HP Computer Update
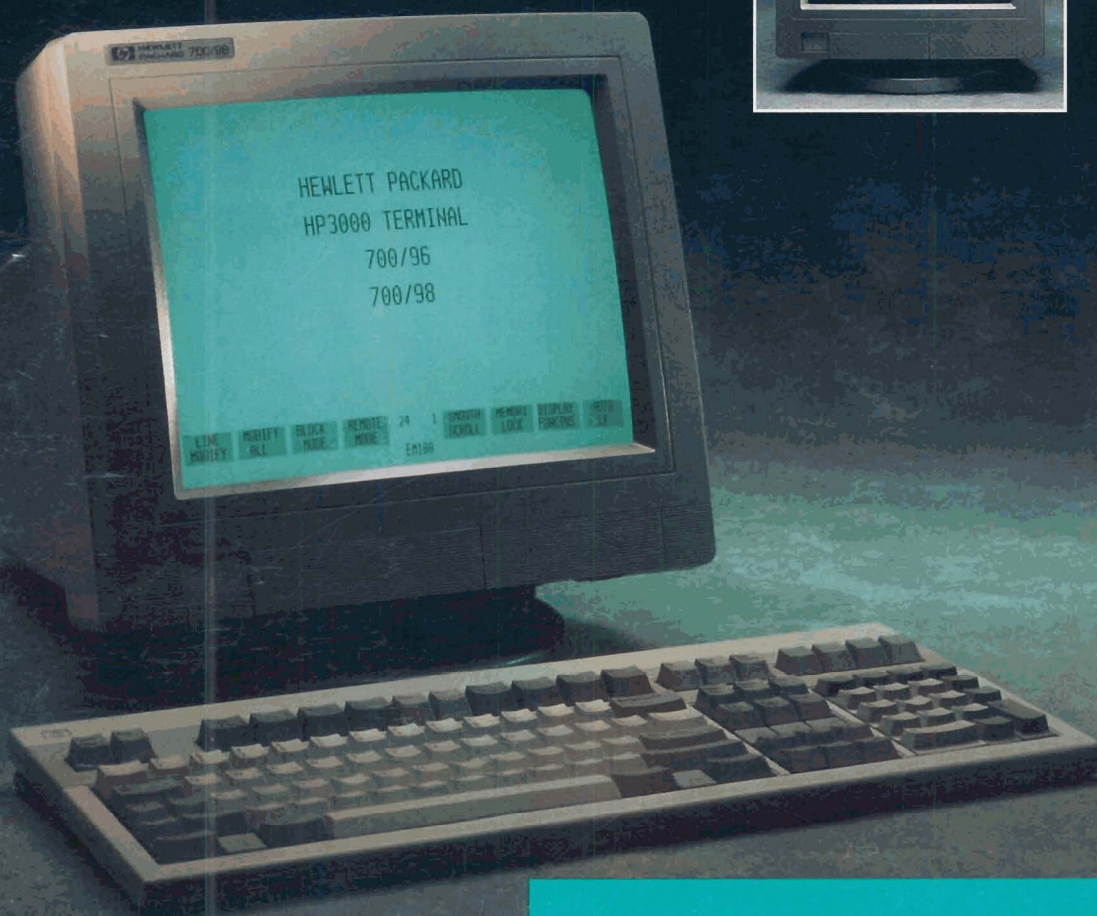
March 1992

Hewlett-Packard introduces the HP 700196 and HP 700198 block mode text display terminals for HP 3000 systems

HEWLETT PACKARD
HP3000 TERMINAL
700/96
700/98

HP **MPE** V **Release** 23 enhancements **strengthen HP MPE/iX** compatibility.
See page 7

HP Series **6400** Model **2000 2.0-Gbyte DAT** now supports HP **1000 A-Series** systems.
seepage 11

The HP Vectra **386s/20** PC combines performance **and ergonomically** designed features **with** expansion capabilities for technical or business **applications** in standalone or network **configurations.**
Seepage 13

Hewlett-Packard's LaserJet printer **PostScript** Cartridge **Plus** includes performance-enhancing Adobe **PostScript** Level **2** and Adobe **Type Manager** screen font **software.**
See page 20

Hewlett-Packard introduces the HP ScanJet IIp grayscale scanner and accompanying software for the Apple Macintosh and PCs.
Seepage 24

HEWLETT PACKARD

HP Computer Update

Distribution information

HP Computer Update is distributed to **individuals** who are involved in specifying or purchasii HP computer products and systems. It is also sent to HP worldwide value-added business partners. If you would like to receive a copy, please contact your **local** HP representative.

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

Hewlett-Packard does not warrant the accuracy of the information provided in HP Computer Update and *shall* not *be liable for any use made of the information provided herein. Information provided in* HP Computer Update *is subject to change without notice.*
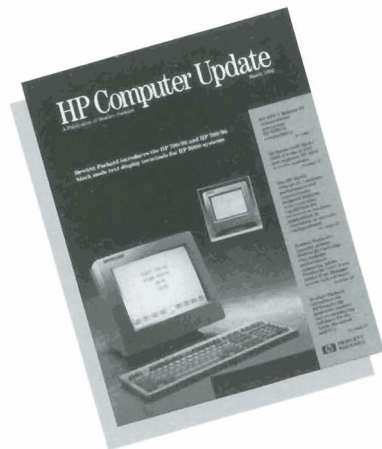
To order HP **software** or hardware products, call your HP representative. A telephone listing for **sales** offices in the U.S. and Canada appears on the back **cover**.

To receive literature or technical **information** on HP computer systems and workstations, and to order **workstations** and select computer products, call *HP* DIRECT at 800-637-7740 (U.S. only).

To receive technical information about any HP product, call the Customer Information Center 800-752-0900 in the U.S., or 800-387-3867 in Canada.

On the cover ...

The HP 700/96 and 700/98 block mode display terminals offer ergonomic and display quality improvements. The terminals feature new VDT technology, full overscan, high refresh rates, and ergonomically designed keyboards. See article on page 25 for more information.

HP Computer Museum
www.hpmuseum.net

Management Perspective

Greetings and welcome to Management Perspective. If you are a regular reader of *HP Computer Update*, you *will* notice that this column is an addition to the usual format. And you **will** see more additions as you browse through future issues. Why? Because we heard you.

About two months ago, members of our sales force came to us and spoke up on your behalf. They said that you want more information about Hewlett-Packard's strategy for meeting your computing needs. You want to know how HP has helped people like yourselves solve business problems. Many of you have hardware, networking, or application needs that you don't even know we can address. What can we do about that? Our answer is threefold: Management Perspective — a monthly article covering a particular aspect of Hewlett-Packard's computing strategy from our upper management team; a new feature article focusing on what that strategy means to you; and the addition of monthly success stories demonstrating how that strategy helped customers.

As the author of the premiere Management Perspective article, I'd like to begin by previewing for you some of the basic components of the strategy we're pursuing in the 1990s. Some will undoubtedly sound familiar, being a continuation of the things we did right in the 1980s.

PA-RISC remains the cornerstone of our hardware success. We started delivering RISC-based minicomputers in 1986 and currently remain the only vendor to provide multiuser systems that take advantage of this technology. Last March we shocked the industry with the introduction of our HP Apollo 9000 Series 700 RISC workstations, and today boast performance leadership at every critical workstation price point. Our past and future commitments to this technology **will** continue to make it possible for most of our installed base to keep moving forward and benefit from the RISC revolution.

During 1992, we also will continue our leadership in and support of industry standards. Briefly, we will support the creation of industry standards by active participation in standards groups; we will base our innovations on existing standards so you can take advantage of the new capabilities; and where no standard exists and we have ploughed new ground technologically, we will make that innovation available to others. We also **will** continue to deliver open systems solutions with greater performance and lower costs. And we'll make them easier to use and configure in multivendor environments. We're already delivering software infrastructure products to help you build, manage, and use distributed open systems. **As** a result, developers **are** dramatically reducing their development costs and improving their time to market. Also, our Open Systems Environment provides you with the assistance you need to break through the barriers to open systems.

Of course, hardware performance and multivendor capabilities aren't the only important customer needs today. That's why our strategy for the 1990s still includes establishing and maintaining strong and successful relatio hips with a wide selection of best-in-class applications providers. We already have 2,300 HP 3000 applications, nearly 2,000 workstations-specific applications, more than 3,600 worldwide HP-UX applications, and plans to add additional popular commercial applications.

Finally, our strategy for the 1990s **will** continue to include a strong emphasis on the client/server computing model. We believe it has sign cant enterprisewide customer benefits, including better access to information and resources across applications and geographies, less data redundancy and better data integrity, faster application development and easier maintenance, greater flexibility in configuring systems, and the potential to tap specialized resources on the network. We already have the main components for client/server computing — super clients and servers, technologies like NCS, HP NewWave Office, PC integration, development tools, and applications. We're adding four new client/server development tools as well as three new applications, and you can expect more in the months ahead.

Like the changes we're making to *HP Computer Update,* our strategy for the 1990s is, in large part, a conscious response to you and your needs. And it is our plan and hope that you **will** enjoy the changes, benefit from the strategies, and say with conviction that Hewlett-Packard heard us.

Lew Platt, Executive Vice President
Computer Systems Organization

HP News and Reviews

HP and D&B Software announce UNIX-based system client/server initiative

HP and D&B Software recently announced an agreement to develop and comarket mainframe-class software for client/server environments. D&B will deliver its first UNIX®-based system products for the HP 9000 Series 800 business servers later this year. The server products will provide data integration between D&B's existing mainframe host-based and upcoming client-based applications.

UNIX is a registered trademark of UNIX System Laboratories Inc. in the U.S.A. and other countries.

HP LaserJet IIISi printer wins award

The HP LaserJet IIISi printer was judged Best Hard-copy Output Device at the 1992 *Digital Review* Target Awards and Second Annual Editor's Choice Awards Competition. Competitors included C.Itoh CI-500, DEC DEClaser 2200, and DEC Turbo Print Server 20.

According to *Digital Review*, products are nominated by readers based on user friendliness, technological innovation, and price/performance. The Target Awards honor the DEC-compatible products preferred by experts and readers in 39 categories.

The promotions listed in *HP Computer Update* contain brief information about HP promotions currently in effect — including new promotions, promotions with changes (underlined), and promotions that are ending.

For more details on any of the following promotions, contact your HP representative.

Special considerations may apply to some of these promotions, and discount percentages can vary by country. Note: promotional programs listed with a "Worldwide" scope may not be available in all countries. Check with your HP representative for local availability.

Hewlett-Packard assumes no responsibility for any errors that might appear in these listings.

HP 3000 Systems

Midrange Upgrade Installed Base *change*

If you purchase selected XL systems, you are eligible to receive promotional discounts off selected system upgrade products.
- **Scope:** For the U.S., Europe, and intercontinental region only
- **Eligible products:** P/Ns A1707A/ 08A/09A/52A/58A/72A Option 709 or 710, A1771A Option 709
- **Start date:** December 1, 1991 (U.S.) and February 1, 1992 (Europe and intercontinental region')
- **End date:** April 30, 1992 (U.S.) and July 31, 1992 (Europe and intercontinental region)
- **Promotion number:** 2.601

Workstations

DN10000 Upgrade Product Replacement Program

If you have an Apollo DN10000, you can upgrade to an HP Apollo 9000 Model 750 workstation for an approximate 40% discount or purchase an additional DN10000 system for an approximate 40% discount. Specific CPUs and memory are available at promotional discounts.
- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** *Check with your HP representative*
- **Start date:** June 1, 1991
- **End date:** May 31, 1992
- **Promotion number:** 2.546

Measurement Coprocessor Software Upgrade *new*

If you purchase an upgrade to HP BASIC 6.2 for your measurement coprocessor, you can receive a copy of HP BASIC Plus and HP BASIC 6.2 upgrade at a promotional price.
- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns 82300U, E2160A, and either Option AA8 or AA9
- **Start date:** March 1, 1992
- **End date:** August 31, 1992
- **Promotion number:** 2.609

HP 9000 Series 300 Trade-up *new*

If you purchase an HP A2240A or A2251A and trade in your HP 9000 Series 300 or 200, you can receive a promotional discount per unit traded in.
- **Scope:** For North America only
- **Eligible products:** P/Ns A2240A/ 41A/42A/50A/51A
- **Start date:** March 1, 1992
- **End date:** September 30, 1992
- **Promotion number:** 2.613

Peripherals

Line Printer Trade-in Program

If you purchase an eligible line printer, you can trade in an HP line, impact dot matrix, or a competitive line printer and receive credit.
- **Scope:** For Europe and Mexico only
- **Eligible products:** P/Ns 2562C/ 63C/64C/66C/67C
- **Start date:** February 1, 1992
- **End date:** July 31, 1992
- **Promotion number:** 2.608

HP 3000 Block Mode Terminal Trade-in *new*

If you purchase a minimum of five HP 700/96 or 700/98 block mode terminals, you can trade in your old HP 3000 block mode terminals and receive a trade-in credit. One trade-in credit per eligible terminal order.
- **Scope:** Worldwide, except for Mexico *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns C1064A/ GN, C1065A/G/W, C1084W, C1085W
- **Start date:** March 1, 1992
- **End date:** August 31, 1992
- **Promotion number:** 2.611

First annual HP RTAP/Plus Users Group meeting

- **Title:** HP RTAP/Plus Users Group meeting
- **Date:** April 23–24, 1992
- **Place:** Palliser Hotel, Calgary, Alberta, Canada
- **Cost:** $150 Canadian for registration per delegate (hotel accommodations extra)
- **Audience:** Hewlett-Packard value-added business representatives who sell industrial automation applications to markets such as chemical processing, discrete manufacturing, electrical utilities, facilities management, food processing, oil and gas production, pharmaceuticals, telecommunications, and water/wastewater management

Hewlett-Packard will host the first annual HP RTAP/Plus Users Group meeting to provide a forum customers can use to exchange ideas and provide consolidated communications with HP. This conference will include presentations by HP RTAP/Plus users and Hewlett-Packard management. Roundtable discussions will be scheduled for HP RTAP/Plus users and Hewlett-Packard. For more information, contact your HP representative.

HP FIRST additions

HP FIRST can be accessed from any Group 3 touch-tone fax machine. Dial 208-344-4809, and you will be connected to a voice-operated menu that steps you through the literature selection process.

The computer systems items listed here have been added to the HP FIRST system.

Tile	Fax ID number
HP OfficeShare Network for PCs data sheet	1311
HP OpenView Windows Workstation data sheet	1334
HP OpenView Bridge Manager and Hub Manager data sheet	1380
HP OpenView Network Node Manager data sheet	1382
HP Apollo 9000 Series 700 Multimedia technical backgrounder	2255
HP Apollo 9000 Model 720 PA-RISC Workstation data sheet	2263
HP Apollo 9000 Model 730 PA-RISC Workstation data sheet	2265
HP Mass Storage Solutions specifications	7500
HP DAT PC Backup Solution specifications	7501
HP Hard Disk Drives for the Apple Macintosh Quadra 900 product brief	7502
HP Storage System for the Apple Macintosh specifications	7503

VAB promotions

The following promotion is specifically for VABs. The promotions featured on page 6 of the main publication also apply to VABs. Contact your HF representative for more information.

Hewlett-Packard assumes no responsibility for any errors that might appear in these listings.

HP 3000 Systems

Midrange Upgrade Installed Base *change*

If you are on VAR schedule A1001A and purchase selected XL systems, you are eligible to receive promotional discounts off selected system upgrade products. Contact your HP representative for a listing of eligible upgrade products.

You must purchase one of the products listed here and one upgrade option. You may purchase either of the HP 700192 or 700194 terminal products and trade in one HP terminal per each new terminal purchased. You will receive a trade-in allowance per terminal.

- **Scope:** For the U.S., Europe, and intercontinental region only
- **Eligible products:** P/Ns A1707A/08A/09A/52A/58A/71A/72A
- **Start date:** December 1, 1991 (U.S.), February 1, 1992 (Europe and intercontinental region)
- **End date:** May 31, 1992 (U.S.), July 31, 1992 (Europe and intercontinental region]
- **Promotion number:** 2.602

Available literature

The following new literature is available through your local HP sales office. The literature is separated by product line and in order of publication number. Contact your HF representative for more information.

HP 9000 Systems

Choose the Leader brochure

- **Audience:** HP VAB customers
- **Format:** 4 pages, color

- **P/N:** 5091-20543
- **Description:** Helps **HP** VABs concisely communicate the core benefits of purchasing the HP 9000 Series 800 to potential customers.

Workstations

HP RTAP/Plus Industrial Automation Enabler literature package

- **Audience:** VAB reps who sell industrial automation applications to chemical processing, discrete manufacturing, electrical utilities, facilities management, food processing, oil and gas production, pharmaceuticals, telecommunications, and water/wastewater management industries
- **Format:** literature package includes multicolor brochure, integrated technical data sheet, multicolor literature folder, and support services fact sheet
- **P/N:** 5092-3332
- **Description:** Combines features, benefits, and technical information. Data sheet provides an easy-to-read format that details the transition of HP RTAP/Plus into the manufacturing sectors and the unique solutions it provides.

Personal Computers

HP Vectra PC Technical Reference Guide

- **Audience:** dealers and end users
- **Format:** 200 pages, bound
- **P/N:** 5091-28773
- **Description:** Includes technical and performance data, competitive feature comparison table, tested products list, and configurations for all HP Vectra PCs including the HP Vectra 486s/20, 386/16N, and 386/20N PCs.

HP Vectra 386s/20 PC data sheet

- **Audience:** dealers
- **Format:** 8 pages, color
- **P/N:** 5091-3171EUS
- **Description:** Describes the new Intel 386*-based HP Vectra 38W 20 PC. Highlights product features and customer benefits for office and technical end users, and includes detailed information on configurations, memory, and product features.

Intel 386* is a U.S. trademark of Intel Corporation.

HP Vectra 386s/20 PC tested products list

- **Audience:** dealers
- **Format:** 4 pages, black and white
- **P/N:** 5091-3406EUS
- **Description:** Lists software and hardware products that have been tested by HP for use on the HP Vectra 386s/20 PC. Does not include all products that are compatible with this PC, but it is a sample of selected products tested to verify compatibility with industry standards.

HP Vectra 386s/20 PC performalice guide

- **Audience:** dealers
- **Format:** 2 pages, black and white
- **P/N:** 5091-3421EUS
- **Description:** Contains benchmark data, highlights performance features for targeted markets, and contains a discussion of general purpose/standalone benchmarks. Tests were run against four major competitors.

Peripherals

HP ScanJet Scanner Family — Software/Hardware Solutions Guide

- **Audience:** U.S., Canadian, and intercontinental region end users
- **Format:** 6 pages, two color
- **P/N:** 5091-14203
- **Description:** Lists software and hardware products to be used with the HP ScanJet scanner family. Product names, platforms supported, company names, and telephone numbers are listed.

HP DIRECT phone numbers

HP's fast-order phone lines provide customers with an easy, direct way to order supplies, accessories, media, furniture, and software from Direct Marketing Division.

Location	Telephone number*
Argentina	7814061
	through 4069
Australia	008 339 861
	(toll free)
Melbourne	(03) 272 2861
Austria	(0222) 2500-614
	(0222) 2500-615
	(0222) 2500-616
Belgium/Luxembourg	(02) 761-31-11
Brazil	(011) 709-1300
Canada	800-387-3154
Toronto	416-671-8383
China	2566888
Denmark	80 30 1640
Finland	(90) 8872-2361
France	(1) 60 77 34 07
Germany	(0130) 3322
Greece	(01) 672-6090
Hong Kong	(5) 8487569
Italy	(02) 9530 1532
Japan	427-59-1321
Korea	7690-600
	7690-700
	7690-800
Malaysia	(03) 2986556
Mexico	9056767892
Netherlands	(06) 0501
New Zealand	(04) 820400
Norway	(02) 24 41 80
Singapore	279-8824
Spain	(91) 6374013
	(91) 6370011
Sweden	(08) 750 24 00
Switzerland	(057) 31 24 90
Taiwan	(02) 7179608
United Kingdom	(0344) 369333
United States	800-538-8787
Venezuela	2394477

'Numbers listed are localized

HP MPE V Release 23

Based on your feedback in August 1991, Hewlett-Packard committed to provide five of the top seven Systems Improvement Committee (SIC) special interest user's group requested enhancements and to fix 20 of the top 40 service requests. HP MPE V Release 23, shipping in May, has met and exceeded commitments. HP MPE V Release 23 has six of the top eight requested enhancements, and 35 of the top 40 service requests have been fixed. The enhancements strengthen HP MPE/iX compatibility.

Higher reliability is achieved through ongoing efforts to fix service requests. These fixes and the enhancements on HP MPE V Release 23 help reduce the time and resources required to manage systems.

SIC requested enhancements include:

- *Showboat* — shows % of active spoolfile remaining
- *Logical console* — switches to physical console LDEV on modem logoff
- *Store* — has nine-level exclusion fileset for store and restore
- *Spoolfiles* — purges by date, priority, and user account
- *Restore* — shows the date tape was created
- *Jobinfo* — shows users who streamed the job

Additional enhancements and improvements include:

- *Restore DDS* — provides faster file restoration for digital-audio tapes
- HP EXPLAIN *utility* — includes new online facility that provides cause-and-action information on system errors
- *System performance measurement* — has expanded interface to support the maximum number of processes on HP MPE V/E
- *Process priority oscillation* — provides increased control over allocating CPU resources
- *COBOL performance improvement* — has trap handling code change to provide increased performance for many large COBOL programs
- *Job* file *date* — allows streaming a job to no longer cause the modification date in the job file label to be updated
- *Supacct.pub.sys* — eliminates fieldjob. SYS account has lock access set to Any. Job output is reduced by one-third and RJE capabilities are set correctly.

You should wait for normal distribution of the next platform release, Release 2P, scheduled for fall 1992, since Release 2P will provide a support life of 48 months.

Introducing HP EXPLAIN

In response to your feedback, Hewlett-Packard is introducing a new utility that will be available with HP MFE V/E Release 23 (G.08.00). HP EXPLAIN allows you quick online access to explanations of HP MFE V system error messages. It can run on virtually any terminal and does not require any special capabilities. You can display or print explanations for messages or perform a key word search of the messages in the system catalog by search string or by number. Three sets of messages are documented with explanations.

also in this issue

HP GlancePlus for Sun SPARCstations

HP GlancePlus (P/N B2804A) is now available for Sun Microsystems SPARCstations. HP GlancePlus is an online performance monitoring and diagnostic tool for examining system activity that maintains consistency in user interface and contains common performance metrics with the version for HP-UX.

Features and benefits

- *Provides ready access to current system performance informa-tion* — System administrators can now use one tool to manage systems for sustained peak performance more easily and effectively.
- *Displays summarized overviews of important performance infomnation, and information necessary for isolating and resolving performance problems when they occur* — Users can quickly examine how systems are operating.
- *Has user-definable filters and update intervals* — Users can customize the **data** as needed to determine which information is important and relevant to display.
- *Has online help, graphical displays of data, and command menus* — HP GlancePlus is easy to learn and use.
- *Provides information about network file system activity and remote system utilization* — System and network administra-tors can monitor and control client/server environments.

- *Offers consistency in user interface and common perfor-mance metrics between the HP GlancePlus versions for Sun and HP-UX* — Users can learn more quickly and increase efficiency.

This version of HP GlancePlus is the first HP performance tool to be made available on a non-HP platform. HP GlancePlus comple-ments other performance tools and services from Hewlett-Packard.

Configuration information

The initial release supports only the uniprocessor models (SPARC 1, 1+, 2, IPC, SLC, servers as well as the Sun-4 line) and does not support Sun's new multiprocessor (600 MP) family. HP GlancePlus will not run on non-SPARC-based Sun architec-ture. The product is supported on SPARCstations only; proper functioning on SPARC replicas such as Solbourne cannot be guaranteed. HP GlancePlus is supported starting with Version 4.1 of SunOS, Sun's UNIX-based operating system.

HP GlancePlus for Sun SPARCstations is on the February 1992 HP Price List and available for immediate shipment. For more information, contact your HP representative.

Product No.	Description
B2804A	License to use HP GlancePlus for Sun SPARCstation
Opt. AAO	Software on ¼-inch cartridge tape (QIC 24) and manual
Opt. OBE	Additional user's manual

Enhanced HP LaserROM/UX retrieval software

Enhanced HP LaserROM/UX retrieval software (P/N B1671C) used to access HP 9000 documenta-tion on CD-ROM is now available. The enhancements allow for faster, easier, and better access to HP 9000 documentation on CD-ROM.

Features

- Flexible key word search with relevance ranking
- Navigational tools such as an index, table of contents, and hyperlinks
- Expanded print menu
- Intuitive, easy-to-use interface
- Flexible printing

Benefits

You can create unique bookshelves, notes, and bookmarks; spend more time using information and less time searching for it; and customize information according to personal needs.

Migration

This will be a phased release starting with the HP LaserROM/UX retrieval software and the HP-UX 8.0 documentation on CD-ROM. A follow-up PC version of HP LaserROM and the HP MPE V and MPE/iX documentation on CD-ROM are scheduled for release later this year.

For users with software support contracts, the new and improved HP LaserROM/UX retrieval soft-ware is a no-cost upgrade and will be distributed through your monthly HP LaserROM subscription

service. Update and installation instructions also will be included. The first subscription service shipment is targeted for June 1992 with HP-UX 8.0 information.

Specifications

The new HP LaserROM/UX retrieval software will be required to read all future HP-UX and HP MPE documentation on CD-ROM. If you wish to read previous HP MPE V, MPE/iX, or HP-UX documentation on CD-ROM disks prior to the shipment of the new HP LaserROM/UX retrieval software, you will need to use the classic HP LaserROM software (P/N B1671A/B). Previous documentation on CD-ROM disks includes HP-UX 7.0, HP MPE V Platform 1P, MPE V Release 21, MPE V Release 22, MPWiX 2.0, MPWiX 2.1, MPWiX 2.2, and MPE/iX 3.0.

If you are using the PC or PC/LAN version of HP LaserROM, you will need to upgrade to the A.02.04 version that supports Microsoft® Windows 3.0 in order to read future HP-UX, HP MPE V, or MPWiX documentation on CD-ROM. Windows 3.0 update coupons were sent to all U.S. HP LaserROM/PC and HP LaserROM/LAN users in December 1991. For European and intercontinental region users a list of Microsoft distributors was sent earlier this year.

The HP LaserROM/UX retrieval software is on the March 1992 HP Price List and will be available by June 1992. For more information, contact your HP representative.

Microsoft is a U.S. registered trademark of Microsoft Corp.

HP 9000 Series 800 Quickship program

For Europe only

On February 1, 1992, HP initiated the Quickship program in Europe. This program makes HP 9000 Series 800 systems easier to order and provides for quicker delivery.

Four bundles have been created that are built and stocked in Europe. Orders for these systems are shipped from stock within one week from the time the order is entered into Hewlett-Packard's order processing system.

To order indicate the bundle product number and a localization option. The localization option must be included to indicate the correct keyboard and power cord to be shipped with the system. To order Quickship bundles you should be aware of the following:

- *Each Quickship bundle is a fixed configuration and cannot be changed — If you require a different configuration, order HP 9000 Model 8X7 system components using normal ordering procedures.*
- *Quickship bundles are considered shippable upon receipt of order — If you do not want system delivery before a certain date, order HP 9000 Model 8X7 system components using normal ordering procedures.*
- *Quickship bundles are not available for coordinated shipments — If additional products are required they should be ordered separately through normal channels and will most likely arrive after the Quickship bundle. If coordinated delivery is required order HP 9000 Model 8X7 system components and add-on items using normal ordering procedures.*

Purchasing the Quickship bundles offers the advantage of quick delivery, but there is no price advantage. Contact your HP representative for more information.

Product No.	Description
A2302A	HP 9000 Model 807S, includes 8-user HP-UX, 16-Mbyte memory, 677-Mbyte disk, 2-Gbyte DAT, HP 700192 console, 8 RS-232 ports, battery backup
A2303A	HP 9000 Model 817S, includes 16-user HP-UX, 24-Mbyte memory, 1.3-Gbyte disk, 2-Gbyte OAT, HP 700/92 console, 16 RS-232 ports, CAN, ARPNNFS. battery backup
A2304A	HP 9000 Model 827S, includes 32-user HP-UX, 32-Mbyte memory, 1.3-Gbyte disk, 2-Gbyte OAT, HP 700192 console, 32 RS-232 ports, LAN, ARPNNFS, battery backup
A2305A	HP 9000 Model 827S, includes 64-user HP-UX, 64-Mbyte memory, 1.3-Gbyte disk, 2-Gbyte DAT, HP 700/92 console, 48 RS-232 ports, CAN, ARPNNFS. battery backup

also in this issue

HP PC-313CM new low-cost high-end PC controller

Hewlett-Packard introduces the HP PC-313CM controller (P/N 82333F), a high-performance HP PC-300 controller based on the HP Vectra 386s/20 PC. It includes an integrated 3½-inch 1.44-Mbyte floppy drive, a 52-Mbyte hard disk drive, serial and parallel interfaces, HP Super VGA graphics, and the HP Measurement Coprocessor.

Features and benefits

- *HP Vectra 386s/20 PC* — offers performance, expansibility, and advanced PC functionality at an affordable price
- *Mass storage* — offers a 120-Mbyte integrated hard disk drive option for large data storage capabilities
- *Ergonomics* — offers the 72-Hz ergonomic HP Super VGA color display option (P/N D1195A) for high ergonomic standards
- *High-performance measurement coprocessor* — as with all HP PC-300 controllers, includes the HP 82324B for maximum system performance

The HP PC-313CM brings a new standard of performance, flexibility, and price to the PC300 controller family. The HP PC-313CM includes hardware, software, documentation, and support within a single package and with a single part number. The product is on the March 1992 HP Price List and available within four weeks. For more information, contact your HP representative.

Product No.	Description
82333F	HP PC-313CM controller based on HP Vectra 386s/20 PC, HP Super VGA color display, 2-Mbyte RAM, 52-Mbyte hard disk, 1.44-Mbyte 3%-inch floppy drive, serial/parallel I/F, HP Measurement Coprocessor with 1-Mbyte RAM, HP-IB I/F, HP BASIC 6.2, MS-DOS' 5 0
Opt. 072	Substitute 72-Hz HP Super VGA color ergonomic monitor, P/N D1195A
Opt. 120	Substitute 120-Mbyte hard disk drive

Options 054,050,055,056, and W03 are common to all HP PC-300 products and are offered with the HP PC-313CM.

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

HP 9000 Model 380 upgrade internal high-speed HP-IB option

The field upgrade for HP 9000 Model 330/350/360/370 to Model 380 (P/N 98244D) comes with an internal small computer standard interface (SCSI) and standard HP-IB interface. System problems can occur if high-performance HP-IB system disks or devices are connected to the standard HP-IB interface. You may substitute an internal high-speed HP-IB interface for the SCSI interface at no extra charge by ordering Option ALB. Consult with an HP representative about alternative configurations if you require both SCSI and high-speed HP-IB interfaces.

Product No.	Description
98244D	Field upgrade for HP 9000 Model 330/350/360/370 to Model 380 (comes with SCSI and standard HP-IB)
Opt. ALB	Substitute high-speed HP-IB with cable for SCSI

New HP 9000 Model 8X7/ HP 3000 Series 9X7 floating point upgrade CPU board option

Effective with the March 1992 HP Price List, a new option has been added to the floating point coprocessor upgrade (P/N A2293A). This allows HP 9000 Model 807S or HP 3000 Series 917, 927, 937, and 947 users to upgrade CPU boards that may not have a socket for the floating point coprocessor. First shipments of these systems did not have a floating point coprocessor socket on the CPU board and would not have been able to have the chip. With the new option, you will be able to order and install the floating point coprocessor.

Product No.	Description
A2293A	
Opt. 101	32-MHz CPU board with floating point coprocessor installed

HP 9000 Model R/332 obsolescence

HP 9000 Model R/332 products (P/Ns A1303A, A1305A, and A1307A) will be removed from the July 1992 HP Price List. Replacement products are the HP 9000 Model R/362 (P/N A1314A), Model R/382 (P/N A1319A), and Model R/382U UNIX-based systems controller (P/N A1324A). These controller products are for those who require the benefits of rackmounting, ruggedness in harsh environments, and a fully integrated package.

HP 1000 A-Series A990 manufacturing release
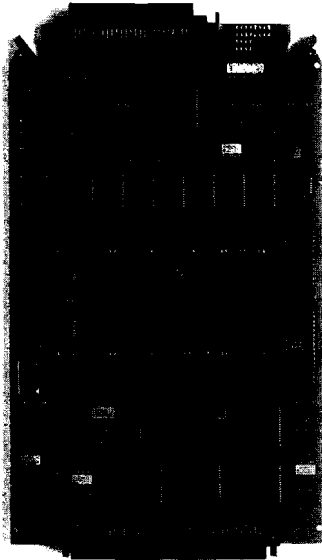
Last month, the new HP 1000 A-Series high-end processor family, HP 1000 A990, was released to manufacturing. This family provides you with CPU performance that is twice that of the current HP 1000 A900. The HF 1000 A990 is the first HP 1000 processor release since the A400 in 1986 and the first high-end processor addition since the A900 in 1983.

The HP 1000 A990 is plug compatible and allows you to leverage existing hardware investments without high incremental costs, preserves software investments without high conversion cost and time, adds new functionality,

integrates new and existing applications, and maximizes system performance while reducing downtime.

A pre-release program was instituted several months ago that allowed you to evaluate the HP 1000 A990 in your own facilities under specific conditions. This program will be extended until at least the end of October 1992. For more information, contact your HP representative.

HP DAT backup solutions now support HP 1000 A-Series systems

Hewlett-Packard announces the support of the HP Series 6400 Model 2000 (P/N C1520B) 2.0-Gbyte digital-audio tape (DAT) drive on the HP 1000 A-Series system. Introduced as a standalone product in January 1992, this small computer standard interface (SCSI) tape drive is fully supported under HP RTE-A using Revision 5.25 of the SCSI interface driver IDQ35 and the tape device driver DDQ24.

This product functionally is identical to the existing HP Series 6400 Model 1300H/S 1.3-Gbyte DAT drives that also are supported under HP RTE-A. Unlike the HF Series 6400 Model 1300H/S, the Model 2000 uses 90-meter (2.0-Gbyte) DDS cassettes in addition to existing 60-meter DDS cassettes only. The HP Series 6400 Model 1300H/S drives use 60-meter DDS cassettes only.

The HP Series 6400 Models 2000 and 1300S can boot and load devices as well as archive and backup devices. The HP Series 6400 Model 1300H is only supported as an archival/backup device. All software for the HP 1000 is available on DDS tape by ordering media Option AAH when purchasing software. For more information, contact your HP representative.

HP 1000 A-Series A990 Option 910 for upgrade

The HP 1000 A990 12990C Option 910 is on the February 1992 HP Price List. This option provides users who upgrade from the HP 1000 A900 to the new A990 the option of obtaining an edge-connector version of the upgrade board in place of the pin-and-socket type that is typically supplied. This option still allows you the upgrade credit and requires the return of your existing HP 1000 A900 board set. For more mformation, contact your HP representative.

HP 1000 Welcome Back program
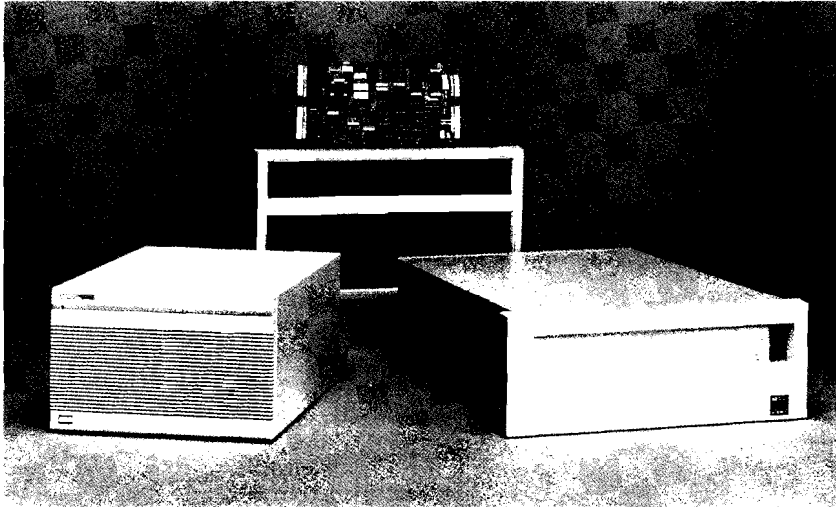
Implementation of HP 1000 A-Series enhancements requires that you have the most current version of the operating system (HP RTE-A) running on your systems. From now through October 31, 1992, Hewlett-Packard is offering the HP 1000 Welcome Back program. For those of you who have software support contracts that have lapsed, this program allows you to upgrade to current versions of HP 1000 A-Series software, including the HP RTE-A operating system and selected software subsystems, at reduced prices. Affected products are listed here. Contact your HP representative for more information.

Product No.'	Description
92077A	HP RTE-A, VC+, and symbolic debugger bundle
91790A	NS/ARPA
92069A	Image I
92081A	Image II
92833A	Pascal
92836A	FORTRAN
92857A	BASIC
92861A	DGL
92862A	AGP
94250B	Forms

'Product numbers listed are specific to Option 891.

HP A-Series Integrated Disk peripheral tray discontinuance

The HP A-Series Integrated Disk peripheral tray (P/N 12122A) will be removed from the July 1992 HP Price List. All lifetime purchases for this product must be made by that time. If you will require large volume final purchases of this product, contact your HP representative immediately.

HP 1000 A-Series A990/ A900 incentive credit discontinuance

Effective March 1, 1992, the HP 1000 A990 12990C Option 905 was discontinued. This option provided you with a credit for ordering and taking delivery of an HP 1000 A900 while also placing an order to take later delivery of the HP A990 12990C upgrade products (either the pin-and-socket version or the edge-connector version). There is no grace period for this option. Contact your HP representative for more information.

HP Vectra 386s/20 PC flexible for technical and office users

If you require expansion capabilities for technical or business applications in either standalone or network configurations or are migrating from HP Vectra QS/16S and QS/20 PCs, a flexible 386SX PC now is available.

Features and benefits

- *Expansibility* — HP Vectra 38W 20 PC offers a combination of integrated options and room to grow. HP Super VGA, hard and flexible disk controllers, two serial ports, and one parallel port are all incorporated on the PC system board. This leaves the five accessory slots free to accommodate key accessories such as facsimile and modem cards. Four mass storage shelves provide room for data storage on 3%-inch and 5¼-inch floppy drives as well as space for tape backup of up to 830 Mbytes on small computer standard interface hard disk drives.
- *Performance* — Combination of the 80386SX microcoprocessor with an HP-designed memory cache controller, hard disk with less than 17 ms seek time, and the integrated HP Super VGA controller means that the HP Vectra 386s/ 20 PC performs in applications such as Lotus® 1-2-3,® Microsoft Excel, and AutoCAD.™ The performance was tested in a series of independent tests commissioned by Hewlett-Packard.

- *Standalone or connected to a local-area network (LAN)* —*This* expansibility potential is for users who are not currently connected to a LAN. Built-in network security features and optional LAN accessories such as boot-ROM offer easy integration to a LAN.
- *Ergonomically designed features* — These include power and reset buttons on the front of the PC for easy access, temperature-regulated fan that generates less noise, and HP Super VGA with a low-flicker screen refresh rate of 72 Hz that reduces eye strain and fatigue.

  Enhanced ease of setup and serviceability — This provides easy access to internal components because no screws are used to attach the cover. The ROM-based setup program automatically determines the amount of memory and the type of mass storage devices installed. The easy access to parts and the setup program reduce the time and expense needed for setup and service.

  Floppy disk-based error utility — This reduces the cost of support by allowing for early diagnosis of problems without a technician.

The HP Vectra 386s/20 PC now is available from Hewlett-Packard dealers and carries a one-year limited warranty, convertible to three months onsite repair. For more information, contact your HP representative.

Product No.[1]	Description
D2512A	HP Vectra 386s/20 Model 50 PC, 1.44-Mbyte flexible disk, 52-Mbyte hard disk
D2513A	HP Vectra 386s/20 Model 120 PC, 1.44-Mbyte flexible disk, 120-Mbyte hard disk
D2514A	HP Vectra 386s/20 Model 1-3 PC, 1.44-Mbyte flexible disk, no hard disk
D2515A	HP Vectra 386s/20 Model 1-5[2] PC, 1.2-Mbyte flexible disk, no hard disk

[1] *When ordering any HP Vectra PC, a language option must be specified.*
[2] *The HP Vectra 386s/20 Model 1-5 PC is not available in Europe.*

Lotus and 1-2-3 are U.S. registered trademarks of Lotus Development Corporation.

AutoCAD is a U.S. trademark of Autodesk, Inc.

HP Vectra 386s/20 PC faster in performance tests

Performance is a critical factor for those purchasing PCs. To help in the decision-making process, Hewlett-Packard commissioned independent performance tests for the HP Vectra 386s/20 PC. The results show that the HP Vectra 386s/20 PC is consistently faster in most areas when compared to four similar PCs from other manufacturers.

The tests were carried out by Ingram Laboratories and National Software Testing Laboratories (NSTL). The products tested were the HP Vectra 386s/20 PC, AST Premium II 386SX/20, Compaq DeskPro 386s/20, IBM PS/2 Model 40SX, and NEC PowerMate SX/20.

The conclusion reached by both Ingram and NSTL was that the

HP Vectra 386s/20 PC's performance in both application- and component-level testing was due to the speed of its key components; HP-designed memory cache gave the best performance in CPU-related processing such as with Lotus 1-2-3; the hard-disk subsystem, seek time less than 17 ms, meant a top score in data-intensive applications such as dBASE IV® and Foxpro; and the integrated HP Super VGA video had the strongest performance in text and graphics functions. For more information, contact your HP representative.

dBASE IV is a U.S. registered trademark of Ashton-Tate Corp.

HP Vectra 286/12 PC discontinuance
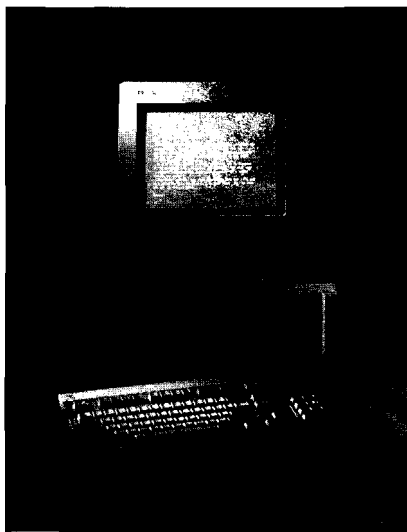
The HP Vectra 286112 PC will be removed from the June 1992 HP Price List. If you are price-sensitive, the HP Vectra 386/16N PC offers better value with 386SX processor

power, an attractive price, network-ready, and security features in a new slimline, ergonomic package. If you wish to migrate to a more powerful PC you may choose the HP Vectra 386/20N PC that is up to 40% faster than the HP Vectra 386/16N PC for a small price increase. If expansibility is essential, HP Vectra 286112 PC users can choose the newest desktop PC, the HP Vectra 386s/20 with five slots, four shelves, and the same performance as the HP Vectra 386/20N PC.

Product No.	Description
D2467A	HP Vectra 286112 Model 1-3 PC, 3%-inch floppy drive
D2460A	HP Vectra 286112 Model 1-5 PC, 5%-inch floppy drive
D2464A	HP Vectra 286112 Model 40-3 PC, 3%-inch floppy drive, 42-Mbyte hard disk
D2463A	HP Vectra 286112 Model 40-5 PC, 5%-inch floppy drive, 42-Mbyte hard disk
D1171A	HP-HIL card[1]
D2400A	287112-MHz coprocessor[1]
D1354A	2-Mbyte memory upgrade[1]
D2401A	Expansion card[1]
D2402B	HP Vectra 286112 PC set-up kit[2]

[1] These will be discontinued December 1992.
[2] This will be discontinued June 1992.

SCO packaged products discontinuance; PC/UNIX-based system integration service

Changes in the relationship between Hewlett-Packard and the Santa Cruz Operation (SCO) include the discontinuance of SCO packaged products from the HP Price List and an expanded integration service for HP Vectra PC and SCO users.

SCO UNIX and SCO VP/ix products will be removed from the May 1992 HP Price List. SCO UNIX Release 3.2 Version 2 has been made obsolete by the newest product, SCO UNIX system V/386 Release 3.2 Version 4.0, which SCO announced in January 1992. If you purchased SCO products from Hewlett-Packard, you may purchase follow-on products directly from SCO distributors and dealers.

SCO UNM Version 4.0 has the functionality of the previous version and enhancements that include a single kernel that runs on ISA, EISA, or MCA machines; boot-time loadable device drivers; in-place upgrades from Release 3.2 Version 2.0, not requiring reinstallation of the entire system; improved MS-DOS and SCSI support; support for memory configurations up to 512 Mbytes and disks larger than 1.2 Gbytes; fully configurable security; symbolic links; and file names up to 255 characters.

If you purchased SCO UNIX and VP/ix from Hewlett-Packard, you are eligible for the same upgrade privileges enjoyed by SCO UNM or VP/ix customers.

Hewlett-Packard remains committed to the compatibility of HP Vectra PCs with SCO operating environments and has an integration service that will configure HP Vectra PCs with SCO products for orders over 25 units. Hewlett-Packard has a license from SCO to preload any SCO products including SCO UNIX, VP/ix, Open Desktop, and XENIX on HP Vectra PCs.

For information regarding service, contact your HP representative. For information on SCO distributors and dealers in your area or on SCO products and upgrades, call the Santa Cruz Operation at 800-726-8649 in the U.S.

Product No.	Description
D2046C	SCO UNIX Release 3.2 Version 2, 5%-inch disks
Opt. ABA	U.S. English version
Opt. ABB	European English version
Opt. ABM	Latin American Spanish version
D2046D	SCO UNIX Release 3.2 Version 2, 3%-inch disks
Opt. ABA	U.S. English version
Opt. ABB	European English version
D2052A	SCO VP/ix, 5%-inch disks
Opt. ABA	U.S. English version
Opt. ABB	European English version

HP IRMA obsolescence

The HP IRMA-IBM 3278 terminal emulator for the HP Vectra PC will be removed from the May 1992 HP Price List. There is no replacement for this product. For more information, contact your HP representative.

HP Vectra QS/16S and QS/20 PCs discontinuance

HP Vectra QS/16S and QS/20 PCs will be removed from the June 1992 HP Price List. The products will be discontinued in Europe in May 1992. In Europe you will be able to place orders until the end of May 1992, and elsewhere orders will be accepted up to the end of June 1992. Shipments of these PCs will continue until the end of December 1992.

If you do not need the HP Vectra QS PC expansibility and want to spend less money for more power, you should choose the HP Vectra 386/16N or 386/20N PC. If you require HP Vectra QS PC-equivalent expansibility or more, and require more power without considerable cost increase, you should choose the HP Vectra 386s/20 PC. If you want to migrate to a more powerful PC and retain the 80386DX processor, you should purchase the HP Vectra 386125 PC. For more information, contact your HP representative.

Product No.	Description
HP Vectra QS/16S PC	
D1461C	Model 1.3%-inch floppy drive
D1481C	Model 1, 5%-inch floppy drive
D1464C	Model 40, 3½-inch floppy drive, 42-Mbyte hard disk
D1462C	Model 40, 5%-inch floppy drive, 42-Mbyte hard disk
D1489C	Model 80, 3½-inch floppy drive, 84-Mbyte hard disk
D1488C	Model 80, 5%-inch floppy drive, 84-Mbyte hard disk
HP Vectra QS/20 PC	
D1421B	Model 1, 3½-inch floppy drive
D1491B	Model 1, 5%-inch floppy drive
D1424B	Model 47.3%-inch floppy drive, 42-Mbyte hard disk
D1422B	Model 46.5%-inch floppy drive, 42-Mbyte hard disk
D1499B	Model 87, 3½-inch floppy drive, 84-Mbyte hard disk
D1498B	Model 86, 5%-inch floppy drive, 84-Mbyte hard disk
D1440A	HP Vectra QS/20 PC memory expansion kit'
D1451C	HP Vectra QS/16S and QS/20 PC set-up kit[2]

[1] This will be discontinued October 1992.
[2] These will be discontinued June 1992.

Major extensions for HP ISDN products

HP ISDN products now are supported in more countries. The HP ISDN server allows for interconnecting geographically distributed Ethernet local-area networks (LAN) over ISDN networks for all applications using the TCPAP communication protocol and acts as a call concentrator for integrating .standalone PCs equipped with the HP ISDN Link/MS-DOS to a remote LAN. The HP ISDN server (P/N J2101A) and HP ISDN Link/ MS-DOS (P/N J2102A) products now provide extended geographical support in countries where these products have been successfully certified for the first time. The products are available and can be attached to the public ISDN networks in the following countries: Australia, France, Germany, Japan, the U.K., and the U.S. (AT&T 5ESS). Certification is in progress for Belgium, Italy, and the U.S. (NT DMS 100). For unlisted countries certification is being handled on a case-by-case basis. Contact Hewlett-Packard for up-to-date information and status in your country.

Features and benefits

- *Ongoing cost savings* — HP ISDN products provide automated management of ISDN communications (call setup and clearing) in order to control and reduce communication costs.

- *Transparency for TCP/IP-based applications* — Existing or new TCPAP-based applications can transfer information over ISDN transparently for end users.

- *High-performance communications* — Through its ability to multiplex information over multiple B channels, the HP ISDN server can transfer information on demand between distributed sites at speeds up to 384 Kbytes per second.

HP ISDN products price reduction

Effective February 1, 1992, prices of HP ISDN server and HP ISDN Link/MS-DOS products were reduced. This price reduction allows Hewlett-Packard's offering to remain competitive in geographical markets where ISDN networking is becoming more popular and cost-effective for transferring information between geographically distributed computers. Prices for add-on ISDN BRI cards for the HP ISDN server (P/N J2101A Option 100 and P/N J2103A) remain unchanged.

Product No.	Description
J2101A	HP ISDN server, includes one ISDN BRI card
J2102A	HP ISDN Link/MS-DOS

HP LAN Manager for OS/2 obsolescence

Hewlett-Packard has worked with Microsoft Corporation to provide an upgrade program from HP OS/2 LAN Manager to the Microsoft LAN Manager 2.1 release. Microsoft has incorporated HP's Transmission Control Protocol/Internet Protocol (TCPAP) into the Microsoft LAN Manager 2.1 product, providing future interoperability between PC clients and HP minicomputers.

Microsoft is offering HP users an upgrade to Microsoft LAN Manager 2.1. You can receive the Global Upgrade to LAN Manager 2.1, including TCPAP, for a savings. Microsoft authorized network specialists offer a fully functional LAN Manager server for unlimited users. You need to supply proof of purchase of an HP LAN Manager OS/2 server. For more information, contact your HP representative.

The products listed here and all associated options will be removed from the May 1992 HP Price List.

Product No.	Description
D1809B	HP LAN Manager 1.1 for OS/2 and MS-DOS, 5 user
D1810B	HP LAN Manager 1.1 for OS/2 and MS-DOS, unlimited user

Mass Storage

HP Series 6000 HP-FL disk arrays supported in 1.1-meter cabinet

HP Series 6000 HP-FL disk arrays for multiuser systems (P/Ns C2254HA, C2252HA, C2254B, and C2252B) are now supported in a 1.1-meter high 19-inch EIA cabinet (P/N C2785A) that can hold up to three disk arrays.

Features and benefits

With 16.3 Gbytes of data-protected storage per 1.1-meter-high cabinet (P/N C2785A) offers space **savings.** Each cabinet can hold up to three disk arrays with capacities of 2.72 or 5.44 Gbytes per array.

The HP Series 6000 HP-FL disk arrays will continue to be supported in the 1.6-meter-high cabinet (P/N C2786A), which can hold up to five disk arrays.

All disk array shipments include a rackmounting kit and front bezel for the product number C2786A or C2785A cabinets and a power cord to connect to the power distribution unit.

Maximum current draw per disk array should read 4 amps at 120 volt and 2 amps at 230 volt. Arrays in the 1.1-meter cabinet will operate with 240 or 120 volt. Arrays in the 1.6-meter cabinet (P/N C2786A) operate with 240 volt.

Hewlett-Packard has only tested disk arrays in the 1.6- and 1.1-meter

cabinets. Other devices that are normally supported in these cabinets may be racked with the arrays as long as the total current draw of the equipment does not exceed the 16-amp rating. A Hewlett-Packard representative should review these types of configurations for supportability.

Product No.	Description
C2785A	1,100-mm rack cabinet for HP computer systems; rack is 19-inch EIA width, has 21 EIA units of racking space, solid top, and three 1-EIA-unit-high filler panels; requires localization option
Opt. 1FA	Adds extractor fan; top-mounted extractor fan unit compatible with PDU voltage; substitutes vented top for standard solid top; this option is required for disk arrays
Opt. ABA	U.S. localization option provides a 1001120-volt 16-amp power distribution unit with six IEC-320 receptacles and a 20-amp input power cord terminated with a nonlocking 5-20P plug
Opt. ABB	International localization option provides a 2001240-volt 16-amp power distribution unit with six IEC-320 receptacles and a 20-amp unterminated power cord
Opt. OE3	Substitutes a 2001240-volt PDU for U.S. users when ordered with Opt. ABA; PDU is 16 amp and has six IEC-320 receptacles and a 20-amp input power cord terminated with a locking L6-20P plug
Opt. 1F9	Rackmount filler panels; includes six 1-EIA unit-high molded plastic filler panels

New HP disk declassification capability

If you are in the aerospace, defense, or electronics industry, you may be concerned with information left on magnetic media after it has been erased, a problem known as magnetic remanence. This problem typically occurs when you want to move a disk from one location or project to another.

One method to solve this problem has been outlined by the U.S. Defense Investigative Service (DIS) and is contained in a document called Department of Defense Magnetic Remanence Security Guideline. This guideline specifies that the disk media be overwritten 'n' times with a specified bit pattern. Although this requirement is not new, an approval process is now required stating that the erasure procedures meet DIS requirements.

The DIS recently approved the Hewlett-Packard procedure for declassifying HP disks. Hewlett-Packard's software utility for declassification is supported only on HP-manufactured single-ended small computer standard interface (SCSI) 3%-and 5%-inch form factor disk mechanisms.

Included are both built-in mechanisms and mass storage solutions containing those SCSI mechanisms. Because the software uses several Hewlett-Packard unique SCSI diagnostic commands to perform

the declassification procedure, it is not supported on other vendors' disk mechanisms. Older Hewlett-Packard-built disk mechanisms and products using ESDI and PC-AT interfaces also will not work.

To perform the declassification procedure, the following equipment is required: industry-standard PC running MSDOS with an Adaptec 1520, 1522, 1540, or 1542 SCSI host bus adapter installed inside the PC; HP software utility; and HI'-manufactured SCSI disk products to be cleared or declassified.

As the disk mechanism is declassified on the PC, it does not matter what type of Hewlett-Packard system is connected to the disk mechanism. Declassifying a disk mechanism is a time-consuming process. For example, it may take about 12 hours to declassify a 422-Mbyte disk mechanism.

For a limited time Hewlett-Packard can provide a copy of the execute-only software utility at no charge to you. Hewlett-Packard reserves the right to charge for future new software utility products or updates. Source code will not be provided. For more information, contact your HP representative.

Ordering information for HP Series 6000 Models 330S/D and 660S/D new disks/DATs

The following instructions are for installing the HP 1.3-Gbyte disk upgrade kit (P/N C2295B) or the HP 2-Gbyte digital-audio tape (DAT) kit (P/N C2297A) in an HP Series 6000 Model 330S/D or 660 S/D mass storage system. Product number C2283A, equivalent to Option 0MG for product number C2295B, has been set up for ordering with DAT mechanisms.

	Serial number of HP Series 6000 Model 330S/D or 660S/D	
Upgrade product	Less than 3172XXXXXX	Greater than 3172XXXXXX
First new product installed[1]	Order Option OMG (PIN C2295B) or P/N C2283A	Order Option ODF or ODG with kit
Subsequent products installed[1]	Order Option ODF or ODG with kit	Order Option ODF or ODG with kit

[1] Upgrade products referred to are the HP 1.3-Gbyte disk drive (P/N C2295B) and the HP 2.0-Gbyte DAT drive (P/N C2297A).

HP 2.0-Gbyte DAT installable in HP Series 6000 Model 330S/D and 660S/D storage systems

The HP 2.0-Gbyte digital-audio tape drive (P/N C2297A) is now backward compatible with HI' Series 6000 Model 330S, 330D, 660S, and 660D mass storage systems. To install these products in the compatible products, an upgrade cable (P/N C2283A) is needed on older units. Hewlett-Packard installation is included with the kit. Customer installation is not recommended.
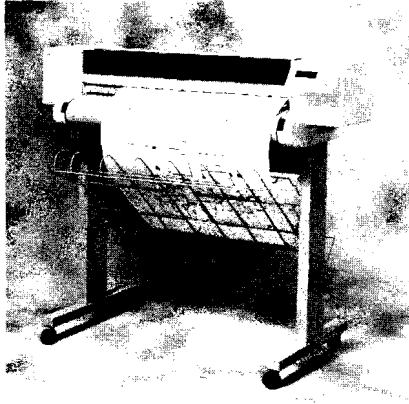
also in this issue

HP DAT backup solutions now support HP 1000 A-Series systems **11**

Plotters

Enhanced HP DesignJet plotter

Hewlett-Packard has enhanced the HP DesignJet monochrome inkjet plotter (P/N C1633B) with the emulation of HP GL, support for the new HP JetDirect card for UNIX-based systems and high-capacity inkjet cartridges, a protected mode AutoCAD ADI driver, and improved front panel menus. This version of the HP DesignJet plotter now is available.

Features and benefits

- *HP GL emulation —*
  HP DesignJet plotter supports HP GL through an HP 7586B emulation mode. If you use HP GL drivers or HP GL as your standard plotter language, you now can use the HP DesignJet plotter. The plotter uses HPGL-2 and HP RTL, a raster transfer language that allows vector and raster data to be merged in a single plot.

- *Network interface options —*
  Both the original and the enhanced HP DesignJet plotter will work with the HP JetDirect card (P/N C2059T) for UNIX-based systems, including HP-UX, Sun Microsystems SunOS, and SCO UNIX. With this interface installed in the plotter's modular interface option slot, the plotter can be placed anywhere on the network for location flexibility. The card allows data to be transferred as fast as the plotter can accept it. The HP DesignJet plotter also works with the HP JetDirect card for Novell NetWare Ethernet (P/N C2059A) and the HP JetDirect card for HP-IB (P/N 1642A).

- *High-capacity inkjet cartridges —* These new cartridges (P/N 51626A) also work with HP DeskJet printers and the original HP DesignJet plotter. The new cartridges provide twice the ink of the previous cartridges. The plotter uses two cartridges simultaneously and can plot 180 standard E-size plots in final mode or 360 E-size plots in **draft** mode.

- *New AutoCAD driver —* The plotter ships with both a protected mode and a real mode AutoCAD ADI HPGL-2 driver (P/N C1633B). The protected mode driver provides a 30 to 50% increase in performance over the real mode driver and works with 386 ver-

sions of AutoCAD Releases 10 and 11. The real mode driver is for use with 640-Kbyte MS-DOS versions of AutoCAD Release 10 and 11. The disk contains a file on using AutoCAD with the HP DesignJet plotter. When using either driver with the HP DesignJet plotter, set the graphics language designation to HP GL. The new AutoCAD ADI HPGL-2 driver is available from the HP forum of CompuServe.™

- *Front-panel improvements —* The front panel provides more control. You can select drying times that match your needs and environmental conditions. Pen widths match ISO standard sizes, ranging from 0.13 to 12.0 mm. A new paper-saving mode advances and cuts roll media drawings to the actual size of the drawing.

- *Upgrade kit —* Current HP DesignJet users can upgrade to the enhanced model by purchasing the upgrade kit (P/N C2854A).

Contact your HP representative for more information.

Product No.	Description
C1633B	HP DesignJet plotter
C2059T	HP JetDirect card for UNIX-based systems
C2854A	Upgrade kit, includes onsite installation

CompuServe is a U.S. trademark of CompuServe, Inc.

HP fiber-tip pen packages discontinuance

For the U.S. only

On April 1,1992,singlecolor packages of HP 0.7-mm fiber-tip paper pens and 0.3- and 0.7-mm transparency pens in aqua, violet,

red-violet, brown, yellow, and orange **will** be discontinued. These pens will still be available in multicolor packs. Singlecolor packages of black, red, green, and blue pens will still be offered.

Product No.	Description	Replacement
Transparency pens		
17729T	0.3-mm aqua	P/N 17747T multipack
17730T	0.6-mm aqua	P/N 17748T multipack
17733T	0.3-mm violet	P/N 17747T multipack
17734T	0.6-mm violet	P/N 17748T multipack
17735T	0.3-mm brown	P/N 17749T multipack
17736T	0.6-mm brown	P/N 17750T multipack
17737T	0.3-mm yellow	P/N 17745T multipack or P/N 17749T multipack
17738T	0.6-mm yellow	P/N 17746T multipack or P/N 17750T multipack
17739T	0.3-mm orange	PIN 17749T multipack
17740T	0.6-mm orange	P/N 17750T multipack
17743T	0.3-mm red-violet	P/N 17749T multipack
17744T	0.6-mm red-violet	P/N 17750T multipack
Paper pens		
17830P	0.7-mm aqua	P/N 17848P multipack
17834P	0.7-mm violet	P/N 17848P multipack
17836P	0.7-mm brown	P/N 17850P multipack
17838P	0.7-mm yellow	P/N 17846P multipack or P/N 17850P multipack
17840P	0.7-mm orange	P/N 17850P multipack
17844P	0.7 mm red-violet	P/N 17850P multipack

HP DraftMaster plotter upgrade kits discontinuance

Upgrade kits for obsolete HP DraftMaster plotters **will** be removed from the April 1992 HP Price List. New HP DraftMaster Plus upgrade kits (P/Ns 17624A, 17625A, 17626A, and 17627A) **will** continue to be offered at current prices.

Product No.	Description
17568A	Upgrades HP DraftMaster SX plotter to HP DraftMaster RX plotter
17569A	Upgrades HP DraftMaster RX plotter to HP DraftMaster MX plotter
17520A	Upgrades HP DraftMaster I plotter to HP DraftMaster II plotter

Printers

Introducing HP LaserJet printer PostScript Cartridge Plus

Hewlett-Packard introduces the HP LaserJet printer PostScript® Cartridge Plus (P/N C2089A) for HP LaserJet III, IIIP, and IIID printers that provides performance-enhancing Adobe™ PostScript Level 2, software-based language switching under MS-DOS or Windows 3.0 between PostScript and the resident language HP PCL 5. The cartridge also provides Adobe Type Manager (ATM) screen font software for Windows or the Apple Macintosh, including all 35 fonts resident in the HP PostScript Cartridge Plus, which gives Postscript users the ability to see fonts onscreen exactly as the fonts will be printed.

By standardizing on HP LaserJet printers and Postscript Cartridge Plus, corporate users can obtain all the benefits of Postscript printing. You can take advantage of the speed and affordability of HP PCL 5 for PC-based business users with traditional printing needs. If you are on a network, you can take advantage of the language-switching capabilities.

Features and benefits
- *Adobe PostScript* Level *2* — Performance enhancements include data compression for

faster printing, and forms support that speeds up printing of repetitive backgrounds or forms by allowing the forms to be used for multiple pages rather than requiring them to be regenerated for each page.

- *Software language switching* — Installing the HP PostScript Cartridge Plus device driver on an IBM PC or compatible allows reliable, automatic switching between HP PCL and PostScript under MSDOS or Windows. Software supports language switching on Novell networks, and third-party software is available to support language switching on non-Novell networks.

- ATM — This provides screen fonts for what-you-see-is-what-you-get (WYSIWYG) under Windows or on a Macintosh. With all 35 fonts available users need to make no additional purchases to obtain font WYSIWYG.

For more information, contact your HP representative.

Product No.	Description
C2089A	*HP LaserJet printer Postscript Cartridge Plus*

Adobe and PostScript are registered trademarks of Adobe Systems, Inc. in the U.S. and other countries.

New HP JetDirect cards for UNIX-based systems

HP JetDirect cards (P/Ns C2059T, C2071T, and C2071S) for UNIX-based systems now are available. These network peripheral interfaces are designed to directly connect Hewlett-Packard peripherals to TCP/IP Ethernet networks with HP-UX, SunOS, and SCO UNIX systems.

The supported peripherals include the HP LaserJet II, IID, III, IIID, and IIISi printers and the HP DesignJet plotter. These interfaces are the newest in the HP JetDirect card family.

Features and benefits

- *Peripheral location* — Printers and plotters can be located anywhere on a network by connecting them directly to the network cable. They are no longer confined to host system locations because of serial or parallel cable length limitations.

- *Performance* — Performance is maximized by taking advantage of faster network transmission speeds, rather than being limited by serial or parallel performance bottlenecks associated with direct system I/O connections and external print/plot server boxes. For example, the increased processing speed of the HP LaserJet IIISi printer makes the HP JetDirect interface 15 times faster than a typical parallel port, depending on the speed and configuration of the network operating system.

- *Network management* — The new HP JetDirect cards are compatible with standard simple

network management protocol-based network management applications, such as HP OpenView Interconnect Manager.

- *Ease of use* — *An* easy-to-use configuration utility is provided to step you through the configuration process on the host spooler system.

- *Diagnostics* — The new HP JetDirect cards are compatible with common UNIX-based systems diagnostics. They are also shipped with advanced diagnostic utilities for collecting network statistics and peripheral-specific status information. A test page can be produced on the peripheral that contains extensive configuration and troubleshooting information specific to the HP JetDirect card.

- *Flexibility* — Peripherals can be set up to receive jobs from one central master spooling system or from multiple spooling systems. Print and plot jobs can be sent across network routers to networked printers and plotters.

- *Operating system support* — The operating systems supported by the new HP JetDirect cards include HP-UX 7.X/8.X (version depends on the HP 9000 system), SunOS 4.1.1 on Sun SPARC systems only, and SCO UNIX V/386 Release 3.2 Version 2.

- *Investment protection* — The new HP JetDirect cards can be used with a wide range of HP peripherals, including HP LaserJet II, IID, III, IIID, and IIISi printers and the HP DesignJet plotter. This allows you to upgrade existing peripherals in addition to putting new peripherals on your UNIX-based system network.

Product is on the March 1992 HP Price List. For more information, contact your HP representative.

Product No.	Description

For the HP LaserJet *IIISi* printer and the HP *DesignJet* plotter

C2059T — HP JetDirect card that provides a TCP/IP Ethernet network interface to HP-UX 7.X/8.X,[1] SunOS 4.1.1,[2] and SCO UNIX[3] systems; BNC port supports type 10Base2 thin coaxial cable; AUI port supports type 10Base5 thick coaxial cable with the appropriate transceiver and type 10BaseT twisted-pair cable via a twisted-pair transceiver, such as the HP EtherTwist transceiver (PIN 28685B)

For the HP LaserJet *II, IID, 111,* and *IIID* printers

C2071T — HP JetDirect card that provides a TCP/IP Ethernet network interface to HP-UX 7.X/8.X,[1] SunOS 4.1.1,[2] and SCO UNIX[3] systems; BNC port supports type 10Base2 thin coaxial cable

C2071S — HP JetDirect card that provides a TCP/IP Ethernet network interface to HP-UX 7.X/8.X,[1] SunOS 4.1.1,[2] and SCO UNIX[3] systems; RJ-45 port supports type 10BaseT twisted-pair cable

Media options for *P/Ns C2059T, C2071T,* and *C2071S* (one must be specified)

Opt. AAO — HP ¼-inch cartridge tape
Opt. AAH — HP DAT (DDS) tape
Opt. AAV — Sun Microsystems ⅝-inch cartridge tape
Opt. 1AK — No media tape included

[1] Current version of HP-UX depends on the HP 9000 system being used.
[2] SunOS 4.1.1 is supported only on Sun SPARC systems.
[3] SCO *UNIX V//386* Release 3.2 Version 2 is supported directly by the Santa Cruz Operation Inc. *Necessary software,* documentation, and support is available only from the Santa Cruz Operation Inc.

HP adds language switching and Adobe PostScript Level 2 to HP LaserJet PostScript printers with AppleTalk

Hewlett-Packard announces improved versions of the HP LaserJet III, IIIP, and IIID PostScript printers with AppleTalk that are designed for PostScript and Apple Macintosh users. These printers, configured for plug-and-play Macintosh connectivity, can ship immediately. You automatically receive all the benefits of the HP LaserJet printer PostScript Cartridge Plus (P/N C2089A): performance-enhancing Adobe PostScript Level 2, and software-based language switching under MSDOS or Widows between PostScript and HP's printer-resident language PCL 5. You also receive Adobe Type Manager screen font software for Windows and the Macintosh, including all 35 fonts resident in the HP PostScript Cartridge Plus.

The HP LaserJet IIP PostScript printer with AppleTalk (P/N 33427A Opt. ABA) will still be available, but it is not compatible with the new HP LaserJet printer PostScript Cartridge Plus. For more information, contact your HP representative.

Product No.	Description
33428B	
Opt. ABA	HP LaserJet IIIP PostScript printer with AppleTalk
33429B	
Opt. ABA	HP LaserJet III PostScript printer with AppleTalk
33434B	
Opt. ABA	HP LaserJet IIID PostScript printer with AppleTalk

Upgraded AppleTalk interface kits support new HP LaserJet printer PostScript Cartridge Plus

Hewlett-Packard has updated AppleTalk interface kits for the HP LaserJet IIP, IIIP, 111, and IUD printers with new printer drivers and documentation. Enhancements support the new feature set of the HP LaserJet printer PostScript Cartridge Plus when used with either an HP LaserJet IIIP, III, or IIID printer. In addition, Adobe Type Manager software and all 35 fonts for the Apple Macintosh are included to provide you with what-you-see-is-what-you-get onscreen output. For more information, contact your HP representative.

Product No.	Description
33416B	
Opt. ABA	AppleTalk interface kit for HP LaserJet III and IIID printers
33417C	
Opt. ABA	AppleTalk interface kit for HP LaserJet IIP and IIIP printers

Warranty extended on HP LaserJet printer memory

Effective March 1, 1992, memory for the HP LaserJet IIP, IIP plus, IIIP, III, and IIID printers is being offered with extended warranty. Regardless of when they were purchased, any of the following product numbers are covered under the new warranty period starting from the date of purchase. Contact your HP representative for more information.

Product No.	Description	Old warranty	New warranty
33474B	1-Mbyte memory board	1 year	5 years
33474X	I-Mbyte memory board, quantity 100	1 year	5 years
33474Z	1-Mbyte memory board, quantity 200	1 year	5 years
33475B	2-Mbyte memory board	1 year	5 years
33475X	2-Mbyte memory board, quantity 100	1 year	5 years
33475Z	2-Mbyte memory board, quantity 200	1 year	5 years

HP PaintWriter and PaintWriter XL printers obsolescence

The HP PaintWriter (P/N C1662A) and HP PaintWriter XL (P/N C1613A) printers will be removed from the May 1992 HP Price List. Orders will be accepted through May 31, 1992, for U.S. and international orders. Both products and the Apple Macintosh drivers will be supported for five years.

Product No.	Description	Replacement
C1662A	HP PaintWriter color graphics printer	HP DeskWriter C, P/N C2113A
C1613A	HP PaintWriter XL color graphics printer	None at this time

HP LaserJet printer accessory scalable typeface price reduction

On March 1, 1992, Hewlett-Packard reduced the price on four of the HP LaserJet printer accessory scalable typeface products. Three are the scalable cartridges for use with the HP LaserJet III family printers only, and one is a scalable disk collection for use with the HP LaserJet printer family excluding the HP LaserJet 2686A printer. Standard price protection applies. Contact your HP representative for more information.

Product No.	Description
C2050B	Distinctive Documents I/ Compelling Publications II scalable typeface cartridge
C2050C	Brilliant Publications I/ Compelling Publications II scalable typeface cartridge
C2050D	WordPerfect scalable typeface cartridge collection
C2050A #D87	WordPerfect scalable typeface disk collection

also in this issue

HP LaserJet IIISi printer wins award   **5**

Scanners

New HP ScanJet IIp scanner offers quality, ease of use, and affordability

Hewlett-Packard introduces the HP ScanJet IIp scanner, a 300-dots per inch 8-bit grayscale scanner and accompanying software for the Apple Macintosh and PCs.

Features and benefits

- *Control and ease of use balanced* — for speed and simplicity. Novices can scan a document automatically, preview the image, and import it into a document in a few steps. Users with complex requirements will appreciate the power, with intuitive manual controls for demanding and creative scanning applications.
- *Direct access of HP DeskScan IIp scanner software* — from a Microsoft Windows or Macintosh application program that supports TWAIN specifications. You can access the scanner and import graphics directly into documents without exiting from applications and without filing images to disks.

- *Automatic exposure* — to determine optimum brightness and contrast settings. This can save time and the inconvenience of experimental scanning.
- *Print path calibration* — for accurate reproduction of images. This automatically compensates for variables in output devices and software applications.
- *HP AccuPage technology* — for accuracy in optical character recognition (OCR). This enhances supporting third-party OCR software such as Caere's OmniPage Direct. It assures accurate scanning in a variety of document types and variations by providing better recognition, reliable formatting, and the ability to recognize text on a colored background.
- *Affordable optional 20-page automatic document* fee& —for unattended scanning of text. You not only eliminate manual keyboard entry of text but also minimize document handling.
- *One-button installation* — saves time. You either click on or type Install. The software then guides you by automatically setting all needed parameters.
- *Online* learning — for context-sensitive help messages. This can alleviate the dependence on manuals and save time in experimentation.
- *Support* — with flexibility. The scanner is supported by most major desktop publishing, word processing, OCR, presentation, and graphics software packages. It supports IBM AT-compatible PCs, as well as nucro-channel architecture and Macintosh computers. You can use the scanner with a range of output devices, including inkjet and laserjet printers, and

phototypesetter quality equipment.

System requirements
- IBM AT-compatible PCs, 286 and above
- IBM micro-channel architecture. 30 and above
- Macintosh Systems 6.05 or later
- 2 Mbytes random-access memory

The HP ScanJet IIp scanner is on the March 1992 HP Price List. The list price includes the scanner, an interface kit with HP DeskScan IIp scanner software, a power cord, and a user's manual.

Product No.	Description
C1797A	HP ScanJet IIp grayscale scanner for IBM AT-compatible PCs, includes interface kit and scanning software
C1798A	HP ScanJet IIp grayscale scanner for micro-channel architecture, includes interface kit and scanning software
C1799A	HP ScanJet IIp grayscale scanner for Macintosh, includes interface kit and scanning software
Accessories	
C1791A	HP ScanJet IIp grayscale scanner 20-page automatic document feeder
Additional interface kits	
C1792A	HP ScanJet IIp grayscale scanner interface kit for ISM AT-compatible PCs, includes AT interface board, cable, terminator, HP DeskScan IIp scanner for Windows, PhotoFinish, and user manual
C1793A	HP ScanJet IIp grayscale scanner interface kit for micro-channel architecture, includes MCA interface board, cable, terminator, HP DeskScan IIp scanner for Windows, PhotoFinish, and user manual
C1974A	HP ScanJet IIp grayscale scanner interface kit for Macintosh includes cable, terminator, HP DeskScan IIp scanner software, HP DeskPaint, and user manual

Terminals

New ergonomic text terminals for HP 3000

Hewlett-Packard introduces the HP 700196 and 700198 (P/Ns C1064 and C1065), block mode text display terminals for the HP 3000. Available as of March 1, 1992, these upgrade/replacement products for the current block mode terminals (HP 700192 and 700194) offer improvements in ergonomics and display quality. The new models provide the functionality of the current HP 700192 and 700/94 terminals and are compatible with them from both a system and application perspective.

The HP 700196 terminal provides the same functionality and features as the HP 700192 terminal including 8 pages of display memory, 80- or 132-column display, 75 to 38,400 baud rates, tilt and swivel, and 50-, 60-, or 72-Hz refresh rate. The HP 700198 terminal provides the same high-performance features as the HP 7001 94 terminal including 16 pages of memory, forms cache, and modified data tag. The new terminals are fully software compatible making the replacement transparent to the system and the applications.

Features and benefits

- *New VDT technology* — generates larger, sharper characters displayed on a fully overscanned 14-inch screen, reducing user eye strain
- *Full overscan.* — provides a borderless screen to be as easy to read as a printed page, reducing user eye strain

- *High 72-Hz refresh rate* — reduces flicker and improves screen readability
- *Software compatibility* — allows the products to replace the current HP 700192 and 700194 terminals with no changes required to the system or application
- *Serial and parallel printer ports* — provides more flexibility and performance when using a locally connected printer. The serial printer port is RS-232-C (9 pin), and the parallel port is Centronics (25 pin).
- *Ergonomically designed keyboard* — has sculptured keys and provides tactile feedback. The low-profile keyboard is detached with adjustable slant and look and feel identical to that of the HP 700192 terminal.
- *European regulatory requirements* — allows reduced electromagnetic interference, EN 55022 Class B
- *Compatibility* — provides screen colors identical to those of the HP 700/92 and 700194 terminals

Localization and ports

The HP 700196 and 700198 terminals differ from the HP 700192 and 700/94 terminals in European localizations and printer ports. The single printer port on the HP 700192 and 700194 terminals is RS-232-C 25 pin. The new products have two printer ports. When you use the printer port

upgrade, you need to replace the cable to match the 9-pin serial port or use the 25-pin parallel port. The new products provide all of the Western European localizations but none of the Eastern European localizations. Eastern European localizations continue to be available on the HP 700192 and 700/94 terminals. Consult your HP representative for available localization options.

System support

Support on HP MPE/iX is available on Version 2.2 and subsequent releases. Support on HP MPE V/E is available on MPE V/E 1P.

Ordering information

Products now can be ordered with immediate availability. A trade-in program beginning this month provides a credit toward the purchase of the terminals. HP DIRECT has been set up to handle terminal trade-in orders. Contact your local HP DIRECT office for details. For additional information, contact your HP representative.

Product No.	Description
C1064A	HP 700196 terminal with amber display
C1064G	HP 700196 terminal with green display
C1064W	HP 700196 terminal with soft white display
C1065A	HP 700198 terminal with amber display
C1065G	HP 700/98 terminal with green display
C1065W	HP 700198 terminal with soft white display

New low emissions text terminals for HP 3000 and 9000

Hewlett-Packard introduces text terminals offering reduced emission rates for HP 3000 and 9000 systems. The HP 700/96ES (P/N C1084W) and 700/98ES (P/N C1085W) terminals are functionally identical and completely software compatible with the new HP 700/96 and 700/98 terminals. The HP 700/60ES terminal (P/N C1083W) is the low-emissions model of the industry-standard HP 700/60 terminal for multiuser UNIX-based and PC systems. It is functionally identical with the HP 700/60

terminal. All three products provide compliance with Swedish MPR 1990:10 guidelines for reduced low-frequency electrostatic and electro-magnetic emissions.

System support

The HP 700/60ES terminal is supported on all HP 9000 Model 8X7 systems running HP-UX 8.02 and subsequent releases. Support for all other HP 9000 Series 800 systems will be provided with the future HP-UX release. The HP 700/96 and 700/98 terminals are supported on

all 900 Series HP 3000 systems running MPE/iX 2.2 or later, and on HP MPE V/E systems running Version 1P.

All three products now can be ordered, with a May/June 1992 availability. For more information, contact your HP representative.

Product No.	Description
C1083W	HP 700/60ES terminal softwhite display
C1084W	HP 700/96ES terminal soft white display
C1085W	HP 700/98ES terminal soft white display

HP-UX CD-ROM drive offer
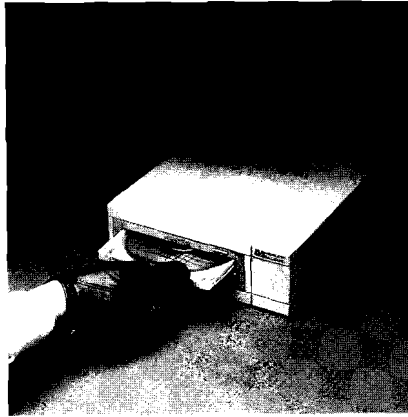
For the U.S. only

From March 1 through August 31, 1992, HP 9000 Series 300, 800, and HP Apollo 9000 Series 400 and 700 users can take advantage of a no-cost small computer standard interface (SCSI) CD-ROM drive offer. You will automatically receive an HP Series 6100 Model 700/S standalone SCSI CD-ROM drive when you sign up for HP-UX software and documentation updates on CD-ROM media (P/N H2069A+S00 or H2077A+S00) under current support agreements or when purchasing a new system,

and purchase the HP-UX CD-ROM starter kit (P/N B2950A). The kit includes an HP-UX documentation disk, documentation retrieval software, and five user licenses. The HP Series 6100 Model 700/S standalone SCSI CD-ROM drive is supported on HP 9000 Series 300, 800, as well as HP Apollo 9000 Series 400 and 700 systems with a SCSI interface.

The HP-UX CD-ROM starter kit can be purchased only in conjunction with an HP-UX CD-ROM update materials support agreement (limit one no-cost HP-UX CD-ROM drive for each HP-UX CD-ROM update materials support agreement). Contact your HP representative for more information.

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No-cost electronic support with new HP 9000 systems

Hewlett-Packard has earned a reputation for the excellence of our support programs. Now we'd like an opportunity to show you what we can do for you. With the purchase of a new HP 9000 system, you will receive electronic support at no charge for one year. This includes HP SupportLine, Hewlett-Packard's online technical database, with electronic access to software patches.

Electronic support will be available at no cost for HP 9000 Series 800 systems immediately and for all other HP 9000 systems in April 1992. Contact your HP representative for more information.

HP Sales Offices

Mr John Schmidt

Hewlett-Packard Ltd
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For more information about the products described in this issue, call your local HP representative.

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Huntsville	(205) 830-2000

Alaska
Anchorage	(907) 563-8855

Arizona
Phoenix	(602) 273-8000
Tucson	(602) 573-7400

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Pleasanton	(510) 460-0282
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San Diego	(619) 279-3200
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Santa Barbara	(805) 685-6100
Santa Clara	(408) 988-7000
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Tampa	(813) 884-3282

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Rockville	(301) 2582000

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Novi	(313) 349-9200

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Jackson	(601) 957-0730

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Greenville	(803) 232-8002

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Memphis	(901) 763-4747
Nashville	(615) 255-1271

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Dallas	(214) 231-6101
El Paso	(915) 833-4400
Houston	(713) 776-6400
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San Antonio	(512) 494-9336

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Roanoke	(703) 774-3444
Rosslyn	(703) 204-2100

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Spokane	(509) 922-7000

West Virginia
Charleston	(304) 9250492

Wisconsin
Milwaukee	(414) 792-8800

Regional Sales Headquarters
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Midwest	(708) 2559800
Southern	(404) 9551500
Neely (Western)	(818) 505-5600

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Ottawa	(613) 820-6483

Quebec
Kirkland	(514) 697-4232
Quebec City	(418) 624-1165

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