

HP CHANNELS

Information For Hewlett-Packard's Value-Added Businesses

September 1987



Introducing the HP 700 Family

New low-cost terminals for HP, IBM, DEC, and ASCII systems

HP CHANNELS

Volume 6, No. 11

Editor
Tracy Wester

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.

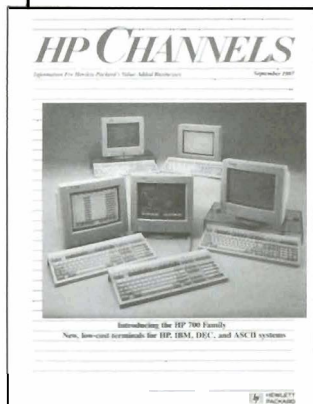
For further information on any of the products and services discussed in *HP Channels*, please contact your HP sales rep.

See back cover for subscription information.

Note: Not all HP computer products are sold and supported in all countries. Please check with your local HP sales office.

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On the cover



The new HP 700 display terminal family offers low-cost, full-featured terminals for HP, IBM, DEC, and general-purpose system environments. The terminals have 14-inch screens engineered to produce high-quality characters, a choice of phosphor colors, and standard ergonomic features such as tilt-and-swivel monitors and adjustable keyboards. See article on page 25.

HP CHANNELS
September 1987

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HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

Introducing HP Security Monitor for Security-Conscious Users

Computer fraud, already draining an estimated \$3 to \$5 billion annually from U.S. business, will grow in frequency and sophistication unless organizations establish, maintain, and monitor better internal controls over their computerized data. That is the finding of Ernst & Whinney, an international accounting and consulting firm. In **Computer Fraud**, its recently released report to the National Commission on Fraudulent Financial Reporting.

This report is an example of the auditor-driven pressures to increase system security in certain HP 3000 target markets: general government, defense contractor, and Fortune 1000 accounts with sensitive applications. Right now, this security consciousness is concentrated only in a few markets, but over the next few years, we expect system security to become an increasingly important concern to the entire HP 3000 user population.

Hewlett-Packard has developed HP Security Monitor/V, a system-security product that provides improved password protection, stronger audit trails, and tighter terminal security. This protects both system resources and sensitive data from unauthorized access.

Improved password protection – Passwords provide the first line of defense against unauthorized access to system resources and data. HP Security Monitor has improved password protection through a combination of methods including: password encryption, password aging, and password length requirements. It also allows the system manager to require user passwords at the account or system level.

▪ **Stronger audit trails** – Audit trails allow security-conscious users to monitor and correct security breaches in the system. HP Security Monitor has improved audit trails by giving the system manager the ability to log a wide variety of security-relevant events. It also allows the system manager to selectively disable specified MPE commands.

▪ **Tighter terminal security** – Terminal security allows users to secure their systems against unauthorized bypassing of the logon precautions. HP Security Monitor has substantially tightened terminal security by limiting the number of invalid logon attempts, terminating idle command interpreter sessions, and assigning passwords to individual terminals. It also allows the system manager to eliminate any logon assistance in the case of an invalid logon attempt, and automatically terminate any session where the logon UDC fails to execute.

Smooth implementation

Building on the strong security features of the base HP 3000, HP Security Monitor can be gracefully integrated on an as-needed basis. All of its security features are optional, and each feature can be turned on or off individually. HP Security Monitor is also designed to **phase in** features, thereby easing the transition from the old to the new security practices on the system. This design gives users wide latitude to tailor the system security to fit their particular system environment.

Support

HP Security Monitor is supported on V-MIT and subsequent releases of MPE V. Note: By design, some of the higher-security features of HP Security Monitor prevent execution of some of the ease of use features in HP,

customer, and value-added business software. The decision to increase security on a system can significantly affect daily operations on that system.

Documentation

There are now two manuals available to help system managers implement system security. The first is Account Structure and Security, and it is included with the base MPE FOS manual set. The second manual is HP Security Monitor, and it is packaged with the HP Security Monitor product.

Product No.	Description
32033-90136	Account Structure and Security manual
30392-90001	HP Security Monitor Manual
5954-9369	HP Security Monitor sales guide
5954-9367	HP Security Monitor data sheet

Ordering information

HP Security Monitor is HP's response to system security concerns from HP 3000 users. Currently, it can be ordered as indicated below.

Product No.	Description
HP Security Monitor	
30392A	First copy for all MPE V processors
30392R	Right to copy for all MPE V processors



ISV Wins with HPtoday

TUSC Computer Systems Pty.. Ltd. is an Australian ISV providing solutions to large manufacturing organizations such as Alcoa, Mobil, and BHP. Among their software offerings is a laboratory management system called LABSYS, which they have been installing on HP 1000 computers.

When TUSC wanted to rewrite LABSYS, they began by implementing their own fourth-generation language (4GL) for the HP 1000 computers. When customers began demanding UNIX® operating systems solutions, they decided against porting their own language, and instead selected HPtoday as their development environment.

TUSC Project Manager, Mike Woodhams, reports, "We were very impressed with the user friendliness of HPtoday and the outstanding user interface it provides. This is an important factor which influences our customers' decisions to buy. It's the best I've seen in terms of control of the screen and use of the keyboard: it's just beautifully done."

Also important for TUSC was the fact that HPtoday was an HP product. "It means we are getting our hardware and software for these customers from the one source," says Mike. "and HPtoday is directly supported by the manufacturer. That communication line is very important to us. We can count on proper support."

LABSYS is no lightweight. It offers sample registration, data collection and archiving, flexible reporting, workload scheduling, and resource management – all within the context of a modern production facility. For instance, standard costing for all tests and variance reporting are integral parts of the package. Safety is a paramount consideration in laboratories, and LABSYS has to comply with specifications from both government and industry.

Developer Russell Tobin comments, "This is a big system, and we knew we would be pushing HPtoday to its limits. Our worst-case scenario was to do less than 80 percent of the product in HPtoday – the user interface part – and write the rest in C called through HPtoday's external interface. But that's not what happened. This was a fantastic plus: we've written 98 percent of the system directly in HPtoday."

Within the HPtoday environment, TUSC has provided some very attractive features with LABSYS, including extended multiclass security; and, to minimize data keystrokes, environment stacking/seeding and page-by-page data file browsing.

"The biggest benefit to us," Mike continues, "is the consistency and maintainability of the package. For comparison, we had an earlier system written in FORTRAN – after the original programmer moved on, it took a month's learning curve to make any changes. But with HPtoday, it's different. Any developer has been able to pick up any part of the application developed by another, and work on it immediately. The consistency is excellent: way beyond anything achieved with a 3GL."

Russell adds a rider. "It's vital to establish a thorough naming standard at the outset," he says. "That's what ensures that your HPtoday application is always immediately readable."

Other factors were performance and flexibility. Says Mike. "You expect to pay a performance penalty with a 4GL, in return for their advantages. But that hasn't been a problem with HPtoday – and already we're seeing further performance enhancements with each release."

"And the flexibility has been a real edge for us. As far as we know, LABSYS is the only lab management package that is based on a 4GL. Others on the market are inflexible: they force the customer to change to suit the system. With HPtoday, we can quickly tailor LABSYS to match the customer."

One customer, a government laboratory, thanked TUSC specifically for the focus on methodology which had come with system installation. The customer's people could improve methods in the way they chose, and LABSYS could support their decisions.

Other benefits of HPtoday to TUSC included the complete user environment provided, including simplified system administration. "This suits turn-key applications to a 'T'," says Russell. Then there was the reduced learning curve for programmers. "That lasted about two to three months," Mike reckons, "not bad when this includes learning the 4GL and the application at the same time."

Mike also feels that the stability of HPtoday is exceptional, particularly in view of its "richness" as a language.

"We were really pushing HPtoday," he says. "Early on, we found two bugs. We got solutions within a week: extremely impressive support. And we're prepared to go on pushing the limits, because we have developed so much confidence in the releases of HPtoday. It's nice to know that you can change a part of your application, and no bits fall off the other side. You can fix code, without unexpected repercussions throughout the system. Quality is reflected right through the HPtoday product – and that lets us build quality, too."

Mike feels that the primary attraction of HPtoday is its appeal to the EDP groups of major corporations. These companies are wanting to avoid 'one-purchases, and instead, make global purchases of standard vehicles with which they can move to the future. This is where HPtoday is such a good fit, because it combined flexibility with maintainability. At the same time, it provides the means to unify all applications in one consistent environment – even where applications are written in other languages.

TUSC now has LABSYS installed in several Australian sites, and are carefully managing their growth. Mike also plans to use HPtoday to develop his next project, for Australia's Telecom.

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SUCCESSFUL SOLUTIONS is a forum for you as HP value-added businesses to share your sale expertise and experiences with our readers. If you have a success story or application article that you feel would benefit other value-added businesses, we would like to hear from you. Please send your ideas, comments, articles, and questions to:

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Customer Support

Training

CUSTOMER SERVICE TRAINING: AN INTEGRAL PART OF HP CUSTOMER SUPPORT STRATEGY

HP's Customer Service Training (CST) is an integral part of the HP worldwide customer support strategy providing training for HP users who require self support to meet self-sufficient, critical-uptime, high-security, and remote-location needs.

During the past four years, over half of CST's top 20 clients have been Hewlett-Packard Major Accounts/OEMs.

CST currently provides repair and maintenance training for HP 1000 and 3000 products, desktops, workstations, peripherals, PCs, PC peripherals, and coordinates the marketing of service training for selected instruments. Training is offered at CST's Mountain View, California, headquarters and at numerous HP technical training and manufacturing facilities worldwide. Aside from regularly scheduled courses, special customer-site training is also available.

CST course content and materials are the same as those in HP's customer engineer (CE) training, with modifications to accommodate users with a wide range of technical and nontechnical backgrounds. All courses are taught by experienced instructors with a solid background in engineering, manufacturing, and customer satisfaction.

Customer service training courses use a variety of media from classroom

training, self paced, to computer-based training (CBT) available as an independent study program or through the Self-paced Mentored Training (SMT) curriculum using HP equipment, facilities, and technical assistance. Currently, more than 60 self-paced learning packages and 25 different SMT offerings are available for PC and PC peripheral products such as the HP Vectra PC and the HP LaserJet family of printers.

Customer Service Training (CST), with 25 years of training history, has always worked closely with HP's sales and support organizations, assisting them in closing sales and providing additional training support.

Companies such as AT&T, the U.S. Armed Forces, General Dynamics, E-Systems, and the local Bells are a few of the Major Account/OEM customers whom CST has supported.

If you have any questions, leads, or concerns regarding this form of users product support, please give us a call. For your convenience, we have installed the following toll-free numbers. 800-523-0696 in the Continental U.S., 800-882-9595 in California, or 415-691-530015905 worldwide.

Training

COMPUTER-BASED TRAINING SERVICE COURSES AVAILABLE

Hewlett-Packard Customer Service Training is offering two computer-based training (CBT) service courses at its Mountain View, California, headquarters.

Developed with the latest interactive laser-video technology, the HP Vectra PC and the Datacom Fundamentals CBT courses offer the audience a unique opportunity to explore the intricate service and maintenance information on the respective subject.

CBT, with dazzling special effect graphics and a sophisticated user-responsive software, outshines conventional audio-visual training programs. Furthermore, the CBT's instantaneous recall and refresh capability add a new dimension to reiterative learning.

Captioned as PIN 05092A, Options 020 and 025, the HP Vectra PC and the Datacom Fundamentals CBT courses are now available. Please contact Customer Service Training at 415-691-530015905, 800-523-0696 (in the U.S.), or 800-882-9595 (in California) for more information and class schedule.

Training

HP OFFERS COMPUTER FUNDAMENTALS

Hewlett-Packard Customer Service Training (CST) is offering an introductory course on computer/micro-processor fundamentals.

Course 50043A is a five-day course covering digital terminology, functional theory, numbering systems, machine language programming, and device applications. A microprocessor trainer simulator is used to demonstrate programming applications. All attendees are expected to have some basic knowledge or working experience with analog electronics.

For further information, please contact Kathy Martin or Wei Huang at 415-691-530015905 or 800-523-0696 (in the U.S.) or 800-882-9595 (in California). A course data sheet will be promptly forwarded upon request.

Training

HP OFFERS ON-SITE SERVICE TRAINING

Hewlett-Packard Customer Service Training offers a worldwide, on-site service training program for computer and instrument users who want self support.

The on-site training program provides users with the same training as HP's own customer engineers but with the flexibility of time and location. The program is especially advantageous to users with a large installed product base, or someone involved in security-sensitive projects or remotely located.

On-site service courses, standard or specially configured, are available for a wide range of computer and peripheral products. The program also includes training for a selected group of HP instruments.

With 25 years of customer training experience, HP Customer Service Training is committed to provide self-support users with training of the highest quality.

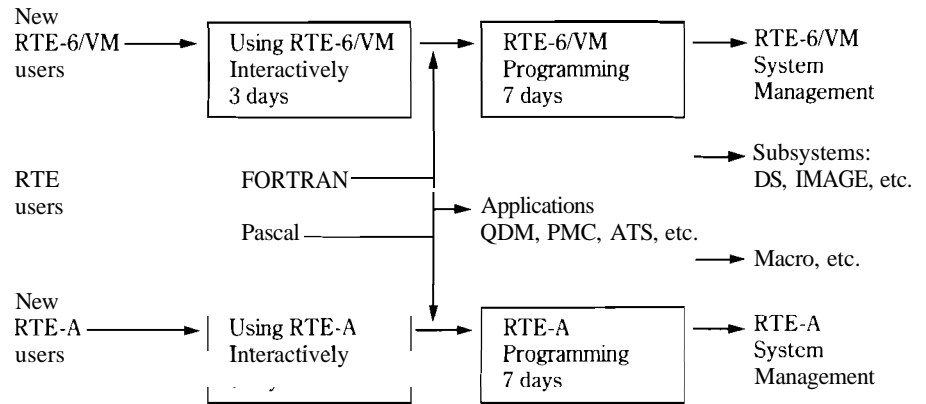
For more information, please contact Kathy Martin or Wei Huang at 415-691-5300 or 800-523-0696 (in the U.S.) or 800-882-9595 (in California).

Training

NEW RTE-6/VM AND RTE-A USER COURSES

Hewlett-Packard has announced new RTE-6/VM and RTE-A user courses. These new courses represent a change in the structure of the RTE curriculum, as well as a change in the materials

used in the courses. These changes are the result of user and field feedback concerning the existing courses and materials. The new courses fit into the HP 1000 curriculum as follows:



There are two courses that are marketed as 10-day packages: 22988B RTE-6/VM, and 22980E RTE-A. Each 10-day course covers materials of a

3-day "programming" course and a 7-day "interactive" course that are also available individually. The content of these courses is outlined below.

Using & Programming RTE-6/VM
Interactively 22988B 10 days

Using RTE-6/VM Interactively 22987B 3 days	RTE-6/VM Programming 22953D 7 days
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Using & Programming RTE-A
22980E 10 days

Using RTE-A Interactively 22950D 3 days	RTE-A Programming 22954E 7 days
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continued on next page

22950D Using RTE-A Interactively 22987B Using RTE-61VM Interactively

These 3-day courses introduce students to the interactive operating environment that is available on RTE-A and RTE-6/VM. Topics include HP 1000 system components, the use of CI and FMGR commands and utilities (to manipulate files and obtain system status), the use of EDIT11000 (to create and modify text files), and an overview of command files, spooling, file backup utilities, and program development utilities. Both courses assume no previous experience with HP 1000 systems.

22954E RTE-A Programming 22953D RTE-6/VM Programming

These new courses are 7 days in length and present the program development environment, system services, and system calls available to applications designers on RTE-A and RTE-6/VM, respectively. Topics include use of program development tool, programming CI and FMGR command files, and the use of EXEC, FMP, and system library calls for program-to-program communication, I/O operations, resource coordination, and file system access. In addition, use of EMA/VMA for handling large amounts of data, and use of MLS (RTE-6/VM) and CDS (RTE-A) for handling large programs, is presented.

These courses assume knowledge of FORTRAN or Pascal programming, and use of the appropriate RTE interactive operating environment. Lab exercises allow students to reinforce lecture presentations. Both courses provide solution skeletons and lecture example source files to enhance student productivity in lab.

Contact your HP sales rep for more information.

Training

HP OFFERS HP 1000 AND HP 3000 SERVICE TRAINING

HP's Customer Service Training in Mountain View, California, is offering service and maintenance training for the HP 1000 A-Series and Series M/E/F and the HP 3000 Series 3X/4X/5X/6X/7X.

Developed for service and engineering personnel, the HP 1000 and 3000 service courses provide the student with the necessary skills and technical information to diagnose, troubleshoot, repair, and maintain the respective equipment. Operating systems, boot ups, RAM/ROM memories, diagnostics, power supply, and system installation are additional subject matter covered.

The format for each course is 50 percent lecture and 50 percent lab, allowing ample hands-on practical experience with the hardware/systems.

For course descriptions, scheduling information, and/or information on HP 1000/3000 Peripherals Service Courses, please contact Kathy Martin or Wei Huang at 415-691-5300/15905; or use our toll free numbers at 800-573-0696 (in the U.S.) or 800-882-9595 (in California).

Training

CS-80 DISC DRIVES SERVICE TRAINING AVAILABLE

Hewlett-Packard Customer Service Training is offering a maintenance training program for the CS-80 disc drives product line.

Course 50041A is a three-day course that provides self-support users with the

necessary knowledge and skills to diagnose, troubleshoot, repair, and maintain the HP 7907A, HP 9144, HP 794X, HP 7936/37, and HP 7957/58 drives. The course is 70 percent lecture/self-paced and 30 percent lab.

Course 50041A is structured as follows:

Option	Products/content	Length (days)
001	HP 7907A	3
002	HP 794X and 9144	3
003	HP 7936/37	3
004	HP 7957/58	3

For more information, please contact Customer Service Training at 415-691-5300/15905, or use our toll free numbers; 800-523-0696 (in the U.S.) or 800-882-9595 (in California).

Training

HP OFFERS ENHANCED LASERJET PRINTERS SERVICE TRAINING

Hewlett-Packard Customer Service Training is offering an enhanced HP LaserJet printer service training course.

Course 50042A is a five-day class developed to train customer service and maintenance personnel on the HP 2686A/D and the HP 33440A laser printer diagnostic, repair, and maintenance techniques.

Students will learn how to service the respective printer within the context that the equipment is an integral part of an office-PC network. Hardware service knowledge is reinforced with selected PC-HP LaserJet printer configuration methods. The class is structured as 40 percent lecture and 60 percent lab.

Users can subscribe to any of the options listed here.

Product No.	Description	Length (days)
50042A	HP LaserJet printer service training course	
Opt. 001	HP 2686A/D printer	5
Opt. 002	HP 33440A printer	4
Opt. 003	HP 2686A/D and HP 33440A printers	7

The 50042A schedule for 1987 is listed below.

- Customer Service Training headquarters, Mountain View, California – September 21-25, October 26-30, and December 14-18.
- Rockville Technical Training Center, Rockville, Maryland – October 12-16 and November 16-20.

For more information, please contact Customer Service Training at 415-691-5300/15905, or via our toll-free numbers 800-523-0696 (in the U.S.) or 800-882-9595 (in California).

Support

MEMORY SUPPORT PRICES FOR HIGH- END SYSTEMS REDUCED TO ZERO

Effective August 1, 1987, monthly maintenance prices for memory support on HP's high-end systems were reduced to zero. The systems affected are the HP 3000 Series 64, 68, 70, and 900, and the HP 9000 Series 800. The memory boards used in these systems are listed below.

Product No.	Description
HP 3000 Series 64/68/70	
30142A	1-Mbyte board
30165A	4-Mbyte board
HP 3000 Series 900/HP 9000 Series 800	
19740A	3-Mbyte board
19741A	5-Mbyte board

The reduction in memory support prices is accompanied by an increase in the SPU support prices that more accurately reflects our cost of supporting users. The impact on a user with maximum system memory will be a significant savings. Even a user with just four or five megabytes of memory will experience only about a 2 percent increase in support costs.

These changes apply to users purchasing new memory as well as users currently on hardware support contracts. However, current users will not be required to reprice their existing support contracts until renewal, or February 1, 1988. Modifications to the support prices of memory boards for low and mid-range systems is still under investigation.

Business Computers

Small Business Computing

HP 260 SUPPORTS HP LASERJET SERIES II AND QUIETJET PRINTERS

What if . . . you had a versatile, publication-quality printer and a low-cost extremely quiet printer supported on the HP 260?

Starting immediately, the operating system B.08 running on all HP 250 and HP 260 systems supports three new printers – the HP LaserJet Series II printer for creating professional-looking documents, and the HP QuietJet printers for extremely quiet printing with a choice in print quality.

Support of these new printers is the result of ongoing efforts to make up-to-date high-technology peripherals available on the HP 250 and HP 260 small business computer systems.

Benefits

Use the HP LaserJet Series II printer (HP 33440A) on your HP 250 or HP 260 for high-quality printing at up to eight pages per minute. The low price, coupled with more features than the HP LaserJet PLUS printer, make the HP LaserJet Series II a good choice for office applications running on the HP 250/HP 260 systems.

The HP QuietJet printers (QuietJet: HP 2228A and QuietJet Plus: HP 2227A) are ideally suited for the HP 250/HP 260. Both printers are flexible, low-cost matrix printers for draft, and

near-letter-quality printing and do mailing labels, graphics, and even print in different colors.

Printer configuration

Take advantage of the newly supported printers today with the current operating system B.08.

- Configure the HP QuietJet printers as an HP ThinkJet printer.
- Configure the HP LaserJet Series II printer as an HP LaserJet printer.

All three printers are supported on the serial interfaces only.

HP 3000

ALL HP MICRO 3000 PRICES NOW INCLUDE SITE PREP

As of September 1, site prep is now included in the HP MICRO 3000 price for both the entry-level (32535E) and full-size (32535F) systems. Previously, only installation was included in the bundled systems' list price. Typically, these systems were being ordered with HP-IB printers and/or larger disc drives that required site prep. This added expense created a user satisfaction problem among price-sensitive customers. Not only does this change enhance user satisfaction, it also makes the HP MICRO 3000 systems consistent with the entire HP 3000 product line, which includes site prep and installation with each system.

HP 3000

HP MICRO 3000XE AND DEC MICROVAX II – PERFORMANCE BENCHMARK RESULTS

Hard performance facts on competitor's systems are sometimes hard to come by. In an effort to provide commercial VABs with HP MICRO 3000XE and DEC MicroVAX II benchmark information, we have recently mailed the following information to key contacts on HP's VALID database.

Performance Brief (PIN 5954-9363) – An objective, four-page discussion of how system performance should be measured, various factors and system components that can impact performance, and an analysis of the benchmark results. The steps the HP Capacity Planning Center took to set up the benchmark and ensure comparability of the systems are detailed. Several charts highlight the test results and illustrate how and why the 16-bit HP 3000 system can outperform the 32-bit DEC system in on-line transaction processing applications.

▪ *Hardcopy of slide set and script* (PIN 5954-3750) – A hardcopy of 13 overhead slides that reviews the benchmark criteria (hardware and software) and presents the benchmark results. A summary slide visualizes the 45 percent higher price/performance advantage offered by the HP system. VABs should contact their HP sales rep if original slides are required.

Commercial value-added businesses should contact their HP sales rep if they have not received this packet or to order additional copies.

HP 3000

REMARKETED HP 3000 SERIES 37R BUNDLE NOW AVAILABLE

A remarketed HP 3000 Series 37 system bundle is now available from HP's Finance & Remarketing Division (FRD). The system bundle consists of a 2-Mbyte HP 3000 Series 37, a PIC, an ATP-37, a 55-Mbyte disc and $\frac{1}{2}$ -inch cartridge tape drive. Configuration flexibility is offered with options for your customer to delete 1-Mbyte memory, or to add a second HP 7945AR disc drive.

VARs can apply their full purchase agreement discounts including schedules A1, A1B, and A3L on top of the savings of remarketed equipment.

Ordering information

Product No.	Description
32449LR	HP 3000 Series 37R bundle includes: – One 32449AR - Series 37R (2 Mbyte, PIC) – One 30460AR - ATP-37 – One 7945AR - 55-Mbyte disc drive – One 9144AR - $\frac{1}{2}$ -inch cartridge tape drive
Opt. 015	220-240V 50Hz
Opt. 301	Deletes 1-Mbyte memory
Opt. 401	Adds one HP 7945AR

Standalone HP 3000 Series 37R (2 Mbyte, PIC) systems are also available. Call your HP sales rep for more details.

HP 3000

MEMORY RETURN CREDIT REDUCTIONS

Effective September 1, 1987, return credits for 1 Mbyte HP 3000 Series 4X and 6X memory (PIN 30161AN and 30142AN) will be lowered. Because of HP's 30-day price-protection policy, these new credits will become effective for orders placed beginning October 1, 1987.

Reduced return credits for these products are made necessary by the recent price decreases for the remarketed versions of these memory products, and are also a reflection of the importance of newer memory products available for these systems.

Note: These credits are not applicable in Europe. Contact your HP sales rep for details of the return credit program in your country.

HP 3000

MPE V TO MPE XL MIGRATION LITERATURE PACK

During the month of August, the MPE V to MPE XL Migration Literature Pack was mailed to all commercial value-added businesses. This packet includes HP 3000 Series 900 migration information for you and your customers. If you did not receive your migration literature pack, please contact your HP sales rep.

Consolidated migration information

This packet contains all of the latest information on our migration products, services, and documentation. In the year and a half since the migration data sheet and migration sales guide were released, we have been working on new

products and updating existing ones based upon the experiences of the Fast-Start, Alpha, and Beta customers.

Besides providing information on products, the packet includes comments from value-added businesses about their migration experiences.

Together, this literature gives you one-stop shopping for the migration related questions you and your customers may have.

Migration slide sets

In addition to the literature, two migration slide sets have been produced. Hard copies of the slide sets were included in the packet. The first slide set is a migration update. This is a short set of slides that can be used to quickly update a customer on the latest migration information.

The second hard copy slide set gives a more detailed overview. It includes an overview of the technology that makes migration to the HP 3000 Series 900 smooth. It also introduces all of the migration-related tools, services, and documentation within the phased-migration strategy.

Migration is an advantage

Together, the information included in the literature packet provides the details to back up our users' claims of a smooth migration to the HP 3000 Series 900 systems. Many of the detailed technical questions that users have had regarding migration are answered in the packet.

MPE XL provides true object-code and database compatibility with MPE V on an entirely new architecture. This means that programs and databases can be restored to an MPE XL system and run without changes. The literature packet reinforces this migration advantage by providing more technical information as well as describing the migration process, products, and features as a whole.

HP 3000

HP 7936/37XP DISCS SUPPORTED ON MPE VIE HP 3000 SYSTEMS

Hewlett-Packard has started shipments of the HP 7936XP and HP 7937XP disc drives with controller cache. This article announces HP 3000 support for these new products, discusses the performance gains possible when systems are configured with these discs, and gives an update on disc drive reliability.

Support

HP has completed certification testing to support the HP 7936XP and HP 7937XP disc drives with controller cache on the UB-MIT (and later) versions of MPE VIE for HP 3000 systems.

Although HP 7936/37XP will not be supported on the first release of MPE XL, it is a candidate for the first delta release.

The maximum HP 7936/37XP disc drive configuration supported on MPE VIE systems is indicated in the following matrix:

HP 3000	HP 7936/37XP	Maximum Gbytes
HP MICRO 3000, Series 37, Series 37XE	4	2.2
HP MICRO 3000XE, Series 39, Series 4X, Series 5X	8	4.5
Series 6X, Series 70 (1 bay)	16	9.1
Series 6X, Series 70 (2 bays)	24	13.7

HP 3000 performance improvements

Users with moderately to heavily loaded HP 3000 systems will experience a 10 to 20 percent performance

improvement when using HP 79361 37XP discs instead of HP 7933135 discs. As always, the performance improvement is dependent on CPU utilization, applications, and system configuration. To give you a feeling for system improvements from this product, the System Performance Lab ran two benchmark tests using an HP 3000 Series 70 and six disc drives. By substituting HP 7937XPs for the HP 7933/35s, they saw a 16 percent improvement for a CPU-intensive benchmark, and a 20 percent improvement for an 110-intensive benchmark.

HP 7936/37XP improvements over the HP 7933/35XP

Qualifying users for the HP 7933/35XP discs with 1 Mbyte of read cache was an involved process. Careful analysis was required in order to ensure a good fit for controller cache in the user's environment.

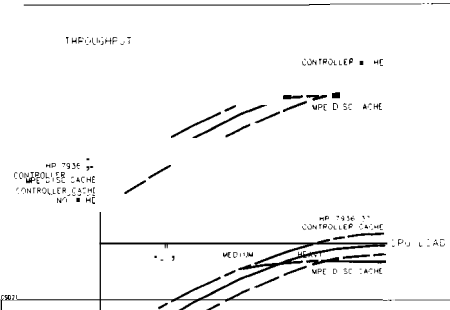
That has all changed with the HP 7936/37XP products. Because the new products offer 2 Mbytes of read cache and 4 Kbytes of write cache, users will experience performance gains over a much wider range of environments. Virtually all users with medium to heavily loaded systems will benefit from the controller cache immediately, while users with lightly loaded systems have a performance growth path.

In addition, the firmware for the HP 7936/37XP is designed to offer better performance because of a more efficient cache-access data structure. The graph below shows projected performance curves based on our experience with beta sites and performance tests.

Reliability update

Besides the good news on performance with controller cache, HP's disc drives offer higher system availability. HP has announced that the mean time between failure (MTBF) for the HP

PROJECTED SYSTEM PERFORMANCE



7936/37 and HP 7936/37XP disc drives is an industry high of 50,000 hours. This is a 100 percent improvement in reliability over the HP 7933135 discs. This means that the HP 3000 system is *more reliable than ever*, thanks to these industry-leading disc drives.

Bottom line

The HP 7936/37XP disc drives are an important competitive advantage for HP 3000 sales. *Businessweek* recently included an article on DEC's entry into the commercial environment, stating that in order for DEC to do well in this transaction-intensive industry they "... need more powerful machines, special software, and better disc drives." HP 3000 hardware and software were specifically developed for commercial applications, and our disc drives are the finest in the industry. We've got what it takes, so don't overlook the benefits offered by these excellent new products.

Also in this issue

- Introducing HP Security Monitor for Security Conscious Users* 1
- HP Offers HP 1000 and HP 3000 Service Training* 6
- Memory Support Prices for High-End Systems Reduced to Zero* 7

Technical Computers

HP 1000

BUNDLED

DEVELOPMENT

SOFTWARE FOR HP 1000

Looking for a software product that provides all of the HP 1000 A-Series development software at a competitive price! Look no more. Hewlett-Packard offers bundled development software with a choice of database options for 60 percent off the list price if each product were purchased separately.

The standard packages contain: FORTRAN 77 (PIN 92836A), Graphics DGL (PIN 92861A), Symbolic Debug (P/N 92860A), Pascal (PIN 92833A), and BASIC (PIN 92857A). In addition, users can choose between IMAGE I or II, as well as VC+ for those users whose systems currently do not contain VC+ with their operating systems.

Listed below is ordering information for these software bundles.

Product No.	Description
91156A	IMAGE II and VC+
91156B	IMAGE I and VC+
91157A	IMAGE II without VC+
91157B	IMAGE I without VC+

Please indicate a media option with your order. These include

- Opt. 022 – CS/80 cartridge tape
- Opt. 044 – Microfloppy media
- Opt. 051 – 1600 bpi mag tape

For further information, contact your local HP sales rep.

HP 1000

3/4-MBYTE HP 1000 A900 MEMORY NOW AVAILABLE

Because many users have taken advantage of the Slotsaver memory promotion and have upgraded their 3/4-Mbyte memory boards, HP's Finance & Remarketing Division (FRD) now has a supply of the HP 1000 A900 memory boards at substantial savings.

Product No.	Description
12220AR	3/4-Mbyte memory board

Contact your HP sales rep for more information.

HP 1000

HP 1000 E-SERIES DISCONTINUANCE

Effective September 1, 1987, HP will be providing a two-year notification for discontinuance of the HP 1000 E-Series family. All HP 1000 E-Series products are scheduled for HP Price List removal effective September 1, 1989. After September 1, 1989, users can still order HP 1000 E-Series systems through 1995, after which they will enter a five-year support life. Hewlett-Packard will maintain a reasonable price for the HP 1000 E-Series special systems; however, the exact price will depend on the quantity ordered.

Users should also be aware that HP will be discontinuing the HP 7914 and 7946 discs during 1988. Users will need to evaluate whether or not they need to make lifetime purchases of these discs to cover the eight months that the E-Series systems will remain on the HP Price List beyond the discontinuance of these discs.

If you have any questions, please contact your local HP sales rep.

HP Precision Architecture/HP-UX

HP 9000 SERIES 800 UPGRADE PROGRAM UPDATE

In keeping with our 100 percent software credit for HP 9000 Series 800 upgrades, users may now receive credit for HP-UX user-license upgrades. For example, if a user purchases a 64-user license on the Model 840S, and then upgrades to the Model 850S, the user can receive the 64-user license on the HP 9000 Model 850S without any incremental cost for the upgraded license. These additional credits will be available on the October HP Price List. Users must have previously purchased a license on another HP 9000 Series 800 processor, and the upgrade credit must also be accompanied by the processor hardware returned.

Product No.	Description
92453A	HP-UX 1 to 32 user license for the HP 9000 Series 800
Opt. OCG	Inter processor user license transfer credit
92454A	HP-UX 1 to 64 user license for the HP 9000 Series 800
Opt. OCG	Inter processor user license transfer credit
92455A	HP-UX unlimited user license for HP 9000 Series 800
Opt. OCG	Inter processor user license transfer credit

Other new additions

The HP 9000 Series 800 upgrade program now includes two additional Series 500 memory cards. The memory credits will be available on the September HP Price List.

Product No.	Description
97040N	256-Kbyte memory board return credit
97047N	512-Kbyte memory board return credit

HP 1000 E- and F-Series I/O card credits are also currently available when upgrading to the HP 9000 Series 800 family.

Product No.	Description
12966AN	ASYNCR I/F
12792AN	Eight-channel MUX
12792BN	Eight-channel MUX
1282IAN	HP-IB
13175BN	MAC disc interface

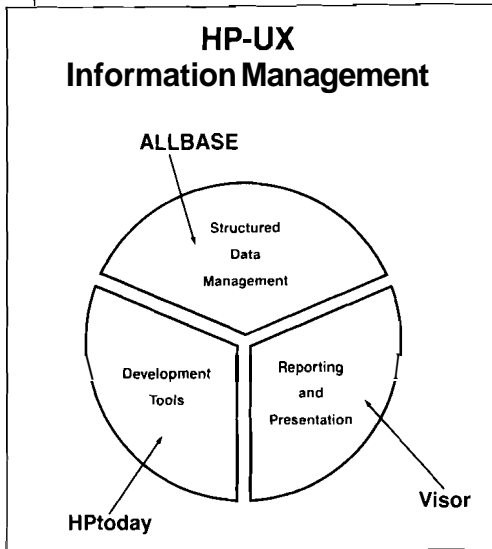
Due to recent demand, HP is offering a special upgrade for users interested in upgrading from the HP 9000 Series 500 or the HP 1000 to an HP 9000 Model 850S. Contact your HP sales rep for more detailed information. If the demand continues, HP will add the Model 850S to the program as a standard upgrade path.

HP Precision Architecture/HP-UX

INFORMATION MANAGEMENT SOLUTIONS FOR HP-UX USERS

An information management solution for most users requires more than the structured storage and retrieval accomplished by a database management system. What many users are seeking is the appropriate toolset to accompany this basic data management. ALLBASEIHP-UX, which has been shipping on HP 9000 Series 800s since March of this year, fulfills the needs of structured data management, but stops short of offering powerful reporting capabilities or sophisticated application development tools. These capabilities are now offered to HP-UX users in the form of two other products that are tightly integrated with ALLBASE. HPtoday, now shipping on the HP 9000

Series 800s, and HP Visor, scheduled for shipment this fall, offer the complementary development and reporting tools not packaged as a part of ALLBASE.



HPtoday provides an excellent solution for developers who are looking to benefit from a full-function, fourth-generation language. A powerful screen painter and report generator can greatly speed the process of application development. The HPtoday integration with ALLBASE combines the ease of use of fourth-generation technology with the flexibility of HP SQL relational database management.

When a full fourth-generation environment is not indicated, HP Visor offers non-sophisticated users the capability of querying and reporting HP SQL data without the need to understand database structure and theory. Visor offers an added dimension to information management in an HP-UX environment. Visor adds a structured query and report capability that will broaden the appeal of ALLBASE as an integrated solution for information management.

For further information on ALLBASE, HPtoday, or Visor, please

consult the latest release of the HP 9000 Series 800 system reference guide. Also refer to the software and communications technical data book (PIN 5954-9902) for data sheets on these products.

Contact your HP sales rep for copies of this literature.

HP 9000

INTRODUCING ERROR-CORRECTING RAM

FOR HP 9000

MODEL 350

A new RAM board set for the HP 9000 Model 350 that provides error checking and correcting (ECC) is now available. Single-bit errors are corrected without users ever having known of them, while double-bit errors are reported to the operating system and, consequently, to the user, just as parity errors are reported today.

The expected Mean-Time-Between-Errors (MTBE) – a double-bit error, resulting in a visible problem to the user – is greater than five years. This high MTBE for ECC RAM allows users to configure very large RAM systems without fear of memory failures due to soft errors. 48-Mbyte RAM systems are now practical and supported on the HP 9000 Model 350.

This new ECC RAM comes in an 8-Mbyte and a 16-Mbyte version. Both versions are two-board pairs (controller plus RAM daughter board) that fit into a single system slot of an HP 9000 Model 350.

Product structure

The new ECC RAM will be offered as both an option to the HP 9000

Model 350 systems and as a standalone product for those wishing to add RAM to their existing system.

Product No.	Description
98264A	8-Mbyte ECC RAM with 3-high System Bus connector
Opt. 004	Delete 3-high System Bus connector
Opt. 005	Substitute 4-high System Bus connector
98264B	16-Mbyte ECC RAM with 3-high System Bus connector
Opt. 004	Delete 3-high System Bus connector
Opt. 005	Substitute 4-high System Bus connector

ECC RAM for HP 9000 Model 350 SPU and bundled systems

We are also offering ECC RAM options to the following bundles:

- HP 98562B – Model 350 SPU
- HP 98582C – Model 350M
- HP 98583C – Model 350C
- HP 98584B – Model 350AIM
- HP 98585B – Model 350AIC
- HP 98586B – Model 350CX
- HP 98587B – Model 350SRX
- HP 98588A – Model 350CH
- Opt. 208: Substitute 8 Mbytes ECC RAM for standard 8 Mbytes Parity RAM.
- Opt. 216: Substitute 16 Mbytes ECC RAM for standard 16 Mbytes Parity RAM.

For more details on product configurations, support plans, and documentation, etc., please contact your HP sales rep.

HP 9000

**FASTER FLOATING
POINT PERFORMANCE
FOR HP 9000
MODEL 330 AND 350
WORKSTATIONS**

Using new compilers available in HP-UX 5.5, the HP 9000 floating-point accelerator (FPA) boosts the floating-point math performance of the HP 9000 Model 330 and Model 350 workstations up to three times as measured by the full-precision Linpack benchmark.

The HP 98248A is configured as a two-board sandwich assembly that occupies one DIO-II slot of the HP 9000 Model 330 or 350 SPU. The assembly contains specialized floating-point math chips and control circuitry that performs the operations of addition, subtraction, multiplication, and division. In addition to the connection to the DIO-II bus, the FPA connects to the Model 350 System Bus. This high-speed communication link between the CPU, RAM, and FPA, enables maximum performance of the FPA when used with the Model 350.

Ordering information

Product No.	Description
98248A	FPA for Model 330 and 350 (Requires HP-UX 5.5 or later revision. Use with Model 330 requires 98570A DIO-II expander.)
Opt. 004	Delete 3-high System Bus (For use with Model 330)
Opt. 005	Substitute 4-high System Bus for 3-high (For use with Model 350 systems which require 4 system bus connections. (i. e. CPU plus three cards that connect to the system bus.)

HP 9000

**HOW TO SPECIFY OPTION 0041005 ON RAM
BOARD/FPA FOR HP 9000 SERIES 300**

The following new options are being introduced for the existing 4-Mbyte Parity RAM controller board (HP 98258A), the new floating point accelerator (HP 98248A), and the new ECC RAM (HP 98264A/B)

Option	Description
004	Delete three-high System Bus connector
005	Substitute four-high System Bus connector for three-high System Bus connector

The System Bus is used to connect high-speed boards in the HP 9000 Model 350 SPU. These boards are the Model 350 CPU board, the 4-Mbyte Parity RAM controller board (or the ECC RAM board), and the floating point accelerator (FPA) board. The System Bus connector is attached to the back of the HP 9000 Model 350 SPU.

There are three different System Buses:

- Two-high System Bus – includes two connectors to connect two boards.
- Three-high System Bus – includes three connectors to connect three boards.

- Four-high System Bus – includes four connectors to connect four boards.

When should you specify these options?

For HP 9000 Model 330 – Specify Opt. 004 to delete three-high System Bus when you order the 4-Mbyte Parity RAM controller board (PIN 98258A) or the FPA (PIN 98248A) for the Model 330, because the Model 330 does ~~not~~ need any System Bus.

For HP 9000 Model 350 – You need the Bus Expander in order to add the 4-Mbyte Parity RAM controller, the FPA, or ECC RAM into the Model 350 SPU or bundled systems. Then specify appropriate option(s) on the high-speed board(s), following the table below.

The available high-speed boards are:

- 4-Mbyte Parity RAM controller board (PIN 98258A)
- Floating-point accelerator (PIN 98248A)
- ECC RAM board (PIN 98264A/B)
- HP 9000 Model 350 CPU board

Current Configuration (The number of high-speed boards)	When you want to add one of the high-speed boards	When you want to add two of the high-speed boards
2 boards	No option	Opt. 004 on the first one and Opt. 005 on the second one
3 boards	Opt. 005	Not Applicable

HP 9000

HP 9000 SERIES 300 HP-UX

RELEASE 5.5 SUPPORTS ADDITIONAL

VAXIVMS FORTRAN FEATURES

The latest release of HP-UX for the HP 9000 Series 300 is 5.5. A major feature of this release is support of the new HP 98248A floating point accelerator (FPA). Please see previous article for more information on the FPA.

Other features of HP-UX 5.5 include:

- Comprehensive VAXIVMS FORTRAN features
 - Faster compilation for FORTRAN, C, and Pascal
- A new FORTRAN optimizer
- FORTRAN lister and cross-reference compiler options.

With this release, all known user-requested VAXIVMS features have been added to the HP 9000 Series 300 FORTRAN compiler. The portability improvements include control statements, specification statements, I/O statements, conversions, syntactical changes, intrinsics, system subroutines, and built-in functions. The addition of these features provides greater ease of portability and a closer approximation of functionality between VAX FORTRAN and the HP 9000 Series 300 FORTRAN. The FORTRAN compiler is GSA certified and is in a leadership position in VAX compatibility. During beta testing, a user ported a 40,000 line VAX FORTRAN program with no recoding.

This release also includes an increase in compile speeds. Many factors enter

into the time a program takes to compile, but on the average, a FORTRAN program will compile 1.5 times faster with this release. On the average, C programs will be 1.3 times faster, and Pascal 1.1 times faster. For example, a 5,000-line FORTRAN program compiled at 1,500 lines per minute with the 5.2 compiler now compiles at 2,400 lines per minute with the new compiler.

The new FORTRAN optimizer replaces selected procedure calls with the procedure body. This decreases program run-time by eliminating the call overhead but has the side effect of enlarging the code size. The BID benchmark is an example of a program with many of these procedure calls. With this optimizer, the number of Kwhets increased from 1,160 to 1,561 on an HP 9000 Model 350.

The list enhancement will provide a source listing with diagnostics, warning and error messages included in the listing file. The cross-reference option will provide information about symbols, including line numbers of definition and/or reference. The list and cross-reference options are both present in the VAX compiler. Adding these features will improve both importability and functionality of the FORTRAN compiler.

Details of the features of this release are available in the HP-UX Technical Exchange. The release is scheduled to start shipping in early September. There will be no changes to the product structure or prices for this release. Orders shipped after the release date will receive the new release. An update for this release will be shipped to users on support services.

HP 9000

POSITIONING

RELATIONAL DBMS

PRODUCTS FOR

HP 9000 SYSTEMS

A rich set of Database Management System (DBMS) products is now available on HP 9000 systems. This article will position the top four relational DBMSs: Informix, Ingres, Oracle, and Unify, as well as HP's Allbase* and HP SQL/300*, HP Visor, and HPtoday products. (*References to Allbase and HP SQLISOO in this article will be used as abbreviated references to the Allbase or the HP SQLISOO in conjunction with the HP Visor and HPtoday products.) The HP Technical Software Catalog (PIN 5954-8289) should be your reference for the availability on HP 9000 systems of other DBMS products not covered in this article.

These relational database management systems are primarily tools for application development. They are used in a wide variety of application areas ranging from accounting to the management of test data and CAD/CAM data and files.

What do these products provide?

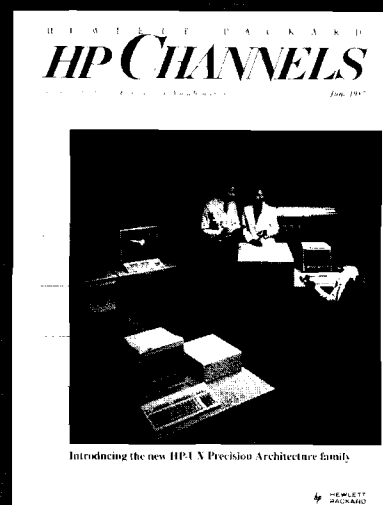
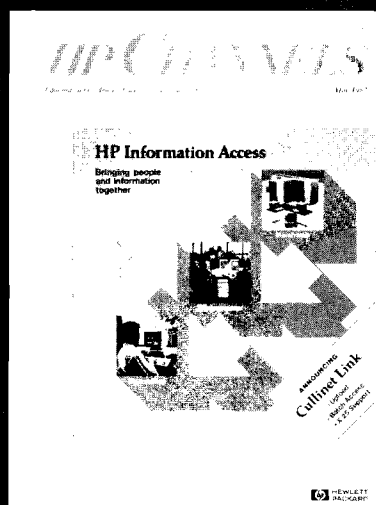
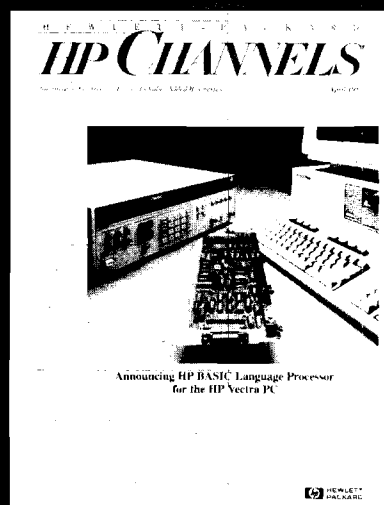
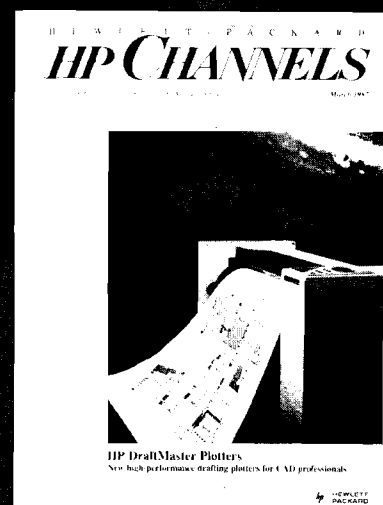
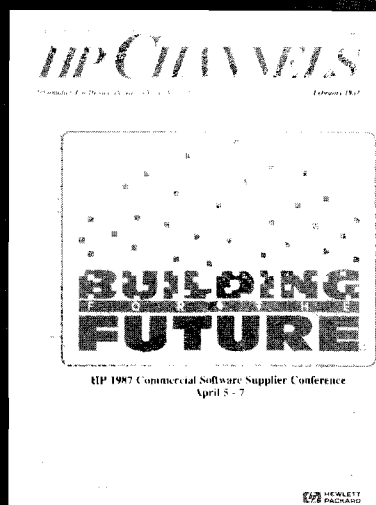
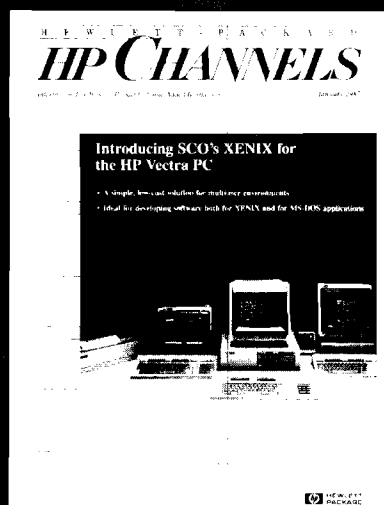
These products each have a DBMS kernel that provides the database management functions of storing data, retrieving, and controlling access to data. On top of this kernel, several application development tools are available.

- *SQL* (industry standard, Structured Query Language) – interface for defining the database, inputting, and querying for data as well as controlling access to the database.
- *Integrated Data Dictionary* – maintains information on the database, the various tables that are in it, the database users, etc.
- *Screen-based forms* – tools that allow for the development of applications that use forms for data entry and query.

HP CHANNELS

Information For Hewlett-Packard's Value-Added Businesses

September 1987



Index for January through June 1987 issues

HP CHANNELS

Index to January through
June 1987 issues

Editor
Tracy Wester

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.

This index includes articles that appeared in *HP Channels* from January through June 1987.

The articles in this index are listed by section in the order in which they appeared.

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- *Report writers* – provide tools for outputting query results in user-defined report formats.
- *Hosr Language Interfaces* – allow for the embedding of database calls into the program or application that is being written in third-generation language (e.g., FORTRAN, C).

Allbase and HP SQL/300 in relation to value-added business DBMSs

Allbase and HP SQL/300 are the right products for users who:

- Are looking for a one-vendor solution
Want HP to support their DBMS

Need to interface with other HP computer systems such as the HP 3000 and the databases on it

Need the dual interface that allows an application to interface to both a relational DBMS, HP SQL, and a network DBMS, IMAGE; this dual interface is provided only by Allbase.

Informix, Ingres, Oracle, and Unify are a better fit in the cases of HP users who:

- Need to have their DBMS and applications work in a heterogeneous computing environment since Oracle, Ingres, Informix, and Unify run on a wide variety of hardware and operating systems
- Already have a big investment in applications developed on one of these value-added business DBMS
- Want to use a market-leading, non-proprietary DBMS to keep from being tied to any one hardware vendor (Informix, Ingres, Oracle, and Unify together account for about 75 percent of the DBMSs sold on all UNIX® operating system hardware)
- Require features provided by only one of the value-added business DBMSs. Since these DBMSs have been in the market longer, they have features that Allbase and HP SQL/300 cannot presently offer.

Positioning the HP 9000 and value-added business DBMS products

Users who need to closely interface their application with IBM or compatible mainframes and VAXes will find Oracle or Ingres to be the better fit. They are much stronger players in these IBM/DEC environments.

Users who are very price sensitive and do not require close interfacing with VAXes or mainframes, will find Informix and Unify to be the better choices. They provide powerful DBMSs at a lower cost.

Performance

Comparative performance of DBMSs is an important consideration often voiced by the user. However, since each application is a particular mix of DBMS transactions, it is very difficult to develop a benchmark that is a meaningful measure of performance across a broad range of DBMS applications. Therefore, there is no widely accepted performance benchmark, though there are a couple of better-known benchmarks such as the DeWitt benchmark. As a result, when performance is critical in making a DBMS choice, users have to either design a benchmark of their own or choose one that approximates the application.

Contact your HP sales rep for more information.

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Personal Computers

General

UPDATED HP FASTTRAK FOR GRAPHICS GALLERY

HP FastTrak for Drawing Gallery and Charting Gallery has been updated and enhanced to contain information on the new Graphics Gallery 2.0 (available August).

For those familiar with the previous edition of the Graphics Gallery HP FastTrak (E06/86), the new edition includes:

- Updated matrix of support configurations for both the HP Vectra PC and HP Touchscreen PC
- Discussion of new Gallery features:
 - *Drawing Gallery* — align text, rotate, add bullet, stretch and skew text, multilevel zoom, group, etc.
 - *Charting Gallery* — area charts, regression charts, double Y-axis scaled charts, bar/line charts, etc.
- Description of new unsupported Drawing Gallery command file interface
- Data disc containing sample pictures and charts for demos or sample output
- Integration information for Lotus® 1-2-3® and Symphony^B graphs, PageMaker^B, HP Word/PC, and Windows
- Additional printing and plotting information including TIFF, PC Paintbrush, Videoshow, and disc file redirection for output

More technical tips

- Version history and compatibility matrices

For those unfamiliar with the Graphics Gallery HP FastTrak, HP FastTrak is a self-study reference and



learning tool composed of readings, labs, examples, and quick-reference information. HP FastTrak was developed for the HP internal support organization as well as those HP users who provide pre- and post-implementation support to end users. Anyone who desires technical information beyond the scope of the standard product documentation will find HP FastTrak useful.

Distribution of the Graphics Gallery HP FastTrak

Users can purchase the Graphics Gallery Collection HP FastTrak (68352X). Note that the individual HP FastTrak for Drawing Gallery (68351X) and Charting Gallery (68350X) is no longer available separately and has been removed from the HP Price List.

Portable

INTRODUCING THE HP PORTABLE VECTRA CS PC

Hewlett-Packard is proud to announce a new family of portable computer products – the HP Portable Vectra PC family.

The HP Portable Vectra PC family adds two high-performance offerings to the HP line of portable computers, providing a range of portables to keep pace with today's mobile work styles. As members of the HP Vectra PC line, these new portables are compatible with the IBM PCIXT, as functional as

desktop PCs, and flexible to meet unique requirements.

Full industry compatibility and built-in disc drives distinguish the HP Portable Vectra CS PC from the HP Portable PLUS. You can choose either the HP Portable Vectra CS PC, with dual 3½-inch floppies (PIN D1001A), or the HP Portable Vectra CS PC Model 20, with a 20-Mbyte hard disc drive and one 3½-inch flexible disc drive (PIN D1009A). The flexible disc drives of the HP Portable Vectra CS PC support both the standard 720-Kbyte media and the new PS12 1.44-Mbyte high-density 3½-inch media.

Desktop computer functionality is provided without sacrificing battery-powered portability. Designed with the professional in mind, the HP Portable Vectra CS PC features a full-sized keyboard with a separate numeric keypad, CGA (Color Graphics Adapter) compatible resolution graphics using the high-contrast supertwist LCD (12-inch diagonal) or an external monochrome or color monitor. With up to 10 hours of battery life on a full charge, (up to four hours with the Model 20) the HP Portable Vectra CS PC can do a full day's work without stopping to recharge the battery. And for extended portable needs, replaceable battery packs are available.

The HP Portable Vectra CS PC is designed to provide the flexibility to configure a system to meet today's needs, as well as adapt to meet the changing requirements of tomorrow's business environment. Four 110 slots are available to accommodate a 1200 bps modem, 2400 bps modem, Display Printer adapter, RS-232IRS-422 interface, and Extended Memory adapters.

The HP Portable Vectra CS PC (PIN D1001A) is available as of September 1. The HP Portable Vectra CS PC Model 20, with hard disc (PIN D1009A), will be available the end of 1987.

Portable

HP PORTABLE VECTRA CS PC MARKET

The HP Portable Vectra PCs are transition products. They bridge the gap between a fully functional desktop PC and the functionally compromised portables. The HP Portable Vectra PC family brings the functionality of the desktop into the size of a portable.

This feature set opens up a broader market for a portable-based product by meeting the needs of the mobile office professional and the requirements of the sales rep who makes a few, highly concentrated calls a day.

Office professionals who need to take their PC home, to a client's site, or to other work sites, will find the HP Portable Vectra CS PC the PC that serves their office PC work, as well as being the portable designed to extend their productivity away from their desk. The financial-services marketplace has professionals whose work style includes working with large amounts of dynamic information. Auditors, bankers, financial consultants, real estate agents and planners, and accountants all depend heavily on the PC, and often must work in remote sites. Other professionals throughout the office, such as manufacturing and engineering, will find the product their PC of preference.

The sales rep has been a valid target for the HP Portable PLUS, as HP has seen numerous installations in the consumer nondurable market. As a solution engine, it is a lightweight, simple-to-use portable, optimized to meet the limited application needs of the highly mobile sales rep.

The HP Portable Vectra CS PC is positioned for the sales rep making less than three calls a day. Typically, these reps work out of sales offices, are accustomed to PCs, and sell industrial-finished products. The functionality of the computer provides the extensive

storage space, access to popular PC-based software, and flexible connectivity into corporate systems. Sales and service management will see the computer as the only PC they need, much as the office professional.

The HP Portable Vectra CS PC expands the market for HP portable computers – with all the functionality of the desktop PC. and the portability to increase individual productivity. It is the only PC a mobile professional needs to buy.

Portable

POSITIONING HP PORTABLE VECTRA PC FAMILY AND HP PORTABLE PLUS

Two distinct segments of users are emerging in the portable marketplace. These users can be classified as field and office professionals. Each segment varies significantly in terms of the work environment and the type of portable that meets the typical user's requirements. The HP Portable Vectra PC family and the HP Portable PLUS are designed to meet the range of needs of both segments of this market.

HP Portable Vectra PC

The HP Portable Vectra PC family is ideally suited for the mobile office professional, as well as sales and service applications where sales reps make three or fewer calls per day. Typically, these users require increased functionality, compatibility with a larger base of industry-standard software, and greater mass storage capabilities.

The HP Portable Vectra PC family is well suited to office environments where individuals, from time to time, need to operate remotely – at another office, home, customer site, or on the road. The HP Portable Vectra PC family is also a strong contender in the less mobile and more analytical segment of

the sales and marketing environment. Industrial-finished goods manufacturing, industrial component industries, and financial service businesses are all examples of consultative sales environments that require the analytical and presentation capabilities that the HP Portable Vectra PC family offers.

HP Portable PLUS

The HP Portable PLUS, on the other hand, continues to be the HP solution for the highly mobile field professional. These users typically work in sales or service environments where they may make six to seven calls per day. These individuals require a portable that is small, lightweight, durable, easy to use, and has a long battery life. The 9½-pound HP Portable PLUS has been optimized for rugged durability, and has over twice the battery life (20 hours) of its major competitors. Its ROM-based software, combined with Personal Applications Manager (PAM), allows quick and easy access to programs and information. With the recently announced price reductions on the HP Portable PLUS, the I-Mbyte drawer, and the HP 91 14B disc drive, the HP Portable PLUS is a more attractive solution than ever for sales force automation programs.

Portable

OFFICE SOFTWARE FOR NEW HP PORTABLE VECTRA CS PC

With the introduction of the HP Portable Vectra CS PC on September 1, HP is introducing the key office software applications in 3%-inch format. These products will ship in mid-September.

To order these products in 3%-inch format, simply specify Opt. 003 with the product number.

Product No.	Option	Description
68333F	003	AdvanceLink
68352F	003	Gallery Collection
68330F	003	Executive MemoMaker
68340F	003	Lotus® 1-2-3®
68331F	003	Executive CardManager

These products are identical to the 5%-inch versions, and are different only in the distribution media.

Several competitors charge for providing 3%-inch versions, or require users to return discs in media update programs. By specifying Opt. 003 on an order, users will receive the 3%-inch version at no extra cost.

Look for further office applications in 3%-inch format in the coming months.

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Portable

GRAPHICS GALLERY SOFTWARE NOW AVAILABLE FOR NEW HP PORTABLE VECTRA CS PC

The new version of the Graphics Gallery, Version 2.0, includes many exciting enhancements, and supports the HP Portable Vectra CS PC. Gallery 2.0 now has many of the enhancements users have requested such as rotate, align text, and several new chart types.

Drawing Gallery 2.0 can now directly read in Lotus® 1-2-3® and

Symphony^B worksheets (without first having to read them into Charting Gallery). Text and objects can be rotated 360 degrees, text lines can be aligned left/right/center, and bullets can be automatically added. Ten new fonts are available, and you can stretch/shrink/skew for impressive results. You can now zoom to five levels and use a *rubberband* box to select the view area. Plus, file retrieval is now easier and faster.

Key Charting Gallery 2.0 features include: combination bar/line charts, area charts. X/Y charts, double Y scale charts. linear regression charts, and will now put numbers next to bars on bar charts.

Both Charting and Drawing Gallery include save to TIFF and PCPaintbrush file formats for desktop publishing integration with leading page layout software packages.

We've added support for many new output devices, and we've decreased the amount of time it takes to print to the HP LaserJet Series of printers as well.

Portable

NEW ADVANCELINK FOR HP PORTABLE VECTRA CS PC

Announcing a new version of AdvanceLink specifically targeted for the HP Portable Vectra CS PC. HP Portable PC users need robust data-communications software to manage a connection to a host HP 3000 (or other computer) from almost anywhere – a remote office, hotel room, phone booth. We've enhanced AdvanceLink to meet that need.

We've extended the AdvanceLink command language to provide more

tools to manage those difficult connections when you are away from the office. We've designed a keyboard overlay for the HP Portable Vectra CS PC keyboard. And, in case the overlay is lost with your luggage, we've extended the Help facility so the answers you need are available. All of this is built on our existing AdvanceLink product, so you get faster file transfer. PC backup. graphics terminal emulation. and all the other features of the current product.

To order AdvanceLink for the HP Portable Vectra CS PC, order the 3½-inch disc option. Specify 68333F Opt. 003.

Portable

HP PORTABLE PLUS PRICE REDUCTIONS

Effective September 1, 1987, prices on the HP Portable PLUS computer, the 1-Mbyte drawer, and the HP 9114B portable disc drive will be reduced. These price reductions demonstrate HP's continuing commitment to the highly mobile, sales and service productivity network (SSPN) segment of the market. This also positions the HP Portable PLUS positively on a price/performance basis with members of the HP Portable Vectra PC family, as well as other competitive offerings.

Product No.	Description
45711E	HP Portable PLUS with modem
45711F*	HP Portable PLUS without modem
82992A	1-Mbyte drawer
9114B*	Portable disc drive

**Note: All foreign versions have the same price reductions.*

Portable

INTRODUCING LOTUS 1-2-3 RELEASE 2.01 FOR THE HP PORTABLE PLUS

Lotus[®] 1-2-3[®] Release 2.01 for the HP Portable PLUS is now shipping. This version gives HP Portable PLUS users access to the added functionality of the latest Lotus release, and allows them greater compatibility with desktop computer Release 2.01 files. Three ROMs are included in the package, two for the main program and one for "Help." You will need a minimum of 256 Kbytes of RAM to run Release 2.01.

The latest version of 1-2-3 has many significant enhancements over the original version. DOS access from 1-2-3 and password protection have been added. The new worksheet has four times as many rows, and has incorporated an advanced memory management system that uses worksheet space more efficiently.

Learning 1-2-3 has been made even easier with the inclusion of new context-sensitive help menus that provide only relevant help screens. A new self-paced tutorial lets users learn 1-2-3 at their own pace. The "Help" ROM can also be removed for users that do not wish to take up one ROM slot.

Virtually all files, including macros, created with 1-2-3 Release 1A can be used with 1-2-3 Release 2.01. Worksheets created with Release 2.01 can be converted to Release 1A files, simply by using the Translate utility that is included with the package. Release 2.01 can also read Symphony^B files.

Data regression is an all-new, exciting feature that is included in the latest

version. 1-2-3 now calculates the slope and constant of a line, and the standard error and degrees of freedom for any given set of data. Forty powerful new macro capabilities as well as 39 new functions have been added to 1-2-3.

Product No.	Description
45539K Opt. 400	1-2-3 Release 2.01

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Portable

STEP-BY-STEP

BOOKLETS HELP

UNLEASH POWER OF HP-28C

Four step-by-step application booklets are now available to help users unleash the full power of the HP-28C scientific professional calculator.

Each of the booklets contains about 100 pages of easy-to-follow examples, program listings, and explanations. Keystroke listings for common problems, and program listings for more complex problems, are included in each booklet. Subject areas are:

- Algebra and College Math
- Calculus
- Probability and Statistics
- Vectors and Matrices

Product No.	Description
00028-90041	Algebra and College Math
00028-90042	Calculus
00028-90043	Probability and Statistics
00028-90044	Vectors and Matrices

Desktop

QNX OPERATING SYSTEM NOW AVAILABLE FOR HP VECTRA PC AND HP INDUSTRIAL VECTRA PC

Quantum Software Systems, Ltd., an independent software vendor (ISV), has just released the real-time QNX operating system for the HP Vectra PC and the HP Industrial Vectra PC. The two versions of QNX, QNX Vectra, and QNX Vectra P, are real-time, multiuser, multitasking, networking operating systems. Note that QNX Vectra and QNX Vectra P are distributed and supported exclusively by Quantum Software Systems, Ltd., and its authorized dealers and distributors.

QNX Vectra and QNX Vectra P may leverage increased HP Vectra PC sales by providing fast, predictable interrupt-handling response times for real-time applications.

Features

Features of QNX Vectra and QNX Vectra P are listed below.

- Provides real-time response up to 10 times faster than other PC operating systems.
- Supports multiuser, multitasking applications written for QNX.
- Supports vertical market and business applications. Multiple QNX applications and one standard DOS application can be run concurrently.
- Supports flexible networking, allowing users to access PC microprocessors,

disc drives, printers, programs, and data elsewhere on the network.

There are two general categories of applications that are well suited to the QNX Vectra and QNX Vectra P environment:

Applications that require real-time response, or can benefit from it, such as manufacturing process control, data acquisition, life and fire safety systems, credit card authorization systems, and point-of-sale systems in hotels, convenience stores, and restaurants. A number of HP prospects have expressed particular interest in using QNX on HP Vectra PCs for PC-based, real-time industrial applications. As an example, a large company in the photographic products industry is considering using HP Vectra PCs and QNX Vectra P as an interface to a large color photo printing system. The HP Vectra PC would be used to monitor the film handling and printing process, as well as input data used to control the process.

- Office applications where flexible sharing of all PC resources on the QNX network is required: these shared resources are available to any PC or terminal node on the network, and include PC processors, disc drives, printers, programs, and data.

For each PC, QNX Vectra supports up to 640 Kbytes addressable memory,

40 concurrent tasks, and 10 serial ports/serial devices.

For each PC, QNX Vectra P supports up to 16 Mbytes addressable memory with memory protection, 64 concurrent tasks, and 16 serial ports/serial devices.

Pricing

Each of these versions is available in both single-computer and networked configurations. Prices start at \$450 for the single-computer version of QNX Vectra and QNX Vectra P, and vary according to the number of nodes on a network. The basic QNX Vectra and QNX Vectra P packages include the QNX kernel, over 100 utilities, a full-screen, macro-programmable editor, and complete documentation. Rebates are available when upgrading the number of nodes, and run-time pricing is available on request.

For more information

Quantum Software Systems, Ltd., has been marketing QNX internationally since 1982 – over 30,000 systems are now in use. To obtain further information on QNX Vectra and QNX Vectra P, contact Ms. Mary Lou Hardey, Marketing Consultant; Quantum Software Systems, Ltd.; Kanata, Ontario, Canada; 613-591-0931.

Peripherals

General

HP 7510A FILM RECORDER TO BE DISCONTINUED

On November 1, 1987, the HP 7510A film recorder will be discontinued and there will be no replacement product. Please notify your HP sales rep immediately if you expect any large, last-time purchases. There will be a limited number of HP 7510A units available, so please place your orders as soon as possible.

The HP 7510A has a standard 90-day on-site warranty, 5-year support life, and excellent software support. Please refer to the HP 7510A software matrix, PIN 5954-8802.

For more information, please contact your HP sales rep.

Mass Storage

HP 7914R SPECIAL NEEDS

Several users have inquired about the future availability of the HP 7914R. In response, HP is evaluating either extended production or lifetime build options. Please let your HP sales rep know if you have any special needs for this product as soon as possible. *Please note that this product is removed from the HP Price List effective March 1, 1988.*

Mass Storage

HP 7933/7935 DISCONTINUANCE PLAN

Hewlett-Packard has formally announced the discontinuance plans for the HP 7933/7935 disc drive products. The discontinuance schedule is listed below.

Product	Discontinuance announcement	Off the HP Price List	Support life length
7933H/XP	August 15, 1987	November 1, 1987	10 years
7935H/XP	August 15, 1987	November 1, 1987	10 years

Note: After the end of the 10-year support life, the products will enter obsolescence status. In this phase, HP support is on a best-effort basis.

HP will take orders for the HP 7935 on a *quote-only* basis from November 1987, through January 1988. At that time, HP will end new production of the HP 7933 and HP 7935. HP's Finance and Remarketing Division (FRD) and System Remarketing Europe (SRE) will offer the HP 7933/35 as a remanufactured drive for as long as demand lasts.

The HP 7937H/XP disc drives are the best migration path for HP 7933 users, and the remarketed HP 7935 is the best path for the current HP 7935. Users with concerns about migrating to remarketed HP 7935s should contact their HP sales rep as soon as possible.

We will continue to publish notices of the product discontinuances periodically to keep everyone informed of the latest planning.

INTRODUCING 10MBPS-10MBPS LAN BRIDGE

HP announces the HP 28648A 10Mbps-10Mbps LAN bridge. The bridge provides interconnectivity and extensibility between two local area networks (LANs). The bridge provides the versatility to connect both ThickLAN and ThinLAN cable. In order to conserve network bandwidth, the bridge provides address filtering capabilities to isolate traffic between two work groups.

Bridges can be used in conjunction with repeaters to extend a user's LAN to about 10 miles. This extensibility provides the user with topological flexibility to satisfy their needs. Since bridges do not count as repeaters in network topology restrictions, up to eight bridges may be used in the path between two nodes.

The bridge is protocol independent and, therefore, can operate in both IEEE 802.3 and Ethernet environments. The bridging capabilities can improve your versatility and flexibility when designing your local area network.

Ordering information

Product No.	Description
HP 28648A	10 Mbps-10Mbps LAN bridge. Includes the bridge box, two ThickMAUs, and two 5-meter AUI cables.
Opt. 241	Deletes both ThickMAUs and AUI cables.
Opt. 242	Deletes one ThickMAU and one AUI cable. Adds one ThinMAU with integrated AUI cable.
<i>Must order 1 power cord option.</i>	
Opt. 900	U.K. power cord
Opt. 901	Australian power cord
Opt. 902	European power cord
Opt. 903	U.S./Canada 125V power cord
Opt. 904	U.S./Canada 250V power cord
Opt. 906	Swiss power cord
Opt. 912	Danish power cord
Opt. 918	Japanese power cord

HP StarLAN VERSUS DECNET

HP is in a very good competitive position relative to DEC in the area of business office solution networking for the PC end user. Specifically, with HP StarLAN and the Personal Productivity Center (PPC), you can offer better scalability and integration at a lower cost.

DEC offers two products in the business office solution networking arena: PC All-in-One, and VAXIVMS Services for MS[®]-DOS.

PC All-in-One

PC All-in-One is a dedicated MicroVAX-based system that provides office-automation services for up to 30 PCs (VAXmate, IBM PCIXTIAT, Rainbow) connected either asynchronously, or via a DECnet coaxial-cable network. The services include an All-in-One menu interface, WPS Plus, electronic mail. DEC's file cabinet, third-party package integration, communication support, an

end-user tool for modifying menus, database access via Datatrieve, and access to Videotex databases (no calendar function). The MicroVAX is dedicated to these functions, but PC users can transparently connect to other nodes on the DECnet network, such as a VAX running VAXIVMS Services for MS[®]-DOS. No asynchronous terminals may be attached, and the PC All-in-One user's PCs must each have a 10-Mbyte hard disc. For 30 users, the cost per user is about \$2,705. The user must additionally purchase 30 PCs with hard discs, and network interface cards or asynchronous connections. This is a very expensive and limiting way to achieve PC integration for office services.

VAXIVMS Services

VAXIVMS Services for MS-DOS is a software product that allows a VAX, MicroVAX, or VAXmate PC to act as a server to PCs (VAXmate or IBM PC/XT/AT) on a DECnet network. The services provided are transparent disc and print on the server, file transfer between a user PC and VAX or MicroVAX host, VT 220 and VT 240 terminal emulation, an on-line user information system, and the MS[®]-Windows user interface. DEC states that VMS Services represents an organization-wide network, illustrating their ability to provide integration at every level of computing.

HP competitive advantages

Like HP's message, DEC's is PC integration into a larger network with DDP applications and communication gateways. The services are similar to HP StarLAN with Resource Sharing, but with some significant differences:

DEC's offering is not as scalable as HP's. A VAXmate PC is not a strong workgroup PC server. It has one serial printer port, and with an additional expansion box, its maximum configuration is 20 Mbytes of hard disc, and two

option slots for other peripheral devices. It is also relatively expensive. In contrast, an HP StarLAN Vectra PC server supports up to seven discs plus one tape backup unit and up to four printers and/or plotters to meet the local service needs of a workgroup. Where HP can combine PC and departmental servers to meet users' needs, DEC will have to propose more PC servers, or only departmental servers.

- VMS Services does not offer a remote PC link. Using HP SERIAL Network, remote PC users may gain access to an HP 3000 server on a remote HP StarLAN network. These remote PC users may then have access to their remote PC files and shared printers. PC users needing remote access to VMS Services are out of luck.

- VMS Services does not offer central, unattended backup of PC discs. An HP 3000 Resource Sharing server does.

- DEC's offering is more expensive than HP's. VMS Services cannot use unshielded twisted-pair telephone wire. This limits users to the DECconnect or coaxial cable link, not permitting them to use their existing wiring asset, and limiting network alternatives they may wish to consider in the future. For example, unlike coaxial cable, using unshielded twisted-pair wiring is a basis for voice/data integration, and is supported by the Token-Ring.

- DEC's VAXmate PC contains a proprietary Ethernet board. DEC users wishing to connect IBM PCs to a VMS Services network must purchase a special Network Integration Kit for each PC. At first glance, DEC's network PC-user connection cost looks low because the PC interface board is included in the price of the relatively expensive VAXmate PC. A user sees the real cost when integrating an IBM PC - \$895, or \$1,195 if you want an LK250 keyboard which is required for VT220/240 terminal emulation - significantly higher than about \$595 for HP StarLAN.

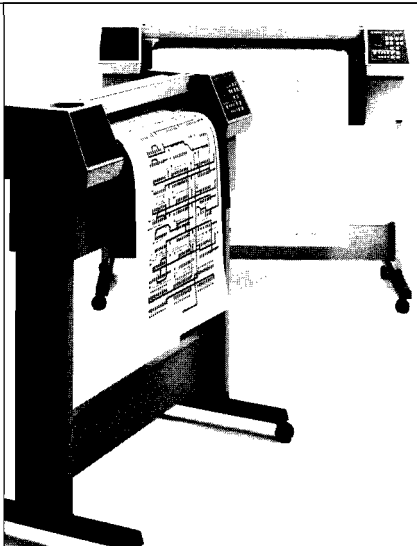
The network hardware and software price for a 10-user VMS Services system, assuming an existing MicroVAX II and 10 IBM PCs, is \$2,350 per user. Add \$300 per user for a mouse and a keyboard enabling VT220/240 terminal emulation. The network hardware and software price for a 10-user HP StarLAN and Resource Sharing system, assuming an existing HP MICRO 3000XE and 10 IBM PCs, is \$1,700 per user. Add \$292.50 per user for HP AdvanceLink Vectra PC, providing terminal emulation and file transfer. Neither analysis includes the cost of wiring, which is less for HP StarLAN.

Note: All prices mentioned are U.S. list.

MS-DOS and MS-Windows are U.S. registered trademarks of Microsoft Corporation.

Plotters

HP 7580 SERIES DRAFTING PLOTTERS TO BE DISCONTINUED



The HP 7580 Series drafting plotters are being removed from the September 1, 1987. HP Price List. Each of the three models (HP 7580B, HP 7585B, and the HP 7586B) will be supported for a full 10 years.

The HP DraftMaster I and roll-feed DraftMaster II drafting plotters are direct replacements for the HP 7580 Series plotters since they provide higher performance and HP 7580 emulation. The HP DraftMaster plotters, together with the HP DraftPro plotter, represent Hewlett-Packard's current family of drafting plotters.

Printers

ANNOUNCING THE IMPROVED HP THINKJET 2225D FAMILY OF PRINTERS

Effective September 1, 1987, you will see modifications to the HP ThinkJet 2225D printers shipped to users. As you know, the HP 2225D family is Hewlett-Packard's AC-powered ThinkJet printer with an RS-232 interface, allowing compatibility with many popular industry PCs. The new version will rely on separate power adapters configured specifically for U.S. or international use, rather than voltage selectable as before. It will also have the following enhancements.

Feature	Benefit
Offline power adapter	- Portability is enhanced - Overall printer weight is reduced by 1½ pounds - In-case ambient heat is reduced, causing fewer potential failures
Extra power adapter\ available	- Allows the user to buy one printer for use in the U.S., Europe, and Intercon countries. Each printer is safety-approved internationally. Simply "mix and match" the appropriate power adapter
Single-board design	- Single-board design has reduced repair time from 70 to 30 minutes

To make the transition as easy as possible, most product numbers and ordering information and procedures for the improved version are identical to the current HP 2225D printer family. There will be one exception, however. The current HP 2225DK version (which is the Intercon version with no power cord), will be broken into three different configurations to offer a cleaner solution for many current OEMs, Australian, and South African customers.

The new 2225DK configurations are listed below:

Product No.	Description
2225DK	Intercon version of HP ThinkJet printer with RS-232 interface and AC power. No power cord supplied.
Opt. 012	Australian version of HP ThinkJet printer with RS-232 interface. Power adapter included (240V, 50Hz).
Opt. 014	South African version of HP ThinkJet printer with RS-232 interface. Power adapter included (220V, 50Hz).

For users who want to mix and match power adapters with the HP 2225DK model or simply want to order extras, the following power adapter models are available:

Model	Description	Country
82241A	Adapter 120V, 60Hz	U.S./Canada
82241AB	Adapter 220V, 50Hz	Europe
82241AJ	Adapter 100V, 50Hz	Japan
82241AG	Adapter 240V, 50Hz	Australia
82241A005	Adapter 240V, 50Hz	South Africa

These same power adapters are also used for the HP 2225C models. These power adapters are not the same as HP QuietJet or QuietJet Plus printer models. With the exception of the HP 2225DK version, the U.S. list price for the HP 2225D family of HP ThinkJet printers will remain the same. \$495.

Users can expect to receive the new HP 2225D ThinkJet printers beginning in late September/early October, 1987.

Printers

NETWORK SUPPORT FOR THE HP LASERJET 2000 PRINTER

The HP LaserJet 2000 printer has been tested and is now supported on Novell, 3COM, and Ungermann-Bass networks.

The connection to the network is achieved via attaching the printer to the file server and, in the case of Ungermann-Bass, also via the Network Interface Unit. The link between the server and the printer is either via a regular Serial (RS-232) or Parallel (Centronics) interface. This method of connection shields the printer from having any dependency on the specific implementation of the network architecture be it Token Ring, Ethernet, or some other design.

Printers

LOOKING AT THE HP 92286Z FONT CARTRIDGE

The current Hewlett-Packard 922862 Microsoft I font cartridge is an extremely popular word processing cartridge jointly developed by HP and Microsoft. Although users' existing applications will be unaffected, you will notice four cartridge changes in September:

- European characters to expand our market in Europe.
- A portrait lineprinter font (also resident in the HP LaserJet PLUS, LaserJet 500 PLUS, LaserJet Series II and LaserJet 2000 printers).

- A slightly modified name: HP 922862 Microsoft 1A; but the product number will remain the same.

- New packaging. You will see new packaging for all font and memory products gradually throughout the summer.

The new characters (found in the Roman-8 and 8-bit ECMA-94 Latin-1 symbol sets) are for use in European text applications. Current users will see no difference in the type styles or symbols they use today.

The new packaging, for all font and memory products, improves soft font protection, provides print samples for cartridge customers, and improves the product's aesthetic appeal.

Important points to remember:

- So that our font and memory product packaging will be consistent, the HP 92286Z Microsoft 1A packaging is the same as that used on all our font and memory products. New packaging will be rolled over beginning on September 1, 1987.

- The new characters are extremely useful in the European market; users' existing applications remain unchanged.

The portrait lineprinter font is resident in the HP LaserJet PLUS, LaserJet 500 PLUS, LaserJet Series II, and the LaserJet 2000 printers.

- Because this product does not change existing applications, product trade-in programs are unnecessary.

For more information, please contact your local sales response center.

Printers

HP LASERJET AND LASERJET PLUS PRINTERS TO BE DISCONTINUED

On March 1, 1987, the Hewlett-Packard LaserJet Series II printer was introduced at a lower price than the HP LaserJet and LaserJet PLUS printers, and offered more features. At the same time, we announced that the HP LaserJet and LaserJet PLUS printers would be discontinued on September 1, 1987. These two products will now be discontinued when they run out (best estimate is around October 1, 1987).

The HP LaserJet and LaserJet PLUS printers have remained on the HP Price List, allowing users time to evaluate the HP LaserJet Series II printer. Since March, the HP LaserJet Series II printer has gained even more market acceptance than the original HP LaserJet printers. Most of HP's accounts switched over immediately to the new HP LaserJet Series II printer and stopped ordering the HP LaserJet and LaserJet PLUS printers.

As with all HP peripheral products, HP LaserJet and LaserJet PLUS printer support will continue for at least five years. The HP LaserJet Customer Assistance Hotline will continue to answer user hardware and software questions, and HP authorized service organizations will continue to repair the printers. Toner cartridges, paper trays, font cartridges, and other printer supplies will continue to be available from HP's Direct Marketing Division (DMK) for all HP LaserJet printers (including the HP LaserJet Series II and LaserJet 2000).

The HP LaserJet printer family has enjoyed the success of a growing PC market, becoming the most popular HP peripheral product ever.

Scanners

OCR SOFTWARE AVAILABLE FOR HP SCANJET SCANNER

HP is pleased to announce the availability of Optical Character Recognition (OCR) software for the HP ScanJet desktop scanner.

ReadRight (HP 88400A) is now orderable and enables the HP ScanJet desktop scanner to read printed pages and convert the text into ASCII characters. The resulting text file can then be edited in a number of word processors or text editors. ReadRight directly supports WordPerfect and WordStar® formats, as well as unformatted ASCII. Other word processor formats are supported indirectly with a format conversion utility, included with the purchase of ReadRight. These formats are listed below:

- Symphony@
- PFS®: Write
- Multimate®
- Displaywrite
- WordPerfect
- WordStar 2000
- PC-Write
- Microsoft® Word
- CanonWriter
- WordStar®

ReadRight is based on a technology known as Feature Extraction. The advantage of this technology over the Matrix Matching technology is that Feature Extraction's recognition capabilities are relatively insensitive to character size and shape, enabling a wider variety of font styles and point sizes to be read. Matrix Matching, on

the other hand, is quite sensitive to the character's size and shape, and is, therefore, more susceptible to error.

ReadRight recognizes a variety of typefaces in sizes ranging from 6 to 12 points. It also recognizes 10 to 15 pitch mono-spaced text as well as some proportionally-spaced fonts. ReadRight can also recognize different fonts located within the same page, paragraph, or sentence without the user having to tell the system which font is being read. Following is a list of the typefaces currently supported by ReadRight:

Supported typefaces

Mono-spaced	Proportionally-spaced
Courier	Bold
Pica	Cubic
Elite	Roman/Madeleine
Prestige Pica	Title
Prestige Elite	Modern
Letter Gothic	Thesis
OCR-B	Theme
Bookface Academic	Arcadia
Prestige Renown/ Style	Gothic/Victory Majestic

ReadRight, as well as most of the other low-end systems available today, does not read the following types of documents:

- Typeset documents (books, magazines, brochures, etc.)
- Documents printed on loose dot-matrix printer
- Poor quality photocopies

Symphony[®] is a U.S. registered trademark of Lotus Development Corporation.

WordStar[®] is a U.S. registered trademark of MicroPro International Corporation.

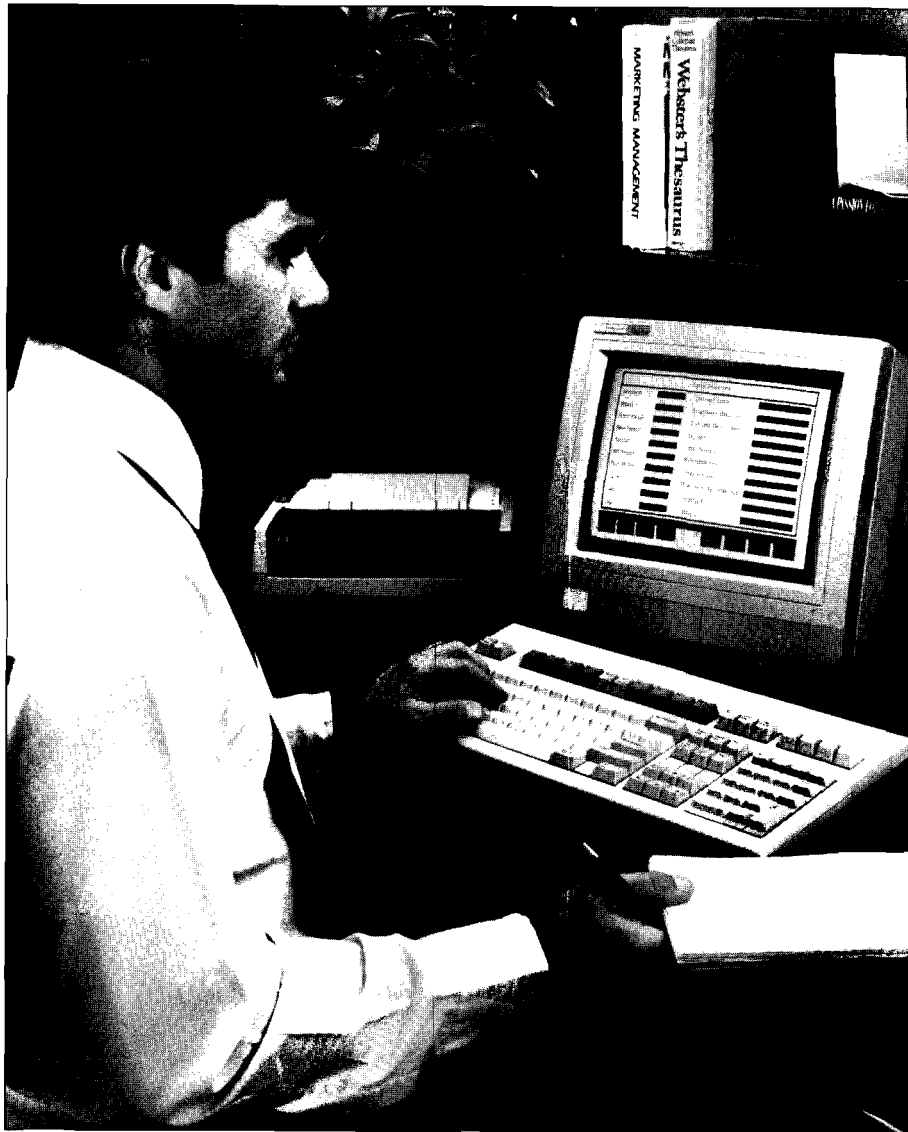
PFS:® Write is a U.S. registered trademark of Software Publishing Corporation.

MultiMate[®] is a U.S. registered trademark of MultiMate International Corporation, an Ashton-Tate company.

Microsoft[®] Word is a U.S. registered trademark of Microsoft Corporation.

Terminals

HEWLETT-PACKARD ANNOUNCES THE HP 700 FAMILY – NEW HPIDEC, IBM, ASCII TERMINALS



Expanding its commercial workstation strategy, Hewlett-Packard introduced new low-cost, full-featured terminals for IBM, DEC, and general-purpose ASCII environments. HP also replaced two existing terminals for HP's own computer systems with new models that offer more features at a lower price.

Although HP has manufactured terminals for its own systems for more than 12 years, this is the first time that HP has introduced terminals specifically designed to run on other vendors' systems. Called the HP 700 display terminal family, the new alphanumeric terminals are designed for business, technical, and manufacturing applications.

"Our strategy is to be the leading supplier of terminals for HP systems and to be a strong vendor in other mar-

kets by offering high-quality products at competitive prices," said Larry Mitchell, general manager of HP's Terminal Division in Roseville, California. "More importantly, the terminals represent our first step in providing a complete workstation family that meets the individual needs and budgets of our customers."

Prices on the new HP terminals are lower than those offered by current leaders in each system market. Despite the lower cost, the terminals offer more features and carry with them HP's reputation for reliability and quality.

Easy to use, easy on users

All terminals have 14-inch diagonal screens that are engineered to produce sharper characters. For example, the use of a half-dot shift creates smoother looking characters, especially those with rounded edges such as 's' and 'c'. Each terminal also includes standard ergonomic features such as tilt-and-swivel monitors and adjustable keyboards.

Terminal monitors are available in both green and amber. Additionally, the new HP and DEC-compatible terminals are available in soft white, in which black letters are displayed on a white screen. All monitor controls – such as power, brightness, and contrast – are located on the front of the terminal for easy access.

All terminals include HP's standard one-year warranty. Further, HP's low-cost maintenance agreements reduce the cost of ownership.

More features, lower price

The HP 700192 and HP 700194 terminals for HP computing environments offer more features and a lower price than the HP 2392 and HP 2394 terminals that they replace.

Added features for the HP 700192 terminal include 80- and 132-column viewing modes, storage of up to eight

pages of display memory, and 16 function keys – twice the number supported on the older systems.

In addition to the features of the HP 700192, the HP 700194 includes a forms cache that allows an average of 25 forms to be stored in the terminal's memory. This reduces the need to download forms from the host computer.

Other functions now done at the terminal rather than the host include 11 data edit checks, which reduces error entry, and modified data tag, which reduces data communication traffic.

Both terminals – which are used with HP's commercial and technical systems – take advantage of block-mode communications in software packages such as HP's VPLUS/3000, which is used to design software applications.

General-purpose ASCII terminal

The HP 700141 display terminal is the lowest priced member of HP's new terminal family. The entry-level terminal works with a variety of computer systems and software; users select from a menu for compatibility with terminals by Wyse, Televideo, ADDS, Lear Siegler, Qume, and Hazeltine.

The full-featured keyboard includes 58 programmable keys, including 16 function keys that can be doubled to 32 by pressing the shift key.

DEC-compatible terminal

The HP 700122 display terminal works with programs designed for the DEC VT220, VT100, and VT52 terminals and other applications that follow the ANSI 3.64 protocol. HP's terminal for DEC applications has four pages of memory for the display – four times that of DEC's VT220 terminal – which

allows more information to be displayed by scrolling up and down.

The keyboard has 106 keys in the same layout as DEC's keyboard, but includes twice the number of programmable keys.

IBM-compatible terminal

The HP 700171 display terminal can run applications that require an IBM 3191 Model A or B terminal in a 3270 Information Display Systems environment.

In addition to the terminal controls for power and brightness, a security lock is located in the front for easy access.

HP offers 122-key and 102-key keyboards in the same arrangement as those from IBM.

Ordering information

Product No.	Description
HP 700/94	High-performance HP block-mode terminal
HP 700102	HP block-mode terminal
HP 700171	IBM 3191 Model A or B compatible terminal
HP 700/22	DEC VT220 ANSI compatible terminal
HP 700141	Entry-level ASCII terminal

HP 700 literature

The following datasheets are available for the HP 700 family.

Pub. No.	Description
5953-8630	HP 700/92 display terminal
5953-8631	HP 700194 high-performance terminal
5953-8632	HP 700141 entry-level ASCII terminal
5953-8643	HP 700122 DEC VT220-compatible terminal
5953-8644	HP 700171 IBM 3191-compatible terminal

Contact your HP sales rep for more information.

Terminals

NEW WATER-TIGHT OPTIONS FOR HP INDUSTRIAL TOUCH TERMINAL

The Water-Tight options for the HP 3082A Industrial Touch terminal replace the Water-Tight powercord Option 801 to meet NEMA 4 international regulatory approvals.

Based upon user requirements and the country of destination, order one of the following options:

Description	Country of destination
Water-Tight Option	
Opt. 801	Canada
Opt. 802	United States
Opt. 803	All other countries

Please note that one of these options *must* be ordered if the HP Industrial Touch terminal will be operating in a water-prone environment.

Also in this issue

<i>CS-80 Disc Drives Service Training Available</i>	6
<i>HP Offers Enhanced HP LaserJet Printers Service Training</i>	6
<i>HP 260 Supports HP LaserJet Series II and QuietJet Printers</i>	7
<i>HP 7936/37XP Discs Supported on MPE VIE HP 3000 Systems</i>	9

Supplies

Supplies

DESIGN PLUS: AN INTEGRAL PART OF YOUR TOTAL COMPUTER SOLUTION

Design Plus is the total furniture solution, developed with Hewlett-Packard computer systems — and HP system users — in mind.

Design Plus matches HP equipment perfectly, to give offices and workstations an appealingly coordinated look. Each component was designed to fit together, so work spaces can be easily reconfigured or expanded to suit changing system needs.

Pluses include cable management, ample workspace, expandable storage space, and an ergonomic design that affords convenience and comfort.

Fits HP systems like a glove

All Design Plus components are constructed of high-quality materials, with system tables that conform to stringent ergonomic standards for optimal working comfort.

Solid die-cast metal legs withstand the weight of equipment, and the pressures of normal office moves, without danger of buckling or breaking. The attractive matte surfaces resist scratches and stains, while protecting eyes from the glare of overhead lighting.

Cabinetry is similarly well-conceived. The mini-rack cabinet, designed to hold the CPU and disc drives of HP 9000 Series 200, 300, or 500 computers, is the same cabinet that encases the HP 3000 Series 37, HP 260, or HP MICRO 3000. It's designed to match the height and depth of our tables and lock into place, providing an additional work surface that's flush-fitted and uninterrupted by troublesome gaps of height discrepancies.

Design Plus offers numerous storage conveniences. Mobile drawer units store files, documentation, and other valuables. Like the minirack cabinets, they match the height of the tables. Hard disc drives and tape back-up systems can be slipped into mobile support cabinets, and tucked conveniently under our tables.

Design Plus also features printer stands that combine fit with durability and mobility. For example, there's the mobile HP LaserJet printer cabinet, which offers an abundance of work and storage space. The mobile sound-enclosure cabinet is ideal for HP serial impact dot-matrix printers. And the universal support stand is excellent for our printers and small plotters. All roll easily on self-locking casters.

Available as preconfigured systems

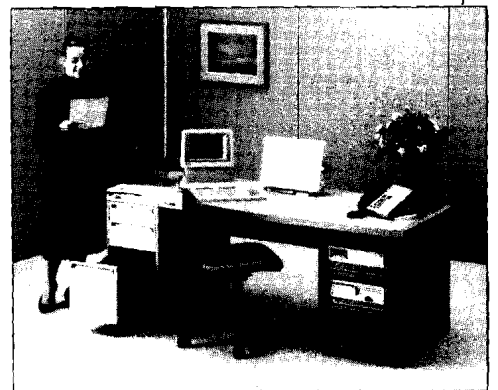


Design Plus One offers ample desktop space.

The Design Plus One is an L-shaped configuration that offers ample desktop space to spread out and work, as well as for terminals, keyboard, and laser printer.

Included are a terminal support table, medium system table, corner turn and mobile drawer unit. The latter boasts two roomy drawers for office supplies and documentation, plus a deeper one for hanging files and records.

Design Plus Two is for those who require compact workstations, whether they use the HP 9000 technical computer systems or personal computers.



PRODUCT NEWS

This bundle includes a large system table, mobile drawer unit and mobile support cabinet. The mobile support cabinet stores CPU and mass storage devices tidily under the system table, so desktop space is free for a PC or terminal and keyboard, and even a printer or small plotter.

Ideal for today's popular applications

If any application calls for Design Plus furniture, it's desktop publishing. Design Plus can be configured to an expansive L-shape that affords space for computer equipment and work space, using two medium system tables and a corner turn, mobile drawer unit, mini-rack and mobile HP LaserJet printer cabinet.



The Desktop Publishing Configuration offers great desktop space.

One end of the "L" easily accommodates a PC, HP LaserJet printer and ScanJet optical scanner, with mass storage devices stored below in a Design Plus mini-rack.

The other end of the "L" can be devoted to research materials. PC-generated text and layouts, and tools of the trade. The three-drawer mobile drawer unit keeps background materials and office supplies close. There's plenty of room to work productively and creatively, and to share work-in-progress with others.

Another application for which Design Plus is suited is computer-aided design (CAD). A wide U-shaped configuration could be built around Design Plus's CAD mini-workstation, offering space for drawings, blueprints, diagrams, schematics, and a computer.



The CAD Configuration puts everything you need where you need it.

The CAD mini-workstation is designed for convenience. It features a drawer to slide the keyboard out of sight until needed, or to the left or right end of the main work surface. That main work surface extends to accommodate expansive drawings in front of the computer monitor, so work can be viewed on the desk and screen at the same time. There's even a platform to raise the monitor for better visibility.

In addition to the CAD mini-workstation, this configuration requires a medium system table, two corner (urns (these should not be used to support CAD monitors), two mini-racks, a mobile drawer unit and a C-sized drawing holder.

If you want more information about Design Plus furniture, see the latest *HP Computer Users Catalog*.

Supplies

HP DIRECT order phone numbers

HP DIRECT Fast Phones – the easy, direct way for you 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) 2500-614/615/616
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 (01) 6726090
Greece	(02) 9236 9702
Italy	
Japan	
Sagamihara	0427 59 1311
Osaka	06 304 6021
Middle East	
Athens	(01) 6828811
Norway	(02) 24 60 90
South Africa	
Johannesburg	(011) 8025111
Cape Town	(021) 537954
Spain	(91) 6374013 (91) 6370011
Sweden	(08) 7502400
Switzerland	(057) 31 22 53 (057) 31 22 54 (057) 31 22 59
The Netherlands	(020) 547 6606
United Kingdom	(0734) 697201
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*

Abstract: Collect-94" is a software development environment that handles compiling, execution, emulation, and decompiling of BASIC-like code. It is a fourth-generation language that has a wide variety of **built-in functions** including: edited field input, menu operation, XMODEM, and Kermit protocol tile transfers, serial port control, string manipulation, and file operations.

Currently, Collect-94 is being used for data collection, inventory control, **shipping** and receiving, and route **accounting**. The **development environment runs on the IBM PC or compatible PCs the HP 150/Touchscreen Pt** The **operating environment is the HP-94 handheld industrial computer. Both the development and operating environments can be ported to other machines.**

Company Name: Audax Corp

Address: 2675 University Avenue
St. Paul, MN 55114
U.S.A.

Phone: 612-646-8896

Contact Person: Susan Rrestone

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Industry: *Cross industry - Decision support, financial modeling*

Abstract: IFPS/Plus is an easy-to-use financial planning tool that provides managers, financial specialists, marketing executives, and strategic planning groups a decision support system to help them analyze information for **making** better decisions faster. This nonprocedural, 4GL language allows users to model their applications **using** their own **terminology for self-documentation** and ease-of-&. The users can also **interrogate the** results with powerful tools such as: What-if analysis, Goal Seeking, Sensitivity, Impact, Monte Carlo Risk Analysis, Analyze, and Universal Consolidation. A full complement of report writing, data file management, and command language capabilities **are** also included. A Data Transfer package is available for **converting** reports and other readable **formats** into the desired IFPS/Plus format.

IFPS/Plus and the Data Transfer Extension is a self-contained program that executes under the control of the MPE operating system in either a batch or interactive mode in the HP 3000 environment.

Company Name: Execucom System Corporation

Address: 9442 Capital of Texas Hwy, North
Arboretum Plaza One
Austin, TX 78759
U.S.A.

Phone: 512-346-4980

Contact Person: Bill Arkell

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Industry: *Cross industry - Any sales or service-related activity*

Abstract: SALESMAN is a standard package designed to suit any organization engaged in a selling-related activity. It has been designed by sales representatives with maximum flexibility and ease of use in mind. The package should appeal to **decision makers** in large and small corporations where the cost of sales staff **is** soaring, competition **is** growing intense, and the gathering of market **intelligence** is often too **difficult**. Runs on any HP 3000

Features: Prospector and Tracker - for **mailing/telephone sales/** quality control

Customizer - provides own page layouts

Informer - focuses on the information needed

Viewer - views the selected information

Microwindow - outputs central data to spread sheets

Communicator - lap top links from remote **field force**

Company Name: Coggon Computers South Ltd

Address: CCS Ltd
Sutton Street
Bath
BA2 6NW
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HP CHANNELS

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