Computer News

HP EGS
New Dimensions in Engineering Drawing
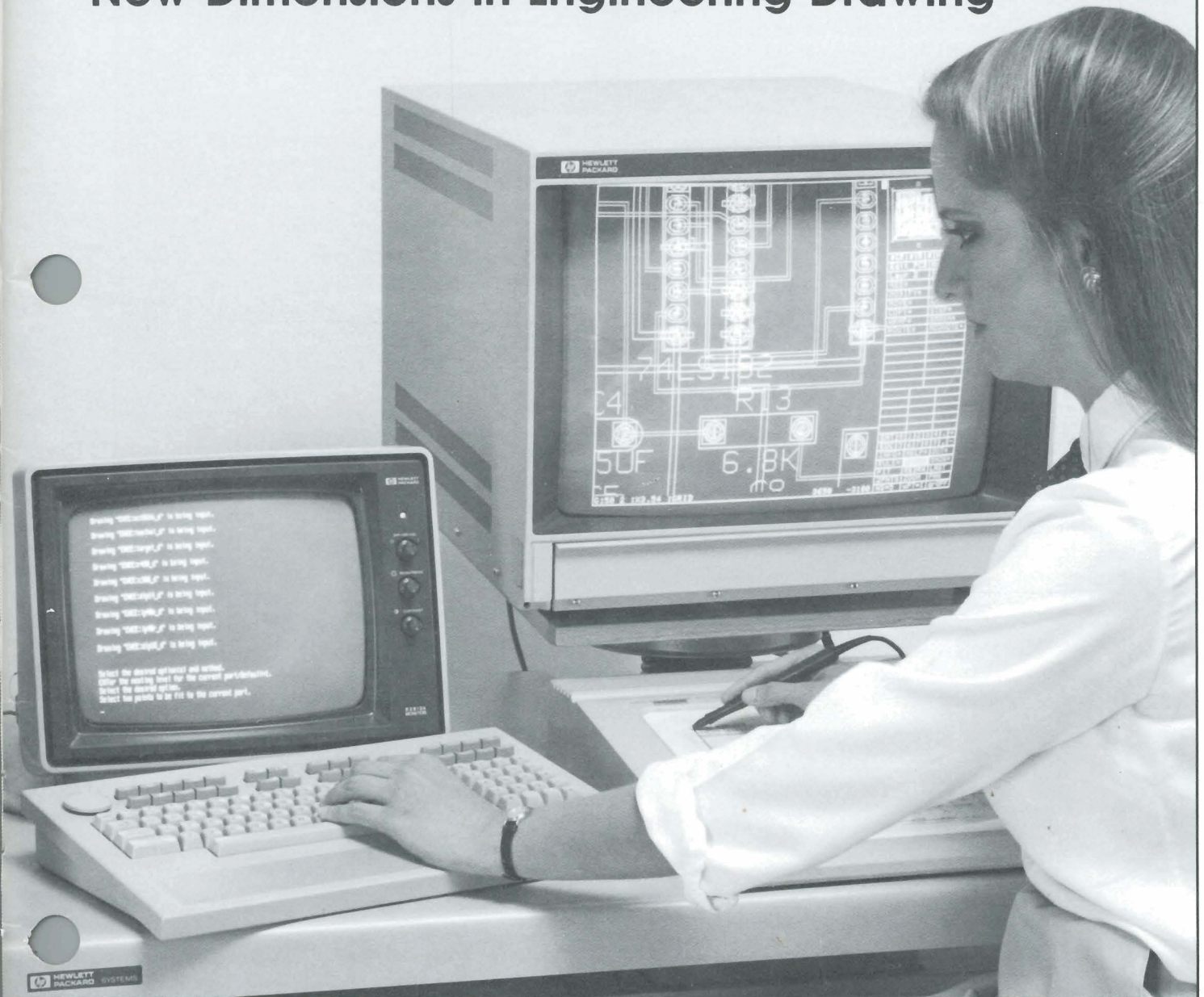
Computer News

Vol. 10, No. 5

On the Cover:

Enhancements to HP EGS provide this engineering drawing package with powerful capabilities. New features strengthen the ME and EE personalities, as well as the customizable general drawing personality. See the articles on pp. 13-15

MARKETING & INTERNATIONAL SECTOR

US Field Operations
European Operations
Intercontinental Operations
Major Accounts Marketing
Corporate Marketing

MIC	Marketing Information Center
FRD	Systems Finance/Remarketing Division
CSD	Computer Support Division
ISD	Instrument Support Division
CSO	Computer Supplies Operation
IPO	Instrument Products Operation
CPC	Corporate Parts Center

MEASUREMENT, DESIGN & MANUFACTURING SYSTEMS SECTOR

Microwave & Communications Group

MCG	Microwave & Communications Group
SPD	Stanford Park Division
NMD	Network Measurements Division
SAD	Signal Analysis Division
SPK	Spokane Division
CTD	Colorado Telecommunications Division
QTD	Queensferry Telecommunications Division

Electronic Instruments Group

EIG	Electronic Instruments Group
NJD	New Jersey Division
SDD	San Diego Division
SCD	Santa Clara Division
BID	Boeblingen Instrument Division
YID	YHP Instrument Division
ICD	Integrated Circuits Division

Design Systems Group

DSG	Design Systems Group
FSD	Fort Collins Systems Division
FEO	Fort Collins Engineering Operation
LSD	Logic Systems Division
CCL	Colorado Springs Division
BCD	Boeblingen Computer Division
BEO	Boeblingen Engineering Operation
LSID	Lake Stevens Instrument Division
EPD	Engineering Productivity Division

Manufacturing Systems Group

MSG	Manufacturing Systems Group
DSD	Data Systems Division
MPD	Manufacturing Productivity Division
LID	Loveland Instrument Division
MTD	Manufacturing Test Division

INFORMATION SYSTEMS & NETWORKS SECTOR

Information Systems Group

ISG	Information Systems Group
CLL	Computer Language Laboratory
CSY	Computer Systems Division
FSO	Financial Systems Operation
BGD	Boeblingen General Systems Division
YCD	YHP Computer Division
OPD	Office Productivity Division
CID	Computer Integrated Circuits Division
GCO	Guadalajara Computer Operation
IRO	Information Resources Operation

Personal Computer Group

PCG	Personal Computer Group
RTD	Roseville Terminals Division
PCD	Portable Computer Division
GPCD	Grenoble Personal Computer Division
POD	Personal Office Computer Division
VCO	Vancouver Division
PSD	Personal Software Division
PCDO	Personal Computer Distribution Operation
PCGO	Personal Computer Group Operation

Information Products Group

IPG	Information Products Group
BCI	Boise Division
DMD	Disc Memory Division
GLD	Greeley Division
CPB	Computer Peripherals Bristol Division
RND	Roseville Networks Division
IND	Information Networks Division
GND	Grenoble Networks Division
CNO	Colorado Networks Operation

ANALYTICAL, COMPONENTS, MEDICAL & TECHNOLOGY SECTOR

Analytical Group

AVD	Avondale Division
SID	Scientific Instruments Division
WAD	Waldbronn Division

Components Group

MSD	Microwave Semiconductor Division
OED	Optoelectronics Division
OCD	Optical Communication Division

Medical Group

AND	Andover Division
BMD	Boeblingen Medical Division
MCM	McMinnville Division
WAI	Waltham Division Medical Supplies Center
HCP	Health Care Productivity Operation

HP Labs
Corporate Manufacturing
Corporate Engineering

HP Computer Museum
www.hpmuseum.net

GENERAL

New CIM brochure provides 10 steps to success

Bojana Fazarinc/MSG

A new, overview brochure, *Computer Integrated Manufacturing — Ten Steps to Success*, addresses a common management problem. Top management at most manufacturing companies today recognize that the path to competitive survival is through the use of computer and instrumentation technologies to increase their productivity and product quality. What many of these managers still struggle with is how to best implement the many available solutions and where to start.

Based on HP's own experience and that of a number of our successful customers, the brochure provides practical, proven steps toward success in computer in-

tegrated manufacturing (CIM). It discusses HP's strategy for success through the Manufacturer's Productivity Network (MPN) and provides several impressive customer case histories.

This colorful, concept-oriented brochure was designed to serve as a sales aid in selling to top management and as a response piece for other high-level promotional activities. A companion brochure with more product focus is being developed for selling to middle manufacturing management and implementers.

The CIM brochure (P/N 5953-7643) has been distributed to the field and additional copies can be ordered from the Literature Distribution Center in Palo Alto.

First international users group conference for all HP computer users

Dena Stein/SMC

Interex, the International Association of Hewlett-Packard Computer Users, is having its first international conference for all HP computer users — HP 3000, HP 1000, HP 9000, and HP personal computer — in Washington, DC, September 8-13, 1985.

Submit your abstract

Now's your chance to submit an abstract and be a part of the first users group conference to include the entire HP computer community. "Information Crossroads of the 80s" will be the theme of the conference.

Abstracts are due March 1, 1985. For more information contact Pam Tower at TELNET 125-4461 or HP DESK 4700/11. The deadline for early registration is January 31.
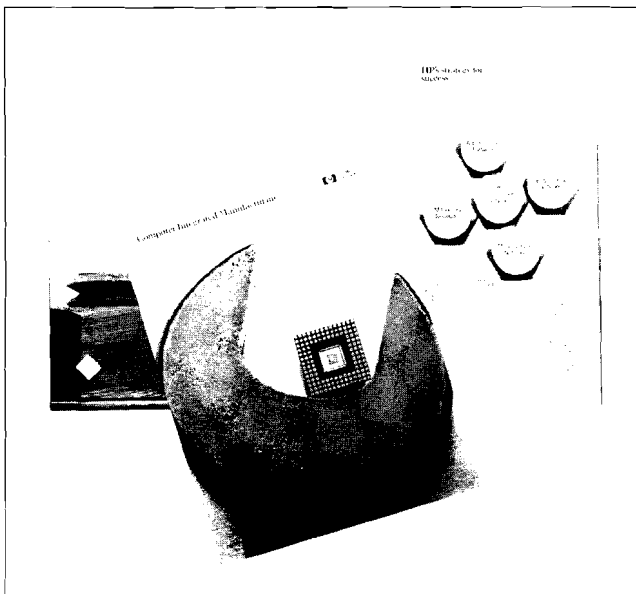
1985 Conference Calendar		
March 31-April 5	HP 3000 users	Amsterdam, Netherlands
April 9-12	HP 1000 users	Antwerp, Belgium
May 16-17	HP 3000 users	Santa Cruz, CA (Bay Area Regional Users Group)
September 8-13	All HP computer users	Washington, DC

SERIES 70

Data communication software for the HP-71

Rob Horton/PCD

The HP-71 data communication pac, HP 82488A, is now available. The software is contained in a convenient "plug-in" module and, when used with an HP-71 and modem, can provide access to other computer systems (such as the HP 3000 and IBM mainframes) and commercial timesharing networks.

The data communications pac provides a versatile terminal emulator that includes:

- Ability to send incoming or outgoing data directly to the HP-71 display, a printer, and/or a video interface
- Special code-word-creation capability that simplifies log-on procedures
- Ability to transfer text files that have been written off-line to a host computer system or mass storage
- Ability to store incoming data into a text file for later review or printing
- A 500-character input buffer provided for reviewing information when using the HP-71 display
- Command files that allow easy implementation of repetitive operations.

The software is entirely menu driven. Most operations can be accessed from the menu by pressing a single key.

Suggested US list for the HP 82488A is $150. Orders may be placed with Computer Supplies Operation.

SERIES 100

HP announces the Lattice C compiler for MS™-DOS computers

David Newcomer/PSD

The Lattice C compiler is now available for the HP Touchscreen and The Portable personal computers. Effective January 1, 1985, PC users can have the powerful and efficient C programming language for their systems or applications programming needs. The Lattice C compiler is P/N 45452D and has a list price of $495.

The Lattice C compiler and its extensive libraries implement on MS-DOS systems the high-level C language that originated on UNIX-based computers. The Personal Software Division lab and Lattice, Inc. worked closely together to tailor a well-crafted implementation that features the very latest revisions from Lattice. Designed to work specifically on HP's personal computers, this industry-standard C compiler offers many advanced built-in features and quality assured by HP's full service and support.

Features of the C compiler:

- Full implementation of the Kernighan and Ritchie C language, with enhancements
- The fastest C compiler in the MS-DOS world
- Transportability of C programs from other computers
- The power used by many major software houses and corporate programmers
- The latest and most up-to-date version
- Four memory models, allowing you to optimize your code to fit the size of your programs and data
- An easy interface to assembly language routines.

Features of the C libraries:

- A broad range of input/output functions
- Four supported memory models
- Sample C programs
- UNIX-compatible function calls
- A comprehensive math package.

Personal Computers

Included utilities:

- A file-management librarian
- A linker to generate executable code
- Object module disassembler and function-extract capability.

Extended libraries include:

- The decimal arithmetic package
- Low level I/O functions
- The valuable Terminal Independence Package
- MS-DOS routines, including directory, clock, and string functions.

The Lattice C compiler product also includes the definitive C book, "The C Programming Language" by Kernighan and Ritchie, a comprehensive reference manual, and the software on five diskettes.

HP employees who use the Lattice C compiler at work should be pleased to learn that HP and Lattice, Inc. have signed an internal use agreement giving HP extensive rights to use the Lattice C compiler. This internal use agreement is to be coordinated by one contact person at each division. For more information on the internal use agreement, please contact your division's Lattice C expert, or call Jo Barrett at the Personal Software Division (PSD) on TELNET 773-6213. For more information on the Lattice C product call David Newcomer on TELNET 773-7673.

Lattice is a registered trademark of Lattice, Inc.
MS™-DOS is a trademark of Microsoft Corporation.
UNIX is a US trademark of Bell Laboratories.

Microsoft® Word equals performance
Curt Riffle/PSD

Microsoft Word, the popular, full-function document processor from the same people who brought you MS™-DOS and Multiplan ", is now available for the HP Touchscreen personal computer, the Touchscreen MAX, and The Portable. Priced at only $375 and requiring only the minimum memory configuration (256K bytes), Microsoft Word (P/N 45474D) is one of the best values available for HP's personal computers.

Microsoft Word combines ease-of-use with powerful features not found on most personal computer word processors. Using the what-you-see-is-what-you-get approach, Word lets you see what your document will look like while it is still on the screen. On-screen, full-word commands and descriptive softkeys eliminate the need to memorize confusing keystroke sequences. Make a mistake? Word's UNDO command lets you back up and try again. A context-sensitive HELP feature is available at the touch of a key. If you need more help, HP has provided an extensive User's Manual and Quick Reference Guide for your convenience.

Microsoft Word's real power and performance show in text editing and formatting. Move blocks of text easily within a document or between different documents using Word's COPY, INSERT, or SEARCH AND REPLACE commands and Word's windowing feature. Windows allow users to display up to eight different documents on the screen simultaneously while transferring data between them. Word automatically reformats paragraphs, numbers pages, and arranges footnotes for you. Multi-columnar documents and documents up to 255 characters across are also easily handled by Word.

Microsoft Word lets you easily print your document exactly as you want it. Designed to work with the latest printers, such as the HP LaserJet, Word lets you choose from up to 64 font styles. Near-typeset-quality documents, from letters to technical reports and manuals, can now be produced in your office or home, thanks to the capabilities of Microsoft Word.

Microsoft " is a US registered trademark of Microsoft Corporation.
MS™-DOS is a US trademark of Microsoft Corporation.
Multiplan " is a US registered trademark of Microsoft Corporation.

PFS:GRAPH now available on the HP Touchscreen personal computer

Chris Walker/PSD

Now you can offer your HP Touchscreen personal computer customers simple-to-use business graphics with PFS:GRAPH from Software Publishing Corporation. PFS:GRAPH is the ideal tool for the decision maker who wants to transform complex facts and figures into easy-to-grasp visuals. What distinguishes PFS:GRAPH from other graphics packages is its simplicity and integration with other products in the PFS: family of products. In practice, this means users can:

- Produce personalized form letters using PFS:WRITE and PFS:FILE
- Create charts or columnar summaries of data stored in PFS:FILE by using PFS:GRAPH or PFS:REPORT
- Include the reports or graphs in documents created with PFS:WRITE and print out integrated text and graphics on a single page.

Your customer is likely to start with one PFS: package for a single application, with the knowledge that their future requirements can be satisfied by other products in the PFS: family.

While PFS:GRAPH, like other members of the PFS: family, is targeted towards the novice or infrequent computer user, it has all the features of more complex packages. The following comparison chart shows the major HP-distributed graphics packages and their basic capabilities.

	SERIES 100 GRAPHICS	PICTURE PERFECT	PFS: GRAPH	GRAPH-WRITER	GRAPH-PLAN
Chart Types	Pie, Bar, Line, Scatter, Text	Pie, Bar, Line, Scatter	Pie, Bar, Line, Area	Pie, Bar, Line, Scatter, Side	Pie, Bar, Line, Scatter
Integration	Data from DIF, Print Files	Data from DIF, Print Files	Data from DIF, SYLK, PFS:FILE. Use Graphs in PFS:WRITE	Data from SYLK Files	Data from Microplan Spreadsheets

PFS:GRAPH accepts data either directly from the keyboard or from PFS:FILE, VisiCalc* and 1-2-3™ DIF files, or Multiplan* SYLK files. Charts can be displayed in a number of output options:

- Integrated text and graphics on printers supporting graphics (using PFS:WRITE)
- Two sizes — full page or half page
- Printer or plotter output
- Color transparencies for presentation graphics.

PFS:GRAPH completes the PFS: family of software solutions available to your customers from HP. Other PFS: products include PFS:FILE and REPORT (P/N 45488A) and PFS:WRITE (P/N 45489A). PFS:GRAPH will be available January 1, 1985, as P/N 45490A, and costs $140.

VisiCalc is a US registered trademark of VisiCorp.*

1-2-3™ is a US trademark of Lotus Development Corporation.

Multiplan is a US registered trademark of Microsoft Corporation.*

A free PFS: software demonstration disc available

Chris Walker/PSD

A demonstration disc of the popular PFS: software product line is now available free of charge. The demo consists of a single disc and instructions on how to run it. It demonstrates the capabilities of PFS:FILE and REPORT (an easy-to-use file manager and report generator), PFS:WRITE (an easy-to-learn, fully-functioned word processor), and PFS: GRAPH (a business graphics generator).

The demo is designed to quickly acquaint users with the major features of each of these packages, and shows how each package integrates with the others. It takes about an hour to learn, and about 10 minutes to run the entire demonstration.

In order to use the demo, you must have a copy of each of the above software products. Please order these through the normal channels.

To order the PFS: software demo disc, send a COMSYS to Chris Walker/D600/IM with your name and mailing address.

(Note: The PFS: demo disc may be copied.)

HP Forms Master helps programmers with interface design

Mona Matsumoto/PSD

Your programming customers — data processing professionals, MIS wizards, and OEM developers who use Microsoft" Compiled BASIC, FORTRAN, or Pascal — will appreciate this tool for the HP Touchscreen personal computer.

Digital Research's Display Manager ($500), Blaise Computing's View Manager ($275), and LazyCoder's Screen II ($450), available on the IBM PC, don't offer the power or ease-of-use of Forms Master ($295) for the HP Touchscreen personal computer. Forms Master was developed and made available by HP.

A special Forms Editor makes interface design easier than ever. This special Forms Editor allows programmers to create screens with useful enhancements, such as touch, boldface, inverse video, italics, blinking, and underlining. Protection, setting tab order, and acceptable characters can be defined for any field. Mapping the keyboard is easy too. The Forms Editor uses labeled function keys, rather than escape sequences like other forms editors.

System analysts can use Forms Master to create the interfaces for the system they are designing. Programmers can then write the code for the application. Alternative interfaces (easily changed with the Forms Editor) can be approved by the user groups. The Forms Editor is so simple to use, some end users could even design their own interfaces.

The application must be written in one of the following Microsoft languages: Compiled BASIC, FORTRAN, or Pascal.

A powerful library of procedures increases programming productivity. The Forms Master library provides a set of procedures that the application calls to utilize the defined forms. Forms may be displayed for data entry, reporting, and other activities. If desired, forms can be created or modified programmatically.

Forms Master requires a standard HP Touchscreen personal computer or Touchscreen MAX configuration. It is on the Corporate Price List as P/N 45443A and costs $295.

Microsoft" is a US registered trademark of Microsoft Corporation.

Pascal and GW-BASIC: one version for HP Touchscreen and The Portable personal computers

David Newcomer/PSD

Pascal by Microsoft" (P/N 45447A) will be removed from the price list on February 1. It will be replaced by Pascal by Microsoft (P/N 45447D). The "D" product has been shipping from Personal Computer Distribution Operation (PCDO) since September 1, and it costs $350. Support for The Portable is the only difference between the "A" and the "D" products.

GW-BASIC by Microsoft (P/N 45450A) will be removed from the price list on February 1. It is replaced by GW-BASIC by Microsoft (P/N 45450D). The "D" product has been shipping from PCDO since November 1 and is priced at $395. The old GW-BASIC "A" product was the hottest-selling language product from PSD, so be sure to inform your dealers and customers about the even more exciting "D" product. The difference between the "A" and the "D" products is the added support for The Portable and a new manual.

Customers who want to upgrade to the GW-BASIC "D" product (or replace damaged media) can purchase an upgrade/exchange kit that contains the new manual and the software on standard 3½-inch media. It is P/N 45450-63002 and costs $42. Place the order with Computer Supplies Operation in Sunnyvale, CA. The original software disc must be returned with the order for the upgrade/exchange kit in order to qualify for the special $42 price.

These two new "D" products and the recent announcement of the Lattice C compiler bring up to seven the number of language products for the HP Touchscreen and The Portable personal computers distributed by HP.

PSD's language products:

P/N	Product	Price	Runs on the Touchscreen	Runs on The Portable
45445D	BASIC by Microsoft	$300	Yes	Yes
45446D	Compiled BASIC by Microsoft	395	Yes	Yes
45447D	Pascal by Microsoft	350	Yes	Yes
45448A	COBOL by Microsoft	750	Yes	No
45449A	FORTRAN by Microsoft	350	Yes	No
45450D	GW-BASIC by Microsoft	395	Yes	Yes
45452D	Lattice C Compiler	495	Yes	Yes

Microsoft " *is a US registered trademark of Microsoft Corporation.*

3Com support issues
Dwayne Murray/POD

The support contract for 3Com that was advertised on New Product Training (NPT) and announced in the October 1 issue of *Computer News* is no longer available. It was removed from the Corporate Price List on December 1. Support for 3Com will be provided by the combined HP COACH/Response Center organization. Customers can reach them through the HP COACH phone number. Currently, there is no charge for this service, but a billing system will be implemented for answering questions.

Customers who have purchased a Response Center Support Contract will have support until the HP COACH/Response Center starts the billing system. Then their support will come from the HP COACH/Response Center organization.

As far as field support is concerned, the Information Products Group's Network Marketing Group is providing SE Support. The support person to contact is Alex Daemion-Simonovich at TELNET 125-3552, or 408-725-3552.

Positioning EtherSeries/150 customers for HP AdvanceNet
Randi Iten/RND

EtherSeries/150 has proven an excellent solution for customers in a 300-meter single-segment network environment. In order to prepare your customers who are interested in future HP AdvanceNet solutions, like allowing HP 3000 communication as an upgrade from EtherSeries/150, please keep the following things in mind:

- An HP AdvanceNet solution for inexpensive local area networking (LAN) will be the low-cost version of the IEEE 802.3 standard, called Cheapernet.

- The IEEE 802.3 standard specifies 185-meter segments for Cheapernet networks. By keeping cable segment lengths to 185 meters, customers allow themselves the freedom to install any IEEE 802.3 standard Nodes and Repeaters (to attach cable segments together) on the network. For these reasons, HP endorses IEEE 802.3 products for LAN connections on HP AdvanceNet. 3Com has made special compensation in the circuitry on their interfaces in order to offer EtherLink customers the 300-meter length.

- Customers can expect EtherSeries/150 hardware investment protection for upgrades to the HP AdvanceNet solution.

For reference, here is a quick summary of some industry definitions: Ethernet was developed by Xerox, DEC, and Intel and then enhanced to form the IEEE 802.3 standard. ThinEthernet was developed by 3Com and is being enhanced to form an extension of the IEEE 802.3 standard (referred to as Cheapernet). Cheapernet/ThinEthernet reduces network costs in two ways: (1) The cable is less expensive, and (2) the transceiver circuitry exists on board instead of in an external box.

	IEEE 802.3 — 500M, 100 nodes	ThinEthernet — 300M, 100 nodes
Ethernet 500M 100 nodes	Can coexist on same cable	Use the same frame protocol (software is compatible) ** de facto standard **
Cheapernet 185M 30 nodes	Use the same frame protocol (software is compatible) ** IEEE 802.3 standard **	Can coexist on same cable

COMDEX/Fall '84 a big hit for HP Touchscreen personal computer ISVs
Craig Artherholt/PSD

The COMDEX/Fall '84 show in Las Vegas (November 14-18) proved the new Hewlett-Packard exhibit as a big winner for the estimated 100,000 attendees. This success was shared by the new display of software products available for the HP Touchscreen personal computer and The Portable. Many of the almost 600 US software offerings were on display within the booth area. A new videotape was shown in the exhibit area that stresses the wide array of software products available and the total support that comes with purchasing an HP software solution.

Along with the many dealers, end users, and consultants passing through the HP booth were several hundred independent software vendors (ISVs) who stopped by to talk about their new product developments. Many of these ISV's attended the Friday night reception hosted by HP to celebrate the tremendous success of our personal computer product line in 1984.

Remarketed HP 120s and 125s discontinued
Rhonda Willens/FRD

Effective immediately, Finance and Remarketing Division (FRD) will discontinue remarketing the HP 120 and 125 family of personal computers. These products will continue to be supported under their original five-year support clock. Customers, especially OEMs, should be notified immediately.

The decision to discontinue remarketing the HP 120 and 125 was made due to zero supply at FRD and the discontinuance of application software in 1985.

If your customers require any assistance in moving their applications to the HP Touchscreen personal computer, please contact the Personal Computer Group Sales Center.

Also in this issue

The Portable — confidence in your battery power

Nick Fowler/PCD

The Portable is powered by three, permanently mounted "D" cell lead acid batteries. These batteries are considered "dry cells" for all safety purposes and are treated just like alkaline cells for transportation, so you don't need to worry about carrying them in your car or aboard airplanes.

Lead acid cells are able to maintain their capacity over a very long service life and charging cycles do not affect their performance. So you can leave the batteries plugged in all the time or deep cycle them without concern. Extensive effort has been taken with The Portable to translate these engineering benefits into tangible customer benefits. Two independent monitoring systems keep constant tabs on the battery cells. Having two separate systems ensures that battery damage and/or data loss are virtually impossible.

The first monitoring system is a "fuel gauge" algorithm that keeps users aware of the percentage of battery life remaining whenever the Personal Applications Manager main menu is displayed. This algorithm measures the time the system is being used versus the time the recharger is plugged in.

The other monitoring system actually measures the voltage in the battery cells. This safeguard will display a "low battery" warning when the voltage in the cells drops below 5.8 volts, or 20% of battery life remaining. If the voltage drops to 5.6 volts, about 5% of battery life, The Portable will automatically enter the sleep state. Electronic disc contents are protected for one week to one month after the system is automatically shut down.

The two systems can always be synchronized by fully recharging the system (12 hours if the system is not in use). So every once in a while, leave your system recharging overnight.

The important thing to remember, however, is that there are always two systems constantly monitoring the batteries that will never allow the batteries to be drained to a point where data might be lost.

hp

GENERAL

HP 1000

Loveland support just a phone call away
Scott Sampl/LID

With the recent changes in the field organization, you may be wondering where to call to get answers about the voltmeter or data acquisition products marketed by Loveland Instrument Division. All of our support is centralized at the division. A Regional Support Engineer (RSE) is assigned to each region — that person should be your main contact. The RSEs are as follows:

Region	Regional Support Engineer	Extension
ESR and Japan	Chuck Clark	2363
MSR and ICON	Alan Fryer	3285
SSR and Canada	Rich Sowell	2121
Neely	Gary Pinkerton	3467
Europe	Jim Wall	2466

To contact any of the RSEs, call 303-667-5000 or send a COMSYS to 0900.

HP QDM/1000 has a new look
Sam Haugh/AMSO

With the November production change order of HP Quality Decision Management/1000, we bring together a number of activities we've been working on since the June release. Here's a rundown of the new product features for the HP QDM/1000:

Screen-mode manual data collection. Header data, common parameters and attributes, and specific parameters and attributes are now collected by reading entire screens. Up to 10 items are configurable on one screen. Once the header data is entered, checking (validation) is done, and the common data screens come up. After entry and validation of the common data, the specific data screens appear. You can page back and forth between screens of attribute and parametric data specific to a unit prior to data entry, and you can edit data for any unit already processed during the current transaction using a "unit menu." Units are no longer defined up front and are not limited to 50 per transaction. A second level of help keys is provided as well. Thus, manual data collection is much easier to use.

Jump function in Report Definition Builder (RDB). Now you can jump from menu to menu in RDB. To modify one screen, simply "jump" to it, make the change, then "jump" to the end to save it. There is also a "partial save" function to save an unfinished report definition for completion at a later time.

Description/softkey file editor. The description file editor allows you to define a softkey simply by filling out the block-mode menu screens provided.

New file system. HP QDM/1000 now makes use of the hierarchical file system of the A-Series. This allows for more efficient use of the machine and easier definition and understanding of the system layout.

User hook versatility. Now a user program can be scheduled automatically by the manual data collection module. With this change, once the header data is collected, a program can be triggered to collect all the relevant parametric data in the transaction.

Factory automation "Quota Beater Kit"

More information about HP QDM/1000 and other factory automation products can be found in the "Quota Beater Kit." The updated data sheet is included (P/N 5954-0315) as well as a suggested configuration for an HP QDM/1000 "Starter System." The list price is $73,000.

Quality is first

Since June, no bugs were reported from an installed base of 37 HP QDM/1000 users. So, we've made excellent progress since the initial A-Series release in January.

HP QDM sales update

HP QDM/1000 closed out the fiscal year showing 54 total sales. Congratulations and thank you for your effort. Sales in the last quarter were seven in August, ten in September, and seven in October.

Quality advertisement

Through the first quarter a two-page ad in which HP QDM/1000 is showcased has been running in *Business Week, Industry Week, Quality, Production Engineering,* and *Industrial Engineering.*

Use Ordering Guide Configuration Checklist when ordering HP 1000

Pat Horton/DSD

Data Systems Division (DSD) needs your assistance in improving customer satisfaction with the Coordinated Delivery Program. Presently, 70% of our coordinated delivery orders are missing cable and media options. To ensure shipment integrity, DSD is not scheduling incomplete coordinated delivery orders for shipment until we receive a change order. To assure accurate ordering in the future of HP 1000 computer systems, please use the Ordering Guide Configuration Checklist on pages 4 through 9 of the guide to specify the product and options to be included in the system. If you have any questions concerning product prerequisites for coordinated deliveries, please call your sales center representative.

HP 9000

HP EGS enhancements increase user productivity

Miriam Flood/FSD

HP EGS, formerly EGS/200, has proven itself in the world of engineering drawing systems. Now this powerful drawing tool has been enhanced to be even more powerful, with features that rival the most sophisticated drawing systems. Every HP EGS sale is also a hardware sale, a sale that can help you meet your quota. With the enhancements, HP EGS sales will be even easier.

The new features designed to increase user productivity enhance the capabilities of HP EGS. HP EGS now has improved graphics speed, so your customer can realize up to five times the graphics execution speed. Freehand drawing capabilities have been added, letting users create curves without a guide or sign their drawings. Other enhancements include Macro Help facilities and additional stroke tables for text and notes.
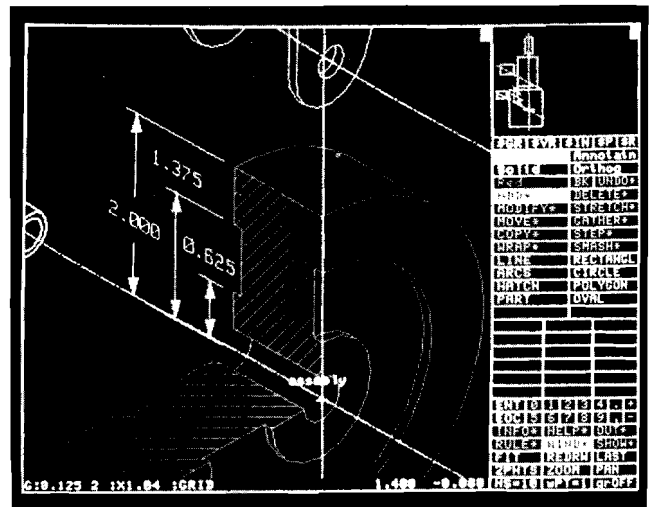
In the ME personality, new features include an isometric grid, enabling users to draw isometric views as 3-D-like objects or show assembly operations on a single drawing.

HP EGS is one of the few 2-D graphics systems with this capability. There are also new dimensioning capabilities, allowing the user to draw in feet, inches, and fractions, and an improved material lister. Additional features include Polar Step and Repeat, Macro Instance, chamfers, and fillets.
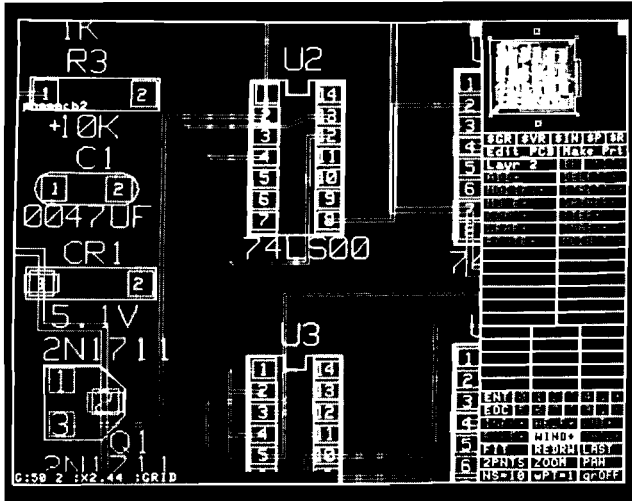
The EE personality includes such enhancements as a Connect List Compare feature, which allows users to verify that the schematic and PC board connection lists are equivalent. This is an assurance that the PC board design is an exact realization of the schematic drawing. The Connection List Generator is 20 times faster than the previous version. There is also a Material Lister which lists all schematic and PC board parts, including description and stock number, providing ordering information. The GATHER command lets users move segments of a drawing without losing connectivity. A Rat's Nest Generator has been added, which provides point-to-point connections between placed PC board components based on a connection list from a schematic. Final routing of traces can be simplified prior to final drawing.

Optional enhancements include a Photoplot/NC drill output, which converts HP EGS drawing information to the format required by a Gerber photoplotter or an Excellon numerical control drill. The bidirectional Initial Graphics Exchange Specification (IGES) Processor translates files into IGES format, making it possible to move them to other vendors' graphics systems, and vice versa.

HP EGS has retained all of the capabilities of the previous version. It is a customizable, open-ended system, allowing users to create their own personality for their specific needs.

Drawings and user part libraries from EGS/45 and EGS/200 are compatible with the new version of HP EGS. HP EGS interfaces with HP TechWriter, electronically merging words with the pictures created by HP EGS.

Customers on Support Services will receive the new HP EGS revision and the Photoplotter Utility at no charge. Other customers must purchase the upgrade kit for $2,500.

P/N	Description	Price
98305A	HP EGS 2.0	$10,000
Opt. 042 — 5¼"		
Opt. 044 — 3½"		
98305-17420 — 5¼"	Upgrade Kits	2,500
98305-17440 — 3½"		2,500
98310A	Photoplotter,	3,000
Opt. 042 — 5¼"	N/C Drill Tape	
Opt. 044 — 3½"	Utilities	
98311A	IGES Translator	5,000
Opt. 042 — 5¼"		
Opt. 044 — 3½"		

HP EGS field tour and sales aids
Miriam Flood/FSD

In January, Fort Collins Engineering Operation will be conducting a US field tour to familiarize the sales force with the new HP EGS. Ten stops are planned, each for two days, with SR and SE training. The schedule is as follows:

Dates	Location
January 7, 8	Fullerton, CA
	Valley Forge, PA
	Naperville, IL
	Atlanta, GA
	Englewood, NJ
January 10, 11	Bellevue, WA
	Lexington, MA
	Novi, MI
	Richardson, TX
	Montreal, Ontario

All 02 technical computer SRs and SEs should plan to attend one of these sessions. Please contact your area AEM if you have not been advised of the place and time for your region. Tours for Europe are planned for January and February.

The new HP EGS sales training manual (STM) and HP EGS brochure are being sent to you, as well as an audio cassette with the sales training manual on one side and the brochure on the other. These cassettes have proved to be a useful and time-saving sales training aid.

HP 9000 Model 550: more computing power per engineer
Miriam Flood/FSD

The newest member of the HP 9000 family, the Model 550, is a high-powered 32-bit engine that offers a compact, less-expensive alternative in a 32-bit multi- or single-user workstation configuration. The Model 550 is the mature product of the state-of-the-art 32-bit computer family — the Series 500.

The Model 550 features new floating-point math hardware, more memory, and enhanced HP-UX. The high-speed performance of the floating-point hardware lets your customers complete computation-intensive problems in less time. For simulation, modeling, and analysis, execution times are cut considerably in single- and double-precision routines. This floating-point math hardware is standard on the new CPU boards.

Customers can dedicate one Model 550 to 32 users and add two extra CPUs for a total of three. This allows each Model 550 to increase in performance significantly and increase the power and flexibility available for each user.

Memory on the 550 can be increased up to 5M bytes using the ½M byte RAM boards, or up to 10M bytes using the 1M byte RAM boards. This increased capacity provides the room needed for high performance and a large number of tasks.

The Model 550 runs the current version of HP-UX, which features additional commands, more efficient virtual memory, a symbolic debugger for three languages, and the Device I/O Library. It is also compatible with HP-UX software and programs that run, or were written on, the Models 530 and 540.

For example, through the 550's multi-tasking capabilities, analysis programs can be run in the background while finite-element models are developed in the foreground. With a series of networked Model 550 workstations, customers can experience a 5- to 10-fold gain in productivity.

Another added feature is the compact ITF packaging of the 550. Just 13 inches wide by 9 inches tall, the 550 can be placed in a taboret or mini-rack, where it is accessible but out of the way. The low noise level (under 50 decibels) means that the 550 can be used in a normal office environment without noise buffering.

Customers who currently own a Model 530 or 540 can upgrade their machines to match the power of the Model 550. For your new customers, the Model 550 already has it all, without requiring upgrades. Whether they are interested in software development, CAD, EE, or ME, they will find the Model 550 is the computer they have been waiting for.

Options for the Model 550 are the same as for the rest of the Series 500. System prices are:

P/N	Description	US List Price
9050A	Base System (box only)	$19,425
9050AT	Single-user Bundled	34,105
9050AM	Multi-user Bundled	36,325

Sales aids for HP 9000 Model 550
Miriam Flood/FSD

Several new sales aids have been prepared to help you get acquainted with and be successful selling the new HP 9000 Model 550.

The Model 550 brochure (P/N 5953-9530) is an eight-page, four-color brochure designed to inform your customers about the features and benefits of the Model 550, as well as illustrate HP's commitment to CAD/CAM. Technical literature includes a new Series 500 Hardware Data Sheet (P/N 5953-9525), an updated Series 500 Configuration Guide (P/N 5953-9529), and a revised Series 200/500 Pricing Guide (P/N 5953-9526D). In addition, you will receive a set of 35mm slides to aid you in customer presentations and to update your slide libraries.

Watch your mail and the *Momentum* mailings for these sales aids. Additional copies are available from the Corporate Literature Center.

Technical Computers

Series 500 adds hardware floating point CPU

Bill Szmyd/FSD

Fort Collins Systems Division (FSD) announces a new floating point CPU for the HP 9000 Series 500 computers. In addition to a CPU chip and a clock chip, the new CPU board has separate chips for add, subtract, multiply, and divide functions, all done with HP's reliable NMOS III technology. All Series 500 machines shipped from FSD after January 1, 1985, will contain the new floating point CPU.

These integral floating point hardware chips give the Series 500 CPU much better performance in single- and double-precision math-intensive programs. While the actual improvements for a customer's particular program may vary, math-intensive jobs such as finite element and simulation can be completed in less time — faster than on a comparably priced competitor's system.

The new floating point CPU will replace the current CPU in all Series 500 systems for Options 500, 600, and 700. The floating point CPU will also be available as a stand-alone product as P/N 97043B. We will not automatically be converting orders for P/N 97043A into orders for P/N 97043B. We will, however, offer an upgrade program. Between January 1, 1985, and June 30, 1985, customers will receive a $2,500 credit when they upgrade to the new CPU.

In addition, when your customers upgrade to the new CPU, they can also upgrade their 256K byte memory boards and receive a $500 credit toward the purchase of the 512K byte memory boards. With these 512K byte boards, customers can experience even higher system performance and increased productivity. This offer is good from January 1, 1985, through June 30, 1985.

For orders that are in-house by January 1, 1985, there will be no change in price. For orders placed after January 1, prices are as follows:

Part Number	Description	US List Old Price	US List New Price	Factory Based Price
97043B	Series 500 CPU with floating point hardware	—	$ 8,500	$ 8,425
Opt. 500	First Series 500 CPU with floating point hardware	Bundled in system	— No change —	
Opt. 600	Second Series 500 CPU with floating point hardware	$ 7,500	8,500	8,425
Opt. 700	Third Series 500 CPU with floating point hardware	15,000	17,000	16,850
97043A	Series 500 CPU without floating point hardware	7,500	7,500	7,435

Refer to the Special Offer Flyer (P/N 5953-9524) for details on the specials.

HP-UX sales way up in 1984

Doug Hartman/ISG

Sales of HP-UX-based systems in the 1984 fiscal year were over 1,300 trade units. That's an increase of more than 100% over the 1983 fiscal year. This growth reflects improvements made to HP-UX during 1984, as well as increased demand for systems based on UNIX. There are now more than 2,000 HP-UX based systems installed.

The majority of these installations is on Series 500s, though Series 200 HP-UX sales have been improving. You can order HP-UX as part of an HP 9040AM system, followed by the HP 97080 multiuser 9020 software. Most Series 500 HP-UX sales are multiuser systems, by a four-to-one ratio versus single-user systems. In recent months, HP-UX has accounted for more than 75% of Series 500 sales, with the other 25% running BASIC.

Look for this growth in HP-UX systems to continue through 1985, fueled by product improvements, new applications and continued strong demand for UNIX-based systems.

UNIX is a US trademark of Bell Laboratories.

Demand grows for UNIX-based systems

Eileen Skrabutenas/ISG

Looking for places to sell HP's UNIX-based systems where UNIX is the solution? Several well defined customer groups have begun standardizing on UNIX. If you haven't already targeted these markets for your 1985 HP 9000 sales campaign, be sure to do so.

Communications. With the divestiture of AT&T, the regional holding and local telephone operating companies are prime customers for the HP 9000 and HP-UX. Many have been using UNIX for some time and are aggressively looking for alternatives to AT&T. Your best bet in penetrating the telephone accounts is to concentrate on the systems programming department where software requirements are met by UNIX, standard programming languages like C, Pascal, and FORTRAN, and databases like ORACLE.

Educational institutions. No, we're not talking about high-tech replacements for Apple II's in elementary schools, but those venerated institutions of higher learning — colleges and universities. Educational institutions have been using UNIX since 1976. The dissemination of UNIX to universities under inexpensive educational licenses has greatly contributed to its widespread use. UNIX continues to be the preferred program development and training environment for many computer science departments. Also, the relative abundance of trained UNIX and C professionals at many larger colleges and universities make the adoption of UNIX for other applications much easier. It is the one group of customers where the lack of applications software does not present a problem.

Government. Federal government agencies have standardized on UNIX with a fervor. Not only are UNIX-based systems being used for program development and other engineering-related applications by the Department of Defense, but civilian agencies are beginning to require UNIX for data processing applications. A UNIX specification is beginning to appear on almost every RFQ released by government agencies. The federal government views the standardization on UNIX as a major step in reducing the nightmare caused by incompatible equipment from multiple vendors.

Although these are just a few of the vertical markets using UNIX-based systems, others typically require additional application software that might not yet be available for the HP 9000. Also, these markets represent opportunities for multiple sells. If you have a success story to tell about a recent HP 9000/HP-UX sale into one of these markets, please contact Eileen Skrabutenas at 408-725-8111, ext. 3147, so the success can be shared with other SRs.

UNIX is a US trademark of Bell Laboratories.

UNIX-based systems competition

Doug Hartman/ISG

All of the major computer vendors support UNIX-based systems on some of their products. Let's take a look at some recent developments from our traditional competitors, IBM and DEC, as well as from AT&T, which owns the rights to UNIX.

IBM will supply UNIX on a number of its systems, including PCs, the 4300 Series, the 9000 instrument computer and the Series 1. They have many different kinds of UNIX. Most people are paying most attention to XENIX, which is available now on the 9001 instrument controller and the 9002 small business system, and has been announced on the PC AT. XENIX is Microsoft's version of AT&T's System III that is particularly well suited to commercial applications. IBM also supplies a more or less standard System III for the PC (single user only, called PC/IX) and for the 4300 (sold only to telephone operating companies, called VM/IX). In almost all cases they are offering UNIX to anyone who wants it, but prefer to stress something else, such as MS™-DOS or an IBM operating system. At this point, IBM has nothing that competes with the HP 9000 Series 500. The 9000 and the PC AT compete with the Series 200.

DEC will supply UNIX on its VAXs, PDP-11s, and Pro 350 personal computers. The UNIX versions for these systems are all different, but all are called Ultrix. DEC is concentrating on VAXs, for which they sell Ultrix-32. This is DEC's packaging job of the Berkeley version of UNIX, including virtual memory and TCP/IP networking. They sell a smaller version of Ultrix, called Ultrix-32m, on the MicroVAX I, but sources indicate it only supports four users before it becomes unusable. This will most likely be fixed with the forthcoming MicroVAX II, which sources say will be more powerful than a VAX 750, but with the same kind of prices as the MicroVAX I. Since you'll run up against VAXs all the time in sales situations, it's worth keeping in mind that DEC does not prefer to sell UNIX. Their system performance, peripheral support, and software availability are all much better on VMS. If you can get the prospect sold on UNIX, you will do better in competition with a VAX.

AT&T will supply UNIX on anything it can get its hands on, including its 3B family. The 3B family starts with the 3B2, which is like the HP 9000 Series 200 (though the packaging is more like a MicroVAX or Micro 1000), and runs up to the 3B20, which is like a VAX 780. All of these run AT&T system V (naturally enough), but with no Berkeley enhancements, which is a drawback in many situations. AT&T is not a factor in end-user sales at this time, as they are training a sales force and otherwise building up their marketing. They have had some effect on OEMs and software suppliers, who like the stability that AT&T represents.

UNIX is a US trademark of Bell Laboratories.
MS™-DOS is a US trademark of Microsoft Corporation.

New application software for HP-UX and the HP 9000

Eileen Skrabutenas/ISG

Application software for HP's UNIX-based systems? Thanks to the hard work and determination of factory and field third-party software supplier reps, HP now has a broad range of customer solutions for your prospects.

Over the last 12 months, we have added over 40 software packages to our library of listed, referenced, and distributed software programs that run under the HP-UX operating system. And new software suppliers are being signed every month.

Recent additions to the HP-UX library include:

Name	Vendor	Application
SMS	Structural Measurement Systems	Finite Element Analysis
HILO-2	Genrad	Logic Design
INFORMIX	Relational Database Systems	Database
ORACLE	Oracle Corp.	Database
UNIFY	Unify Corp.	Database
RM COBOL	Ryan McFarland	COBOL Programming
TELL-A-GRAF	ISSCO	Business Graphics
SPSSX	SPSS, Inc.	Statistical Analysis
C CALC	DSD Corp.	Spreadsheet
ACCU/CAD	Accugraph	2D Design
CAVCAD	CAV Corp.	3D Wire Frame
PROPERTY MANAGEMENT	TOM Software	Real Estate
BUSINESS MANAGEMENT	TOM Software	General Accounting

To help you and your customers locate applications software for HP-UX, a new gatefold flyer will be available in January exclusively dedicated to HP-UX applications. Software will be categorized by application and will give names and addresses of the supplying vendors. If you have any questions before then, please contact Eileen Skrabutenas at 408-725-8111, ext. 3147, or send a COMSYS to 4701.

UNIX is a US trademark of Bell Laboratories.

HP-UX slide presentation available

Doug Hartman/ISG

Seminars are an effective way to introduce prospects to the benefits of HP's UNIX-based systems. Now it's easier than ever to present an HP-UX seminar. We've just finished a set of 43 color overhead projector slides (viewgraphs) to use in an HP-UX presentation. These slides are designed for use early in the sales cycle. They present an overview of HP-UX features, followed by benefits for OEMs, software suppliers, and end users. We've included several slides indicating how HP-UX compares to MPE (HP 3000 operating system) and to RTE (HP 1000 operating system). The presentation concludes with an introduction of the HP-UX system product line.

To get a copy of the HP-UX seminar slide presentation, order P/N 5958-3128 for slides and P/N 5958-3129 for accompanying text from the Computer Systems Division. Transfer cost for these slides is $94.64 and $1.61 for the text.

UNIX is a US trademark of Bell Laboratories.

HP 9000 Series 500 HP-UX operating system support
Deb Nelson/CSD

DGL (HP 97084A) and asynchronous datacommunications (HP 97076A) have been bundled into the HP 9000 Series 500 HP-UX multiuser operating system (HP 97089B). The corresponding support for these products has been bundled into the operating system support. Therefore, support for all three products is accomplished by ordering Account Management Support (AMS), Response Center Support (RCS), or Software Materials Subscription (SMS), on the operating system. Until February 1, 1985, an override must be used when placing the order on HEART. Please call Lynn Farlin at Computer Support Division if you have any questions: 408-864-5515 or TELNET 864-5515.

System LX now on Corporate Price List
Cathleen Henderson/FSD

The System LX summer special, a low-cost, single-user version of HP-UX, was so popular that we have turned it into a regular product, the HP 9817L, available on the January Corporate Price List. It has the same capabilities as our other single-user HP-UX systems, with a limited set of supported peripherals.

The HP 9817L includes the HP 9817A modular computer, a 14-inch monochrome monitor, the HP-HIL (HP-Human Interface Link) keyboard, 1M byte of RAM, and the HP-UX operating system software. The HP 9133D disc drive, not included in the package, is currently required for operation. The operating system is distributed on 20 3½-inch double-sided micro-floppy discs, and has been divided into six different partitions. This partitioning allows users to select the portions of the system to install on the disc, and thus customize the amount of disc space available for their applications.

The HP 9817L supports a limited selection of peripherals. Refer to the monthly Support Matrix from Fort Collins Systems Division (Series 200 Configuration Guide, Appendix L) for a detailed list.

The single-user HP-UX operating system is also being offered as a separate product for customers who already have their HP 9817 system and want to move into the HP-UX environment. This system requires a minimum of 1M byte of RAM and includes the 20 micro-floppy discs, the license, and manual set.

P/N	Description	US List Price
9817L	Bundled hardware with HP-UX	$10,375
98670A Opt. 632	Single-user HP-UX first copy	2,500
Opt. 635	Each additional copy	1,250

HP 3054A software runs on BASIC 3.0
Scott Sampl/LID

As of October 17, 1984, all HP 3054A software shipped from Loveland Instrument Division was compatible with the BASIC 3.0 operating systems for Series 200 controllers. The modules required for proper operation include the following:
- IO-Language Extension
- HP-IB-Device Driver
- GRAPH-Language Extension
- DISC*-Device Driver
- ERR-Error Handling.

required for operation with external disc on HP-IB

These modules consume about 336K bytes of RAM. A typical HP 3054A application program could easily consume another 110K bytes, so we recommend a minimum RAM configuration of 512K bytes. Documentation is currently being included with our manuals to identify which modules should be loaded.

Technical Computers

Rotary control knob now a separate product
Cathleen Handershot/FSD

The latest addition to the HP-HIL (HP-Human Interface Link) family of devices is the rotary control knob module for the HP 9000 Models 217 and 237. This knob equips the 217 and 237 with the functions provided by the control knob on other Series 200 computer keyboards.

The rotary control knob allows users to move the cursor and scale variables in the same manner as the previously built-in knobs. The 0.5 meter cable lets users place the knob on either side of the keyboard to accommodate both right- and left-handed people. The switch on the side of the module allows users to change the cursor control from vertical to horizontal and back again. The anti-skid pad keeps the module firmly in place during use. There are two outlets: one connects the knob to the keyboard, the other allows daisy-chaining another device, as needed.

The knob is on the January Corporate Price List as P/N 46083A and costs $170 US.

A reminder to watch the HP Integral PC teleconference January 10, 1985
Dick Siegel/PCD

Be sure to tune-in to the HP Integral PC teleconference immediately following the instrumentation teleconference on Thursday, January 10, 1985. You will learn valuable information about the latest product from the Portable Computer Division, the Hewlett-Packard Integral Personal Computer (or HP Integral PC). This product will be announced to the general public by January 21, 1985.
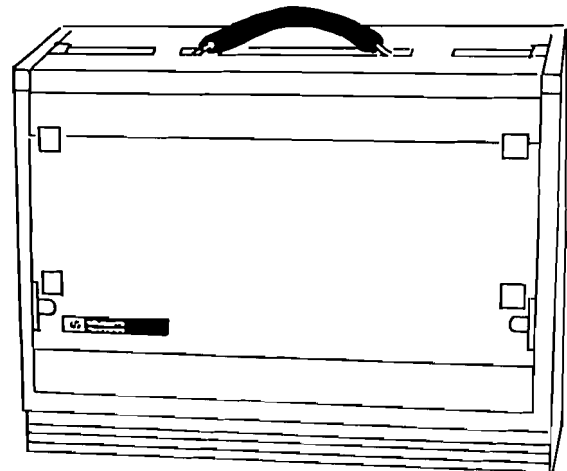
The new Hewlett-Packard Integral Personal Computer

Correction to HP TechWriter article
Miriam Flood/FSD

The article entitled "HP TechWriter adds new features" that appeared in the December 1 issue of *Computer News* incorrectly lists the price of HP TechWriter as $225. This price only applies to the upgrade kit. The correct price for HP TechWriter is $795.

Territories are changing, competition is tougher,
and selling solutions is time consuming.
One way to make quota this year is by. . .

TARGETING THE OFFICE

What is "Targeting the Office"?

- "Targeting the Office" is a two-day workshop which, as the name implies, will aid commercial sales people in identifying and targeting the office automation (OA) potential in their territories.
- During the workshop, sales reps will develop an OA framework. This framework will show what customers want and how to implement an OA solution.
- The workshop will avoid teaching "what to say" and "who to say it to." Instead, it will present real user perspectives, from which sales reps can develop their lists of key questions for their prospects and customers.
- Sales reps will use what they learn in "Targeting the Office." Each sales rep will develop and refine an OA game plan for one or two prospects during the workshop. Video tapes used during the workshop can also be used as sales aids.

When and how can I be part of "Targeting the Office"?

- "Targeting the Office" will be delivered to each of the regions during the February/March timeframe. You will soon be receiving information from your Regional Development Manager.

Success this year depends on creating a game plan
and making it happen.

Targeting the Office
Workshop Flow

Pre-Workshop Briefing

Review pre-study material and develop business potential with territory analysis worksheets.

Identify the OA marketplace: potential of, and customer viewpoint.

The Marketplace

Strengths, Weaknesses, Opportunities & Threats

Determine HP's position in the market as seen through a case study.

Office in Action

Mail	**Document Management**
Graphics	**Personal Computer**

Identify an organization's needs in the office as seen through documentary video tapes.

Managing the Implementation

Establish the ten points that comprise an implementation plan.

Viewing HP's commitment to and internal experience in office systems as seen through a documentary video tape.

The HP Story

The 'Office' Executive Presentation

Review the content and structure of a presentation using the sales aids provided in the workshop.

Develop a plan to transfer the knowledge and tools gained in the workshop into action.

Action Plan

HP 3000

HP 9144A backup limits increased for HP 3000
Jonathan Goulden/CSY

Ever since the introduction of the HP Series 37, we've been busy at Computer Systems Division testing the backup capabilities of Greeley's new HP 9144A ¼-inch cartridge tape drive. Because of the test results we can now satisfy the market demand for this type of backup. You can favorably position the HP 9144A against floppy backup in all respects.

The HP 9144A backup limit has been increased, for systems with at least 1M byte of main memory, to 220M bytes of disc. For ½M byte systems, the limit remains 132M bytes of disc. The factors which influenced these limits were: (1) tested system performance, (2) tested duty-cycle for the HP 9144A, and (3) HP Series 37 target market.

Although backup performance varies with the application, you should expect a full backup to take approximately 30 minutes per HP 7945A disc and approximately 75 minutes per HP 7914P disc on the 1 and 2M byte systems. ½M byte systems are slower, taking 45 minutes per HP 7945A and 2 hours per HP 7914P.

Many customers have indicated that they will be doing partial backups, which take far less time, much more frequently than full backups. If the backup is less than 67M bytes, then users can insert a cartridge and walk away for the night. Remember to suggest the use of a 15M byte cartridge when the backup exceeds 67M bytes but is less than 82M bytes. The short cartridge should be used first, followed by the long cartridge. This will allow users to leave sooner, since they can depart once the long second cartridge is inserted.

This new support should result in even more orders for the HP Series 37. Please keep giving us your input, through the Systems Marketing Center, regarding market demands, so that we can continue to help you sell systems.

Remote dial-up modem for HP 3000 users
Paul Jurata/CSO

When your customers need remote access to their HP 3000, the latest Anderson Jacobson modem will do the trick. The new HP 92205J modem offered by Computer Supplies Operation (CSO) is ideal for remote data transmissions that require automatic dialing at 1,200 or 300 bits per second.
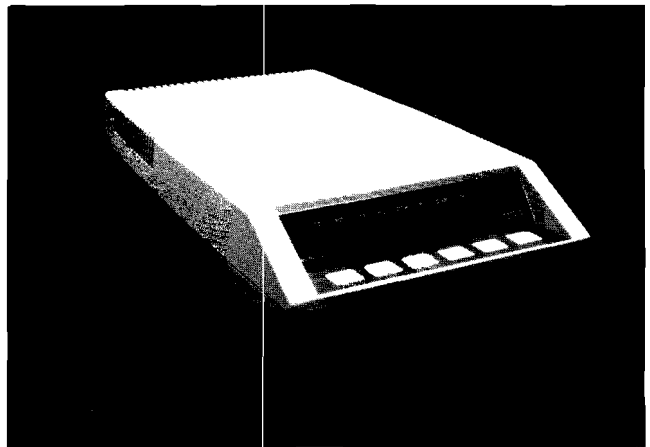
The HP 92205J modem, which is the same modem currently used for the HP Support Link II program, eliminates the need to retrain HP 3000 users on another modem. Compatible with Bell 103/113 and 212A standards, the modem stores up to 16 telephone numbers — up to 37 digits each — in non-volatile memory. Dialing can be accomplished through the use of the stored numbers or from the keyboard. The Anderson Jacobson modem also can identify the parity and data rate, then set itself accordingly. When the handset is lifted, it guards against data loss.

Other features include automatic redialing of an uncompleted call, single-key redialing, automatic linking of an alternate number, and tandem dialing sequence with programmable pause. Complete on-site support is available through the local Anderson Jacobson service office or via the Anderson Jacobson toll-free support line. FCC Class B approved and available in the US only, the HP 92205J modem is priced at $625. Quantity discounts are available.

For fast service, customers should call CSO's Direct Order Phone numbers listed in the Support/Supplies section of this issue of *Computer News*.

Business Computers

Math symbols, linedraw, and barcode now available on the HP 2688A

Steve Berube/BOI

The new release of HP IFS/3000 (P/N 36580A) includes three new character fonts for the HP 2688A laser printer. These fonts are:

- Linedraw
- 12-point math symbols
- Barcode 3 of 9; 12mm medium resolution.

With these new fonts, the HP 2688A can now fulfill the printing requirements of the scientific community, manufacturing companies, and those users who want inexpensive and basic forms design.

In addition, thanks to this new release of HP IFS, a new 60-point Numbers Set is now available, as well as three new Helvetica and Roman fonts in an 11.2 point size.

This new release of HP IFS (A.02.03) is scheduled for the MPE V/T Delta MIT release. If you have an HP IFS customer who needs these fonts immediately, have your SE contact Boise's Technical Marketing on-line support group for assistance.

Barcode and linedraw for the HP 2687A

Steve Berube/BOI

HP 2687A barcode and linedraw font cartridges are now available from Computer Supplies Operation (CSO), and should be ordered as follows:

P/N	Description	US List Price
92186T	Barcode 3 of 9, medium high, 9 mm resolution	$255
92186U	Linedraw, 10 pitch 12 point	255

These fonts carry the same price as those currently available at CSO.

Use of these font cartridges is not supported by HP application software (TDP, HP Word, MM/3000, or PM/3000). These fonts will require user-written programs to allow users to create simple forms or to meet their barcode requirements.

HP 3000 graphics supported on HP 2565A and 2566A printers

Steve Berube/BOI

The new release of Printer Graphics Package (HP 36583A) now supports the printing of HP EasyChart, HP Draw and DSG graphics files to the HP 2565A and HP 2566A printers.

By selecting one of the printers as the "plotting" device, the user initiates the conversion and printing operation. The versions of the HP 3000 graphics software that support the Printer Graphics Package are:

- HP EasyChart A.03.00
- HP Draw A.03.00
- DSG A.04.00.

This release of the printer graphics will be supported on MPE V/T Delta MIT scheduled for April 1985. For the status of the MPE V/T support, have your SE contact the Computer Systems Division support engineering on-line group.

Until the supporting MIT release is available, those customers now "plotting" to the HP 2563A will be pleased to know that their current charts can be plotted to the HP 2565A and 2566A by continuing to select "2563A" in the plot menu.

FINANCIALS

HP Production Cost Management

Andy Garcia/FSO

HP Production Cost Management (HP PCM), the newest Management Productivity Network module, is a cost-accounting solution for job-order, standard-cost-based manufacturers. This new product, which integrates with HP Materials Management/3000 and utilizes HP's customizable software technology, provides the link between the shop floor and the general ledger. HP Production Cost Management:

- Values work-in-process inventory.
- Calculates variances for closed orders by comparing actual costs to expected costs. HP PCM calculates both financial and operational variances:
  - Financial variances (based on established standard costs) meet the needs of accounting.
  - Operational variances (based on current costs) meet the needs of manufacturing.
- Creates and posts (via the general ledger interface) financial vouchers that reflect the value of work-in-process inventory and financial variances.
- Revalues work-in-process inventory when standard costs change.

HP Production Cost Management features

The HP PCM reports and on-line reviews provide timely, comprehensive visibility into inventory costs. The reports can be printed at any time and provide exception reporting capability, allowing customers to focus on the specific information they need.

Because HP PCM incorporates the technology of Customizer/Monitor, Report Facility, and Interface Facility, it is extremely flexible. For example:

- The data base and application screen can be tailored easily to meet your customers' needs, without programming
- Reports and interfaces can also be tailored without programming
- Most jobs can be invoked on-line or scheduled to run automatically
- All functions that update the data base can be simulated, allowing customers to catch errors before performing updates.

The HP PCM manual set is complete, accurate, and user friendly. The application comes with an installed sample database that follows the examples used in the manuals and allows customers immediate hands-on experience. This means that your customers can get up to speed quickly and easily.

HP Production Cost Management target customers

Target customers for HP PCM are medium-sized manufacturers or autonomous manufacturing divisions of larger corporations. Use of HP Materials Management/3000, including the Standard Product Costing module, is required.

HP PCM also interfaces with HP Production Management/3000 and HP General Ledger. Customers are not restricted to these products, however; they can use the labor collection system and general ledger system of their choice.

Ordering information

In order to ensure high customer satisfaction with this new product, Financial Systems Operation (FSO) is now offering HP PCM as a factory special only. This means you can sell HP PCM to qualified customers if your district is supported by a trained SE. FSO will work with you to help qualify customers and to provide a high-quality implementation experience.

Initial SE training took place in September 1984. Several orders have been placed since then, reflecting the enthusiasm generated by the training. Additional SE classes will be held during January and February. Check with your area project center manager to confirm who is trained in your office. For more information on qualifying customers and placing orders for HP PCM, contact Andy Garcia at TELNET 163-5043 or 408-263-7500, ext. 5043.

Meanwhile, you can order copies of the HP PCM Product Evaluation Guide (PEG) and Data Sheet now.

P/N	Description	Price	Order Procedure
32920-90301	PEG	$4.62	HEART I2 order through division C700 via your purchasing department.
5954-0435	Data Sheet	—	Available through the Literature Distribution Center.

Business Computers

MANUFACTURING

Semiconductor Productivity Network program releases enhanced software

Julie Schoenfeld/MPD

The Semiconductor Productivity Network (SPN) program has announced the release of an updated version of its IC-10 lot-tracking system.

IC-10 is a powerful tool for semiconductor manufacturers to track lots, monitor yields, and summarize status of production data in real time. The system, which has the largest installed base of any semiconductor tracking system, has been enhanced in four major areas: (1) rework capabilities, (2) factory-wide reporting, (3) product structure, and (4) part genealogy.

When a product is manufactured incorrectly, rather than destroy it, often it is more economical to fix or "rework" the mistake. Reworking is a common practice in semiconductor manufacturing. IC-10 has always allowed the ability to track the performance of rework, but the latest enhancement improves manufacturing visibility of rework data. Users have much more flexibility in keeping track of and moving reworked lots through processes.

The second enhancement to IC-10 now allows manufacturing information to be reported factory-wide instead of for single locations. This global visibility will improve manufacturing managers' decision-making capabilities.

The IC-10 system interfaces to other software needed in semiconductor facilities. The product structure and part genealogy enhancements not only provide more information to the user but are also a step towards integrating the tracking software to other programs.

These, along with other improvements to SPN's engineering data collection and analysis products, help move the SPN forward in meeting our customers' daily challenges. The SPN program remains committed to developing user-friendly solutions that advance the state of the art in semiconductor manufacturing.

Major new products in the area of planning are in development and will be released in 1985, and we are reaching new levels with process control and test system integration.

Large turnout at recent SPN user group meeting

Julie Schoenfeld/MPD

HP's Semiconductor Productivity Network (SPN), which provides software solutions to semiconductor manufacturers, participated in a meeting sponsored by its users in Philadelphia on October 24-26, 1984. At least one company representative from 70% of the SPN user community was present, but most companies sent four or more people.

Presentations were made by HP to review features and enhancements of the latest released products and to discuss the overall business direction. HP field representatives were on hand and the users had an opportunity to express ideas and give feedback on current product use.

Workshops were formed to prioritize enhancement requests for specific SPN software modules, including: IC-10, The Tracking System; EA/EN-10, Engineering Data Collection and Analysis; and CA-10, Cost Accounting. Special work sessions were also held to address software performance, planning, and shop-floor scheduling needs.

Lists of user-generated and prioritized enhancements were produced for each product. The users debated among themselves to produce an accurate statement of their mutual needs.

This valuable feedback will help the SPN to correctly focus its development efforts in a way that will match the requirements of the widest possible audience.

Be sure that your SPN customers and prospects know about the SPN users groups and their strong, constructive relationship with HP.

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HEWLETT–PACKARD
SEMICONDUCTOR PRODUCTIVITY NETWORK
CORPORATE ACCOUNTS
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STANDARD HP–SUPPORTED APPLICATIONS

OFFICE SYSTEMS

DISTRIBUTION

The Interactive Office Pack replaced by new product

Mona Matsumoto/PSD

The Interactive Office Pack (P/N 32114A, R) is obsolete and replaced by the new Personal Productivity Center Advanced Office Pack (P/N 27513 A/UA). The old product included HP Word, HP DeskManager, HP ListKeeper, HP EasyChart, and HP Menu software and HP Office Assist support. The price was $35,000. With each order the customer received an HP 2628A with the Graphics option and an HP 7475A six-pen plotter.

The Personal Productivity Center Advanced Office Pack offers our office customers a more aggressive price advantage. It includes HP DeskManager, HP Word, HP Spell, HP ListKeeper, HP Draw, HP EasyChart, VisiCalc®/3000, HP DeskManager project implementation assistance (enhanced HP Assist), and HP Word project implementation assistance (enhanced HP Assist), all for $32,500. Customers who are considering increasing their office productivity will be delighted by this new, more attractive offering.

So, commercial SRs, don't accept any more orders for The Interactive Office Pack. Refer to The Personal Productivity Center Field Training Manual (Nov 84, P/N 5957-4607) for more information on the Personal Productivity Center series of office software solutions. HP customers now have the most powerful, flexible choices ever.

VisiCalc ™ is a US registered trademark of VisiCorp.

IRO's Distribution Sales Seminar

Paul Sievers/IRO

As a result of the tremendous response we've received from Target '85, Information Resources Operation (IRO) is happy to announce our winter Distribution Sales Seminar from February 11-14, 1985. SRs and SEs who are interested in finding out more about the distribution industry and selling to distributors will want to attend.

The distribution industry (a $1.4 trillion-per-year industry with over 630,000 companies) is a large and growing marketplace — one which HP can dominate.

Call Kelly Lister at 303-773-1992 to register.

IRO at the NPTA Software Seminar

Paul Sievers/IRO

The National Paper Trade Association (NPTA) held its second annual software seminar November 12-15, 1984, in Orlando, FL. Information Resources Operation (IRO) was represented at the show, sponsoring a booth with a demo system and conducting two seminars.

This particular show is quite different from previous trade shows that IRO and other HP divisions have attended. There were only 75 people in attendance, representing about 30 different companies, and only eight exhibitors. HP was the only major vendor in attendance, and the only vendor with a "one-vendor" solution. All the attendees were there for the purpose of investigating applications for their businesses; these people were the decision makers who are now in the market to buy. And we were the only major vendor that the NPTA asked to conduct seminars for its membership.

Business Computers

Trade organizations with whom we have dealt are happy and encouraged to have a major computer vendor express an interest and participate in their activities. These industries are generally ignored by the major powers and, as a result, are tremendously undeveloped and untapped when it comes to automation. Herein lies the opportunity for us. We have the preferred "one-vendor" solution — a proven product with an installed, referenceable customer base — and we've established ourselves and proven our commitment to these industries. The NPTA's Software Seminar is a valuable vehicle through which we can continue to strengthen our position with paper products distributors.

As a final comment, we received a number of solid inquiries from this show. From last year's show, the ratio of sales to inquiries was 27%. This is a good example of how well a carefully targeted and focused approach can work. We will forward these leads and others to SRs. If you'd like more information about the distributors in your area, call 303-773-1992 and ask for Sales Support.

HP at National Office Products Association trade show

Bill Lynch/IRO

Hewlett-Packard's participation at the National Office Products Association (NOPA) trade show October 19-21, 1984, in Chicago was a successful venture. About 40 sales leads were generated at the event and sent out to the sales offices.

One very significant aspect of this event was that the number of participants at this show represented a 60% increase compared to the previous NOPA show. These distributors are looking for new product lines to distribute, new ways to grow while managing growth, and software solutions that will support their goals.

There is still a lot of confusion in the marketplace about how to automate an office environment. This is particularly true of the companies that have tried and currently use a less-than-satisfactory solution. This category of prospects is usually more accessible than first-time users, since they are looking to expand and now realize the advantages of implementing a solution that will support their need for controlled growth.

At the National Paper Trade Association show in September, we demonstrated that we have a one-vendor solution. Office products dealers are very interested in vendors who can provide a single-business solution for hardware, software, and support.

Hewlett-Packard has a real opportunity to greatly increase market share in the wholesale distribution market because of our distribution solutions, our strong customer base, our one-vendor business approach, and the fact that no one computer vendor dominates this market.

Price changes for HP SFD/3000

Rebecca Derrington/IRO

During the Target '85 tour in November, Information Resources Operation announced some price changes for HP SFD/3000 (System for Distributors).

A promotion is in effect from December 1, 1984, through March 31, 1985, for a $5,000 discount on HP SFD/3000 Option 039 for use on the HP 3000 Series 37. This reduces the price from $25,000 to $20,000. Customers must take delivery by April 30, 1985. The order should be placed for HP 36401A Option 039 plus the M05 discount.

The price of HP SFD/3000 Option 064 (for use on HP 3000 Series 64 or 68 processors) has been reduced from $62,000 to $37,200. Option 064 will be deleted from the January 1 Corporate Price List, and the description of Option 044 will change to include both 44/48 and 64/68 processors. The upgrade from HP SFD/3000 Option 044 to Option 068 (P/N 36413A) will also be removed from the price list.

[hp]

GENERAL

December Peripheral Configuration Guide now available
Linda Jensen/IPG

The December issue of the Peripheral Configuration Guide is now available. A mailing to all SRs and SEs has been completed. If you have not already received your copy, you should get it soon. The December issue (Revision F) features a dark blue cover and contains the most current configuration information. All past issues of the guide should be discarded.

Copies of the guide are stocked at the Literature Distribution Center and may be ordered by P/N 5953-9450.

PERIPHERAL CONFIGURATION GUIDE

Discs						
Tapes						
Printers						
Plotters						
Tablets						

HEWLETT PACKARD

MASS STORAGE

New backup for HP 7914 disc
Phillip Owen/CPB

Computer Products Bristol has announced its first product, the HP 7914CT. This is an HP 7914 disc drive repackaged in an HP 92211R mobile mini-rack cabinet (HP 3000 Series 37 industrial design compatible cabinet) with an HP 9144A cartridge tape drive for backup. The use of the HP 9144A means reduced backup times because the read-after-write feature ensures that the customer does not have to pass the tape through the drive a second time to verify the data. Read after write clearly enhances reliability, so a customer does not have to routinely verify backed-up data. The repackaging in a mobile mini-rack cabinet produces benefits by reducing sound power output to 62 dB(A) (50 dB(A) sound pressure). This is a reduction of 6 dB(A) sound pressure, or about one-third the noise of the HP 7914P.

Since component parts of the HP 7914CT already have their own controllers, there is a saving of $1,800 over the equivalent HP 7914P (Option 001) for those applications where the dual controller version has been used. The HP 3000 user gains a further benefit by using the HP 7914CT, because its disc drive and tape drive portions can utilize the same GIC (general interface channel).

Support

Support for the HP 7914CT depends on support for the HP 9144A. Additionally, support is required for dual-controller (SPU controlled) backup. The support status for the HP 7914CT package is shown below:

HP 150	No support planned
HP 250	No support planned
HP 1000	Support planned from A.85.PCO
HP 3000	Support planned from T-MIT
HP 9000 Series 500	Supported
HP 9000 Series 200	Support planned March 1985

Networks/Peripherals

Competition

None of HP's major competitors can yet offer an entry-level solution that competes with the HP 7914CT, as this table shows:

Company	Models	Capacity	Price	Cost/Mb
HP	7914CT	132.1	$17,000	128.7
IBM	4967 & 4966	200.0	32,860	164.3
DEC	RA80 & RL01	121.0	27,900	230.6
DG	6161 & Tape	147.8	40,500	274.0
Wang	W2280V-3	75.0	13,000	173.3

IBM offers floppy discs as a backup solution. DEC offers a 10.4M byte removable disc product. Data General's answer is a half-inch tape drive. Wang uses a combination of 75M byte fixed and 15M byte removable in the same drive. These solutions all fall far short of the combination of functionality and price of the HP 9144A.

This new combination of disc and quarter-inch tape maintains Hewlett-Packard's range of excellent, entry-level, mass storage solutions. The HP 7914CT offers a high-capacity, high-performance, single-spindle product with shorter, more reliable backup procedures and quieter operation.

How to order the HP 7914CT

The disc and tape drives that compose the HP 7914CT will be dispatched separately as a coordinated delivery for on-site installation and integration. The order entry procedure for the HP 7914CT and the HP 7914CT Option 015 will initially be different in the US and in Europe. To order an HP 7914CT (or HP 7914CT Option 015) in the US and Intercon, an HP 9144A must be ordered from Greely and an HP 35414CT (or HP 35414CT Option 015) must be ordered from Bristol as a coordinated delivery. This complication will be removed as soon as possible.

Ordering Information — US

Product	Description	Factory Base Price
HP 35414CT	132.1M byte disc in a mobile mini-rack cabinet. Cables supplied for field installation of an HP 9144A cartridge tape device.	$13,545
Option 015	50 Hz version for 220V/110V operation. Factory strapped at 220v. Field changeable to 100 - 120v.	No charge

Ordering Information — Europe

Product	Description	Factory Base Price
HP 7914CT	132.1M byte disc drive, with site-installed HP 9144A cartridge tape drive, each with power supply, controller and 1M byte long HP-IB cable. Both drives mounted in an HP 92211R mobile mini-rack cabinet.	$17,000
Option 015	Configures the HP 7914 for 220V/50 Hz operation. The HP 9144A power setting is switchable.	No charge
Option 140	Deletes the HP 9144A cartridge tape drive and associated cabling.	Reduces base price by $3,455

Greeley enters OEM mechanism market with HP 97501A

Sandy Hansen/GLD

You may have seen Greeley Division's initial entry into the OEM mechanism market — the HP 97501A — at COMDEX. The 3½-inch, 10-megabyte (formatted capacity) micro-Winchester mechanism, designed to be built into personal and portable computer systems, offers manufacturers an extremely rugged drive with the ability to survive in environments not usually suitable for Winchesters. The new mechanism will also be incorporated into some of HP's products in the future.
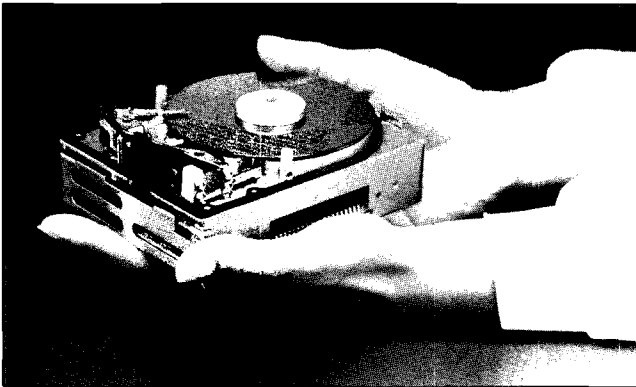
The usual susceptibility of Winchester disc drives to damage from shock, vibration, and contamination, as well as difficulties in keeping them working under conditions of rapid temperature and humidity changes have hindered their integration into portable and transportable computer systems. By overcoming these obstacles and keeping the mechanism low cost, we feel we have a product that will meet many manufacturers' needs for Winchester performance on their systems.

Features contributing to the micro-Winchester's reliability:

- **Tolerance to rapid temperature and humidity changes.** Most Winchesters need time to stabilize after temperature and humidity changes. As part of a system, the new HP disc drive can go from a cold car onto a warm desk and operate immediately. Tolerance to high relative humidity means bringing the drive into an air conditioned room on a hot, muggy day won't stop the operation.

- **Sputtered thin-film media.** The HP-designed and-manufactured media is the result of research and development efforts launched seven years ago at HP Labs in Palo Alto. The new manufacturing technology, departing from coated and plated media, consistently produces extremely strong discs with higher yields and better reliability.

- **Imbedded servo code on the disc coupled with sophisticated electronics in the controller.** The controller in the drive, using servo code imbedded in the disc, can precisely position the read/write heads over the data every time, giving consistent data reliability. The drive is so accurate at reading and writing that a computer manufacturer can install an entire operating system on the disc before shipping with no fear of losing the data — a capability not normally recommended on other disc drives.

- **50 Gs shock tolerance.** The durable media, the sophisticated electronic feedback system, and the design of the mechanism itself all contribute to the very high shock tolerance of the micro-Winchester. It can be bumped accidentally while reading or writing without crashing the read/write head into the disc or losing the data.

All of these features contribute to the exceptional reliability and tolerance of the drive to environmental conditions and make it ideal for integration into portable and transportable systems.

OEM accounts targeted for high-volume sales

Because the mechanism market is separate from the usual peripheral and system market, the micro-Winchester will not be sold through the regular channels. Target accounts will be identified by field and factory management. Contracts will be pursued for quantities of 10,000 a year or more. You will receive information from field management as it becomes available.

If you have inquiries about the new 3½-inch micro-Winchester, please contact Phil Skraba, OEM Program Manager, at Greeley (303-350-4373).

Networks/Peripherals

Two new mass storage solutions available

Jim Quartz/DMD

We are introducing two new mass storage solutions: the HP 7942A and 7946A. Both the 24M byte HP 7942A and the 55M byte HP 7946A are mass storage systems that combine a fixed disc drive with a built-in ¼-inch cartridge tape drive, intelligent controller, and power supply, all in a convenient desktop package.

Competitively priced at $8,500 US list price ($8,320 factory base price) for the HP 7942A and $10,500 US list price ($10,280 factory base price) for the HP 7946A, the two new disc/tape mass storage systems include:

- A single controller for both tape and disc, allowing off-line disc/tape transfers.

- Quiet operation. With less than 50 dB(A) sound pressure levels, both mass storage systems are suited for the office environment.

- Customer installability

- Read-after-write capability and automatic error detection and correction. These are features of the integrated tape drive.

- Good performance. The disc drives have an average seek time of 30 milliseconds. The tape drive can transfer data typically at 1M byte per minute.

Now you can have an integrated mass storage subsystem for on-line storage, backup, and software distribution that is small enough to sit on a desk and quiet enough for the office. Both disc/tape drives are ideal for the customer looking for a cost-effective multiuser mass storage solution.

See the following articles for system support information and ordering procedures. More information is available in a literature package already mailed to you.

System support for new HP 7942A and 7946A

Mark Minne/DMD

The following table depicts the current system support status for the new HP 7942A and 7946A disc/tape drives.

HP 7942A/HP 7946A DISC — ¼″ CARTRIDGE TAPE DRIVE		
System	Operating System	Supported
HP 9000		
Series 200	BASIC 3.0	Yes, add-on or system disc
	Pascal 3.0	Yes, add-on or system disc
	UNIX 2.1	Yes, add-on or system disc
Series 500	BASIC 2.0	Yes, requires loader Rev B to boot from disc
	UNIX 4.0	Yes, requires loader Rev B to boot from disc
HP 3000		No support
HP 250		Planned support B.07
HP 1000		
A600/A700/ A900	RTE.A	Yes, add-on or system disc
Series E, F	RTE 6	Under investigation
SRM	2.0	Planned Q1'85
HP 9845B/ HP 9845C/ HP 9825T		The HP 7941A, 7942A, 7945A, and 7946A will work on these products through the use of Mass Storage ROMs available from:
		Structured Software Systems 1072 Irick Road Mt. Holly, NJ 08060 609-267-1616
		Contact Structured Software Systems for detailed product information, pricing, and availability.

Ordering HP 7942A and 7946A disc/tape products

Mark Minne/DMD

Below is ordering information for the new HP 7942A and 7946A 24M byte and 55M byte disc/cartridge tape drives from Disk Memory Division (DMD). These two new products are on the January 1 Corporate Price List and will have a 12-week availability. DMD will be the supplier for North America and Intercon, and Computer Peripherals Bristol will supply these products for the European marketplace.

The standard product is a desktop disc/tape subsystem with an HP-IB CS 80 controller. If customers want a 19-inch rack-mountable disc drive, they need to order a standard stand-alone disc/tape product and the separate HP 19501A rack-mount kit. If customers want a roll-around enclosure similar to the HP 7911 or 7912, they can order the standard stand-alone desktop disc/tape drive and an HP 92211R mobile mini-rack from Computer Supplies Operation (CSO). If customers want a different HP-IB cable length than the one-meter cable provided, they can choose Option 550 to delete the HP-IB cable and then order a different length from CSO.

Ordering information:

Product	Description	US List Price	Factory Base Price
7942A	24M byte disc/tape with a 1-meter HP-IB cable. 90 to 132 Vac operation at 47.7 to 6 Hz	$ 8,500	$ 8,320
7946A	55M byte disc/tape with a 1-meter HP-IB cable. 90 to 132 Vac operation at 47.7 to 66 Hz	10,500	10,280
Opt. 015	200 to 264 Vac operation at 47.7 to 66 Hz	No Charge	No Charge
Opt. 550	Delete 1-meter HP-IB cable and credit customer	85 Customer	85 Credit
19501A	19" EIA rack-mount hardware for 7942A and 7946A	165	160
92211R	Mobile mini-rack available from CSO	See summer '84 CSO catalog for ordering information & pricing	

Notes: Check system configuration information before ordering to ensure your system will support this product. The HP 7942A and 7946A are on the component OEM schedule.

Specifying voltage for HP 7974A/7978A tape drives

Sandy Hansen/GLD

In an effort to simplify ordering the HP 7974A/7978A tape drives from Greeley, voltage options on the Corporate Price List were eliminated. Instead, voltage settings are automatically generated from the world country code on the order. This process works well if the drive is ordered and installed in the same country. A problem arises when the tape drive is not going to be *installed* in the same country in which it was *ordered,* or if the drive is going to be installed in Japan (where both 100- and 220-volt installations are common).

If circumstances dictate a voltage different from the one designated by the world country code on the order, the SR must specify the necessary voltage in the Special Instructions section of the order. You must indicate the desired voltage (100, 120, 220, 240) and the power cord we should send (900-912). This instruction is stated on the Corporate Price List in Note #7, so your order processing person should see it when inputting the order.

Instances where the voltage requirement differs from the one automatically generated from the world country code are somewhat rare, and we felt it was better to simplify tape drive ordering for the majority of orders. However, we are very interested in field response to this philosophy. If you have strong feelings one way or another, please contact Connie Doster at 303-350-4386 or HP Desk 5800/01.

New Mass Storage Sales Reference Manual

Sandy Hansen/GLD

All mass storage products, from personal mass storage microfloppies to high-speed, high-capacity discs and ½-inch tape-backup devices are incorporated in one easy-to-use Mass Storage Products Sales Reference Manual. The manual pictures each mass storage device with a feature and benefit summary of every product and includes technical specs, positioning, and configuration information.

Although the guide is designed as an SR tool, it is also suitable for customer use. Distributed by Literature Distribution Center in mid-November, the manual was sent to all technical and commercial SRs, SEs, Staff SEs and SRs. Mailing labels were generated from the Roster Data Base. If you did not receive your copy or would like additional copies, please contact Jon Schiedel at Greeley (303-350-4385).
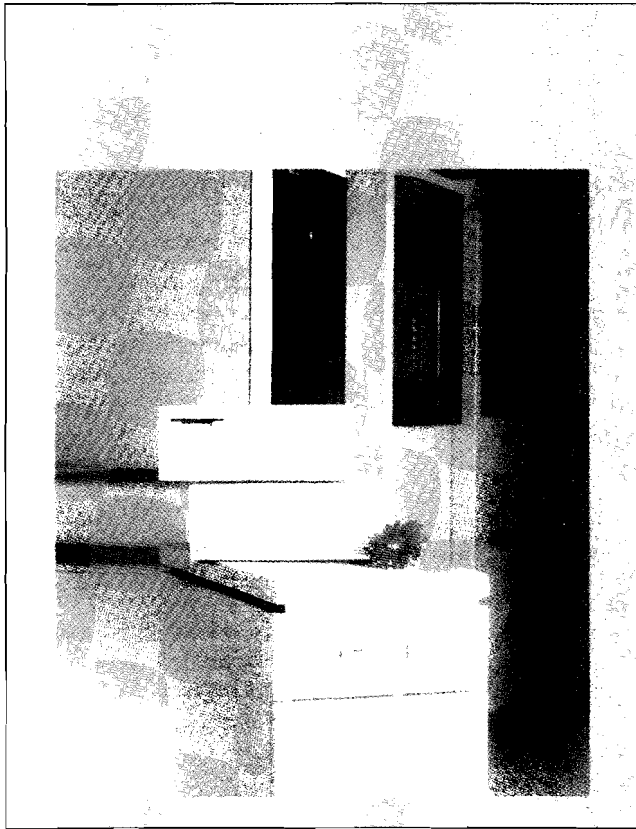
connection panel, the MUX-to-panel cable, and the new mounting-bracket options. The HP 27130B consists of the following:

P/N	Description	Price
5061-4929	MUX Interface Assembly	$40
27130-90003	Installation Manual	
28658-60005	RS-232 Panel	
28658-63001	MUX-to-Panel Cable	
1252-0508	Cable Extender Kit	
27130B Option 019	19" Rack Mounting Bracket Kit	
27130B Option 540	Mounting Bracket Kit for HP 9040A Systems	
27130B Option 550	Mounting Bracket for HP 92211R Cabinet	

With the release of the HP 27130B, the HP 27130A will be obsoleted and removed from the price list in March 1985.

Available documentation on new HP 2334A MULTIMUX
*Alic Rakhmanoff/GND*

A complete collection of information about the HP 2334A MULTIMUX statistical multiplexer can be found in the HP 2334A MULTIMUX Field Training Manual, which was shipped to all SRs, SEs and field management. Additional copies for HP internal use can be obtained from the HP Corporate Literature Distribution Center (LDC) by ordering this free brochure with P/N 5953-5960.

NETWORKS

New version of HP Series 500 8-channel MUX released
David Kuntz/RND

The HP 27130B 8-Channel MUX is now on the Corporate Price List and will have a US list price of $2,060. The product itself is very similar to the old HP 27130A and is functionally backward compatible. The MUX itself is unchanged. What is changed is the RS-232
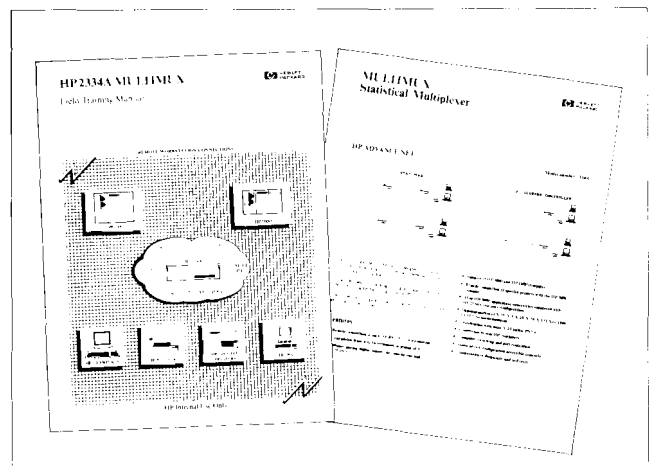
All the technical specifications of the HP 2334A MULTIMUX can be found in the new HP 2334A MULTIMUX Data Sheet. Copies have been mailed from the LDC to all librarians. Additional copies can be obtained through LDC by ordering it with P/N 5953-5939.

# Datacom Manual Update Service
Deborah Nelson/CSD

In order to simplify the ordering of the Manual Update Service (MUS) for all datacommunications products, customers order MUS according to Datacom Category Support. Only the highest level of Datacom Category Support is purchased (C is higher than B, which is higher than A) regardless of the number of datacom products on a customer's system. Therefore customers only purchase MUS once to receive manual updates for all of their datacom products. For example, a customer with Datacom Category B Support would order MUS on Datacom Category B and receive manual updates for all products in Datacom Categories A and B.

Under the new Links and Services structure for HP 3000 products, customers also order MUS once for all their datacom products even though only Links are categorized. MUS is structured so that a customer ordering MUS on a category receives manual updates for all Link products *and all corresponding services.*

If you have any questions, please contact your support specialist at the Sales Center.

PLOTTERS

New disposable drafting pens for HP 758X and 7550 plotters
Amy Bockman/SDD
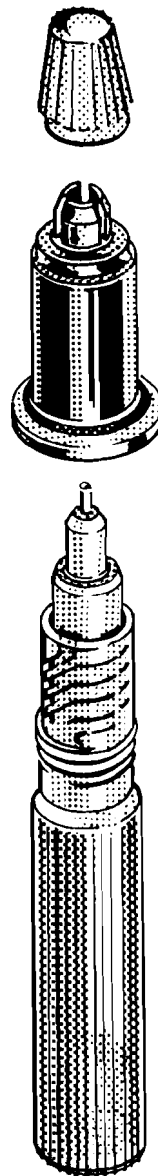
On January 15, San Diego Division will introduce disposable liquid-ink drafting pens for the HP 758X and 7550 plotters. The pens require minimal assembly, no ink filling, no cleaning, and they increase HP drafting plotter throughput.

Draws on vellum and paper. Use these new disposable drafting pens on vellum for final-quality, diazo-reproducible drawings, or on paper for preliminary drawings and check plots. These pens are not designed for final-quality drawings on paper, for use in area fill applications, or for use on polyester film.

No cleaning required. Conventional drafting pens require daily cleaning and care. The new HP disposable drafting pens eliminate cleaning and allow your customer to begin drafting immediately and continue uninterrupted until the drawing is completed. If the pens clog up after storage, they can be easily restarted with a few taps and shakes. When the disposable drafting pen is out of ink, the customer can throw it away.

Faster speed. The disposable drafting pens have a plotting speed of 30 cm/s on the HP 758X, compared to 15 cm/s required by conventional drafting pens; and 20 cm/s on the HP 7550, compared to 15 cm/s.

Optional carousel available. This new carousel automatically defaults to 30 cm/s and pen force 2. Disposable pens can also be used in the current refillable drafting pen carousel — the only difference is that pen speed must be set manually to 30 cm/s and the pen force must be set to 2 using the plotter's front-panel controls or by program command.

A disposable pen carousel is not available for HP 758X plotters with a prefix number below 2444 or for the HP 7550A plotters. However, the current refillable drafting pen carousel will work fine. Pen speed and force must be set manually.

Colors and line widths. Disposable drafting pens are available in black, green, blue, and red with ~0.3mm or ~0.6mm line widths. Each package contains four single-color or four multi-color, single point size pens with instructions on pen assembly, usage, and care. Reusable pen adapters and caps must be used with the pens and can be purchased separately.

Customers with an HP 758X plotter (serial prefix number 2444 and above) can save 35% on a pen kit which contains 12 pens, a disposable drafting pen carousel, adapters, and caps.

Disposable drafting pens and accessories can be ordered from Computer Supplies Operation, CSO-Europe, and San Diego Division.

Ordering Information

Hewlett-Packard Disposable Liquid-ink Drafting Pens
For use with the HP 7580A/B, HP 7585A/B, HP 7586B, and the HP 7550A drafting plotters.

Single-color Pen Packages*
(4 pens/pkg)

Fine line width (≈0.3mm)	Wide line width (≈0.6 mm)	
5061-7562 Black	5061-7572 Black	
5061-7563 Blue	5061-7573 Blue	
5061-7564 Green	5061-7574 Green	
5061-7565 Red	5061-7575 Red	
	Quantity (1 to 4 pkgs)	$22.00 ea.
	Discount (5+pkgs)	19.80 ea.

Multicolor Pen Packages*
(4 pens/pkg, 1 each of black, blue, green, red)

Fine line width (≈0.3 mm)	Wide line width (≈0.6mm)	
5061-7566	5061-7576	
	Quantity (1 to 4 pkgs)	$22.00 ea.
	Discount (51 pkgs)	19.80 ea.

Adapter and Pen Cap Assemblies

5061-7578	4 Adapter and pen cap assemblies	$ 8.00

Carousels

07580-60240	1 Disposable liquid-ink pen carousel	$70.00
07580-60081	1 Refillable liquid-ink pen carousel for HP 758X drafting plotters	70.00
07550-60053	1 Refillable liquid-ink pen carousel for HP 7550 drafting plotters	50.00

Disposable Liquid-ink Drafting Pen Kit for HP 758X Plotters

5061-7577	Contains four 0.3 mm multicolor pens, four 0.6 mm multicolor pens, four 0.3 mm black pens, eight each adapter and pen cap assemblies, and one disposable drafting pen carousel. Complete instructions included.	$95.00

Requires reusable long body adapter P/N 5061-7578

Answers to your HP 7470/7475 questions
Cheryl Page/SDD

Question: Does the HP 7470/7475 work with non-HP personal computers?

Answer: These plotters interface with most personal computers. There are several ways to check for compatibility. Plotter interconnection guides contain a number of interfacing notes on personal computers. The cable data sheet (P/N 5953-9774) also lists a number of different PCs and the corresponding interfacing information. And the Software Directory for HP Graphics Plotters (P/N 5957-9466) lists many suitable plotter/PC/software combinations.

Q: What's the difference between HP cable numbers 17455A and 07470-60090?

A: None. When a product originates at a division, it is assigned a 10-digit part number for inventory purposes. This number (07470-60090) is stamped on the cable housing. When this cable is combined with its instruction sheet and box, it becomes product number HP 17455A (this is the P/N your customer orders). Since this numbering is confusing, we are working to have only the 5-digit number on the cable.

Q: Can an Option 001 (RS-232-C/CCITT V.24) plotter be changed to an Option 002 (HP-IB) plotter, or visa versa?

A: No. There is only one circuit board in the plotter, and it contains the interface.

Cancellations and reschedules are expensive

Otto Talle/SDD

Recently there has been some anxiety about the 5% fee charged for cancellations and/or reschedules on orders to be shipped within 60 days.

Hewlett-Packard's Terms and Conditions of Sale read:

If Buyer issues a change order causing a delivery delay or cancels an order less than sixty (60) days prior to scheduled shipment, Buyer shall be subject to a five percent (5%) charge based upon the list price of the affected computer products, and up to a five percent (5%) charge, as determined by HP, for all other products.

Graphics plotters could fall into either category, "computer products" or "all other products"; San Diego Division (SDD) defines plotters as "all other products." By doing this, we gain flexibility in dealing with fees.

SDD will not waive these fees altogether — we will determine a fee that is commensurate with the cost to HP (1-5%). For this reason it is important that you properly set your customers' expectations.

If your customers want to reschedule or cancel an order within the 60-day window, contact your SDD order coordinator as soon as possible.

PRINTERS

New HP 2685B laser print station now available

Steve Berube/BOI

The new HP 2685B offers not only the lowest-price entry-level print station on the market, but the new CPU and laser printer options allow your customers to select the print station that truly meets their needs. Here is the essential information for the standard configuration and options for the new HP 2685B laser print station:

The HP 2685B laser print station (ordered as HP 26804B) includes two HP 7945A disc drives on HP 9144A tape cartridge, an HP 2392A console terminal, and cabling. The HP 26804B must be ordered with one of the controller and printer options.

Controller options:
- 337   HP 3000 Series 37/XE controller
- 342   HP 3000 Series 42 controller
- 368   HP 3000 Series 68 controller

Printer options:
- 280   HP 2680A laser printer includes 256K bytes memory.
- 288   HP 2688A laser printer includes 2M bytes memory. (Option 288 supplies HP 2688A only; it does not include IFS of 36583A software normally supplied with an HP 2688A purchase.)

Other relevant options:
- 060   2680A graphics firmware upgrade
- 062   2680A variable density print
- 094   Forms design workstation. Includes HP 2628A graphics terminal, IFS and IDS/FORM software. (IDS/FORM will support the HP 2628A graphics terminal in Q2'85. Support of IDS/CHAR is still under investigation.)
- 095   Deletes HP 9144A tape cartridge
- 096   Deletes HP 2392A console terminal
- 097   Deletes two HP 7945A disc drives
- 098   Adds HP 7914ST disc tape
- 503   HP 2680A graphics package. Consists of Options 060, 062, 520, 525, and HP 36583A.
- 521   Adds 1M byte memory to HP 2680A
- 525   Provides vacuum hold for HP 2680A paper splicing in place of standard magnetic hold.

A complete description and option list can be found in the HP 2685 data sheet (P/N 5954-2265). To offer your customer anything beyond what is shown in the revised data sheet requires ordering a separate line item.

Availability and Pricing

Availability of the HP 2685B can be delayed if your customer orders Option 094 before final IFS/FORM support of the HP 2628A is announced in Q2'85. The HP 2685A will remain on the Corporate Price List until the HP 2685B appears on the General Administration Services schedule.

Pricing will depend on the configuration. Here are some price examples (US list) of the most attractive configurations.

Datacom Ready Configuration
(Does not include INP or Datacom software)

Options	Price
With HP 2680A printer (Options 280, 337)	$108,800
With HP 2680A printer and forms design workstation (Options 094, 280, 337)	115,915

Stand-alone print station with tape transfer
(Does not include INP or Datacom software)

Options	Price
With HP 2680A printer (Options 095, 097, 098, 280, 337)	$113,100
With HP 2680A printer and forms design workstation (Options 094, 095, 097, 098, 280, 337)	123,200

Re-introducing the HP 26096A Digital Camera System

Steve Berube/BOI

The HP 26096A Digital Camera System (DCS) has received manufacturing release and is now shipping. The original list price has remained unchanged from that published in the Sales Training Manual (US list $59,500; factory base $59,000). Availability is currently at 12 weeks after receipt of order. One change has taken place: the HP 26096A will not appear on the Corporate Price List, but instead will be quoted as a Boise Division special.

If you have an HP 2680A, 2685 print station, or 2688A laser printer customer, or a prospect desiring a Computer Aided Publishing system capability, the HP 26096A is an ideal graphics input device. Besides scanning in existing line art drawings, the scanner can also scan in signatures or logos and convert them to logo files for use with HP IFS/3000 or HP IDS/ FORM for ultimate printing to the HP 2680A or 2688A laser printer.

The data sheet (P/N 5954-0755) is available from Corporate Literature Distribution. Questions pertaining to the HP 26096A's functionality can be directed to your Systems Marketing Center contact. However, for a quote on service support, price, and availability, please call the Boise Division Market Development department at 208-323-6000 (COMSYS 4600).

Color graphics hard copy from the HP 2627A terminal

Terri Main and S. Sundaresh/RTD

Color graphics hard copy from the HP 2627A color graphics terminal is no longer just an item on your customers' wish list. The HP 2627A now supports the Diablo C-150 color ink jet printer, which produces clear, bright images of the contents of graphics memory in either color or black and white.

The Diablo C-150 is a Centronics-compatible, multi-color, drop-on-demand ink-jet printer with graphics capability. Its standard features include silent printing in seven distinct colors, background colors and reverse print, and two character sets composing a total of 192 characters.

Initiating the hard copy operation is a simple operation. The same keystrokes and escape sequences are used with both the Diablo printer and the HP 2671G and 2673A printers. A field in the External Configuration Menu indicates which printer is attached. Hard copy can be generated with either a 1-for-1 or 2-for-1 pixel correspondence to produce an image size of 3¼" x 4¼" or 7½" x 8½". Additionally, the user has

the option to print black and white images as they appear on the graphics display. This allows the printed page to provide the background color if the screen background has been set to white.

Data transfer between the HP 2627A and the Diablo printer requires a RS-232-C serial to Centronics parallel interface unit. The interface must support X-on/X-off handshaking and 8-bit data. A transfer rate of 9600 BAUD is recommended to reduce printing time. Two units that have been used successfully are the VSP2000 from Via West, Inc. (534 Northstone, Tucson, AZ 85705) and the 491K from INMAC (available in UK only). Your customers can obtain the Diablo C-150 ink-jet printer ($1,295) and the inter-face unit ($200) from the nearest Hamilton Avnet distributor. Connection of the interface to the external printer port of the HP 2627A requires the HP 13242G or 13232H cable.

Hewlett-Packard's service and warranty liability is limited to the HP 2627A color graphics terminal. Color hard copy support is available on all orders received after January 1, 1985.

New support for HP 293X printers
Chuck Wright/VCD

The installed base of HP 3000 Series III and Series 33 customers can generate additional revenue for you while taking advantage of the flexible features of the HP 293X family of printers. The HP 2932A and 2934A printers are now supported on the HP 3000 Series III and Series 33 computer systems. The delay has been long because of the certification process, but well worth the wait for your customers who have wanted a replacement printer for the HP 2631B. The interface supported is RS-232-C and the cable is HP 13242N.

TERMINALS

Industrial terminal design featured in *HP Journal*
Claudia Devaux/MSG

The November 1, 1984, issue of the *Hewlett-Packard Journal* features an article by Jean Bounaix, Jean-Claude Dureau, and Jacques Firdmann, three of the engineers responsible for the design of the HP 3081A industrial workstation terminal.

There is a general consensus among industry leaders that they will be competitive only if major improve-ments in their productivity can be made. One impor-tant market for the industrial workstation terminal, then, is factory data base management systems that contribute to these improvements.

The *HP Journal* article details the design criteria based on the need to place the terminal in harsh environments. We believe that HP is the only com-pany to have completely addressed the environmental issue, even though many data-collection terminals are currently on the market, including the IBM 7456 ter-minal. Customers concerned by collecting data in hostile environments will be interested in the article, which also demonstrates HP's commitment to the industrial market. Copies can be ordered through the Literature Distribution Center in Palo Alto or Amstel-veen. The literature number of the November 1, 1984, issue is 5953-8529.

Option 094 for HP 2392A not available
Steve Butler/RTD

In the December 15 issue of *Computer News*, in the article entitled "More selling opportunities for HP 2392A" (page 25), a new option for the HP 2392A was announced in error. Option 094 (a current-loop interface card) is *not* available at this time. We will inform you when this product is ready and on the Corporate Price List.

SUPPORT

Redesigned user's manual for disc drive customers
Sue Phillips/GLD

In response to complaints from customers, Greely Division (GLD) has redesigned the user's manuals for disc drive products. The new manuals now include all the practical features of well-organized and accessible documentation, such as step-by-step instructions for first-time users, a straightforward writing style, a glossary and index, lots of illustrations, technical specifications included in an appendix, and a section on what to do if something goes wrong.

There is also a supplement on how to get started using the disc drive with certain Hewlett-Packard computers. The size, color, and format of the new manuals match those of the HP 150 Personal Computer Owner's Guide.

GLD plans follow-up customer surveys to evaluate the effectiveness of the new manuals. Call Sue Phillips, TELNET 350-4413, if you have any questions or comments.

Software Selection Guide available
*Scott Sampl/LID*

The first edition of the Software Selection Guide (P/N 5954-2600) has just been published. The guide features listings of both HP and HP-Plus software products which can be used to automate test-and-measurement applications. Associated computer aided engineering (CAE) software packages are also included. The purpose of the guide is to make HP measurement system customers aware of the wide variety of software available to them.

SUPPLIES

HP Design Plus System furniture for new HP 3000 computers
Jim Kinney/CSO

If your customers are wondering where to put their new HP 3000 Series 37 computer, the ideal solution is the new HP Design Plus furniture featured in Computer Supplies Operation's (CSO) Fall/Winter 1984-85 Computer Users Catalog.
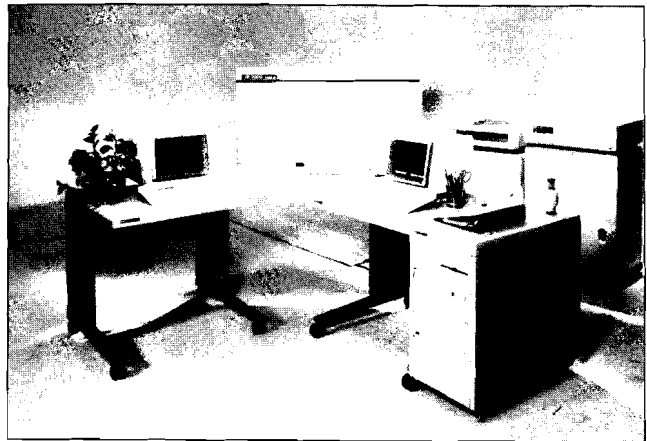
The HP 92214A/B/C series system tables are a perfect match for the new Series 37 mini-rack cabinet; they are the same height, color, and top design and provide a workstation for the system console. System documentation can be kept either on the tables or in the new HP 92211L/M mobile support cabinets which can be rolled under the system tables for easy, out-of-the-way storage. The HP 92211R mobile mini-rack is designed for larger configurations of disc and tape peripherals for the Series 37. Identical to the original Series 37 cabinet, the mini-rack has extra space in which to mount HP's new 7941 and 7945 Winchester drives and/or the HP 9144A tape cartridge drive.

Accessories for the mini-rack include the HP 92211S mounting rail and module kit as well as the HP 92211T filler panel kit. Also offered at CSO are mobile support cabinets for the HP 9000 Model 217 and Model 237 computers. The HP 92211L cabinet has inside space for two disc or tape peripherals and the Model 217. The HP 92211M cabinet has inside space for two disc or tape peripherals with cabinet top space for the computer. Both of these support cabinets can be rolled and stored under the HP 92214 series tables.

P/N	Description	US List Price
92214A	Small mobile table, 750mm (30") wide	$390
92214B	Medium mobile table, 1,125mm (44") wide	440
92214C	Large system table, 1,500mm (59") wide	495
92211L	Large support cabinet, 620mm (24.4") high	195
92211M	Small support cabinet, 435mm (17.1") high	165
92211R	Mobile mini-rack, 720mm (28.4") high	550
92211S	Rail kit for mobile mini-rack	45
92211T	Filler panel kit for mobile mini-rack	38

Quantity discounts are available. For more details on HP's Design Plus furniture, please check pages 72-75 of the Fall/Winter 1984-1985 Computer Users Catalog (P/N 5953-2450D). For fast service, your customers should call CSO's Direct Order phone numbers.

CSO DIRECT ORDER

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

Location	Telephone Number
United States	800-538-8787
California	408-738-4133
United Kingdom	0734-697201
	0734-792959
France	(6) 928 32 64
Belgium/Luxembourg	(02) 762 32 00
Switzerland	(057) 31 22 54
	or 31 22 59
Italy	(02) 92 36 91
	(06) 5 48 31
West Germany	07031-142829
	07031-223133
The Netherlands	020-470639
South Africa	802-5111
	53-7954
	28-4178
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
Sweden	08-7502027
	08-7502028

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