare LAN/3000 Link
30242A	LAN/3000 Link
32188A	Satellite Network Link

LAN3000/XL Link (PIN 36921A) will not change because its replacement, PIN 36923A, has the correct support structure.

Support

Memory support prices for low- and mid-range HP 3000s eliminated

Monthly maintenance prices for memory support on all low- and mid-range HP 3000 commercial systems (Series 30 through 58) were reduced to zero cost on February 1, 1988.

As opposed to lifetime warranty on memory, HP customers receive support of their memory boards as part of the support contract for their system. Memory boards on systems without an HP

hardware support contract do not receive support.

The reduced memory-support prices accompany an increase in SPU and power-supply support prices. Users will enjoy significant savings for most systems with an average amount of memory or a fully loaded system. For those with minimum HP memory in their system, support costs will increase.

Price changes apply to users purchasing new memory as well as users currently on hardware-support contracts. Repricing for current users will take place at contract renewal.

Contact your HP sales rep for more information.

Training

New user courses on 900 Series HP 3000 systems

Developed by Information Technology Group (ITG) for users with MPE V-based experience, several new courses are available to users with commercial HP precision-architecture systems. The student feedback from the classes taught since August, 1987, is very positive. The comprehensive material presented optimizes the user's usage of the new system.

900 Series curriculum

- *Moving from MPE V to MPE XL: System Munger (HP 31110A)* – The three-day class teaches students how to manage and operate the 900 Series HP 3000. Focusing first on similar functions between MPE V and MPE XL, the class then moves to important

issues unique to MPE XL. Configuration and data management issues receive special attention.

- *Moving from MPE V to MPE XL: Programmer (HP 31111A)* – System programmers and application programmers will find this six-day class necessary to understand the Compatibility Mode and Native Mode programming environments. They will learn how to migrate their applications from an existing MPE V system to an MPE XL system.
- *HP SQL for MPE XL and HP-UX (HP 36217AN)* – All HP precision-architecture users, programmers, and database administrators can gain familiarity with the HP SQL environment.

TurboIMAGE DBMS13000 (HP 35053B) – This class has been enhanced so 900 Series users can attend with MPE V-based HP 3000 users.

The right education will make a difference. For more information about prices and availability, contact your HP sales rep.

Business Computers

General

HP BRWIXL and HP BRWIV – how they work together

This article discusses the Native Mode release of HP Business Report Writer, HP BRWIXL, and its compatibility with HP BRWIV. HP BRWIXL will be available with the MPE XL 1.1 release in Spring 1988 and will appear on the March 1 HP Price List. It will cost the same as BRWIV Option 340, BRW in Compatibility Mode (CM), and there will be a 100 percent credit to upgrade from Option 340 to BRWIXL.

As we predict that most user installations will be a mixed environment of MPE V and MPE XL for quite some time, we have paid particular attention to the runtime and development compatibility across *all* MPE systems.

Runtime

All BRW reports written on MPE V will run on any MPE XL machine, in CM, without having to purchase HP BRWIXL. This continues our policy of BRW runtime being *free* on FOS, which has been an important argument for many value-added businesses to use HP BRW. It will still be possible to run BRW reports created with BRWIXL on MPE V installations. However, these runtime machines must be on at least a V-Delta-I MIT.

Development

If you migrate an application with BRW reports to MPE XL and NM reports are desired, a new RDIC file

should be created on MPE XL before recompiling. Just restore the dictionary to the MPE XL system and re-run the RAPPDIC, RDIC3000, or RSYSDIC program. Any RSPEC files already created on the MPE V installation can also be restored and modified with BRW/XL, so your MPE V development work is not lost.

So, now is the time to move your applications to HP BRW, the reporting standard for MPE V and MPE XL. The BRW installed base of over 1,400 systems have reported great satisfaction with a quality product and we have many plans for enhancements for HP BRW in the next months – watch future issues of *HP Channels* for more information.

General

New edition of HP BRWIV reference manual

A new edition (dated 10187) of the HP Business Report Writer (BRWIV) reference manual is now available. It includes all features of HP BRW/V up to and including Release A.01.10, for example: support of HP System Dictionary; new date and time item types; choice of DBOPEN mode: converting Report/V and Inform/V reports to HP BRWIV specification files; using HP BRWIV Intrinsics; using Real numbers; new Selection Set, Request Report and Define Report screens; using horizontal pages; new \$INPRI parameter: etc. In

addition, many chapters have been rewritten, and the index has been updated to take into account your criticisms and suggestions.

The manual, P/N 36070-60002, can be ordered from HP's Direct Marketing Division (DMK). See phone listing on page 27.

Small Business Computing

HP 260 supports new HP 700192 terminal

The HP 260 supports the HP 700192 terminal, and offers a cost-reduced solution with additional features now, and provides additional user comfort and increased productivity with the next release of the operating system.

The HP 700192 is designed to replace the current HP 2392A, and provides a large degree of similarity. HP 2501260 system support is summarized in the table below.

System	Operating system release
HP 250 (45260A)	8.08
HP 260 (45261D)	8.08
HP 260 (45070A/45072A)	8.08
Performance upgrade (45261AH)	8.08

The combination of the HP 260 and the HP 700192 terminal offers not only a cost-reduced solution but also the following enhanced features.

Standard RS-232 printer port with HP QuietJet printer (HP 2228A) support

Redefinable keys allow the programming of numeric pad TAB key to equal "Return" in the Terminal Configuration.

- Protection of CRT bum-in by setting the terminal to automatically turn off the CRT tube when not in use.

Choice of three different monitor colors – green, amber, or white.

First benchmark tests have indicated that the performance increase over the HP 2392A terminals can be significant (double), but is application dependent. This has proven that the new terminals perform as expected when connected to the HP 260 system.

In addition to the application dependency, we experienced that terminal performance depends on:

- Use of Integral Ports versus ASI
- Number of ports configured per ASI

Performance of terminals connected to the Integrated Ports is determined by the interface architecture and no performance increase will be seen. Extensive tests have shown that the significant performance increase is going down with an increasing number of ports configured per ASI. This is associated with the HP 260's input/output software, which controls the flow of data into and out of the system.

This tuning problem, while substantial, is independent of the new terminal and the areas causing the performance degradation are already identified.

With the next release of the Operating system, B.09, the performance improvement will be practically independent of the number of configured ports. Also, additional user comfort will be available at this time. The cursor will be turned off and relevant

printers will be supported on the standard RS-232 printer port.

The advantage of getting a better terminal at a lower price is achieved through high-volume production. The new terminal is not exclusively developed for the HP 260, and as a result, you should be aware of the following fact: the PRINT/ENTER key on the lower right side of the space bar functions as a SELECT key when connected to an HP 260 system. A label to mark this key as a SELECT key is being prepared and will be available soon.

To enjoy the benefits of the HP 700192 terminal today (with the current operating system), configure the terminal as type 2392A in CONFIG on the HP 260. Use the default configuration of the Global-, Datacomm-, and Terminal Configuration Menu. Baud Rate should be set to 19.200 baud for direct connection to HP 260 Series 30 and Series 40 systems.

Contact your HP sales rep for more information.

Small Business Computing

New HP 2235 printer supported on the HP 260

The new HP RuggedWriter 480 printer (HP 2235) is best suited for the HP 260 environment where one printer must handle many tasks. This printer offers state-of-the-art 24-wire impact printing that is fast – 480 cps draft and 240 cps letter-quality printing. It is rugged, durable, and hard working. Support was announced during the recent European

HP 260 VAR Conference for RS-232 interface. Refer to the table below for system support.

System	Operating system release	Interface
HP 250 (45260A) with Turbo (45261AH)	B.08	RS-232
HP 260 (45261D) with Turbo (45261AH)	B.08	
HP 260 Series 30 and 40 (45070A, 45072A)	B.08	

Note that there is a *misprint* in the manuals that come with the printer. The HP 2235 is *not* supported on the HP 2501260 with HP-IB Interface.

To enjoy the benefits of this printer with the current operating system (B.08), configure the HP 2235 as type 268X in CONFIG.

Small Business Computing

The HP 260 and HP RuggedWriter printer combination

Available in Europe only

The HP RuggedWriter 480 printer is supported on the HP 260 family of systems. VARs purchasing an HP RuggedWriter 480 printer with one of the following SPUs will be eligible for a special discount on the printer.

- HP 260 Series 30, PIN 45070A
- HP 260 Series 40, PIN 45072A
- Turbo Upgrade, PIN 45261AH

The offer is limited to one printer per SPU, and orders must be placed before April 15, 1988.

Contact your local HP sales rep for more information about this program.

HP 3000

Announcing Information Access on 900 Series HP 3000 systems

Information Access XL software is orderable on the February 1, 1988. HP Price List. Availability is the same as the first Delta release after the A.O1.O1 release of MPE XL.

Ordering information

Product No.	Description
32586A	Information Access MPE XL – supported on MPE XLbased systems in Native Mode.
Opt. 340	For Series 930 or 950
Opt. 443	10 sets of HP Vectra PC discs (5% inch)
Opt. 444	10 sets of HP Vectra PC discs (3½ inch)
Opt. 445	10 sets of HP 150 discs (3% inch)
32586R	Information Access MPE XL RTC – supported on MPE XL based systems in Native Mode.
Opt. 340	For Series 930 or 950
Opt. 443	10 sets of HP Vectra PC discs (5¼ inch)
Opt. 444	10 sets of HP Vectra PC discs (3% inch)
Opt. 445	10 sets of HP 150 discs (3½ inch)
36897A	Information Access Remote MPE XL – supported on MPE XLbased systems in Native Mode.
36897R	Information Access Rernote MPE XL RTC – supported on MPE XL-based systems in Native Mode.
32596A	
Opt. OCF	Upgrade credit from Opt. 330 – requires purchase of 32586A Opt. 340.
32596R	
Opt. OCF	Upgrade credit from Opt. 330 – requires purchase of 32586R Opt. 340.

HP 3000

TDP and HP Spell available on 900 Series HP 3000 systems

HP announces the availability of TDP and HP Spell on 900 Series HP 3000 systems. Both products work in Compatibility Mode on MPE XL, and offer the same level of functionality provided on MPE V. Note, however, that only a subset of peripherals is supported on 900 Series machines – users should ensure that they have the appropriate workstations and printers available. Please refer to the product data sheets for details. The products are available on the December 1, 1987, HP Price List.

TDP is of interest to users who are investing in 900 Series architecture, but who need a text editor with greater capabilities than provided by EDIT/V for programming purposes. In addition, TDP is appropriate for users requiring host-based, in-house publishing facilities using HP 2680 and 2688 laser printers.

New literature

To coincide with this release of TDP and HP Spell, new data sheets have been produced.

Literature No.	Description
5959-1153	TDP/V data sheet
5959-1154	HP Spell/V data sheet

For more information about either of these products, please contact your HP sales rep.

HP 3000

Reminder: price increases for high-end commercial systems

HP 3000 Series 70, 930, and 950 system and upgrade prices have increased as of February 1. These changes were reflected in the January HP Price List. The products affected are listed below.

Product No.	Description
32490A	Series 950
32490AH	Box swap to Series 950
32491A	Series 950 (SPU)
32491AH	Box swap to Series 950 SPU
32480A	Series 930
32480AH	Box swap to Series 930
32481A	Series 930 (SPU)
32471A	Series 70
32471AH	Box swap to Series 70
30443A,B	Series 64-70 field upgrade
30444A,B	Series 68-70 field upgrade

The HP 3000 Series 70 has demonstrated a performance-value increase that is being reflected in this new price. The HP 3000 Series 930 and 950 are our strong new precision-architecture products – fast becoming the product leaders in the marketplace.

With these price increases, these products are still well positioned in the marketplace. We are confident that 1988 will be a year of strong growth for the commercial product line. For more information, contact your HP sales rep.

HP 3000

HP 3000 LAN Link restructuring reflects new ThinLAN standard

Effective January 1, the HP 3000 LAN Links will be restructured to reflect HP's move to ThinLAN for the standard

LAN connection for business-office networking solutions. When the LAN/3000 Link was first introduced, ThickLAN was the only media option available. Since then, advances in LAN technology led to the addition of the ThinLAN option which offered easier installation and maintenance, greater reliability, and lower cost. Recently, with the addition of the ThinLAN Hub and the new 10Mbps-10Mbps LAN Bridge, ThinLAN is the preferred solution for computer-room LAN connections – even when users require ThickLAN for longer-distance connections.

The new structure for the HP 3000 LAN Links makes the ThinLAN 3000 V (30240A) Link the standard product for MPE V. The LAN3000/V Link (30242A) is being replaced by an option on the standard product (30240A Option 242). In order to avoid confusion, the 30242A product will be obsolete from the HP Price List immediately.

Orders already placed under the old structure will be shipped as ordered. Users placing new LAN Link orders for MPE V systems should order the ThinLAN 3000/V Link (30240A), one processor option (100, 300, 400, or 500), and Option 242 only if a ThickLAN connection is desired. Users ordering the ThinLAN on MPE V will only need to order 30240A and one processor option.

It is recommended that users seriously consider using the ThinLAN for their general LAN connectivity requirements, and only use the ThickLAN option for longer distance connections or for applications where the thicker cable offers a benefit.

For MPE XL systems, the ThinLAN is also the standard product. The LAN3000/XL Link (36921A) is being replaced by an option on a new ThinLAN 3000/XL Link (36923A) product. Users placing new LAN orders for MPE XL systems should order the ThinLAN 3000/XL (36923A) Link, one processor option (300 or 400), and

Option 242 only if a ThickLAN connection is desired. Orders placed under the old structure will be shipped as ordered.

Again, to avoid confusion, 36921A will be obsoleted from the HP Price List immediately.

Users ordering the LAN3000 Links will fall into three categories: new LAN users, current ThinLAN users, and current ThickLAN or mixed-LAN users. Users in the first two groups should order ThinLAN. Users in the third group may choose to stay with ThickLAN, opt for a mixed ThinLAN/ThickLAN network using the ThinLAN hub or the new 10Mbps-10Mbps LAN Bridge, or retrofit their current ThickLAN connections with new ThinLAN hardware. Your HP sales rep can help you decide which option is best.

Ordering information

Product No.	Description
	MPE V systems. Includes ThinMAU and BNC "T" connector. Must select one processor option.
Opt. 242	Substitutes ThickLAN product (also known as LAN3000/V - 30242A). Includes ThickMAU, six-meter AUI cable, and tap.
Opt. 100	For HP MICRO 3000, MICRO 3000/XE, and Series 37
Opt. 300	For Series 39, 40, 42, and 52
Opt. 400	For Series 44, 48, and 58
Opt. 500	For Series 64, 68, and 70
36923A	ThinLAN 3000/XL Link for MPE XL systems. Includes LANIC, ThinMAU, BNC "T" connector, and connector cover. Must select one processor option.
Opt. 242	Substitutes ThickLAN product (Also known as LAN3000/XL, 36921A). Includes ThickMAU, six meter FEP AUI cable, and tap.
Opt. 300	For Series 930
Opt. 400	For Series 950

Contact your HP sales rep for more information.

HP 3000

HP 700 terminals supported on HP 3000s

With the introduction of the new HP 700 family of terminals in September, HP 3000 MPE systems can be offered at even more competitive prices. Not only is there a \$500 list price reduction, but there are additional features with the HP 700192 terminal such as 80- and 132-column viewing modes, storage of up to 8 pages of display memory, and 16 function keys.

HP 3000 MPE VIE support for the HP 700192 and 700194 terminals include support as a console and as a workstation on UB-Delta-4 MIT. The complete HP 3000 MPE VIE computer line - from the Series 37 to the Series 70 - support these terminals as workstations. The HP 700192 terminal is the supported console on all HP 3000 systems (including the HP MICRO 3000XE) *except* the HP MICRO 3000. This decision was made due to the HP 700192 terminal not passing certain government regulatory requirements when tested with the HP MICRO 3000.

Support for these terminals on MPE XL systems will occur second calendar quarter 1988.

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Technical Computers

General

HP Technical VAB Conference a success

One hundred and ten representatives from HP's value-added businesses and 109 HP value-added sales reps attended the third annual HP Technical Value-Added Conference, held September 21-25 at the Steamboat Sheraton, Steamboat Springs, Colorado.

The theme this year was "Mountain Rendezvous: Sharing Strategies for Success." HP views the conference as a forum for HP marketing to inform HP value-added businesses and value-added sales reps of what we're planning, to listen to their inputs regarding our directions, and to provide an opportunity for vendor-to-vendor sharing.

Highlights of the week in Steamboat Springs included:

- C.W. Metcalf leading sales reps and district managers in ways to deal with the tensions caused by high rates of change

A variety of presentations by HP marketing managers, designed to keep VAB vendors up to speed about where HP is going in the near future

- Mack Hannon describing the rationale behind "Consultative Selling;" David Flegal describing strategic planning; and Carolyn Morris sharing information needed to plan for growth in a small company

- 25 workshops and 19 special-interest sessions that produced reams of information in specific areas that attendees chose to know about in more depth.

VAB conference participants rated the conference organization 4.76, and

usefulness of content 4.48 on a 1 to 5 scale (5 being very useful).

Planning for next year's conference has already begun. The goals are to improve the content, increase the number of opportunities for workshop participation, and allow more open time for free interaction between participants.

General

HP TODAY moves towards internationalization

HP TODAY, the advanced fourth-generation language (4GL) available for HP 9000 computers running HP-UX, has taken a first "giant leap" toward internationalization.

A team effort by two HP entities, the Taiwanese Localization Center (TLC) and the Australian Software Operation (ASO), has modified HP TODAY to support application development using 16-bit Chinese characters. Despite the apparently impossible schedule for a project of such scope, hard work by the entire team brought it to completion within the allotted time. The decision to localize was driven both by market projections and current customer demand.

Support for Asian terminal and printer

HP Taiwan manufactures the Asian Vectra and Asian printer for the Far East market. Since that local market also had a strong demand for a powerful 4GL, the approach was made to ASO to commence a localization effort.

At the time, a decision to align HP TODAY with the local hardware had an

element of risk, in that there was no guarantee of the market acceptance of the Asian Vectra or printer; but now the decision has been vindicated. Gary Gujral, Business Systems Sector Manager in Far East Asia headquarters, has announced, "The approach to use the Asian Terminal Behavior and Asian Printer Command Language as the standard for localization interfaces in the Far East means that in addition to Chinese language support, it will be very easy to support other Asian languages such as Korean, Thai, Japanese Kanji, and Indonesian."

Users call for localization

Perhaps a stronger pressure for the localization decision was the demand from current major Asian accounts, spearheaded by DGT. DGT is responsible for government-run telecommunications in Taiwan.

The local HP sales team was developing a long-term relationship with DGT. At their request, ASO demonstrated the English language current version of HP TODAY. The results were quick and impressive.

DGT ordered two HP 9000 Model 840 computers, with HP TODAY as the software development environment to run on those machines.

- DGT indicated that they would purchase several additional systems if HP TODAY were to be localized. Hardware leveraged could run into the millions.
- Additional major accounts of HP Taiwan (HPT), directly influenced by the DGT decision, also purchased HP TODAY, and HP 9000 Series 840 computers on which to run it (e.g., Chung-Shiau Institute of Science and Technology). Indications were that a localized version of HP TODAY would significantly increase the amount of hardware leveraged.

On the basis of the strong customer response, HP Taiwan and ASO decided

on a team effort to enhance HP TODAY to handle the Chinese 16-bit characters, and the resulting modifications to HP TODAY have more than satisfied the particular customer requests. This project was so successful, and in such a short time frame, that we are now investigating extension of these capabilities to provide full NLS stage 4 localization.

Major exposure

Meanwhile, the Chinese-character HP TODAY was successfully demonstrated at a major conference in Hong Kong to 400 HP personnel and visitors from 16 countries.

This enhancement to HP TODAY has certainly stimulated interest in those countries requiring 16-bit localization. For instance, major customers in both PRC and Korea are already pressing local HP management to organize localization in their countries. A localized HP TODAY clearly has the potential to open much wider markets for developers for minimum investment.

The move toward internationalization is just the latest in an on-going series of successful growth for HP TODAY. For instance, the current release showed an averaged three-fold performance increase over the first release. We are committed to on-going product improvement, and official announcement is anticipated shortly of the next release of HP TODAY. This release is projected to include several significant enhancements most requested by our customers and business partners. For more information, please contact your HP sales representative.

General

EE DesignCenter new products and enhancements

Announcing enhancements, new products, and new platform support for the electronic-design automation tools of HP DesignCenter. HP DesignCenter is Hewlett-Packard's broad line of product development tools for electronic, software, and mechanical design, manufacturing, and test. These tools, running on the range of industry-standard HP technical computers, can flexibly fit into multivendor CAE/CAD strategies as well as coexist with installed computing environments.

HP Electronic Design System

New and powerful improvements have been made to the Design Capture System (DCS) of the HP Electronic Design System, with color graphics being the most noticeable. Users can choose among 16 colors to paint components, nets, shapes, and pins. In addition, support of multiple power and ground planes has been added as well as the capability to draw full ANSI-standard symbols and schematics. This should be of real benefit to military/aerospace users. Other enhancements include rubber-banding and orthogonal routing of wires.

For hierarchical designers, new, on-the-fly symbol creation has been combined with HP's unparalleled bottom-up design capability to facilitate rapid systems design. And lastly, a much improved user attribute system has been integrated to allow important manufacturing, engineering, and test data to be tied to design elements. These features, combined with many other enhancements, will make DCS 3.0 a superior design tool.

HP Printed Circuit Design System (HP PCDS)

A new link between HP PCDS and HP ME Series 10 adds a significant advantage to HP DesignCenter. Designers

can start a layout by transferring board blanks and critical parts placement from HP's ME Series 10. Mechanical engineers can continue product design while layout progresses. Then, the completed layout can be transferred back to HP ME Series 10 for complete documentation, including dimensioning and annotation.

New EE DesignCenter products

- *EDS/16500A CAE Link* – Transfers data between the HP Electronic Design System and the HP 16500A Logic Analysis System to bring real-world measurements into a simulated environment.
- *Simulation Data File Compurator* – Compares measurements made by the HP 16500A and the HILO-3® Logic Simulator, which is an integral part of the HP Electronic Design System.
- *Bidirectional EDIF 200 Schematic Interface for the HP Electronic Design System* – With the multitude of CAE/CAD tools available today from different vendors, this link provides users with an open system that can coexist with installed tools.
- *HP PLD Design System* – New system that automatically fits complex designs into devices (see following article).
- *HP Design Data Controller (HP DDC)* – Contains the data-management features previously found in HP Design System Manager (HP DSM). HP DDC will provide a common means of data management for HP's electronic design automation tools as well as eliminate data management using HP-UX. HP DSM will still contain the user, application, network, and resource management capabilities. In addition, HP DSM

will be incorporated with the HP Electronic Design System.

New platform support

- Support of the HP 9000 Series 800 Precision Architecture systems for the HP PCDS Autorouter Module, HP Design System Manager, and the HILO-3 Simulator in the HP Electronic Design System.
- Substantial price/performance improvements can be gained with new workstation and graphics hardware:
 - HP 9000 Model 319C+ workstation
 - "CH" displays and the Interger-Based Graphics Accelerator.

For additional details, contact your HP sales rep.

HILO-3® is a U.S. registered trademark of GenRad, Inc.

General

New HP PLD Design System

Announcing the HP PLD Design System, a development system that automatically fits complex designs into PLDs (programmable logic devices) from a variety of vendors and, if necessary, partitions designs into multiple devices.

Engineers focus on design rather than device selection using features such as graphical, interactive user interface; multiple design editors and debuggers, including an HP-exclusive waveform editor; device-independent PLD design with automatic design partitioning; comprehensive PLD library; and automatic test generation.

As part of HP DesignCenter, this HP-developed system is available on the

full range of HP 9000 Series 300 workstations.

Without considering the target device, engineers enter designs with schematic symbols, graphical state diagrams, truth tables, waveforms, or Bouillon equations. Designs can also be captured with the HP Electronic Design System and transferred to the HP PLD Design System.

PLD debuggers specific to each design-entry method are tightly integrated to quickly verify PLD designs at the same level of abstraction. Engineers can also automatically generate HILO-3 models of designs, and transfer the models to the HP Electronic Design System for more thorough simulation of printed-circuit-board designs containing PLDs.

The HP PLD Design System automatically selects the most appropriate PLD – or multiple PLDs – based on pin count and generates a fuse map. Users may also limit the system's choice of devices. When a complex circuit cannot be loaded onto a single device, the HP PLD Design System automatically partitions the circuit into more than one PLD.

The modular software allows users to configure a system to meet specific requirements, from an entry-level system without CAE tools to a system with CAE tools, as well as all the available modules.

HP PLD Design System has been available in Japan for about one year, and has been strongly accepted. U.S. trade-press editors enthusiastically reviewed this product beginning February 1, 1988. This product is included in the electronic design automation brochure (PIN 5954-6623) and a data sheet (PIN 5954-6625). Contact your HP sales rep for copies of this literature or for more information about HP PLD Design System.

General

HP EGS to coexist on HP-UX disc

The HP Engineering Graphics System (HP EGS) family of products has been updated to run on Pascal 3.2. A major benefit is the capability to coexist with HP-UX applications on a common disc.

Approximately two minutes are required to reboot either HP-UX or HP EGS when doing a file transfer between the two operating systems. However, because the HP EGS bundle contains only a Pascal operating environment (not a complete operating system), users who want to take advantage of this HP-UX Hierarchical File Structure must purchase a complete Pascal operating system (98617A).

The latest version of HP EGS (3.0) includes an improved connection lister for printed-circuit boards, improved connection list compare utility, and three new commands: SMOOTH, SET-OFF, and DUMP graphics. The new printed-circuit-board connection lister dramatically reduces required memory, with no degradation in speed.

The SMOOTH command implements cubic and b-splines. SETOFF enables users to add an internal or external border around closed figures. The larger or smaller duplicate component is offset from the original by a user-specified amount. The DUMP command makes it easy to dump an HP EGS screen to an HP LaserJet printer, the new color PaintJet printer, or an SRM printer.

The HP EGS family of products now running on Pascal 3.2 are listed here,

and all are now available on 3½-inch discs in double-sided format.

EGS products on Pascal 3.2

Product No.	Description
74305A	Rev. 3.0 Modular Standard HP EGS
74307A	Rev. 1.1 Hybrid Circuit Design Module
74308A	Rev. 3.0 Modular High Performance HP EGS
74309A	Rev. 3.0 Modular HP Vectra PC HP EGS
98305A	Rev. 3.0 Bundled Standard HP EGS
98310A	Rev. 1.4 Photoplotter N/C Drill Utility
98311A	Rev. 2.1 IGES Translator
98819A	Rev. 1.3 HP TechWriter

Revised sales literature for HP EGS includes a glossy, four-color brochure (PIN 5954-9411) and black-and-white data sheet (PIN 5954-9414).

General

HP EGS available on HP Vectra PC

Users can now get all the functionality of HP's Engineering Graphics System (HP EGS) on an HP Vectra PC. HP EGS runs on the HP Vectra PC with a Pascal Language Processor, HP 82310A, consisting of a language-processor board with 512 Kbytes of RAM, and a tuned version of the Pascal 3.2 operating system.

For cost savings and ease of ordering, we recommend the 82315B, PC-308CL hardware bundle. This bundle consists of the following:

- HP Vectra ES/12 PC with a 12 MHz 80286 processor
- Pascal Language Board with ½ Mbyte of RAM

- 3½-inch 1.44-Mbyte flexible disc drive
- Internal 20-Mbyte hard disc drive
- Enhanced Graphics Adaptor
- 12-inch Enhanced Graphics Display
- HP-IB interface
- Serial/parallel port
- HP Vectra PC DOS and PAM

To complete the hardware picture for HP EGS applications, users will need to order 1½ Mbytes of RAM, a mouse, and an ID Module. Hardware/software order specifics are as follows.

Ordering information

HP Vectra PC HP EGS files can be shared on either an SRM or an OfficeShare network. As with all other versions of HP EGS, the necessary Pascal operating environment is bundled with, and included in the price of, HP Vectra PC HP EGS. It is not necessary for users to buy a full Pascal operating system, except for those who want to store their HP EGS files on an HP-UX disc.

HP 1000

Announcing QDM/1000 5.0

Announcing the newest version of QDM/1000, Release 5.0. QDM users will notice that the manuals have been restructured for more logical information organization and flow. This is an enhancement that has been requested by many current users. Also, several bug fixes have been incorporated into Release 5.0, making this release the cleanest version yet.

But the main feature of 5.0 is that the software has been totally restructured to be localizable. Until now, the localization of QDM was so difficult that only two countries (Germany and Holland) bothered to create local language versions of the software for their clients. In 5.0, HP has split out user messages from the code and placed them in files where they can be easily localized. And RTE's new Native Language Support (NLS) capability has been fully utilized to make other localization tasks easier and faster for Hewlett-Packard Software Products Organizations (SPOs). SPOs or local software houses interested in taking on the localization task should contact their HP sales rep for information concerning the QDM localization kit.

HP 9000

New HP 9000 Series 500 RAM configurations and options

The HP 9000 Series 500 computers have used the 97046A as both standard RAM within the system and in Option 246, which adds 2 Mbytes RAM (2x1-Mbyte boards). This was true for the

base systems (9020A/B/C, 9050A) as well as the bundled systems (9020AS/AT, 9050AM/AT). Only the 9060AM was originally shipped with 1x2-Mbyte boards (97048A) as standard.

As of September, 1987, the 9020C and all 9050 systems have been shipping with the system RAM based upon the 97048A 1x2-Mbyte board. Additionally, an option for add-on RAM (97048A) has been added to the 9050A/AM/AT as Option 048.

The 9050A/AM/AT Option 246 remains on the HP Price List. Starting in February, 1988, this 2x1-Mbyte product (97046A) will be replaced with a 2x1-Mbyte product (97046B) based upon a "half-loaded" 97048A, essentially a "fit and function" replacement. This change will greatly improve availability and reduce shipping delays.

The 9020A/B/AS/AT systems will also experience RAM changes as of February, 1988. The standard system RAM (97046A) will be replaced with the 97046B RAM, retaining the 2x1-Mbyte board format. Two new options will be added to each of the 9020-based systems: Option 048 adds 1x2 Mbytes RAM (97048A); and Option 200, a no-charge option that converts the standard system RAM (97046B) to 1x2 Mbytes RAM (97048A). Option 200 is not applicable to the 9020C.

The standalone HP 9000 Series 500 RAM product, 97046A, will be discontinued and replaced with the new RAM product, the 97046B. The options associated with this RAM product and its list price will not change.



HP 9000

HP 9000 Series 500 discontinuance plans

The HP 9000 Series 500 product is nearing the end of its product life cycle. In light of the HP Precision Architecture workstations and super-mini computers available as alternative systems, plus the new upgrade programs allowing current HP 9000 Series 500 owners to move up to these precision-architecture systems, we have determined to discontinue the remaining Series 500 products over the next calendar year.

The current 9050-based systems, the 9050A, 9050AU, 9050AM, 9050AT, and the 9060AM, will be discontinued and removed from the HP Price List July 1, 1988. This results in only the 9020A/B/C/AS/AT being the remaining available HP 9000 Series 500 computers.

While the 9020-based systems will remain on the HP Price List somewhat longer than the 9050, current plans call for its formal discontinuance announcement in July, 1988, and effective on the January 1, 1989, HP Price List.

In the interim, a price increase of approximately five percent is expected to be implemented on the April 1 HP Price List.

HP 9000

Update on open-system tools for HP 9000 Series 800

The HP 93300R Driver Development Toolkit. Driver Sources Licensee Pack*, and HP-UX Source Code Product* are powerful open-system tools designed to greatly aid users' development efforts, and are now available for the HP 9000 Series 800. Models 825S, 840S, and 850S.

The HP 93300R Driver Development Toolkit provides an extensive set of tools to develop drivers for non-supported devices, modifications of existing drivers, and debugging of modified operating system code. The tools include the following.

- Driver Packs – Sets of Channel I/O (CIO) driver sources along with "skeleton" (or fill-in-the-blank) drivers. Users can adapt the source code of these drivers to meet the special requirements of their application. The drivers included are (at HP-UX release 1.1):
- Asynchronous FIFO Interface Logical Device Manager
- Asynchronous FIFO Interface Device Adapter Manager
- HP-IB Instrument Device Adapter Manager
- HP-IB Instrument Logical Device Manager
- Diagnostic Driver
- "skeleton" Device Manager/Device Adapter Manager
- "skeleton" Logical Device Manager

These are HP-only code drivers. AT&T-based drivers are described below.

Symbolic Driver Debugger** – Supports debugging of the resulting object code after a driver has been adapted from among the drivers in the Driver Packs and compiled. The Symbolic Driver Debugger can also be used to debug modified kernel code.

- Driver Environment Simulator – Simulates the environment of a CIO driver within HP-UX on the HP 9000 Series 800 target system. Thus, the driver can be debugged and tested before the interface card is developed, and the debugging and testing are done without requiring that a complete system be dedicated to only that activity.

The HP-UX Driver Sources Licensee Pack contains all of the HP-UX drivers that include AT&T-derived code. The drivers included (at release 1.1) are as follows.

- HP-IB Disc Monolithic Manager
- Renaissance Interface Graphics driver
- HP-IB Interface Printer Logical Device Manager
- Ciper Printer Device Manager
- Amigo Printer Device Manager
- Multiplexer Monolithic Manager
- HP-IB Interface Magnetic Tape Logical Device Manager
- Magnetic Tape Device Manager

The HP-UX Source Code product is available to technically sophisticated users who need to gain deeper understanding of how the operating system works, with the potential of providing their own support of the software; customize the operating system to meet specific needs; and meet particular requirements of the U.S. Government and other official entities.

The HP-UX Source Code Product contains the kernel, commands, libraries.

and diagnostics for HP-UX, as well as an HP-UX theory of operations manual and an HP-UX Source Code Product User's Manual. Since the kernel contains all the drivers, a user need not order the HP-UX Driver Sources Licensee Pack if they purchase the HP-UX Source Code Product.

Ordering information

Product No.	Description
93300R	Driver Development Toolkit
93300RA	Subsequent purchase of 93300R, including hardware
93300RU	Subsequent purchase of 93300R, software only
	Series 800 HP-UX Source Code Product*
	Subsequent purchase
	Update to Series 800 HP-UX Source Code from Series 300 Source Code*
	HP-UX Driver Sources Licensee Pack*

* To preserve HP's reputation with our users and to assure user satisfaction, we are qualifying users who want to purchase source code. A key prerequisite is the purchase of a source code license for AT&T System V, Release 2, Version 2, or a later release. Contact your HP sales rep for more information.

** The Driver Debugger Program runs on a separately purchased Series 300 system. An HP 93562C Parallel Interface Card and cable are provided with the toolkit for connection to a Series 300 via a separately purchased HP 98622A GPIO card.

HP 9000

HP 9000 Series 500 to Model 825SRX upgrades

Upgrade paths are now available for users wishing to upgrade their HP 9000 Series 500 computer to the Model 825SRX. These additional upgrade and return credit products complement the

existing Series 500 to Series 800 multi-user upgrade products implemented on the July 1, 1987, HP Price List.

Series 500 SPU credits can be ordered as options to the A1005A (825SRX) product. Other Series 500 system components such as RAM, extra CPUs and IOPs, graphics subsystems and operating systems may also be returned for credit when their stand-alone, "N"-suffix return-credit products are ordered with the Model 825SRX.

The user's Series 500 SPU and components being upgraded must be returned to HP.

Contact your HP sales rep for more details on configuration and ordering.

HP 9000

Ada on the HP 9000 Series 800

The Ada programming language is now being required more often on U.S. government RFPs and by large government contractors serving the aero/defense marketplace. With the aerospace and defense industries as one of our focuses, HP recruited Irvine Compiler Corporation, (ICC of Irvine, California) to port their Ada compiler onto the HP 9000 Series 800.

ICC has specialized in embedded systems applications since 1982. They have won numerous contracts (after other compilers have been selected) because their compiler produces much better code and requires less system memory. Their Ada compiler has been used in production versions of the F-16, F-18, F-20, Fokker 100, and Beech Starship. Very few, if any, Ada suppliers can say their compiler has flown in an aircraft in production.

Ada for the HP 9000 Series 800 is available now. Validation is planned for the first quarter of 1988. A derivative of this compiler has already been validated

for the AT&T 3B2 and the Gould 32 Series. ICC is also currently validated for the HP 9000 Model 320. Therefore, the user can have the same front end for both the Series 300 and Series 800. Feedback from the SEMC, a potential customer in Europe, and one in the U.S., have all confirmed that the ICC Ada compiler on the Series 800 has very fast compilation and execution times.

Background

Ada was developed specifically for the Department of Defense (DoD) to meet their high-order language requirements for embedded computer systems applications. Embedded computer systems comprise the single largest category for DoD software expenditures. Currently, embedded systems software account for over half of the entire budget.

Ada has been designed to be part of a comprehensive software engineering environment that will enhance the productivity of programmers. The Ada Programming Support Environment, APSE, is the software environment that supports the development and maintenance of Ada applications throughout its life cycle. Ada has been designed with the hooks in place to support a variety of tools to improve programmer productivity and software portability. Typical tools in an APSE are program database(s), pretty printer, revision control system, language sensitive editor, debugger (analyzer), configuration management, etc. The benefits for standardizing on one language for large embedded systems projects are productivity increases, portability, and lower lifecycle costs. Finally, with a standard language, a support environment, and a large market, software developers will be motivated to make their products available in the APSE.

PRODUCT NEWS

HP 9000

Ada tools and environments

With our recent progress with Ada on the HP 9000 Series 800, we were also fortunate in porting a number of tools that complement Ada and other compilers. Software Systems Design, Inc., of Claremont, California, has a number of products they call "The AISLE and ADADL Family of Software Tools."

These products are in various stages of support on the HP 9000 family of computers (both Series 300 and 800). The list of products and capabilities are as follows.

Product	Description	Availability
ADADL	Ada-based Design And Documentation Language — Ada-based program design language (PDL) that reduces software development costs.	Now
DocGen	Automatic DoD or MIL-STD Document Generator. Satisfies DoD-Std-2167A requirements.	Now
TestGen	Ada Design and Code Testing Tool	Now
GrafGen	Graphical Ada Design System	January 1988
ASE	Ada/ADADL Syntax Directed Editor	January 1988
ARIS	Ada/ADADL Requirements Interface System	TBD
AIEM	ADADL Integrated Environment Manager for on-line design debugging and analysis	June 1988

Note: AISLE = Ada Integrated Software Lifecycle Environment.

Contact your HP sales rep for more details.

HP 9000

Standard networking for BASIC and Pascal workstations

HP has signed NRC to provide FUSION Network Software TCP/IP to the HP 9000 Series 200 and 300 workstations operating under the BASIC and Pascal language systems. FUSION will provide HP scientific-workstation users advanced LAN communications capabilities and access to other computer systems that support the TCP/IP protocols (i.e. HP 9000 HP-UX computer systems), over an IEEE 802.3/Ethernet local area network.

FUSION Network Software includes a complete set of TCPIIP protocols, which have been tested for compliance with the DDN/DARRA Internet Protocol specifications. The services provided for the FUSION product will include a file transfer capability, (FTP - File Transfer Protocol) and virtual terminal (TELNET).

NRC will be porting FUSION Network Software to the HP 9000 BASIC/Pascal language systems. NRC will distribute the HP-based FUSION Network Software directly and will be an HP listed product. This version of FUSION Network Software is expected to be available in mid-1988.

For more information, contact your HP sales rep.

HP 9000

Latest revision of BASIC available in ROM as well as RAM

BASIC 5.1, the latest revision of BASIC, is available as a ROM-based product as well as RAM-based. ROM-based BASIC (PIN 98603B) can be used in harsh environments where a Winchester disc or floppies would not survive or not be convenient. This includes applications such as production test and factory-floor data acquisition and control. ROM makes system loading faster, installation easier, and provides the capability to withstand the effects of dust, grit, and vibration.

The RAM-based version, HP 98616A, will be included in all Series 200 and 300 BASIC bundles in late March. This latest version of BASIC adds support for new peripherals such as the HP PaintJet printer, the Catseye graphics boards, the HP 319C+, or the VMEbus Adapter. Also, the Compiled Subprograms (CSUB) Utility for BASIC 5.0 has been revised to handle complex number and I/O path name parameters. Both ROM- and RAM-based BASIC provide the same functionality except that due to the lack of slots, ROM is not supported on the HP 319.

Features	Benefits
ROM version available	Packaging for harsh environments
Defects (mostly HFS) repaired	No known software failures due to bugs
Supports HP PaintJet printer	Graphics dump to low-cost printer
RAM 5.1 supported on HP 319C+	Low-cost color configuration available
Supports 98548A/98550 graphics boards	Faster hi-res displays available
Supports VMEbus Adapter	VME Interface (HP 98646A) available
CSUBs support complex numbers and I/O path names	Use complex #'s and (α) name parameters

Please note that BASIC 5.1 does not contain support for the SCSI interface available with the HP 319C+, nor does it support the new VMEbus Adapter (98577A).

Product structure

Product No.	Description
98603B	Rom-based BASIC 5.1 for Series 2001300
98616A	RAM-based BASIC 5.1 for Series 2001300
98616-11X40	BASIC 5.X Compiled Subprogram Utility (CSUB) for BASIC 5.015.1
98616-17X40	BASIC 5.X CSUB Upgrade for BASIC 5.0/5.1

As shown in the features and benefits table, the CSUB Utility has been

Support matrix

Model	200	310	320	330	350	318M	319C +
RAM BASIC 5.1	Y	Y	Y	Y	Y	N	Y
ROM BASIC 5.1	Y	Y	Y	Y	Y	N	N
HP PaintJet printer	Y	Y	Y	Y	Y	N	Y
98548A	N	N	Y	Y	Y	N	*
98550A	N	N	Y	Y	Y	N	*
VME-98646a	Y	Y	Y	Y	Y	N	N
CSUB Uti15.X Rev	Y	Y	Y	Y	Y	N	Y

* Uses built-in "Catseye" graphic board

revised and now supports complex numbers and I/O path name parameters. The part number and price of that product and the CSUB Upgrade have not changed and both will be available in late March. The BASIC 5.X CSUB products are compatible with ROM and RAM BASIC 5.0 and 5.1.

All users who have purchased Support Services will be updated prior to shipment, as per their support contracts. They will be the first users to receive the new BASIC 5.1 product.

Users should be aware of the performance considerations when using a ROM-based system. Users should not expect the HP 330 or 350 with ROM to outperform as HP 320 with RAM-based BASIC

Personal Computers

General

Update on HP NewWave Developer's Conference

Commercial VARs should update their calendars to attend the one-day HP NewWave Developer's Conference on March 16, following the annual VAR conference at the Fairmont Hotel in San Jose, California. See article on page 1 for more information about the VAR Conference. Don't miss this opportunity to learn about our Developer Program for integrating your software into the HP NewWave environment, a truly advanced environment that moves beyond standard DOS capabilities.

Special presentations by key executives and industry leaders will focus on how VARs can increase their business opportunities with HP NewWave environment. The agenda for this special day includes (but is not limited to):

A demonstration of NewWave by Bob Frankenberg, general manager, Information Systems Group

A discussion of Personal Computer Platforms by Bob Puette, general manager, Personal Computer Group

- A presentation by a special industry consultant
- A workshop about NewWave Marketing by Mary Chin, marketing manager, Personal Software Division
- A workshop about Technical Aspects of NewWave Development by Phil Sakakihara, R&D manager, Personal Software Division

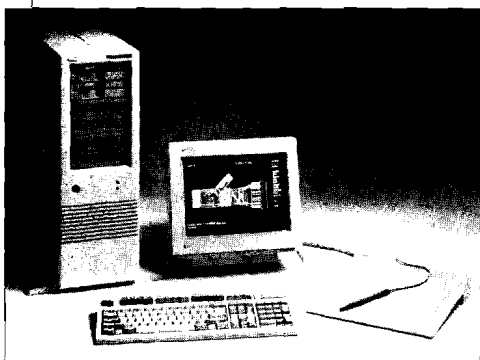
Registration for conference attendees will begin at 6:00 p.m. on Tuesday, March 15, and a detailed agenda will

be available at that time. HP will host cocktails and hors d'oeuvres that evening, providing commercial VARs some time to talk with factory representatives about how HP NewWave environment can enhance their products and increase their sales. The conference begins the next day, March 16, at 8:30 a.m.

If you have any questions about the HP NewWave Developer's Conference, please contact your HP sales rep.

Desktop

HP Vectra RS PC is now orderable



The HP Vectra RS Series of PCs will be on the February 1 HP Price List. The HP Vectra RS PCs are the flagship members of the HP Vectra PC product family – providing superior performance for today's personal-computer needs. Using the Intel 80386 microprocessor and HP high-performance disc drives, the HP Vectra RS/20 and RS/16 PCs have the power and expandability that make them ideal for demanding applications such as CADI CAE, LAN servers, and multiuser systems. These floor-mounted PCs have the flexibility to be used in multiuser

office environments as well as advanced single-user business and technical environments.

This article highlights critical information about the HP Vectra RS PC, key components and subsystems, positioning, and target application areas. Information regarding pricing and RS literature is also included.

Key components and subsystems

The superior performance of the HP Vectra RS PC results from the careful integration of key components and subsystems. Three such elements include the microprocessor architecture, the memory subsystem, and the mass storage subsystem.

▪ **Intel 80386 microprocessor** – The Intel 80386 microprocessor, standard on the RS/20 and RS/16, is the most powerful microprocessor in the PC industry. It has the highest performance and the greatest functionality of any processor in the Intel family. The 80386 provides much greater performance than its 80286 predecessors and is backwards compatible with the large installed base of MS®-DOS application software. The Intel microprocessor also has new modes that support multitasking for today's MS-DOS software. Finally, the microprocessor will run OS/2 and be compatible with the applications developed for it.

▪ **Memory subsystem architecture** – The HP Vectra RS PC uses interleaved page-mode memory architecture. Interleaved page-mode memory architecture is a fast memory subsystem that approaches the performance of the more expansive cache-based system.

In addition, the Vectra RS PCs support LIM EMS 4.0, the most recent expanded memory specification. Applications that support this specification can break the 640-Kbyte memory restriction imposed by MS-DOS.

▪ **Mass storage subsystems** – The ESDI disc controller, high-performance HP

disc drives, and disc catching software have been designed to complement the fast 80386 microprocessor. The Enhanced Small Disc Interface (ESDI) and cache software increase the effective throughput from the disc controller to the disc mechanism. The high-performance, high-capacity drives, manufactured by HP, are among the fastest in the PC industry – the drive mechanism features an average seek time of 17 milliseconds.

HP Vectra RS PC users

The HP Vectra RS PCs are attractive choices for both existing and emerging markets. Potential users may include:

- Current 80286-based PC users who need higher performance
- Users who need additional expansion capability, especially for mass storage
- Users who value performance and/or expandability but not at the expense of desk space
- Users who can perform their current mini/mainframe applications more efficiently and cost effectively on an industry-standard PC
- Users who feel that high quality and reliability are as important as the power the HP Vectra RS PC delivers.

Differentiating factors

The differential advantages of the HP Vectra RS PC fall into several basic areas: power, completeness, and quality and reliability. The emphasis of each of these product attributes will vary when selling against one competitor or another.

▪ **Power** – Power is defined as performance plus expandability. In terms of performance, the HP Vectra RS PC has 20 MHz models and up to 620-Mbyte 17ms hard-disc mass storage capability. The HP Vectra RS PC series is also expandable: eight AT-compatible I/O expansion slots, 620 Mbytes in six half-height mass storage shelves, 330W peak power supply, and a floor-mount design. The combination of microprocessor speed with

built-in expansion capability gives the HP Vectra RS PC a clear advantage

over competitors. With specific vendors who have particularly high-performing 80386 machines, attention should be focused on the expansion capability of the HP Vectra RS PC.

▪ **Completeness** – The HP Vectra RS PC is designed for completeness and contains items in the basic product offering that are not standard in the industry. Such items include LIM 4.0 Expanded Memory Support, terminal emulation software, disc cache software, 80387 coprocessor support, and "Shadow RAM" for improved video performance. The HP Vectra RS PC is compatible with the Weitek 1167 floating-point accelerator. Completeness can also be defined in terms of a system or solution. The HP Vectra RS PC may be the foundation of a complete HP solution involving the broad range of HP personal computer and peripheral product offerings.

▪ **Quality and reliability** – There is a lot more to creating a high-performance, quality system than putting together components. HP spends significant amounts of engineering resources to ensure compatibility and the highest possible systems performance and reliability of integrated components.

HP Vectra RS/20 power user PC system

The HP Vectra RS/20 power user PC (1606A) is the ideal model for consignment units. This model is a complete system that demonstrates the powerful solutions that a premium RS/20 system can provide. The unit, including such components as an 80387 numeric coprocessor, a 103-Mbyte ESDI hard disc, and a 40-Mbyte tape backup mechanism, is preconfigured in a broad range of optimum performance in a broad range of applications and environments. The demonstration model is also easy to order. One number gets it all. (Please see the "HP Vectra RS PC configurations" article for a detailed configuration list). The HP Vectra RS/20 power user PC is an exciting premium performance unit that is highly recommended for all consignment purposes.

The HP Vectra RS series PCs are the performance and expansion flagships of the HP Vectra PC product line. The dominant usage for these PCs will be traditional, personal-productivity application areas where there are performance and/or expansion limitations on current systems. The high raw processing power of the 80386 has made the HP Vectra RS PC a product that can also be substituted into markets that have not traditionally used Intel-based PCs. Whatever the need, the HP Vectra RS PC systems have the power, flexibility, and expansion capability to meet user requirements — now and in the future.

For more information about the HP Vectra RS PC, refer to the following RS literature.

Lit. No.	Description
5956-4316D	HP Vectra RS PC configuration guide
5956-4320D	Revised HP Vectra RS PC data sheet
5956-4319D	Windows 386 data sheet

Desktop

HP Vectra RS PC configurations

The Vectra RS PC series can be ordered in a variety of configurations. The following article includes information regarding the Vectra RS/16, Vectra RS/20, and one preassembled system.

Product No.	Description
D1500A	HP Vectra RS/16 PC Model 40 – includes 16 MHz 80386 processor, 1 Mbyte system memory, one 5%-inch 1.2-Mbyte flexible disc drive, and a 40-Mbyte ST-506 hard disc, hard disc controller, flexible disc controller, serial, parallel, and HP-HIL ports, HP Expanded Memory Manager/386, HP Terminal Program, the Enhanced Vectra PC Keyboard, and system documentation

Each of the following RS/20 models includes a 20 MHz Intel 80386 processor, hard disc controller, flexible disc controller, serial, parallel and HP-HIL ports, HP Expanded Memory Manager/386, HP Disc Cache, HP Disc Volume Expander/386, system memory, and disc storage.

Product No.	Description
D1600A	HP Vectra RS/20 Model 40 – includes 20 MHz 80386 processor, 1 Mbyte system memory, one 5%-inch 1.2-Mbyte flexible disc drive, and a 40-Mbyte ST-506 hard disc
D1602A	HP Vectra RS/20 Model 100 – includes 20 MHz 80386 processor, 2 Mbytes system memory, one 5%-inch 1.2 Mbyte flexible disc drive, and a 103-Mbyte ESDI hard disc.
D1603A	HP Vectra RS/20 Model 150 – includes 20 MHz 80386 processor 2 Mbytes system memory, one 5%-inch 1.2-Mbyte flexible disc drive, and a 155-Mbyte ESDI hard disc.
D1604A	HP Vectra RS/20 Model 300 – includes 20 MHz 80386 processor, 2 Mbytes system memory, one 5%-inch 1.2-Mbyte flexible disc drive, and a 310-Mbyte ESDI hard disc.
<i>Preassembled system – this unit offers a complete system in one product number.</i>	
D1606A	HP Vectra RS/20 Power User PC – includes Vectra RS/20 PC with 4 Mbytes system memory, 103-Mbyte ESDI hard disc, three serial/one parallel port, 80387 numeric coprocessor, EGA card and monitor, 40-Mbyte Tape Backup Mechanism, 1.2-Mbyte 5%-inch flexible disc drive, 1.44-Mbyte 3½-inch flexible disc drive, flexible disc expander, HP Mouse, Vectra DOS 3.2, and Microsoft Windows 386 Presentation Manager.

Desktop

HP Vectra RS PC accessories now orderable

Several accessory products are orderable on the February 1, HP Price List that further enhance the power and capabilities of the HP Vectra RS/16 and Vectra RS/20 PCs. These products include memory-expansion products and math coprocessors for the HP Vectra RS/16 and RS/20 PCs.

Both 1-Mbyte memory expansion kits and 8-Mbyte memory expansion kits are available. These memory expansion kits, when used in various combinations, allow the HP Vectra RS user to configure systems of 2, 4, 8, 10, and 16 Mbytes main system memory. All of the memory expansion kits use Single In-line Memory Modules (SIMM) rather than the conventional chip packaging. The SIMMs are completely user installable – plugging easily into connectors provided on the HP Vectra RS PC's processor/memory card.

The 1-Mbyte memory expansion kits consist of four 256-Kbyte SIMMs. The 8-Mbyte memory expansion kits use higher density memory components consisting of eight 1-Mbyte SIMMs. Separate memory expansion kits are available for the HP Vectra RS/16 and RS/20 PCs. The memory expansion kits developed for the HP Vectra RS/16 PC use memory components with 100-nanosecond access times, while the kits developed for the Vectra RS/20 PC use faster memory components with 80-nanosecond access times to support the faster 20 MHz processor speed.

In addition to memory products, two coprocessors are available for the HP Vectra RS PCs. A 20-MHz Intel 80387 numeric coprocessor is available for the HP Vectra RS/20 PC and a 16-MHz

Intel 80387 is available for the Vectra RS/16 PC. Installing a coprocessor can substantially enhance the performance of software applications that support them. In a benchmark test using AutoCAD software, an HP Vectra RS/20 PC equipped with an 80387 coprocessor performed the test 4½ times as fast as an RS/20 without a coprocessor (73 versus 330 seconds).

Ordering information

Product No.	Description
D1540A	1-Mbyte memory expansion kit (100ns)
D1541A	1-Mbyte memory expansion kit (100ns)
D1640A	8-Mbyte memory expansion kit (80ns)
D1641A	8-Mbyte memory expansion kit (80ns)
D1570A	16-MHz 80387 numeric coprocessor
D1670A	20-MHz 80387 numeric coprocessor

Desktop

Internal tape backup for HP Vectra RS PC

HP now offers an internal tape backup solution for the HP Vectra PC family. The new product (D1671A) provides 40 Mbytes of formatted data storage on the compact DC 2000 data cartridge. This half-height tape drive connects to the existing HP Vectra PC flexible disc drive cable and power cables. The product also interfaces with the optional flexible disc expander board (D1678A), which enables HP Vectra RS systems to support an additional two – for a total of four – flexible disc interface devices.

This tape drive is the perfect companion for the 40-Mbyte hard disc. and the software utilities provided with the product enable the user to backup and restore the HP Vectra RS 103-Mbyte, 155-Mbyte, and 310-Mbyte ESDI hard discs in a smooth manner. Incremental backups – backing up only those files

that have changed since the last backup – generally may be done on a single 40-Mbyte cartridge even for the 310-Mbyte disc. This feature enables users to backup even the larger disc drives in unattended mode.

The D1671A subsystem contains the following components:

- Tape mechanism with edge connectors and mounting rails that are "plug compatible" to existing HP Vectra PC floppy cables and mass storage cage
- Tape utility software on a 5½-inch 360-Kbyte flexible disc
- Installation and user documentation
- One 40-Mbyte preformatted, certified data cartridge. (HP Direct will distribute boxes of five preformatted, certified data cartridges beginning this Spring.)

The initial product release provides English-language software and documentation. European language options will be released beginning in late Spring, 1988.

The D1671A internal tape drive is supported on the HP Vectra RS/16 and RS/20. Verification testing currently underway will enable HP to support the product on members of the desktop Vectra family this Spring. A complete support statement will be issued at the conclusion of the testing cycle.

The tape drive operates under a variety of operating system and networking environments including MS-DOS Version 3.1 or later, SCO XENIX System V, StarLAN, Novell Advanced Netware version 2.0a or later, 3Com EtherSeries, and IBM Token Ring.

Product No.	Description
D1671A	HP Vectra PC 40-Mbyte internal tape drive
D1678A	HP Vectra PC flexible disc expander

Both products are on the February 1 HP Price List.

Desktop

Expanded memory for HP Vectra ES and ES/12 PCs

For many of today's software applications written for MS[®]-DOS, 640 Kbytes of base memory just isn't enough. Announcing the perfect solution for the HP Vectra ES and ES/12 PCs – the HP Vectra ES expanded memory card.

The HP Vectra ES expanded memory card overcomes the 640-Kbyte barrier of software written to take advantage of the Lotus/Intel/Microsoft Expanded Memory Specification (LIM EMS), the industry standard for expanded memory. With expanded memory, users can store and manipulate large spreadsheets in a single file rather than splitting them into multiple files when the 640-Kbyte limit has been reached. In addition, expanded memory will increase the performance of the HP Vectra PC system when switching between multiple applications under Microsoft Windows.

While fully compatible with the LIM EMS, Revision 3.2, popularized by Intel's Above[™] Board, the HP Vectra ES expanded memory card goes beyond this standard by using the recently introduced LIM EMS 4.0 memory specification.

The new specification runs all of the software supported by LIM 3.2 including Lotus^B 1-2-3[®], Symphony[™], Framework^B, and dBase III[®]. In addition, LIM EMS 4.0 features up to 16 times as many memory swap executable code (computer instructions) as well as data. The benefits of LIM EMS 4.0 are most notable in applications supporting these features such as Microsoft Windows 2.0 for the HP Vectra PC (45954B).

The HP Vectra ES expanded memory card is the most expandable card available from any vendor. A single card can

be loaded with up to 8 Mbytes of Memory. This high memory capacity is achieved by using Single In-Line memory Modules (SIMMs), the latest in memory packaging technology. Because the card plugs into the HP Vectra ES expanded memory slot – included exclusively on the HP Vectra ES and ES/12 PC motherboards – none of the seven standard accessory slots need to be used for memory expansion.

The HP Vectra ES expanded memory card is also among the fastest memory cards on the market today. When installed in the HP Vectra ES/12 PC, the HP Vectra ES expanded memory card runs at 12 MHz with one wait state, further enhancing the HP Vectra ES/12 PC's high-speed performance.

Finally, the HP Vectra ES expanded memory card is like having two memory cards in one. All or part of the HP Vectra ES expanded memory card can be set-up as extended memory for use in operating systems such as Xenix and Microsoft's OS/2.

Ordering information

Product No.	Description
45944A	HP Vectra ES PC expanded memory card
Opt. 001	2 Mbytes of memory installed standard
Opt. 002	4 Mbytes of memory installed standard
Opt. 003	8 Mbytes of memory installed standard
D1354A	2-Mbyte expanded memory upgrade kit

MS[®]-DOS is a U.S. registered trademark of Microsoft Corporation.

Lotus[®], 1-2-3[®], and Symphony[®] are U.S. registered trademarks of Lotus Development Corporation.

Framework[®] and dBase III[®] are U.S. registered trademarks of Ashton-Tate.

Desktop

New family of Vectra Office Software packs

Please note the new Vectra Office Entry software pack, and the recent structure changes for the Vectra Office Professional and Assistant packs. These changes became effective November 1; complete details were outlined in the October issue of *HP Channels*.

New

▪ **Vectra Office Entry Software Pack** – PIN 68306F. Specify Opt. 003 to get the software on 3½-inch discs. Offers a 20 percent savings over purchasing individually. The pack includes: Lotus^B 1-2-3[®], Rel 2.01; Executive MemoMaker; and AdvanceLink. This pack is ideal for the new HP Vectra CS PC and Portable CS families and provides an ideal introduction to HP's PC-based solutions in the Personal Productivity Center. Available on both 5¼- and 3½-inch versions for the HP Portable Vectra CS and IBM PS/2 family.

Restructured

▪ **Vectra Office Professional Pack** – PIN 68300F. Offers a 33 percent savings over purchasing individually. The pack includes: Graphics Gallery Collection, new Version 2.0; Executive MemoMaker; Lotus 1-2-3, Rel 2.01; Executive Card Manager; AdvanceMail; and AdvanceLink.

▪ **Vectra Office Assistant** – PIN 68301F. Offers a 36 percent savings over purchasing individually. It includes: Graphics Gallery Collection, new Version 2.0; AdvanceWrite Plus; Lotus 1-2-3, Rel 2.01; Executive Card Manager; AdvanceMail; and AdvanceLink.

Both the Vectra Office Professional and the Office Assistant packs have been restructured to compliment the new HP

Vectra PC family. The changes are listed below.

- AdvanceLink has been included in both packs. (Previously, it was included in the HP Vectra 3000 PC rather than in the software packs.)

The HP-HIL Mouse has been removed from the packs.

- AdvanceWrite Plus has replaced AdvanceWrite III in the Vectra Office Assistant pack.

Desktop

Lotus bundles new utilities with 1-2-3

Two new add ins for Lotus^a 1-2-3[®], Rel 2.01 – Lotus Speedup and Lotus Learn – will be included in all future 1-2-3 Rel 2.01 packages. Speedup and Learn will also be offered at little or no cost to registered users of 1-2-3.

Speedup allows 1-2-3 users to recalculate only cells whose values have changed since the last recalculation. When updating large spreadsheets containing formulas, this can save a considerable amount of time.

Learn provides an automatic keystroke recorder that makes it easier to create 1-2-3 macros. New users, or those using the 1-2-3 macro facility for the first time, will no longer need to learn the macro language to generate simple spreadsheet macros.

Both Speedup and Learn are available on 5%- and 3%-inch discs and are not copy protected. Lotus will offer the add ins and documentation to current 1-2-3

Rel 2.01 users for a \$20 shipping and handling charge. *All prices and terms are for North America only.* Speedup and Learn will be available through Lotus authorized dealers for a limited time at no charge. The products will also be available through the World of Lotus on CompuServe, free of charge.

For more information about ordering Speedup and Learn, call 617-623-6572.

Desktop

Now available: add-on spell checking for HP Word/PC

HP Word/PC users can now order an upgrade that will add on the popular spell checking feature, bringing the functionality of the product another step closer to that of HP Word on the HP 3000.

In order to upgrade, users must have the current version of HP Word/PC (A.02.00) installed, the PC (HP Vectra or HP Touchscreen) must have a hard disc, and there must be at least 420 Kbytes of unused RAM available when the application is loaded.

The spelling checker is keystroke identical to HP Word/3000, so the user can install and use the feature immediately. American English and British English dictionaries are supplied, and the user can choose to install either or both. The dictionaries are based on the popular American Heritage dictionary, published by Houghton Mifflin Company.

The add-on packs are available for the HP Vectra and the HP Touchscreen PCs. The add-on packs have version number A.02.02.

Ordering information

Product No.	Description
27505-60009	Spell Checking add-on for HP Word/PC on the HP Touchscreen PC
27536-60001	Spell Checking add-on for HP Word/PC on the HP Vectra PC

Please note that proof of purchase is not necessary to order the add on, since it will only work if HP Word/PC A.02.00 has already been installed on the PC.

For further details, please contact your HP sales rep.

Desktop

New HP Vectra PC floorstand

With the new HP Vectra PC floorstand, you can save desk space and still enjoy the power and speed of your personal computer. This accessory gives you the flexibility to customize your HP Vectra PC configuration to meet your individual requirements. This low-cost upright floor stand accessory allows you to store your desktop HP Vectra PC under the desk, but keep your display and keyboard within easy reach on your desk. Your display systems and peripheral devices can be connected as usual to your HP Vectra PC. For more flexibility in locating your floorstand-mounted HP Vectra PC, video and input device extension cables may be used.

Security

The floorstand was designed with a solid metal chassis for the computer's security, complemented with plastic parts in the same color as the HP Vectra

PC. This allows you to have an elegant presentation of your personal computer.

All the disc units (hard discs and flexible discs), as well as all the accessory boards, are designed to work vertically and horizontally.

Installation

The HP Vectra PC floorstand is easy to install. With the turn of only two screws, the HP Vectra PC can be easily mounted in this factory-preassembled floorstand, and then placed under your desk. Your display systems and peripheral devices can be connected as usual to your HP Vectra PC, or extension cables can be used for even more flexibility.

Supports popular configurations

The HP Vectra PC floorstand can be used with desktop HP Vectra CS and ES PCs while using your keyboard, printers, plotters, and input devices such as the HP Mouse (HP 46060), HP graphics tablet (HP 45911A), as well as HP's multiple-display offerings such as the Enhanced Graphic System (Adapter HP 45983A, Monitor HP 35743A), Multimode Display System (Adapter HP 45981A, Monitor HP 35731A), etc.

Ordering information

Product No.	Description
45989A	User-Installable HP Vectra PC floorstand. Installation manual included.

Also in this issue

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Peripherals

General

Introducing the HP 48050A data acquisition and control unit

A new low-priced, compact, and intelligent front-end processor is now available for value-added businesses who need an entry-level data-acquisition and control unit.

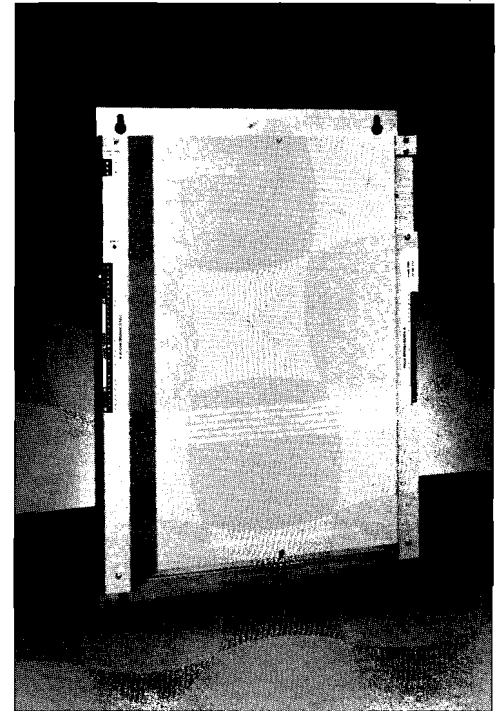
Designed and qualified specifically for harsh industrial environments, the new HP 48050A fits applications ranging from SCADA (supervisory control and data acquisition) systems and energy management, to the measurement, monitoring, and control of remote facilities and equipment. It's especially useful in the electrical utilities, telecommunications, transportation, and process industries.

The HP 48050A increases the scalability of the successful HP 48000 RTU family by addressing applications that require small point counts. It comes standard with 23 I/O channels. You can increase this to 45 I/O channels by ordering an optional expansion board.

Intelligent and easy to program

The HP 48050A includes an easy-to-program, user-configurable library that contains more than 50 signal-processing and control functions. These functions range from simple scaling for engineering unit conversions to more complex algorithms such as PID loop control or AGA flow calculations. The library functions also offload routine tasks from the host computer, provide distributed control capability, minimize programming, accelerate troubleshooting, and allow on-line tuning as processes change.

You can write user-defined tasks with an easy-to-use, multitasking, compiled



The new HP 48050A is HP's lowest-priced, intelligent, data-acquisition and control unit.

BASIC programming language. Using a personal computer running MS®-DOS, you can write custom tasks and functions in Microsoft-C, which gives you access to the HP 48050A hardware resources (available later this year). These programs can then be downloaded and added to the HP 48050A database function library.

Data communications flexibility

The HP 48050A provides several data communications options for local and

remote installations. For local installations, the HP 48050A plugs directly into a host computer system (HP Vectra PC or HP 9000 or HP 1000 computers) via an RS-232-C (CCITT V.24) connection. The HP 48050A can also be programmed to match the communications protocols of a broad range of instruments used in industrial applications.

For remote installations, an optional port allows data transmission through a radio, modem, or wireline network. The wireline network will support up to 90 HP 48050As via multidrop with only two repeaters.

High reliability

Low-power-consuming CMOS components allow the unit to operate in extreme temperature conditions ranging from -40 to +65 degrees C. without the use of fans or heaters. Even in the event that the host computer fails, the HP 48050A can be programmed to continue to operate as a stand-alone controller.

The HP 48050A is housed in a special aluminum enclosure to protect all circuit boards from physical damage and environmental contamination. Transient voltage suppressors on all wiring points ensure that electrical transients and electrostatic discharge will not damage any component.

Qualified value-added businesses (OEMs, VARs, SIs, ISVs, and consultants) are entitled to about a 40 percent discount off the list price, based upon a demo development agreement.

For more information, contact your HP sales rep.

Mass Storage

Six new disc subsystem products

Hewlett-Packard has placed six new disc subsystem products on the February 1, 1988, HP Price List. These products offer users high-capacity solutions at lower net prices. Ordering is much easier as the cabinets are included. Simply order the specific subsystem product number and the discs and cabinet are shipped together — same location, same installation date. The availability will be the same as the existing HP 7937 products.

Each Gbyte configuration comes with the required power cable (in the U.S.

only), and a one-meter HP-IB cable for each disc drive. Outside the U.S., the 19514A cabinet power cable and connector are supplied by the installing customer engineer. The products cannot be broken up (parceled) at the individual disc/cabinet level.

Compared to the competition, these products offer equal or better floorspace utilization, similar number of actuators, similar performance, aggressive pricing, and excellent reliability.

Ordering information

Product No.	Capacity	Configuration
19521H	1.14 Gbyte	Two HP 7937H discs and one 19511A cabinet
19521XP	1.14 Gbyte	Two HP 7937XP discs and one 19511A cabinet
19522H	2.28 Gbyte	Four HP 7937H discs and one 19514A cabinet
19522XP	2.28 Gbyte	Four HP 7937XP discs and one 19514A cabinet
19524H	4.56 Gbyte	Eight HP 7937H discs and one 19514A cabinet
19524XP	4.56 Gbyte	Eight HP 7937XP discs and one 19514A cabinet

Mass Storage

New lower prices on HP disc drives

Users will now pay less for popular HP disc drives. Effective February 1, 1988, the prices of the HP 7937H, 7937XP, 7957A, and 7958A have been lowered by as much as 20 percent.

The price change does not affect the HP 7936H or the 7936XP, they remain unchanged on the current HP Price List.

Mass Storage

Support life on personal disc drives

In the January, 1988, issue of *HP Channels*, page 15 and 16, the HP 9153C disc drive and the discontinuance of the six products it replaces was announced. Those products — the HP 9153A, 9153B, 9154A, 9154B, 9133L, and 9134L — will be discontinued on April 1, 1988. But instead of the support life being 10 years (as the January article states), the support life is five years.

Mass Storage

HP 7911P/R, 7912P/R, 7914P/R, and 7942A discontinuance

This is a reminder that the discontinuance date for the HP 7911PIR, 7912P/R, 7914P/R, and 7942A is rapidly approaching. On March 1, 1988, these products will be removed from the HP Price List. Support life on all seven products is 10 years.

If you have questions or concerns, please contact your HP sales rep.

Networks

Introducing HP WireTest

HP WireTest is Hewlett-Packard's new service (PIN 50049P) that tests the suitability of *existing* twisted-pair wiring for use with HP StarLAN networks. This service furnishes users with the information needed to make the important decision to use existing wiring for an HP StarLAN network.

Leveraging from expertise gained in years of development of technical measurement and instrumentation devices, HP has developed a sophisticated new tool for the HP WireTest service. Using this new tool, HP customer support engineers can quickly verify if the user's wire meets IEEE 802.3 Type 1 Base5 StarLAN wire specifications by performing Continuity, Bit Error Rate, and Quality of Transmitted Signal tests.

Many users have expressed concern about the viability of unshielded twisted-pair wire for use as network media. By evaluating and verifying the wiring, the HP WireTest Service can help alleviate those fears.

Features	Benefits
Prequalification by HP	Eliminates unnecessary testing of wire.
Evaluation of existing twisted-pair wire for HP StarLAN networks	Preserves the investment in existing building wiring
Quick and simple test procedure	Low-cost, economical evaluation
Accurate and reliable test performed by a trained HP customer support engineer	Operating problems are reduced, leading to greater network reliability and increased user satisfaction
Continuity, Bit Error Rate, and Quality of Transmitted Signal tested	Assurance that the wiring media meets all required specifications for 1 Mbps HP StarLAN data transmissions

Check with your HP sales rep on the availability of HP WireTest in your area. Please note that initially this service is available for HP StarLAN 1 Mbps wire qualification only. HP WireTest will be available for HP StarLAN 10 at a later date.

The HP WireTest Service verifies the twisted-pair wiring that passes HP WireTest is suitable for use in a 1 Mbit/sec HP StarLAN network if the user uses the twisted-pair wiring in the same configuration as when tested (similar wiring should also be suitable for such networks, however, the HP WireTest service does not verify any wires that were not tested).

Networks

Correction

In the article entitled, "HP-IB extender interconnection," that appeared on page 18 in the January issue of *HP Channels*, the obsolescence information was incorrectly worded. It should read, "The HP 37203A HP-IB Extender **will be** obsoleted November 1, 1988."

Printers

New font products for HP LaserJet printer family

Hewlett-Packard has developed a new bar code 3-of-9 font cartridge, P/N HP 92286W1. The "W1" replaces the HP 92286W cartridge which was removed from the HP Price List when HP discovered that the cartridge was incompatible with the new HP LaserJet Series II printer.

All fonts in the HP 92286W1 are compatible with the discontinued HP 92286W font cartridge except for the 9.3 pitch 3-of-9 bar code. It has been replaced with an 8.1 pitch font. Now you can print 3-of-9 bar codes at 8.1 characters per inch. The HP Price List date is February 1, 1988.

Contents

Font	Style	Pitch	Point
Letter Gothic	Medium	16.66	9.5
Letter Gothic	Medium	10	14
OCR-A	Medium	10	12
Bar Code 3-of-9		4.6	12
Bar Code 3-of-9		8.1	12
Linedraw		10	12

Bitstream soft fonts

The popular Bitstream soft fonts are now offered with HP's Roman-8 symbol set. Now you can buy the Garamond®, Century Schoolbook®, Zapf Humanist®, and Headline font products in either Roman-8 or ASCII symbol sets.

continued on next page

Font	Product No.	
	ASCII	New Roman-8
ITC Garamond	33412RA	33412RB
Century Schoolbook	33412SA	33412SB
Zapf Humanist	33412TA	33412TB
Headlines Typeface Collection	33412UA	33412UB

The Roman-8 symbol set includes characters used in the international market and can also be used to create the ISO (International Standards Organization) symbol sets found in the HP LaserJet Series II and LaserJet 2000 printers. Because the Roman-8 symbol set includes more characters, it takes up more disc space, and takes longer to download individual fonts. If the European characters are not needed, it may be best to purchase the ASCII versions of the Bitstream fonts. For further information on fonts, consult your local dealer, or your HP LaserJet Printer User's Manual.

Reminder

HP's soft font products are not offered in the DOS Version 3.2 (3%-inch) disc format. (The new IBM PS/2 and compatible computers offer this format.) For users who wish to use soft fonts with IBM PS/2 computers, two options exist: 1) an optional 5%-inch external disc drive can be used with the PS/2 system, or 2) the fonts can be transferred from the 5/4-inch format to the 3%-inch format using the Data Migration Utility available from your IBM dealer. HP is currently investigating the new PS/2 format, but until a 3%-inch product is available, remember that the 3%-inch soft fonts (the HB 3341 I series) are incompatible with IBM systems.

ITC Garamond® is a registered trademark of International Typeface Corporation.

Century Schoolbook® is a registered trademark of Kingsley-ATF

Zapf Humanist™ is a trademark of Bitstream, Incorporated.

Printers

New plain-paper print cartridge for HP ThinkJet and QuietJet printers

Announcing the new 51604A plain-paper print cartridge.

Now, HP ThinkJet, QuietJet, and QuietJet Plus printers can use commonly available printer papers with more satisfying results. The original 92261A print cartridge and JetPaper still provide the best possible print quality on these printers, and are recommended for heavy graphics use. However, the new 51604A, black-ink, plain-paper print cartridge delivers improved text quality on plain papers. Furthermore, the new cartridge reduces start-up clogging that can occur in low humidity conditions.

Product No.	Description
51604A	Plain paper cartridge, black ink
92261A	JetPaper cartridge, black ink
51605R	JetPaper cartridge, red ink
51605G	JetPaper cartridge, green ink
51605B	JetPaper cartridge, blue ink

Scanners

Converting documents to AdvanceWrite Plus the ReadRight Way

Here's some good news for users who wants to convert documents created with a variety of word processors into AdvanceWrite Plus format. ReadRight (Optical Character Recognition software) enables the HP ScanJet desktop scanner to read printed pages and convert the text into ASCII characters. This ASCII text can be then converted to AdvanceWrite Plus format using the AdvanceWrite Plus ASCII conversion utility. This is the ideal solution for small conversion jobs – a time-saving alternative to retyping documents.

ReadRight capabilities

ReadRight (PIN 88400A) recognizes a variety of typefaces, in sizes ranging from 6 to 12 points. It also recognizes 10 to 15 pitch monospaced text, as well as some proportionally spaced fonts. In common with most other low-end systems available today, ReadRight does not read the following types of documents: typeset documents (books, magazines, brochures, etc.); documents printed on loose dot-matrix printer; or poor-quality photocopies. For more information on ReadRight, see the September issue of HP *Channels*, page 24.

Enhanced productivity with an ADF

The new automatic document feeder (ADF) for the HP ScanJet scanner adds to the productivity of the desktop scanner and ReadRight. You can set up to 20 pages of text into the automatic feeder, start the scanning process, and the page images are automatically converted to computer-readable text.

For more information about AdvanceWrite Plus (PIN 27546F), please contact your HP sales rep.

Scanners

HP ScanJet Scanner Technical Support Package available

A new training videotape is now available for the HP ScanJet desktop scanner. The HP ScanJet Scanner Technical Support Package (PIN 09190-89801) includes the right information in an easy-to-learn format that will raise the user's level of expertise quickly.

The videotape and accompanying technical reference material, diagnostic software, Quick-Reference Card, hardware self-paced training, and HP ScanJet scanner Service Manual, have been developed to provide the following:

- *Supporting the HP ScanJet scanner* – instruction and information on installing, configuring, and using the scanner hardware and Scanning Gallery software.
- *Understanding the scanner* – explanation of the features offered on the scanner and details of Scanning Gallery.
- *Hints and helps* – gives users the information needed for choosing the settings and options available for "image optimization."
- *ScanJet service authorization* – after going through normal channels (i.e. taking the final review included in the self-paced training, and completion of the authorization form by an HP sales rep), a CZ number will be assigned by HP.

The HP ScanJet scanner Technical Support Package is a must for users responsible for the technical support of the scanner.

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Supplies

Supplies

Design business forms with iPrint

Are you surrounded by PCs and printers, but still manually type business forms? Let iPrint automate the process.

iPrint lets you design your own business forms on HP LaserJet Printers, Vectra PCs, or other IBM PC compatibles, then automatically fills in the forms by merging data from your files.

With iPrint, you can:

- Cut down on form storage – store forms electronically instead of as paper.
- Fill in the blank form by merging data into created form at print time, automatically integrating data from Lotus[®] dBase[®] III, Q&A[®] or any standard database file.
- Copy and modify any forms created, using only a PC – avoid typesetting and printing time and costs.
- Toss out that messy carbon paper. iPrint lets you output data to multipart forms – you can even output specific information for varied distribution.

All that means time and money savings, and work efficiency. iPrint is available from HP DIRECT on 5%-inch discs for the HP Vectra PC and other IBM PC compatibles.

Product No.	Description
35188D	iPrint Software for HP LaserJet printers

Supplies

LaserPlotter software puts HP LaserJet printers on double duty

Users can take advantage of a world of plotter-oriented engineering and business-graphics software applications with LaserPlotter. This easy-to-use software lets the family of HP LaserJet printers produce high-resolution plots by enabling HP LaserJet printers to emulate the HP 7475A, 7470A, or ColorPro plotter.

LaserPlotter can output graphic after graphic while the user is working, or away from their desk. And because LaserPlotter translates color plotter lines into 72 combinations of line width and gray texture, "color" graphics will photocopy into black and white.

What's more, LaserPlotter employs a unique data compression routine that prints faster and gives higher-resolution graphics, without having to upgrade printer memory.

Available on 5 1/4-inch disc for the HP Vectra PC and other IBM PC compatibles, LaserPlotter can be ordered from HP DIRECT.

Product No.	Description
35188A	LaserPlotter software

Supplies

JetPlotter software makes HP PaintJet printer "plot" in dazzling color

HP PaintJet printer users can now tap onto their full graphics potential with JetPlotter software. This powerful software turns PaintJet printers into fully compatible HP plotters.

How? By making the HP PaintJet printer HP plotter compatible with most business graphics. CAD, or scientific software applications. It provides dazzling color graphics and full text printing from one printer – right at your desk.

JetPlotter allows the user to vary color, line width, texture, and even vary the printer's resolution and speed. And since JetPlotter allows the HP PaintJet printer to function as both text printer and graphics plotter, desktop space is saved, too.

Jet Plotter features

- Lets users produce polished high-resolution output, or quick draft-quality graphics
- Allows users to inverse, position, shrink and expand output size, and vary background and line color
- Offers 72 line-width and texture-control settings – great for photocopying color output in black and white
- Lets users print color or black and white output
- Makes the HP PaintJet printer compatible with most software that uses HP 7475A, 7470, and ColorPro[®] plotters

This easy-to-use, menu-driven software is available on 5 1/4-inch discs for the HP

Vectra PC and other IBM PC compatibles. It's available from HP DIRECT.

Product No.	Description
35190P	JetPlotter software for HP PaintJet graphics printers

Supplies

JetPlotter software makes HP JetSeries printers think like plotters

No more waiting for the office plotter. JetPlotter software (PIN 35190P) lets users unlock the powerful graphics capabilities of HP ThinkJet, QuietJet, or QuietJet Plus printers, and make them function like a full-featured HP plotter.

This software package converts the graphics language of HP plotters into high-resolution inkjet printer printouts. That means JetSeries printers can be used with most CAD, engineering, or business graphics software supported by HP 7475A, 7470, or ColorPro plotters.

Ever tried to photocopy color plotter pen output in black and white? The colors blend – but not with JetPlotter. It lets users translate color lines into 72 combinations of line width and texture – all of which photocopy into perfect black and white.

Print those Lotus[®] or HP Drawing Gallery graphics – silently and without additional desk space. JetPlotter lets users position, shrink, and even expand graphics. A blue inkjet printer head and inverse function can also be used to simulate blueprints.

JetPlotter is available on 5 1/4-inch disc for the HP Vectra PC and other IBM PC compatibles, and can be purchased from HP DIRECT.

Supplies

Leather cases available for HP -17B and HP-27S calculators

Users can slip their HP-17B or HP-27S calculators into a genuine leather case for long-lasting protection.

Contoured for a perfect fit, it has a cowhide exterior that won't crack or peel. The interior is lined with pigskin, with padding between for additional protection. The leather case is available from HP DIRECT in three colors to match your HP infrared printer cases.

Product Nu.	Description
92169K	Black leather calculator case
92169L	Brown leather calculator case
92169M	Burgundy leather calculator case

Supplies

New cases for HP ThinkJet printers

Count on this tough, scuff-free case to transport your HP ThinkJet printers and accessories safely. Compact enough to fit under an airline seat, our case has a compartment for printer power supply cables, battery pack, and AC adapter/recharger.

It's crafted of water-resistant nylon, with quarter-inch sealed foam padding and Oxford lining. The nylon coil zipper glides smooth and lasts longer than metal. And taped seams give the carrying case a neat, professional appearance.

The case comes with a leather-bound nylon handle and a padded shoulder strap. 14" L x 8½" H x 4½" D

(381 mm x 215 mm x 114 mm); available in dark gray with black straps. Contact HP DIRECT to purchase.

Product No.	Description
35178C	HP ThinkJet printer carrying case

Supplies

Protect RS-232 data ports with surge protectors

Users can now protect valuable data and equipment by simply installing a pair of HP surge protectors – one at each end of a link – to shield data communication ports from burnout.

When a fluorescent light switches on, a motor starts, or lightning strikes, electrical surges hit the data lines of your RS-232 cables. Overvoltage surge or static spike cause slow deterioration to the communications interface of your computers and peripherals. The result can be scrambled data transmission or total failure in communication.

The cost of protection is small compared to expensive repairs, particularly when using RS-232 cables longer than 50 feet (not covered by HP warranties and/or service contracts). Contact HP DIRECT for purchase of the surge protector, PIN 92165R.

HP DIRECT order phone numbers

HP DIRECT Fast Phones – the easy, direct way for users to order supplies, accessories, media, furniture, and software from HP DIRECT.

Location	Telephone Number
Australia	(03)895-2645 (03)895-2615 (03)895-2815 (03)895-2861
Austria	(0222) 2500-61416151616
Belgium/Luxembourg	(02) 761 31 11
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	04 30 16 40
Finland	(90) 887 2361
France	(1) 69 28 83 90 (1) 69 28 32 64
Greece	(01) 672 6090
Italy	(02) 9236 9702
Japan	
Sagamihara	0427 59 1311
Osaka	06 304 6021
Middle East	
Athens	(01) 682 8811
Norway	(02) 24 60 90
South Africa	
Johannesburg	(011) 802 5111
Cape Town	(021) 437 954
Spain	(91) 637 4013 (91) 637 0011
Sweden	(08) 750 2400
Switzerland	(057) 31 24 90
The Netherlands	(020) 547 6606
United Kingdom	(0734) 69 72 01
United States	800-538-8787
West Germany	(0130) 3322

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: *Cross industry – decision support, financial modeling*

Abstract: FCS is a sophisticated, yet easy-to-use, integrated financial modeling system. The system product is frequently used for financial and marketing systems such as strategic planning systems, forecasting systems, new product evaluation, and capital expenditure analysis. It is command or menu driven using easily remembered instructions such as REPORT, CALCULATE, and GRAPH. Its modules can perform report generation, what-if analysis, hierarchical consolidation, risk analysis, statistical analysis, high-resolution graphics, screen manipulation of data, and have a direct interface to TURBO IMAGE databases. It also contains more than 150 predefined financial and statistical functions allowing applications to be developed much faster than fourth-generation languages (4GL) and lower-level languages. In addition, user written functions can be added using the same syntax as the base language. The package is being continually enhanced with new features and modules, including micro/mainframe communications to the HP Vectra PC and IBM PC compatibles.

Company Name: THORN EMI Computer Software

Address: 285 Mill Road
Chelmsford, MA 01824
U.S.A.

Phone: 617-256-3900

Contact Person: Susan Donovan

Type of Distributor Wanted: VAR

Geographic Coverage: Worldwide

Industry: *Aviation*

Abstract: DASH AIR/3000 is a total software solution for the aviation industry consisting of integrated modules for revenue accounting, rotatable parts maintenance, flight scheduling, flight following, freight accounting, crew scheduling and tracking, ticket auditing, route profit and loss analysis, general ledger, inventory, purchasing, job costing, accounts receivable, accounts payable, fixed-asset accounting, fuel accounting, and payroll.

An HP Plus software supplier since 1983, we have successfully sold and installed these packages in the U.S., Canada, Australia, Malaysia, and Europe. Current customers include national airlines, regional airlines, fixed-base operators, corporate flight departments, aircraft manufacturers, and government agencies.

DASH AIR/3000 is recognized internationally as one of the world's most widely installed and best-supported aviation software packages. It runs under BASIC on all models of the HP 3000 and uses IMAGE and V-3000. In addition to the marketing potential, there is also a need for local first-line software support.

Company Name: DASH Group, Inc.

Address: Box 8666
Reading, PA 19603
U.S.A.

Phone: 215-372-4500

Contact Person: Elaine Rick

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide, except U.S., Canada, South Pacific

Industry: **Cross industry**

Abstract: HERMES is the company representing HP in Yugoslavia. It produces software for HP-UX and the general UNIX operating system environment, PCS and HP 3000 system, and provides application software.

Available Software

▪ **BQM** – Batch Queue Manager is a sophisticated software product designed to create, maintain, and control batch job queues on UNIX operating systems. It enables UNIX operating system users to effectively control the utilization of system resources.

DBPAINT – A unique software specifically designed to graphically represent IMAGE database structure. Runs identically on HP 3000, UNIX operating systems, and PCs.

▪ **YUMENU** – An innovative approach to menu processing on the HP 3000. It features full HP MENU functionality at a fraction of system resource utilization.

Company Name: HERMES

Address: Celovska 73
61000 Ljubljana
Yugoslavia

Phone: (38)61-559-441

Telex: 31-583 hewpak yu

Fax: (38)61-558-597

Contact Person: Rudi Bric

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

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:

Hewlett-Packard Company
Value-Added Channels Development
Attn: Marilyn Rauchle
19091 Pruneridge Ave.
Building 46UV
Cupertino, CA 95014
U.S.A.

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.

How to get your name added to the distribution for *HP Channels*

If you work for a company that is a value-added business for Hewlett-Packard and want to receive your own copy of *HP Channels*, call Hewlett-Packard and have your sales rep send your name and the information requested below to Tracy Wester.

HP sales reps only: To add new U.S. or Canadian accounts to the distribution for *HP Channels*, please send Tracy Wester the following information (on HP Desk 0000/53 or to the address listed below): company name address, phone number, contacts' name/title, and HP sales rep name, COMSYS number, and engineer code. For accounts outside of the U.S. or Canada, contact Tracy Wester to get the name of the person who handles the distribution of *HP Channels* in your country.

Please address editorial correspondence to Tracy Wester at address listed below.

HP CHANNELS

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