HP Computer Update

A Publication of Hewlett-Packard

January 1992

Introducing the new HP Apollo 9000 Models 705 and 710 with breakthrough engineering and high-performance graphics

Hewlett-Packard's new Ultra VGA board delivers exceptional video performance for graphics-intensive applications.
See page 22

Hewlett-Packard offers the smallest **10BaseT** transceiver (60 mm long) which supports 100 meters of twisted-pair cable to any AUI compatible device.
See page 25

New HP Series 6000 mass storage products for HP 3000 and 9000 systems offer a backup solution in a variety of expandable packages.
See page 29

Hewlett-Packard introduces the HP **LaserJet IIISi** printer for the Apple **Macintosh** with **EtherTalk**, allowing the printer to be used on high-speed **EtherTalk** networks.
See page 34

The HP **700/RX** 19-inch monochrome X station includes 4 **Mbytes** of DRAM and is now orderable.
See page 35

HEWLETT PACKARD

HP Computer Update

Distribution information

HP Computer Update is distributed to individuals who are involved in specifying or purchasing 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.

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 HP Apollo literature, technical information, or to order an HP Apollo workstation, call HP Apollo DIRECT: 800-225-5290 (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 . . .

Hewlett-Packard workstations offer industry-leading performance at an affordable price. The HP Apollo 9000 Model **705 grayscale** workstation delivers 35 MIPS, 34 SPECmarks, and 8 MFLOPS. The HP Apollo 9000 Model 710 is currently the industry's leading color workstation with 57.9 MIPS, **49.7** SPECmarks, and 12.2 MFLOPS. *See* article on page **14** for more information.
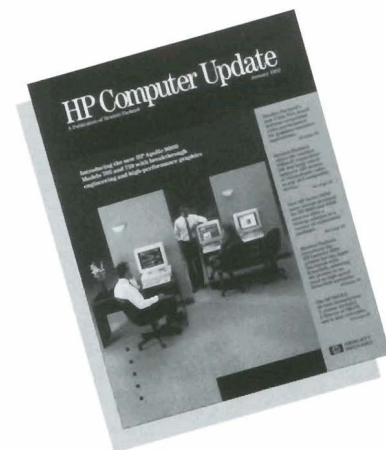
HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

Events

HP/Cognos seminars focus on client/server computing

For the U.S. and Canada only

Joint Hewlett-Packard/Cognos seminars will help you evolve your computing investments in HP 3000 systems, PCs, and terminals to client/server computing. Targeted for IT managers, application development managers, and value-added businesses, these seminars will help you understand how to move to client/server computing, while protecting current investments.

You will hear industry insiders discuss the significance of client/server computing and what you need to know before making a decision. You will learn how to cost-effectively evolve current investments, including applications, data, PCs, terminals, HP 3000 systems, and personnel into the world of client/server computing. You will learn also how to quickly and easily develop new applications using Cognos PowerHouse Windows with Microsoft® Windows 3.0, an easy-to-use graphical user interface. Additionally, you will see a demonstration of PowerHouse Windows running on the HP 3000 Model 927LX server, PCs, and terminals.

Location	Date
Burlington, Massachusetts	February 4, 1992
Paramus, New Jersey	February 5,1992
Rockville, Maryland	February 6, 1992
Naperville, Illinois	February 11,1992

Southern region and Canadian seminars are planned for March.

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

HP and Oracle offer seminar

The Revolution in Computing — Taking Control of Your Business in the 1990s seminar is available for CIOs, CFOs, information systems, and financial managers; and companies with greater than $50 million in revenue migrating from a proprietary environment to a standard-based environment, downsizing to decentralized and distributed computing, migrating from terminal emulation to client/server, and needing distributed RDBMS, 4GL Tools, CASE, and Financial application integrated with RDBMS.

Wes Melling of the Gartner Group will be the keynote speaker. You will be able to view product demonstrations from Oracle RDBMS, Tools, CASE, Office Automation products, and Financials on HP 3000, HP 9000, and HP Vectra PCs. For more information, contact your HP representative.

Location	Date
Atlanta, Georgia	February 4,1992
Rockville, Maryland	February 5,1992
Novi, Michigan	February 12,1992
St. Paul, Minnesota	February 13,1992

INTEREX Computing Management Symposium

The 1992 INTEREX Computing Management Symposium will be held in Atlanta, Georgia, on March 23 through 25. There will be over 100 management sessions designed to help you increase your productivity and solve business issues. You will also have the opportunity to visit a vendor show highlighting a variety of Hewlett-Packard and HP value added businesses products and services.

Hewlett-Packaxd events include a keynote address, a series of strategy sessions led by HP managers, papers, an HP booth, and a manage ment roundtable providing you with the opportunity to discuss current and future strategies with HP managers. Hewlett-Packard will also cosponsor a welcome reception the evening of March 22. Contact your HP representative for registration information.

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HP News and Reviews

CASE Communique — working toward CASE framework communication

Hewlett-Packard, along with the licensees of the SoftBench technology, IBM, Informix, and Control Data Corporation, have created a forum called CASE Communique for defining standard operation specifications to promote inter-tool communication in SoftBench Framework CASE environments. You are encouraged to attend and participate in CASE Communique efforts.

Benefits

- You have direct access to information on the messages and functionality and encapsulated tool supports.
- Third-party vendors will have ready access to standards that help implement and improve encapsulations of CASE tools.
- CASE Communique fosters the open systems approach by enabling CASE tools to plug and play in an environment.
- CASE Communique provides you with a forum to directly discuss your needs for encapsulated tools and how these tools can better fit into your unique environments.

Participants have access to a CASECOM machine that contains a notes bulletin board for communication among members, message

documentation for tools that are presently encapsulated, and a member registry. Future plans include an Informix database with operation specification and tool supportability information.

You are encouraged to participate in CASE Communiqué quarterly meetings. The next meeting will be held in Santa Clara, California, on February 20 to 21, 1992. A European meeting is planned for early or the middle of this year. For more information, contact your HP representative.

CompUSA superstores to sell HP low-end peripherals

CompUSA Inc. signed an agreement with Hewlett-Packard to sell HP's four-pages-per-minute laser printers, color and monochrome inkjet printers, color and monochrome scanners, facsimile machines, desktop color plotters, and the HP 95LX palmtop PC. CompUSA also will sell Hewlett-Packard supplies and accessories, includmg toner, ink, and font cartridges.

HP OpenView rated best overall in *Data Communications* user survey

Best Overall

HP OpenView Network Node Manager

Top scores in far more categories than any other product gave Hewlett-Packard the top honors in this DATA COMM User Survey. Introduced in May 1990, HP's network manager is among the oldest products surveyed and now is in its second release. It runs on HP workstations under HP/UX and on Sun Sparcstations under SunOS. HP's software finished first in nine out of 14 technology categories and shared first place with Sun's SunNet Manager for best graphical user interface. Users particularly liked the product's MIB extensibility and utilities, which enable them to manage other vendors' devices.

In a user survey in the November 1991 *Data Communications* magazine, Hewlett-Packard took top scores in both areas surveyed: technology and support. Hewlett-Packard's products were compared to other simple network management protocol management systems, 25 products in all, including DEC and Sun Microsystems. Network administrators rated capabilities includmg automatic discovery of the network and the use of the Application Builder to manage management information base extensions. HP OpenView was rated highly on ease of use for greatly reducing the time and effort users must spend managing their networks.

HP and Novell to deliver enterprisewide networking solutions

Hewlett-Packard and Novell Inc. announced a strategic relationship that capitalizes on Novell's expertise in networking and HP's expertise in enterprisewide, open-systems computing solutions. Highlighting seven of the current joint projects are plans to develop NetWare to run directly on PA-RISC computer systems and Hewlett-Packard's plan to distribute Novell products through its worldwide sales channels.

NetWare, an industry-leadmg network operating system, is planned to be available on PA-RISC computers in **1993.** When avadable, NetWare will run directly on PA-RISC and X86 processors, enabling companies to integrate high-performance PA-RISC servers within NetWare computing environments.

Additional joint projects include HP NewWave software, NetWare on HP **9000** computers, network printing, worldwide customer support, and electronic messaging and directory services.

Voice integration for HP NewWave

Hewlett-Packard and Simpact Associates Inc. announced Remark! for HP NewWave **3.0** for Windows, a voice-integration product that lets NewWave users create, edit, and play back voice messages within the HP NewWave desktop manager. Remark! requires no additional hardware and works with existing HP Vectra PCs, telephones, as well as local-area and telecommunications networks.

Remark! enhances the HP NewWave desktop manager by adding voice as a source of data Unlike voice mail alone, this product allows you to store voice on your desktop manager, move it across a computer network, and share it with other HP NewWave users.

Remark! is based on Simpact's Voice Processing System architecture, which consists of client application software and Simpact's voice server.

HP and Z-Nix bundle HP NewWave with cordless mouse

Hewlett-Packard and Z-Nix Company Inc. will bundle HP NewWave desktop manager for Microsoft Windows with the Z-Nix Cordless Super Mouse. Z-Nix already bundles Microsoft Windows **3.0** with the cordless mouse.

The combination intends to make PC users more productive by combining the flexibility of a cordless mouse with the ease-of-use of an icon-driven desktop. Combined with HP NewWave, the cordless mouse can manipulate objects on the desktop via infrared signals. The battery-powered two-button mouse has a signal range of six feet.

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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 Svsterns

HP MICRO 3000 Installed Base *end*

If you upgrade from selected HP 3000 systems to XL systems, you are eligible to receive a &count off selected system upgrade products.
- **Scope:** Not available in Europe *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns A1752A/58A/70A/71A/72A
- **Start date:** August 1, 1991
- **End date:** January 31, 1992
- **Promotion number:** 2.568

Midrange Upgrade Installed Base *change*

If you purchase selected XL systems, you are eligible to receive promotional discounts off selected system upgrade products.

HP DeskManager is now one of the options you mav select under this promotion. Contact vour HP representative for details.
- **Scope:** For the U.S. only
- **Eligible products:** P/Ns A1707A/08A/09A/52A/58A/72A Option 709 or 710
- **Start date:** December 1, 1991
- **End date:** April **30,** 1992
- **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 &counts.
- **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

HP Apollo 9000 Models 4XXt/4XXs RAM-Pack *end*

If you purchase a specified RAM-Pack during this promotion, you will receive a discount.
- **Scope:** Worldwide *(check with your HP representative for local uvailability)*
- **Eligible products:** P/Ns 98229H/M/P
- **Start date:** August 1, 1991
- **End date:** January 31, 1992
- **Promotion number:** 2.569

Domain/OS Series 3500, 4500, and 5500 DVS Graphics *end*

If you are a Domain/OS Series 3500, 3550, 4500, and 5500 user, you are eligible to purchase Desktop Visualization System (DVS) upgrades and bundle options at a 50% promotional &count.
- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** *Check with your HP representative*
- **Start date:** June 1, 1991
- **End date:** January 31, 1992
- **Promotion number:** 2.547

Peripherals

Try an HP 700/RX Station *end*

If you purchased a model of the HP 700/RX stations, you are eligible for a 40% discount off the list price. In addition, you are eligible to buy a 2- or 4-Mbyte DRAM memory module at a 40% &count and receive a Sun Microsystems or HP software tape at no additional cost.
- **Scope:** Worldwide *(check with your HP representative for local availability) (see local country for approval information)*
- **Eligible products:** P/Ns C2702A/05A/06A/10A/11A
- **Start date:** August 1, 1991
- **End date:** January 31, 1992
- **Promotion number:** 2.567
- **Redemption:** *Contact HP DIRECT at **800-225-5290** in the U.S.; for other countries contact local HP DIRECT offices*

Improved portability on Open HP 3000

The Open HP 3000 offers even better portability than before with the announcement of POSE, Micro Focus COBOL, and a popular 4GL called Uniface. In addition, SoftBench improves open application development.

UNIX® system-based applications can be easily ported today whether they are based on Oracle or Ingres 4GL tools. Hewlett-Packard is making it easier to port UNIX system-based 3GL applications with POSE. The HP 3000 now supports ANSI C, POSE, Micro Focus COBOL, and additional UNIX system-based interfaces.

If you are considering a new application start, the HP 3000 provides leading 4GLs that make it easy to forget about what operating system is being used. The HP 3000 now supports Uniface 4GL, in addition to Gupta SQL Widows, PowerBuilder, and Ingres Windows 4GL.

POSIX rollout

A pilot release of POSE has already begun. Access to POSIX is planned for mid-1992. POSIX will be integrated and offered at no cost with HP 3000 operating systems to provide you with benefits such as increased availability of solutions, elimination of the need to add systems to run UNIX system-based applications. and protection of existing application investments and UNIX system-based development tools.

HP MPE/iX Developer Kit

The HP MPE/iX Developer Kit (P/N 36430A) provides the necessary software to port UNIX system-based applications to the Open HP 3000 and includes fundamental operating system software, POSE 1003.1 hierarchical file system, network file system software, documentation, and factory technical support. Purchased with an HP Apollo 9000 Series 700 workstation, the kit provides a development environment.

The HP MPE/iX Developer Kit can be ordered now and will be shipping next month. Contact your HP representative for more information.

Micro Focus COBOL

Micro Focus has signed a contract to license Micro Focus COBOL on the HP 3000. With Micro Focus COBOL on the HP 3000, IBM mainframe solutions can be more easily ported to the HP 3000, strengthening the HP 3000 mainframe downsizing offering. Micro Focus COBOL adds to tools such as InfoSoft Conveyor to help facilitate moving applications from IBM systems to the HP 3000. Micro Focus COBOL is X/Open and ANSI compliant.

HP COBOL II/XL currently is the best option if you require higher performance and investment protection. HP COBOL II/XL is the first COBOL compiler to support the intrinsic function module defined by the ANSI COBOL '85 standard. Micro Focus COBOL will be available to a limited number of developers by this summer, with volume shipments planned by the end of this year.

Uniface 4GL

Hewlett-Packard has agreed to port Uniface Corporation's 4GL to the HP 3000. The Uniface 4GL is the most open fourth-generation language in the industry today and is targeted at value-added businesses and software developers interested in developing applications for an open systems environment.

Uniface 4GL applications will run against most of the major relational database management systems in the industry today, including Oracle, Ingres, Informix, Rdb, and Sybase. Uniface supports applications built for character mode terminals or graphical user interface-based, client/server environments. Applications built with Uniface are completely portable and can be redeployed, without modification, across all supported systems platforms, graphical user interfaces, and database management systems. The Uniface 4GL will be available early this year for the HP 3000, ALLBASE/SQL, and TurboIMAGE and will work with KSAM and MPE in the near future.

SoftBench access

The SoftBench development environment is now available for those of you wishing to port applications and develop new applications to the HP 3000. SoftBench will allow you to use workstation-based took to develop new, open systems-based applications on the HP 3000. SoftBench will take advantage of NFS/XL to deliver transparent multivendor interoperability and will be available this year.

SoftBench is an open, workstation-based, development environment that supports program edit, build, maintenance, and electronic-mail functions and allows developers to encapsulate other development tools of choice. SoftBench supports OSF/Motif and presents all encapsulated tools to you under a single, windowing interface.

HP OpenODB

HP OpenODB is an object-oriented database that allows you to access data transparently across an enterprise, regardless of location, data format, or the system where it resides. HP OpenODB will also be available on the HP 3000, allowing you to leverage current investments in hardware, software, and employee training. With HP OpenODB, code changes can be made within the database management system once, and all applications accessing the database can immediately take advantage of these changes.

HP OpenODB is on the HP Price List and is available now. Contact your HP representative for more information.

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

Improved interoperability on Open HP 3000

The Open HP 3000 offers a full set of products for seamless integration into IBM SNA, multivendor, and PC environments. For IBM environments, HP ALLBASE/DB2Connect demonstrates interoperability with IBM's relational database, DB2. A complete set of networking services including LU 6.2, DHCF, SNADS, and X.25 are available today. Hewlett-Packard is connecting with IBM's newly announced Information Warehouse framework by supporting EDA/SQL on the Open HP 3000.

For other environments requiring integration with systems such as DEC and Sun Microsystems, the HP 3000 delivers interoperability through standards support. The Open HP 3000 already supports key standards such as advanced research projects agency (ARPA) and open systems interconnection (OSI). Today Hewlett-Packard is adding network file system (NFS), simple network management protocol (SNMP), and HP TurboIMAGE API to strengthen the offering.

The HP 3000 is an open server for LAN Manager and NetWare PC LAN environments. Hewlett-Packard is adding NFS capabilities to the Open HP 3000 server to strengthen HP's workstation and PC integration. Native Token Ring will be added in the near future to help complete the offering.

SNMP shipping today

SNMP agent is now available for the HP 3000. This allows the HP 3000 to actively participate in the management of the multivendor network. SNMP on the HP 3000 reflects the commitment toward meeting your multivendor needs. The HP 3000 can now be integrated with HP OpenView Network Node Manager.

The SNMP agent is shipping today with Release 3.1 for HP 3000 Series 9X7 systems. It will be included with the ThinLAN/XL, X.25 Link, and NS Point-to-Point Link products. SNMP will be available for other HP 3000 systems in mid-1992.

NFS strengthens workstation integration

NFS has become the de facto standard for distributed file sharing and is widely used among UNIX-based systems. With NFS, any system that supports network file system can also access files on an HP 3000. For example, NFS offers UNIX system-based workstation users transparent access to files located on the HP 3000. Files can be manipulated locally on the workstation.

With NFS on the HP 3000, you can integrate multivendor systems, applications, and peripherals more easily. NFS is available as part of the HP MPE/iX Developer Kit.

HP TurboIMAGE APIs

HP TurboIMAGE APIs allow you to write applications for UNIX-based systems that can access the HP 3000 with TurboIMAGE as a backend DBMS server. HP TurboIMAGE APIs provide full read and write access to TurboIMAGE databases from UNIX-based systems that support Sun Microsystems' NFS. For example, manufacturing applications using a UNIX system-based workstation on a factory floor could access material requirements planning data stored in an HP TurboIMAGE database on the business office HP 3000. Access to the HP TurboIMAGE database is completely transparent to the UNIX-based system application and appears as if the database is stored locally on the workstations.

IBM Information Warehouse support

Information Builders, Inc. has announced support for the HP 3000 in their Enterprise Data Access (EDA)/SQL products. EDA/SQL is the key component of IBM's Information Warehouse framework, a model for integrating IBM's databases such as IMS, DB2, and SQL/400 with other vendor databases. EDA/SQL is to be available on the HP 3000 early this year.

EDA/SQL is a family of client/server products that work together with SQL-based tools to access data on IBM, DEC, Hewlett-Packard, and other platforms. It will provide access to HP ALLBASE, TurboIMAGE, and KSAM data on HP 3000 servers in addition to third-party and IBM databases.

Other developments

Other developments include improvements on Token Ring, field mode, and ARPA Telnet.

Native Token Ring is to be released in mid-1992. A Token Ring card will support TCP/IP and Novell's IPX, as well as NetWare, LAN Manager, ARPA, and NS Services.

Field mode allows database applications such as Oracle Financials to achieve better performance than character mode applications. Field mode enhancements are available today through the HP OpenView DTC Manager 12.0 and with a patch to HP MPE/iX Release 3.0.

Through recent characterization of ARPA Telnet performance in light and moderate usage, performance is higher than previously expected.

HP 3000 earns honors in Datapro user survey

Datapro, a U.S. consulting firm, asked midrange users to rate their systems on numerous attributes, including upgrade capability/ease of upgrade, system reliability, operating system, programming ease, service and support, price/performance, and vendor reputation. The competition included models from DEC, IBM, Prime, and Wang, including the VAX 6000 and AS/400. The HP 3000 was the only system to earn special merits, awarded for receiving scores of four or higher on a five-point scale from every user on a particular attribute. The HP 3000 was awarded special merits for price-performance ratio, service and support, and system reliability. In addition, the HP 3000 tied for the highest overall satisfaction rating.

Fundamental operating system for HP 3000 Series 9X7 should include Option 231
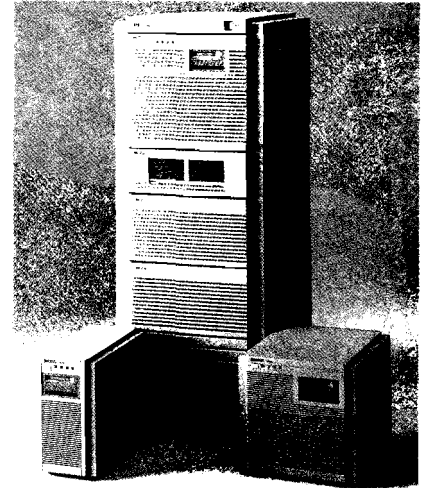
Note the following if you ordered HP 3000 MPE/iX Media Product — MPE/iX Latest Release (P/N 51453A Option 200) and loaded it onto your HP 3000 Series 9X7LX or 9X7 system. Option 200 is Release 3.0 and does not work on HP 3000 Series 9X7LX and 9X7 systems.

If you order product number 51453A for HP 3000 Series 9X7LX and 9X7 systems, select HP MPE/iX Release 3.1 (Option 231). This is the only release that will work on HP 3000 Series 9X7LX and 9X7 systems.

Announcing HP 3000 Series 980 return credits toward next generation high-end systems

HP 3000 Series 980 return credits at 75% of the price will be used toward the purchase of a performance upgrade to the next generation HP 3000 high-end platform, providing return on investment for customers purchasing a Series 980 system today.

In addition, return credits will be available for the high-end HP 3000 Series 950, 955, and 960 systems as well as the high-performance midrange Series 967 and 977 systems toward the next generation high-end systems. For more information, contact your HP representative.

High-end memory price decrease

Effective January 1, 1992, prices on 64 Mbyte option memory for high-end systems decreased 15%. In addition, the 16 Mbyte memory board prices decreased. These decreases bring Hewlett-Packard's memory prices in line with the competition. Contact your HP representative for more information regarding affected products.

HP-IB CD-ROM continuance

The HP-IB CD-ROM drive (P/N C1707A) and the HP-IB CD-ROM migration kit (P/N B1785A) will be available through April 1992. The discontinuance date for these products was previously communicated as December 1, 1991 in the U.S. and intercontinental regions.

The peripheral represents the only CD-ROM drive available for HP 9000 and 3000 users with HP-IB. The HP 3000 software distribution strategy for HP MPE/iX will include CD-ROM this year. For more information, contact your HP representative.

Product No.	Description
C1707A	HP-IB CD-ROM drive
B1785A	HP-IB CD-ROM migration kit

The migration kit includes P/N C1707A and an 8-user license for the HP LaserROM/UX information retrieval software.

Structured solution package bundles discontinuance

Effective March 1, 1992, seventeen structured solution packages (SSPs) will be removed from the HP Price List. New SSPs using HP 3000 Series 9X7LX and 9X7 systems can be ordered instead.

Product No.	Description	Replacement
A1847A	6114-user HP 3000 Series 920, 922LX	P/N A1779A, A1780A
A1848A	22-user HP 3000 Series 920, 922LX	PIN A1780A, A1781A
A1849A	30-user HP 3000 Series 920, 922LX, 922RX	P/N A1781A
A1850A	50-user HP 3000 Series 922LX, 922RX, 922,932,948	P/N A1782A

A1851A	75-user HP 3000 Series 922RX, 922, 932,948,958	PIN A1783A
A1852A	100-user HP 3000 Series 932,948,958	PIN A1783A
A1854A	150-user HP 3000 Series 932,948,958	P/N A1784A
A1856A	200-user HP 3000 Series 948,958	P/N A1785A
A1858A	300-user HP 3000 Series 948,958	P/N A1785A
A1861A	500-user HP 3000 Series 958	P/N A1785A
A1864A	50-user HP 3000 Series 920,922,932	P/N A1782A
A1865A	75-user HP 3000 Series 922,932,948	P/N A1783A
A1866A	100-user HP 3000 Series 932,948	P/N A1783A
A1867A	150-user HP 3000 Series 932,948,958	P/N A1784A
A1868A	200-user HP 3000 Series 948,958	P/N A1785A
A1869A	300-user HP 3000 Series 948.958	P/N A1785A
A1871A	500-user HP 3000 Series 958	P/N A1785A

also in this issue

New HP FIRST information

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.

Title	Fax ID number
HP 3000 Series 917LX, 927LX, 937LX, 937, 947LX, 947, 957LX, 957, 967LX, 967,977 data sheet	2100
HP 3000 Series 980 data sheet	2104
HP MPE/iX letter	2165
HP C++ SoftBench, HP CASEdge/ Environments data sheet	2175
HP 9000 Series 800 Integrated Business Server Family data sheet	2200
HP 9000 Series 800 Business Servers: Models 865s, 870s/100, 870s/200, 870s/300, 870s/400 data sheet	2224
HP 700160 Terminal for UNIX-based Systems and Multiuser PCs data sheet	2290

VAB promotions

The following promotions are specifically for VABs. The promotions featured on page 8 of the main publication also apply to VABs. Contact your HP 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 700/92 or 700/94 terminal products and trade in one HP terminal per each new terminal purchased. You will receive a trade-in allowance per terminal. HP DeskManager is now one of the options you may select under this promotion. Contact your HP representative for details.

- **Scope:** For the U.S. only
- **Eligible products:** P/Ns A1707A/ 08A/09A/52A/58A/72A
- **Start date:** December 1,1991
- **End date:** May 31,1992
- **Promotion number:** 2.602

Peripherals

Try an Eligible Disk Storage System

If you are an HP reseller or HP LAN dealer, you can now evaluate a disk storage system for 90 days. After 30 days, you have 60 days to purchase the system at your applicable discount and receive an additional 30% discount if you evaluate and sell the system between 30 and 90 days after receipt. Or at 90 days, you can purchase the system at your applicable discount plus an additional 20% discount.

To participate in this promotion you must submit a purchase order for the evaluation unit, for potential billing purposes, and complete and return an evaluation form to receive the additional discount.

Discounts will be given after HP has received a copy of the customer invoice and the evaluation form. These units cannot be used as demo starter units with the Demo Starter promotion.

- **Scope:** For the U.S. only
- **Eligible products:** P/Ns C2269M, C2228M/B, C2220M/B, C2229M/B, C222M/B, C2221M/B, C2223M/B, C2224M, C2226M/A, C2227M/A, C2260A, C2261A, C2262A, C2224B, C2420A, C2421A, SYTR-64AA
- **Start date:** October 1,1991
- **End date:** February 29,1992
- **Promotion number:** 2.589

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 HP representative for more information.

General

1991 VARBUSINESS Annual Report Card Review reprint

- **Audience:** value-added businesses upper-level management
- **Format:** 4 pages, black and white
- **P/N:** 5091-3099E
- **Description:** Describes the channel write-up on Hewlett-Packard in the 1991 VARBUSINESS Annual Report Card Review. HP again outranked DEC, IBM, and Sun Microsystems and took first place in eight categories. HP received the only "A+" given in the entire survey.

HP 3000 Systems

HP 3000 Means Business — MPE/iX Software Porting Guide

- **Audience:** new value-added business (VAB) recruits to the HP 3000
- **Format: 8** pages, black and white
- **P/N:** 5091-2701E
- **Description:** Helps introduce potential new VABs to the benefits of porting to the HP 3000 and includes information regarding the HP 3000 market, growth rates, and target markets. Information is also provided about a porting evaluation at no cost and other new

porting services. Reference pages compare the HP 3000 to UNIX-based systems, DEC, and IBM environments in several basic areas.

HP 3000 Series 917LX, 927LX, 937LX, 937, 947LX, 947, 957LX, 957, 967LX, 967, 977 data sheet

- **Audience:** technical evaluators
- **Format:** 8 pages, black and white
- **P/N:** 5091-3017E
- **Description:** Describes the entry and midrange members of the HP 3000 family. Information includes application features, technical specifications, and ordering instructions.

Datapro Announces 1991 Honor Roll reprint

- **Audience:** value-added businesses upper-level management
- **Format: 1** page
- **P/N:** 5091-3199E
- **Description:** Describes HP 3000 performance in the Datapro Information Services Group midrange systems user survey. Competition included models from DEC, IBM, Prime, and Wang. Systems were rated on numerous attributes, including upgrade capability/ease of upgrade, system reliability, operating system, programming ease, service and support, price/performance, and vendor reputation. HP received special merits in three categories and tied for the highest overall satisfaction rating.

Networks

Data Comm User Survey reprint

- **Audience:** chief information officers, technical users of network management tools
- **Format:** 6 pages, color
- **P/N:** 5091-3266E
- **Description:** Describes results of November 1991 Data Communi-*cations* survey. HP products were compared to all other simple network management protocol management systems, including DEC and Sun Microsystems. HP OpenView was rated highly for ease of use for greatly reducing the time and effort users spend managing their networks.

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	781-4061
	through 4069
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Melbourne	(03) 272 2861
Austria	(0222) 2500-614
	(0222) 2500-615
	(0222) 2500-616
Belgium/Luxembourg	(02) 76131-11
Brazil	(011) 709-1300
Canada	800-387-3154
Toronto	416-671-8383
China	2566888
Denmark	80301640
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	42769-1321
Korea	7690-600
	7690-700
	7690-800
Malaysia	(03) 2986555
Mexico	905-676-7892
Netherlands	(06) 0501
New Zealand	(04) 820400
Norway	(02) 24 41 80
Singapore	279-8824
Spain	(91) 6374013
	(91) 6370011
Sweden	(08) 760 24 00
Switzerland	(067) 31 24 90
Taiwan	(02) 7179608
United Kingdom	(0344) 369333
United States	800-538-8787
Venezuela	2394477

'Numbers listed are localized

HP-UX systems management solutions improve

The HP-UX systems management product offering has had several enhancements and additions that strengthen Hewlett-Packard's offering in the commercial UNIX system-based marketplace. For example, HP OmniBack/Turbo now provides backup speeds up to 12 Gbytes per hour. This is currently the fastest UNIX system-based backup solution available in the industry. Hewlett-Packard's new disk arrays provide a cost-effective high-availability solution between standard disks and disk mirroring.

If you are concerned with adhering to standards, be assured that Hewlett-Packard is very committed to standards. With the Open Software Foundation (OSF) Distributed Management Environment (DME) selection of HP OpenView Network Node Manager, NetLS, and Software Distribution Utilities, HP-UX provides the fastest path to DME today. With solutions such as HP OpenSpool/UX, Hewlett-Packard currently provides the only print solution in the industry that is based on the OSF DME selected Pallidium Toolkit Version 1.

Hewlett-Packard is addressing the mainframe environment as well, with solutions from Computer Associates. CA-Unicenter is an integrated systems management solution for UNIX-based systems and HP is the first UNIX system-based vendor to provide this comprehensive solution. Contact your HP representative for more information.

HP OpenSpool/UX evaluation copy

You now can order evaluation copies of HP OpenSpooHJX. These copies provide the full functionality of HP OpenSpooHJX and permit you to evaluate HP OpenSpooHJX in your own environment. The evaluation copies have a validation period of from three to six months. After expiration, you will no longer be able to submit print requests using the evaluation copy. The evaluation software can be installed and used on every HP 9000 Series 300, 600, and 800 as well as HP Apollo 9000 Series 400 and 700 systems running HP-UX Version 7.0 or later (except HP-UX 8.01). A complete set of HP OpenSpooHJX User and Spooler Administrator documentation is included with each copy of evaluation software. For more information, contact your HP representative.

To order, specify the media, language, and evaluation copy option (Opt. AGZ). For example, to receive an evaluation copy on %-inch cartridge tape and U.S. English documentation, order product number B1900A plus Options AAQ, ABA, and AGZ.

HP OpenMail pricing structure change

With the recent introduction of the HP 9000 Model 8X7 systems, the existing HP OpenMail (P/Ns B1600A, B1602AX) tier-based pricing structure was discontinued. As of December 1, 1991, the existing user-based pricing only will be available. For more information, contact your HP representative.

HP OmniBack/Turbo now faster; price change

Effective with this month's new performance release, the maximum backup and recovery performance of HP OmniBack/Turbo's high-speed component will more than double.

Effective January 1, 1992, the prices of HP OmniBack/Turbo for the HP 9000 Series 600 and 800 business servers increased. This is based on the improved HP OmniBack/Turbo performance. Prices of HP OmniBack will not be affected.

also in this issue

New HP Apollo 9000 Models 705 and 710 extend HP's price/performance leadership

Hewlett-Packard introduces new entry-level workstations in the PA-RISC based HP Apollo 9000 Series 700 family, which deliver industry-leadmg workstation performance: *HP* Apollo 9000 Model 705 grayscale 19-inch (P/N A2289A) and HP Apollo 9000 Model 710 (P/Ns A2208A through A2215A, A2222A).

The *HP* Apollo 9000 Model 705 delivers 35 MIPS, 34 SPECmarks, and 8 MFLOPS, making it the current industry-leading price/performance grayscale workstation. Hewlett-Packard also introduced the *HP* Apollo 9000 Model 710. At 57.9 MIPS, 49.7 SPECmarks, and 12.2 MFLOPS, the Model 710 is now also the industry's leading price/performance color workstation. As members of the *HP* Apollo 9000 Series 700 family of PA-RISC workstations, the Models 705 and 710 give you access to over 3,500 applications.

Features and benefits

- *Breakthrough engineering* — The *HP* Apollo 9000 Models 705 and 710 employ 35 MHz and 50 MHz processors respectively combined with 32-Kbyte instruction and 64-Kbyte data caches to provide leading-edge application throughput. The integer, floating point, X Windows, and 2D/3D wireframe performance establishes the *HP* Apollo 9000 Model 710 as an optimal workstation for ECAD, MCAD, and commercial applications; CASE applications users will find the grayscale Model 705 delivers the performance you need at a price you can afford.
- *High-performance graphics* — The *HP* Apollo 9000 Model 705 offers a 19-inch grayscale monitor. The Model 710 supports a choice of three configurations. Two color options are available: a 19-inch monitor with a 1,280 x 1,024 pixel display and a 16-inch monitor with a 1,024 x 768 pixel display. One

19-inch grayscale monitor with a 1,280 x 1,024 display is also supported. Each of these configurations supports 8-plane single buffering or 4+4-plane double buffering.

The HP Apollo 9000 Model 710 graphics hardware is derived from the industry-leading price/performance Series 700 CRX graphics implementation and is integrated on the CPU board. Tight integration between the CPU and graphics hardware, coupled with hardware implementation of many commonly used graphics primitives, has resulted in unprecedented X Window and 2D/3D wireframe performance for an entry-level workstation. The X Window and 2D/3D vectors per second performance on each of these options is significantly higher than that of competitor workstations in the same price range.

HP Apollo 9000 Models 705 and 710 support two keyboards, the standard *HP-UX* keyboard and PC AT-style keyboard (PC AT-style keyboard is supported with *HP-UX* 8.07, U.S. English and German language options only). *HP* Apollo 9000 Models 705 and 710 also support multimedia functionality in the forms of audio and imaging viewing capabilities.

Specifications

HP Apollo 9000 Models 705 and 710 support up to 64 Mbytes of memory, up to 840 Mbytes of internal mass storage, and 9.4 Gbytes of external mass storage. *HP* Apollo 9000 Models 705 and 710 also offer the widest choice of internal removable

media options, including a 600 Mbyte CD-ROM drive, a 1.4 Mbyte floppy drive, and a 3%-inch 2-Gbyte DDS tape drive. In addition, the HP Apollo 9000 Models 705 and 710 support a wide variety of industry-standard I/O interfaces, similar to the other members of the Series 700 family. The systems have built-in local-area network — both AUI (ThickNet) and ThinMAU (ThinNet) — connections, external SCSI-2 port, bidirectional Centronics interface, two RS-232 serial ports, HP-HIL, and one audio I/O port. Contact your HP representative for more information.

New HP Apollo 9000 Series 700 sewer products

Hewlett-Packard introduces new HP Apollo 9000 Series 700 server products: HP Apollo 9000 Server Model 750 (P/N A2283A), HP Apollo 9000 Server Model 730 (P/N A2284A), HP Apollo 9000 Server Model 720 Optical Storage Server (P/N C2455A), and HP Apollo 9000 Server Model 720 (P/N C2286A). These server bundles are configured to meet a variety of needs in networked workstation environments, including analytical computation, file server support for diskless nodes or X stations, file archival and retrieval, engineering database access, printer and plotter support, and communications gateway and network routing.

To address workstation-user needs, the HP Apollo 9000 Server Models 720, 730, and 750 have been preconfigured.

The HP Apollo 9000 Server Model 750 is configured for use as a computer server or as a large engineering database server. The configuration includes 64 Mbytes of main memory, 1.2 Gbytes of internal disk, a 4mm digital-audio tape (DAT) drive, and a CD-ROM reader. Optional disk arrays also are available.

The HP Apollo 9000 Server Model 730 provides computational server capabilities for smaller groups for tasks that require less memory and data storage than that offered by the HP Apollo 9000 Server Model 750. This configuration can also be used to provide diskless node and X-station support or engineering database support. This server is configured with 64 Mbytes of memory, 840 Mbytes of internal disk, a 4-mm DAT tape drive, and a CD-ROM reader.

The HP Apollo 9000 Server Model 720 comes in two configurations. The HP Apollo 9000 Server Model 720 can provide server functionality for X stations, diskless nodes, or printers and plotters. The HP Apollo 9000 Server Model 720 Optical Storage Server provides an automated means for archiving files from workstations in the network onto magneto optical media for faster-than-tape access at a lesser cost than rotating magnetic media This configuration is available with a single extended industry standard architecture slot, 32 Mbytes of memory, 840 Mbytes of internal disk, 1.3 Gbytes of external disk, and a 4mm DAT tape drive. This system is equipped with a 19-inch grayscale monitor. For more information, contact your HP representative.

New HP Apollo 9000 Series 700 Dual CRX multiple heads

Hewlett-Packard announces multiple head monitor products for the new HP Apollo 9000 Models 720, 730, and 750: HP Apollo 9000 Model 720 Dual CRX (P/N A2279A), HP Apollo 9000 Model 730 Dual CRX (P/N A2277A0, and HP Apollo 9000 Model 750 Dual CRX (P/N A2282A).

Features and benefits

With multihead configurations, you now have access to two or four times as much screen space as you do on a single-headed workstation. With multiheaded systems, you can simultaneously access more visual information and detail than with other systems. A system, for instance, may be used with one screen displaying a user interface while the other screen contains a large detailed graphics image such as a map. In process control, multiple screens may be necessary to monitor the activities of a large number of processes.

Hewlett-Packard is offering two types of solutions. The first type is for users who require 8-bit graphics. The Dual CRX is a board that contains two CRX controllers and frame buffers. It requires only one graphics slot and is offered in HP Apollo 9000 Model 720, 730, and 750 bundled configurations. The Dual CRX board with two monitors can also be purchased separately. This board can be used with the

HP Apollo 9000 Model 750 Dual CRX for support of four monitors or to upgrade a server configuration. If a server configuration is upgraded, purchase a localization kit for the keyboard.

The second type is for users who require 24-bit graphics. This solution is obtained by purchasing two CRX-24 boards with monitors and placing them in an HP Apollo 9000 Model 750 server configuration. Multiheaded configurations that require 24 bits are only available on the HP Apollo 9000 Model 750. In all cases, each head of the multihead configuration offers the same graphics performance as the single head offering. Both the Dual CRX and the CRX-24 support PowerShade software. Shipments will begin in four to six weeks.

New 24-bit graphics for HP Apollo 9000 Models 720, 730, and 750

Hewlett-Packard introduces 24-bit cards for HP Apollo 9000 Series 700 workstations: HP Apollo 9000 Model 720 CRX-24 (P/N A2263A), HP Apollo 9000 Model 730 CRX-24 (P/N A2265A), HP Apollo 9000 Model 750 CRX-24 (P/N A2267A), HP Apollo 9000 Model 720 CRX-24Z (P/N A2264A), HP Apollo 9000 Model 730 CRX-24Z (P/N A2266A), and HP Apollo 9000 Model 750 CRX-24Z (P/N A2268A).

The CRX-24 and CRX-24Z products take advantage of the superior processing power of the HP Apollo 9000 Series 700 to provide performance and functionality.

Features and benefits

Fast and flexible, the 24-bit card provides X window performance nearly three times that of the closest competitor. Eight dedicated overlay planes allow nondestructive overlays and superior user interface performance. The CRX-24 has multiple color maps and display modes to meet visualization needs, meaning that multiple windows can be put on the screen and each can display 24 bits of color. The CRX-24 occupies a single board slot in HP Apollo 9000 Model 720, 730, and 750 systems and can be upgraded to the CRX-24Z graphics configuration.

Fast polygons, anti-alised lines, and a hardware 24-bit Z buffer define the advantages of the CRX-24Z over the CRX-24. The CRX-24Z is targeted at applications in mechanical engineering, design analysis, and concept. Capabilities of the CRX-24 are maintained intact at full performance with these additional features. The CRX-24Z also occupies a single board slot on an HP Apollo 9000 Model 720, 730, or 750.

Prices for these systems vary depending on the configuration and platform.

Product No.	Description
A2263A	HP Apollo 9000 Model 720 CRX-24 with 16-Mbyte RAM and 420-Mbyte disk
A22264A	HP Apollo 9000 Model 720 CRX-24Z with 16-Mbyte RAM and 420-Mbyte disk

PowerShade software adds graphics performance and functionality to HP Apollo 9000 Series 700

Hewlett-Packard announces PowerShade (P/N B2156A), a graphics software package that gives design engineers inexpensive 3D surface rendering capabilities.

Features and benefits

PowerShade provides high-performance lighting and shading capabilities for surface rendering using Starbase and PHIGS while maintaining fast data manipulation capabilities. It allows applications to access high-performance lighting and shading capabilities found in the PVRX and TVRX. An engineer, for example, who works in wireframe can now shade a model and dynamically rotate it in much the same manner as a PVRX. Bundled with every PowerShade software package is HP Personal Visualizer, which uses technology from Wavefront. It allows you to import data files and create realistic images using lighting, shading, materials, surface textures, radiosity, and ray tracing. Data can also be animated to show motion or time-varying events through key frame animation. An integrated modeler allows you to create your own models or to add models to import data. A dxf translator allows AutoCAD™ files to be incorporated.

PowerShade is an option to HP Apollo 9000 Model 710 and Models 720, 730, and 750 CRX and CRX-24. It is included with the CRX-24Z at no additional cost.

Product No.	Description
B2156A	PowerShade 3D rendering software

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

HP Apollo 9000 Models 720, 730, and 750 improvements

Improvements are being introduced this month to the HP Apollo 9000 Models 720, 730, and 750.

Better CPU benchmark performance numbers

Compiler and operating system improvements have resulted in better performance numbers, summarized here.

	Model 720	Model 730	Model 750
SPECmark	59.5	76.8	77.5
MIPS	57.9	76.7	76.7
MFLOPS	17.9	23.7	23.7

New graphics offerings

New 24-plane (CRX-24) and 24-plane accelerated (CRX-24Z) graphics systems have been added. HP Apollo 9000 Models 720, 730, and 750 are integrated within the system unit and deliver leading graphics performance. Also new is Powershade 3D rendering software, which provides entry level 3D graphics capabilities to all HP Apollo 9000 Series 700 color workstations. Multimonitor graphics support is now available on HP Apollo 9000 Models 720, 730, and 750 for applications that require added screen space.

More memory capacity

For better high-end application performance, RAM memory capacity has been doubled on HP Apollo 9000 Models 720, 730, and 750. Maximum capacity on Models 720 and 730 has been increased to 128 Mbytes. Model 750 memory capacity has been increased to 384 Mbytes.

New server configurations

A new emphasis on workstation servers includes the new HP Apollo 9000 Series 700 server line, a group of preconfigured systems packaged with enough memory, disk storage, and removable media options to operate efficiently as a workgroup shared resource.

New external disk storage options

Three new HP Series 6000 external disk storage systems are now available on the HP Apollo 9000 Series 700. The HP Series 6000 Model 1350SE mass storage system supports a mix of disk and removable media drives. With the Model 1350SE, you can mix and match devices to meet specific requirements and place the devices in this deskside tower, adding accessible desktop space.

Disk arrays, the latest in disk storage technology, are now available on HP Apollo 9000 Models 720, 730, and 750. Model 420SA and 1350SA disk arrays provide higher capacity, greater performance, and better data protection capabilities. Disk arrays can be configured for high sequential throughput (over 7 Mbytes per second) for technical applications, or high random I/O (over 200 I/Os per second) for commercial applications.

New removable media options

A more affordable, higher capacity, 2.0 Gbyte, 4 mm DDS drive and a DDS drive with compression allowing up to 8 Gbytes of unattended high-speed backup are now offered on the HP Apollo 9000 Series 700. Nine-track tape drive support is also now available across the Series 700 line. Two new rewritable optical autochangers, 57 and 94 Gbytes, have been added to the Series 700 family of supported peripherals. With these additions the HP Apollo 9000 Series 700 can offer the widest choice of media

New networking and communication products

New to HP Apollo 9000 Models 720, 730, and 750 are FDDI, 802.5 (IBM) Token Ring, and X.25 support. The FDDI link is a single attach connection providing an optical interface to a 100-Mbit per second fiber-optic network and is ideal for networking applications requiring high capacity, high speed, high reliability, and high security. The HP Apollo 9000 Series 700 802.5 IBM Token Ring implementation supports two link speeds, 4 and 16 Mbits per second. The X.25 wide-area network product provides a 64-Kbit per second network connection to both private and public X.25 networks. With these additions, the HP Apollo 9000 Models 720, 730, and 750 now support all standard local- and wide-area networks.

Multimedia support

Full audio and image support as well as an Image Developer's Toolkit with JPEG compression are now available on all HP Apollo 9000 Series 700 workstations.

PC style keyboard option

All HP Apollo 9000 Series 700 workstations now support the PC style keyboard in either U.S. English or German language options.

New operating system release

The newest release of HP-UX, Version 8.07, provides support for many of the new features as well as improved application performance.

New product structures

To make ordering easier, a streamlined product structure is now offered. Items removed are: diskless systems, 210-Mbyte disk, 660-Mbyte disk, 8-Mbyte RAM increment, PVRX, TVRX T2, TVRX T4 on the Model 720, HP Series 6000 Model 660S storage system, 5%-inch DDS drive, HP 9144 and 9145 ¼-inch tape drives, Instant Ignition developer's bundle, HP-UX 8.05 Instant Ignition, 16-Mbyte Model 750 configurations, and the current Models 720, 730, and 750 server configurations. In the U.S., obsoleted products can be ordered until March 1, 1992. Contact your HP representative for more information.

Introducing HP Apollo 9000 Series 700 multimedia and HP Image Developer's Toolkit

Hewlett-Packard is enhancing the HP Apollo 9000 Series 700 with multimedia functionality. The HP Apollo 9000 Model 710 is HP's first audio-capable Series 700 workstation. Software for recording and playing back sounds and viewing images (scanned photos) is standard in HP-UX 8.07. Key independent software vendors (ISVs) are using multimedia on the HP Apollo 9000 Series 700.

Features and benefits

- *Low-cost audio* — Audio hardware comes standard with the HP Apollo 9000 Model 710. HP-UX 8.07 contains an audio library, developer tools, and an audio editor. Audio hardware is targeted for all future HP Apollo 9000 Series 700 workstations.

- *Low-cost image handling* — HP-UX 8.07 contains an image library and viewer. Hewlett-Packard's low-cost Image Developer's Toolkit (P/N B2157A) allows application developers to manipulate images such as scanned photos or documents without having to write low-level software.

- *Current solutions* — You can use Interleaf or Framemaker with the new multimedia capabilities for creating online documentation and send compound document e-mail using the Clarity Rapport package. Multimedia databases can be created using Informix. Vertical ISVs are starting to use multimedia in their applications for competitive advantage.

- *Shared multimedia* — HP Apollo 9000 Series 700 audio and image software is architectured using the X client/server paradigm, thus providing distributed access for users and a familiar programming environment for application developers. These capabilities complement HP SharedX, Hewlett-Packard's real-time collaboration tool, and images can be shared using HP SharedX.

The HP Image Developer's Toolkit is on the January 1992 HP Price List and available six weeks after receipt of order. Audio hardware is standard on the HP Apollo 9000 Model 710. Audio and image run-time libraries and audio developer tools are standard in HP-UX 8.07. For more information, contact your HP representative.

Product No.	Description
B2157A	HP Image Developer's Toolkit
Opt. UJ9	HP-UX 8.07 DAT/DDS cartridge media
Opt. UJ8	HP-UX 8.07 CD-ROM certificate

Introducing HP-UX 8.07 for HP Apollo 9000 Series 700

HP-UX 8.07 (P/Ns B2352A and B2353A) provides support for HP Apollo 9000 Model 710, new graphics hardware, and new peripherals. Performance is improved, additional industry standards are supported, and new features have been added.

Features and benefits

Key new functionality has been added to the *HP-UX* run-time environment. Enhanced ease-of-use benefits include:

* *Network startup and installation* — The *HP-UX* operating system can be installed over the network. The network becomes the installation media
* *HP W E text editor* — easy to use, graphic-oriented
* *Investment protection benefits* — include C2 security functionality supported and *HP-UX* support for EISA FDDI, X.25, 802.3 (GOSIP), IBM Token Ring (IEEE 802.5), and SNA Client
* *Price/performance benefits* — include software disk striping to enable maximum disk I/O performance, NFS tuning, support of new *HP* Apollo 9000 Model 710 workstations, support of new graphics hardware and software, 2 times RAM capacity increase, and support of new peripherals

Ordering information

HP-UX 8.07 is on the January 1992 *HP* Price List and is now shipping. If you have an *HP-UX* software support contract, you will automatically receive the *HP-UX* 8.07 update beginning this month. Contact your HP representative for more information.

Product No.	Description
B2826A	HP-UX 8.07 CD-ROM
Opt. AAB	CD media kit
Opt. AAF	CD-ROM disk set
B2352A	HP-UX run-time, 2-user
Opt. UJ9	HP-UX Release 8.07 DDS cartridge
B2353A	HP-UX run-time, 8-user
Opt UJ9	HP-UX Release 8.07 DDS cartridge
Opt. UJ8	HP-UX Release 8.07 CD certificate
B2354Au	HP-UX C/ANSI C developer's bundle
Opt UJ9	HP-UX Release 8.07 DDS cartridge
Opt UJ8	HP-UX Release 8.07 CD certificate
B2356A	HP-UX developer's toolkit
Opt. UJ9	HP-UX Release 8.07 DDS cartridge
Opt. UJ8	HP-UX Release 8.07 CD certificate
B2357A	HP-UX general programming tools
Opt. UJ9	DDS cartridge for HP-UX Release 8.07
B2355A*	HP-UX 8.X documentation
Opt. OBC	CD-ROM
Opt. OBJ	CD complementary documentation
Opt. UA2	4-user add-on product
Opt. OBD	General usage
Opt OBE	System administration and installation
Opt OBG	User guides
Opt. OBF	General programming
Opt OBL	User environment
Opt. OBM	Starbase
Opt. OBT	C/ANSI C

■All options include material for both HP-UX 8.05 and 8.07 versions.

HP OpenView Network Manaaement Server for HP Apollo 9000 Series 700 and HP-UX 8.0

HP OpenView Network Management Server (NMS) Version 2.11 is now shipping. This update to NMS 2.1 extends the use of NMS to *HP-UX* 8.0 environments, including *HP* Apollo 9000 Series 700 systems. Previously NMS had run only on *HP-UX* 7.0 and *HP* 9000 Series 300, 600, and 800 and *HP* Apollo 9000 Series 400 systems. Product numbers and pricing remain unchanged. An option for DDS media will be added to the February 1992 *HP* Price List. Should DDS media be required before then, contact your *HP* representative.

HP SharedX now included with Instant Ignition

A fully functional version of HP SharedX is currently shipping with HP Apollo 9000 Series 700 orders with *HP-UX* 8.07 Instant Ignition. You can use *HP* SharedX at no cost for 90 days. This demonstration is integrated with *HP* WE; a simple double click of the mouse starts the demonstration. You will be greeted with an overview of *HP* SharedX and its capabilities and will be directed to the online help facility for usage.

Contact *HP* Apollo DIRECT at 800-637-7740, in the U.S., or your local *HP* sales office to purchase *HP* SharedX. For more information, contact your *HP* representative.

HP SharedX for HP Apollo 9000 Series 700 with HP-UX 8.07

HP SharedX for HP Apollo 9000 Series 700 systems with HP-UX 8.07 is on the January 1992 HP Price List. Products can be ordered today and will be available four weeks after receipt of order. For more information, contact your HP representative.

Product No.	Description
B2305L	License to use HP SharedX I.X on any platform
Opt. UA0	Single-node license
Opt. UA3	8-node license
Opt. UA6	24-node license
Opt. UA8	48-node license
Opt. UAA	96-node license
B2307A	HP SharedX media/manuals for HP Apollo 9000 Series 700 with HP-UX 8.0518.07
Opt. UJ7	HP-UX 8.05 media on digital-audio tape
Opt. UJ6	HP-UX 8.05 CD-ROM certificate
Opt. UJ9	HP-UX 8.07 media on digital-audio tape
Opt. UJ8	HP-UX 8.07 CD-ROM certificate
Opt. OBJ	HP SharedX users guide

HP Network File Server includes Automounter for HP Apollo 9000 Series 700

As of HP-UX 8.07, the HP Network File System (NFS) will include Automount functionality. The Automount tool allows you to mount and unmount remote file systems on an as-needed basis, allowing automatic and transparent access to remote files and directories. Using Automount with Network Information Service, NFS clients can access and update remote files dynamically and transparently with little administration required, as well as provide a transparent view of the NFS network for shared workgroups.

With HP-UX 8.07, the NFS documentation has been updated to include Automount. NFS is shipped bundled with HP-UX 8.07. Contact your HP representative for more information.

HP 9000 Models 362 and 382 shipping in volume

Delays experienced in HP 9000 Model 362 and 382 HP-UX shipments are over. Now when you order an HP-UX bundle (P/N A2250A) or an HP 9000 Model 362 controller bundle (P/N A2251A), you can expect acknowledgement and shipment within six weeks.

HP 9000 Model 382 with new 1,280 x 1,024 graphics
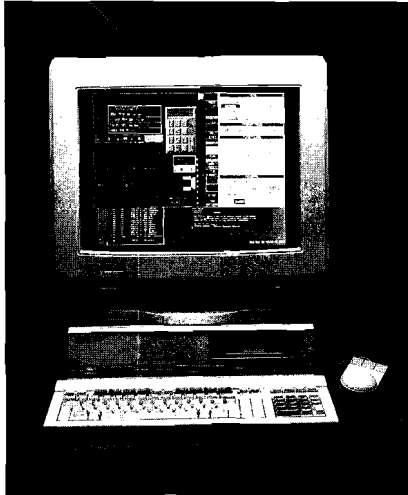
A 1,280 x 1,024 graphics subsystem is now available as an option to the HP 9000 Model 382 (Option ADJ). If you need high-resolution graphics but require rackmountability and flexible I/O, this option provides you with a solution. This display option is supported on HP-UX 8.0 and Pascal 3.25.

The HP 9000 Model 382 with high resolution graphics provides one of the best platforms to address your workstation controller applications in measurement and industrial automation environments. The HP 9000 Series 300 I/O interfaces, direct connect expanders, form factor, and extended product support life complement Hewlett-Packard's full range of computer and instrumentation products. For more information, contact your HP representative.

Product No.	Description
Opt. ADJ	Replace standard graphics with 1,280 x 1,024 graphics subsystem; includes 19-inch color monitor

This option will be added to the following HP 9000 Model 382 bundles: HP-UX, P/N A2250A; RMB-UX, P/N A2242A; HP-VEE, P/N A2243A; and Kanji, P/N A2245A.

Performance software price increase

Effective January 1, 1992, prices for several performance software products increased. Corresponding upgrade credit options also changed to allow for 100% trade-in at the time of upgrade. For more information, contact your HP representative.

HP SRM support for HP Apollo 9000 Series 400; obsolescence

HP SRM discontinuance plans

The HP Shared Resource Manager (SRM) server (P/N 50960A with options) and the SRM operating system (P/N 98619A) were discontinued in May 1991. All SRM components for the HP 9000 Series 500 were discontinued in August 1990.

SRM workstation interface cards (P/N 50962A for the HP 9000 Series 200, 300 and HP Apollo 9000 Model 400s and P/N 50963A for HP Vectra PCs) were scheduled for discontinuance this month. The discontinuance is being delayed.

The replacement for product number 50960A is SRM/UX (P/N E2085A), the SRM on HP-UX. SRM/UX allows HP BASIC or Pascal workstation client connections via local-area networks or existing SRM interfaces and cables.

HP Apollo 9000 Series 400 supported as SRM workstations

The SRM interface card (P/N 50962A) is supported on the HP Apollo 9000 Models 400s and 425s. The card must be used in the

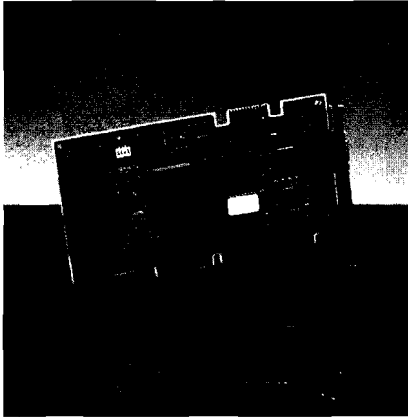lower DIO-11 card cage (Option AL0) with a DIO-11 to DIO-YO adapter (P/N A1401A) per DIO I/O card. A maximum of two converters (P/N A1401A) are supported on a single HP Apollo 9000 Series 400 computer. This card can also function when product number A1401A is used in the top DIO-II graphics slots, but this configuration is not supported due to radio-frequency interference concerns.

also in this issue

New HP Ultra VGA board

A new high-performance video board for HP Vectra PCs that supports VGA, Super VGA, and 1,024 x 768 resolutions, and high-refresh rate, ergonomic modes is now available. The HP Ultra VGA board (P/N D2325A) delivers exceptional video performance for graphics-intensive applications.

Features and benefits

- *Delivers high performance for graphics-intensive applications such as Microsoft Windows and AutoCAD*—Hardware acceleration of common graphics functions including bit-block transfers and line drawing makes operations such as opening and resizing windows, pulling down menus, moving objects, and scrolling virtually instantaneous.

- *Supports enhanced graphics and text modes* — including 640 x 480, 256 colors; 800 x 600, 16 or 256 colors; 1,024 x 768 non-interlaced, 16 or 256 colors; and 132-column extended VGA text modes

- *Ergonomic, high-refresh mte modes* — provide flicker-free display that reduces eye strain; 640 × 480 at 72 Hz, 800 × 600 at

72 Hz, and 1,024 x 768 non-interlaced at 70 Hz

- *Supports market-standard (60 Hz) refresh rate* — compatible with a wide range of PC monitors

- *16-bit industry-standard architecture (ISA) accessory board* — supports standard VGA mode and earlier video standards EGA, CGA, MDA, and Hercules (HGC) for compatibility with industry-standard PC hardware and software

- *Overall performance* — up *to* five times faster than HP Super VGA board (P/N D2382A)

- *Standard video memory of 512-Kbyte VRAM* — supports 16 or 256 colors in 640 x 480 resolution and 16 colors in 800 x 600 and 1,024 x 768 resolutions

- *Optional HP VRAM upgrade kit (P/N D2326A)* — expands video memory to 1 Mbyte for support of 256 colors in 800 x 600 and 1,024 x 768 resolutions

- *Display drivers for enhanced modes* — for software applications including Microsoft Windows and AutoCAD

The HP Ultra VGA board delivers superior performance, high resolution, and ergonomic modes in base video. Wough graphics accelerators, the HP Ultra VGA board provides overall performance up to five times faster than HP's current base video accessory, the HP Super VGA board. The HP Ultra VGA board accelerates the performance of graphics-intensive applications.

Compared to the HP Super VGA board, the HP Ultra VGA board offers an important additional

mode: 1,024 x 768 non-interlaced. This high-resolution mode makes HP Ultra VGA suitable for computer-aided design and power office users who require sharp, easy-to-read text, realistic images, and more on-screen information. Both boards support 800 x 600 resolution in 16 colors; the HP Ultra VGA board also supports 800 x 600 in 256 colors.

The HP Ultra VGA board offers ergonomic, high-refresh rates (70 or 72 Hz) in addition to the market-standard 60 Hz refresh rate. The HP Super VGA board supports only 60 Hz refresh rates.

The HP Super VGA board will continue to be offered as a lower-priced solution for systems in which high-resolution, high-performance video is not required, such as a local-area network server.

The HP Ultra VGA board is supported across the current HP Vectra PC product line and comes standard with HP Vectra 486s/20 PCs. It supports all current HP PC monitors in standard VGA mode.

Product No.	Description
D2325A	HP Ultra VGA board; 16-bit ISA video board supports VGA, 800 x 600 and 1,024 x 768 resolutions; 16 or 256 colors; standard (60 Hz) and high refresh (70 or 72 Hz) ergonomic modes
D2326A	512-Kbyte VRAM upgrade kit for HP Ultra VGA board; contains four 256-Kbit x 4, 80-nanosecond memory modules

HP Vectra PC SCSI systems now support Microsoft OS/2 Version 1.30.1

For the U.S. and Canada only

Hewlett-Packard now supports the latest version of Microsoft OS/2 (Version 1.30.1) on HP's small computer standard interface (SCSI) hard disk subsystems. HP Vectra PC users can now run O W server applications such as Microsoft LAN Manager or Lotus® Notes, as well as Oracle or other database management systems on HP Vectra 486s/20, 486/25T, and 486/33T PCs using HP extended industry standard architecture (EISA) SCSI subsystems.

All HP Vectra 486s/20 PCs shipped with SCSI subsystems support Microsoft OS/2 Version 1.30.1. Support for Microsoft O W Version 1.30.1 requires a modification to Hewlett-Packard's EISA SCSI host bus adapter (HBA). The models and accessories listed here contain this modification.

Product No.	Description
D2222C	HP Vectra 486/25T PC Model 440
D2223C	HP Vectra 486/25T PC Model 670
D2239A	HP Vectra 486/33T PC Model 440
D2240A	HP Vectra 486/33T PC Model 1000
D2264A	HP Vectra 486s/20 PC Model 430
D1681A	HP EISA SCSI HBA

This modification enables the HP EISA SCSI HBA to support Microsoft OS/2 Version 1.30.1. You gain no other functionality or performance advantages from the modification. This modification will not allow you to run Microsoft O W Version 1.21 on your SCSI subsystems; you must have Microsoft OS/2 Version 1.30.1 in order to gain SCSI-OS/2 compatibility.

If you return inventory in exchange for Microsoft OS/2 Version 1.30.1 compatible inventory, you will be required to place a replacement order of the same dollar amount in order to have restocking fees waived.

Microsoft will be offering O W Version 1.30.1 as part of the LAN Manager 2.1 product. If you require OS/2 Version 1.30.1 for clients, database servers, or standalone systems, you will be able to purchase Microsoft OS/2 Version 1.30.1 from Hewlett-Packard on a special basis.

Lotus is a U.S. registered trademark of Lotus Development Corporation.

SCSI hard disk and tape support for OS/2 Version 1.30.1

HP Vectra PC users running Microsoft OS/2 Version 1.30.1 with Layered Device Driver (LADDR) architecture can now install and operate the HP Vectra PC small computer standard interface (SCSI) hard disks and tape drive with your systems.

All HP Vectra SCSI hard disks (430, 440, and 670 Mbyte and 1 Gbyte) are supported, as is the 525-Mbyte 5%-inch half-height SCSI tape drive. The OU2 LADDR architecture allows both hard disk and tape devices to be connected to the same SCSI host bus adapter (HBA), either EISA or ISA. All ISA HBAs are supported, but only product number D1681A with product number 1150-1914 is supported with OS/2 Version 1.30.1.

Microsoft LAN Manager 2.1 includes the OS/2 Version 1.30.1 operating system and Sytos Plus 1.33 tape backup software. Device support for the SCSI hard disks is provided with O W Version 1.30.1. For the 525-Mbyte tape drive, device support is included within Sytos Plus. Device driver selection for the hard disks is performed automatically by the O W operating system. For the tape drive, you should select the Wangtek 5525ES LDR driver from the list of devices displayed during the Sytos Plus installation. No other software purchases or installation is required for Microsoft LAN Manager 2.1 users to become fully operational with internally supported SCSI hard disk and tape storage.

SCO UNIX system price increase

In response to a price increase by Santa Cruz Operation (SCO), the price of SCO UNIX System V/386 Version 3.2 Release 2 increased effective January 1, 1992.

Product No.	Description
5%-inch products	
D2046C	
Opt. ABA	U.S. English language version
Opt. ABB	European English language version
Opt. ABM	Latin American Spanish language version
38-inch products	
D2046D	
Opt ABA	U.S. English language version
Opt ABB	European English language version

HP video graphics color display discontinuance

The HP video graphics 14-inch color display (P/Ns D1182A/B) will be removed from the March 1992 HP Price List. These products have been replaced by the HP 14-inch color Super VGA display with integrated tilt/swivel base (P/N D1194A). The HP Touchscreen Plus accessory (P/N D1183A) for the HP video graphics color display also will be removed from the March 1992 HP Price List. The tilt/swivel base accessory (P/N 82959S) for the HP video graphics color display will be removed from the February 1992 HP Price List.

The user licenses may allow you to reduce the cost of fundamental operating system software for each PC, improve management of software for auditing purposes, and eliminate extraneous disks and manuals. On a per unit basis, the user license is approximately 25% less expensive than the complete HP MS-DOS 5 package.

Product No.	Description	Replacement
D1182A	HP video graphics 110 V color display	P/N D1194A
D1182B	HP video graphics 220 V color display	P/N D1194A
82959S	Tilt/swivel base for P/N D1182A/B	P/N D1194A with tilt/swivel base
D1183A	HP Touchscreen Plus for P/N D1182A/B	None

Product No.	Description
D1153A	HP MS-DOS 5 user license 10-pack

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

HP 336-Mbyte IDE hard disk drive accessory discontinuance

The HP 336-Mbyte IDE hard disk drive accessory (P/N D1688A) will be removed from the February 1992 HP Price List. This product is only supported on the HP Vectra 386125 PC. There is no direct replacement for this product. After the discontinuance, the 336-Mbyte capacity point can be configured for the HP Vectra 386125 PC by ordering two HP 168-Mbyte IDE drives (P/N D1680A). This implementation requires the use of two shelves.

Product No.	Description
D1688A	HP 336-Mbyte IDE hard disk drive accessory

HP MS-DOS 5 user license 10-pack

Hewlett-Packard's new 10-pack user license product for MS-DOS® 5 (P/N D1152A, any option) consists of 10 documents, each authorizing the user to make one copy of the HP MSDOS 5 product and use that copy on one PC. No disk or documentation is included with the licenses. Each license is printed in English, French, German, Italian, and Spanish. You must purchase at least one copy of HP MS-DOS 5 before purchasing the user license 10-pack.

also in this issue

New HP EtherTwist transceiver

Hewlett-Packard now offers the smallest 10BaseT transceiver among major competitors. The new HP EtherTwist transceiver (P/N 28685B) provides quick and easy connection between your local-area network (LAN) cabling and the attachment unit interface (AUI) port of your system or network device. The new transceiver offers six LEDs that indicate transmission and receipt of data, detect collisions on the network, automatically detect and correct reverse polarity, and provide link status and power indication.

Features and benefits

- *New compact size* — one-third smaller than its predecessor or 60 mm in length
- *Industry-standard compatibility* — supports IEEE 802.3 and Ethernet Version 1.0 and 2.0 devices; compatible with IEEE 802.3 type 10BaseT and 10Base2 networks
- *Connects to twisted-pair cable* — by 8-pin modular (RJ-45) jack
- *Supports 22, 24, or A*WG *unshielded twisted-pair cable* — shielded cable can also be used with proper adapter
- Provides *user-selectable switches* — for link beat, SQE test, loopback test, and long cable functionality
- *Supports 100 meters of twisted-pair cable to any AUI compatible device* — using high-grade, low-crosstalk cable, the transceiver can use cable lengths of up to 200 meters

Longcable compatibility must be with another HP EtherTwist transceiver or with another device that has longcable functionality.

Product No.	Description
286858	HP EtherTwist transceiver

Easy way to latest HP OpenView applications

HP OpenView MS-Windows/DOS workstation bundle upgrade product is one of the easiest ways to upgrade your HP OpenView MS-Windows/DOS workstation bundle. The base product will give you the latest MSDOS, Microsoft Windows, and HP OpenView. The software Options 201 through 206 will provide the latest versions of the applications. By ordering one product, you can receive the latest versions of many software pieces to make management of HP network devices as easy as possible. This product now provides the HP Datacommunication Terminal Controller (DTC) Manager 12.0 product.

Product No.	Description
D1824B	HP OpenView MS-Windows1 DOS workstation bundle upgrade
Opt. 201	HP DTC Manager
Opt. 202	HP System Manager
Opt. 204	HP Switch/PAD Manager (1 through 5)
Opt. 205	HP Switch/PAD Manager (6 through 10)
Opt. 206	HP Switch/PAD Manager (11 and greater)

HP OpenView MS-Windows/DOS provides integrated management of HP network devices

Hewlett-Packard's devices, such as bridges, DTCs, HP 3000 systems, hubs, switches, and PADs, can be managed from one integrated HP OpenView PC. The PC will display the devices on one integrated map. Managers can use one user interface with one menu structure to manage their total HP network.

Benefits

- One HP OpenView PC is a more efficient use of PC resources.
- One HP OpenView platform and map is more efficient at solving management issues; the condition of the entire network can be seen quickly from the integrated map, and problems can be isolated and solved more quickly.
- One HP OpenView platform is easier to learn and use and is a more efficient use of management personnel time.

Questions and answers

Which management applications will work together?

Currently these are HP DTC Manager and Switch/PAD Manager, and Hub Manager and Bridge Manager. HP DTC Manager, Hub Manager, Bridge Manager, and Switch/PAD Manager will run together, System Manager, DTC Manager, and Switch/PAD Manager will also integrate in the same HP OpenView PC. Only HP Hub

Manager, Bridge Manager, and System Manager **will** not run together in one HP OpenView system.

Will I be able to purchase the HP OpenView MS-Windows/DOS workstation bundle to get integrated management applications?

Yes, the HP OpenView MS-Windows/DOS workstation bundle (P/N 32054B) **will** be updated regularly to keep it current with applications capabilities.

I already have one or more of these applications. Will I be able to add other applications to m y PC?

Yes, in most cases an additional HP OpenView application can be added to a PC already running HP OpenView. There are a few limitations: earlier versions of HP OpenView or the applications **will** probably not work together; the PC **will** need to have enough memory or disk space to run all the desired applications. (For example, 4 Mbytes of memory and 40 Mbytes of disk space **will** be needed to integrate multiple applications.)

While 286-based PCs **will** be able to run some integrated management applications, they **will** face limitations. Microsoft Windows 3.0 **will** not allow 286-based PCs to run in enhanced mode. This results in major limitations being placed on the PC's ability to manage system memory beyond 640 Kbytes. Limitations on the number of applications, the number of devices managed, and the performance of

the management PC **will** occur. The best solution is to move the management applications to an Intel 386*-based PC, if multiple applications are being integrated.

What about other non-HP management applications; will I be able to integrate them as well?

A number of non-HP management applications run on HP OpenView MS-Windows/DOS.

Product No.	Description
32054B	HP OpenView MS-Windows1 DOS workstation bundle; can include any and all of the products listed here, except Hub Manager and Bridge Manager
28653A	HP Bridge Manager
D2355A	HP DTC Manager
28686A	HP Hub Manager
D1848A	HP OpenView MS-Windows1 DOS
J2017A	HP Switch/PAD Manager
36936A, 36937A, 36938A	HP System Manager

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

Upgrade for HP I A N Manager/X 386 to HP I A N Manager/X for HP 9000

HP LAN Manager/X 1.1 386/486 (P/N B1018B) users can now receive full credit when upgrading to HP LAN Manager/X for the HP 9000 (P/N B1003B or BlOllB).

Credit options for previous purchases of HP LAN Manager/X 1.1 3861486 will appear on the February 1992 HP Price List. Contact your HP representative for more information.

To upgrade to HP LAN Manager/X for the HP 9000 Series 300 or HP Apollo 9000 Series 400 order:

Product No.	Description
B1003B	HP I A N Manager/X for HP 9000 Series 300 or HP Apollo 9000 Series 400
Opt. UCS	HP LAN Manager/X 3861486 5-user upgrade credit
Opt. UCT	HP LAN Manager/X 386/486 unlimited user upgrade credit
To upgrade to HP LAN Manager/X for the HP 9000 Series 600/800 or HP Apollo 9000 Series 700 ordec	
B1011B	HP I A N Manager/X for HP 9000 Series 600 and 800 or HP Apollo 9000 Series 700
Opt. UCS	HP I A N Manager/X 386/486 5-user upgrade credit
Opt. UCT	HP I A N Manager/X 386/486 unlimited user upgrade credit

OS/2 Version 1.30.1 included with Microsoft IAN Manager 21

The latest release of Microsoft LAN Manager 2.1 includes the required server operating system software, OW Version 1.30.1. If you are using previous versions of OW for a LAN Manager server, you will not need to purchase the latest release of OW2 as a separate product.

The primary feature of OW2 Version 1.30.1 is the Layered Device Driver architecture and therefore the support of small computer standard interface peripherals.

OS/2 Version 1.30.1 has been tested on a range of HP Vectra PCs. The following systems can be used with this version: HP Vectra 286/12 PCs; HP Vectra QS/16, QS/16S, and QS/20 PCs; HP Vectra RS/16, RS/20, W O C, and RS/25C PCs; HP Vectra 386/16N and 386/20N PCs; HP Vectra 386/25 PCs; HP Vectra 486s/20 PCs; and HP Vectra 486/25T and 486/33T PCs.

Microsoft LAN Manager 2.1 is available from Microsoft Corporation authorized network specialists. If you have HP LAN Manager 1.0 or 1.1, you are eligible for the MS Global Upgrade for LAN Manager 2.1, which includes the server OS/2. For more information, contact your HP representative.

HP IAN Manager/X 386/486 discontinuance

HP LAN Manager/X 1.1 386/486 (P/N B1018B) and all options will be removed from the February 1992 HP Price List. There is an upgrade credit available when upgrading from product number B1018B to HP LAN Manager/X for the HP 9000 (P/N B1003B or B1011B). Contact your HP representative for more information.

HP NS IAN Gateway discontinuance

The HP NS LAN Gateway product (P/N D1807A) and all associated options will be removed from the February 1992 HP Price List not the January HP Price List as communicated previously. Similar functionality from NetWare clients is provided by HP Network Services 2.1/MS-DOS for NetWare (P/N D1819A) and HP ARPA Services 2.1/MS-DOS for NetWare (P/N D1823A). For more information, contact your HP representative.

HP OfficeShare family discontinuance

The following products and all associated options will be removed from the February 1992 HP Price List. There are no replacements for these products. For more information, contact your HP representative.

Product No.	Description
50913F	HP Vectra PC ThinLAN server software
50914F	HP Vectra PC ThinLAN user software
50923F	NS user services/HP Vectra PC
50924F	NetIPC developers kit
50925F	HP Vectra PC server software
50926F	StarLAN/HP Vectra PC link
50928F	Serial network/HP Vectra PC link software
50929F	LAN PC configuration and diagnostics packagel HP Vectra PC
50930F	Serial PC user configuration and diagnostics packagel HP Vectra PC

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HP EtherTwist transceiver discontinuance

Effective January 1, 1992, the HP EtherTwist transceiver (P/N 28685A) was discontinued.

The transceiver will be replaced by a transceiver that provides greater functionality at the same list price.

Product No.	Description	Replacement
28685A	HP EtherTwist transceiver	HP EtherTwist transceiver, PIN 286858

HP Wire Test Instrument price decrease, discontinuance

Effective January 1, 1992, the price of the HP Wire Test Instrument (P/N 28687A) was reduced. The product will be discontinued effective November 1, 1992 and will have a five-year support life.

While the HP Wire Test Instrument does not have a direct replacement, similar functionality will be provided by the HP NEXT scanner. For more information, contact your HP representative.

Product No.	Description
28687A	HP Wire Test Instrument

HP EtherTwist pricing strategy

Hewlett-Packard's EtherTwist pricing strategy is to stay up to 30 percent below the price of the current market leaders. Our commitment to maintain this price leadership is evident by recent price reductions of HP workgroup, site, and multisite products. Effective December 1991, prices for the products listed here were reduced.

Product No.	Description
Workgroup	
27245A	HP EtherTwist adapter card/8
27267A	HP EtherTwist adapter card/8 six pack
27247A	HP adapter card/16
27269A	HP adapter card/16 six pack
Site	
28673A	HP 10:10 LAN Bridge
28681A	HP 10:10 LAN Bridge LB
Multisite	
27285A	HP Router ER (four ports)

HP EtherTwist Hub price reductions

Hewlett-Packard continues to be a leader in local-area network (LAN) hardware price/performance by reducing prices on all HP EtherTwist Hubs effective January. These price reductions, combined with price reductions on HP EtherTwist adapter cards, bridges, and routers, give you an aggressively priced twisted-pair Ethernet LAN solution.

Product No.	Description
28691A	HP EtherTwist Hub/8
286888	HP EtherTwist Hub Plus
28699A	HP EtherTwist Hub Plus 48

also in this issue

Mass Storage

New HP 3000 and 9000 SCSI DAT storage systems

Hewlett-Packard introduces four HP Series 6000 small computer standard interface (SCSI) multiuser digital-audio tape (DAT) storage systems for HP 9000 Model 8X7 and HP 3000 Series 9X7 multiuser system users.

This family of HP Series 6000 mass storage products offers you a backup solution in a variety of expandable packages, extending the HP Series 6000 family of mass storage solutions.

Features and benefits

These DDS-format DAT storage systems offer a low-cost, high-capacity unattended backup solution for midrange and high-end HP 3000 Series 9X7 and HP 9000 Model 8X7 systems. These rackmounted storage systems can contain up to four 2.0-Gbyte DAT drives, and the floorstanding model can contain up to seven 2.0-Gbyte DAT tape drives.

Solutions include high-capacity unattended backup, archival storage, multiple spindle backups for minimum system downtime, and HP TurboSTORE XL II support on HP 3000 systems.

The HP Series 6000 Model 2000D F is a 2.0-Gbyte DDS-format DAT tape drive in a mini-tower enclosure. There are six half-height empty slots that can be filled with a combination of the disk, DAT, and CD-ROM.

The HP Series 6000 Model 2002D F is a 4.0-Gbyte DDS-format DAT tape storage system (two 2.0-Gbyte DAT tape drives) in a mini-tower enclosure. There are five half-height empty slots.

The HP Series 6000 Model 2000D R is a 2.0-Gbyte DDS-format DAT tape storage system suited for the new 19-inch EL4 rackmount cabinet supported with the HP 9000 Model 8X7 and HP 3000 Series 9X7 systems. There are a total of three remaining empty slots, two half-height empty slots accessible to the front that can be filled with a combination of the disk, DAT, and CD-ROM. There is one additional disk-only slot in the rear that is not accessible to the front of the package.

The HP Series 6000 Model 2002D R is a 4.0-Gbyte DDS-format DAT tape storage system (two 2.0-Gbyte DAT tape drives) suited for the new 19-inch EL4 rackmount cabinet. There are a total of three remaining half-height empty slots; two accessible to the front and one disk slot to the rear.

Hewlett-Packard also introduced three versions of the 2.0-Gbyte DAT upgrade kits.

Product No.	Description
C2477F	Floorstanding unit 2.0-Gbyte DAT kit
C2477R	Rackmounted unit 2.0-Gbyte DAT kit
C2477S	System unit 2.0-Gbyte DAT kit

The rack/floor products can be installed in the factory or by Hewlett-Packard field representatives. System upgrade kits must be installed by HP field representatives as an option after systems are delivered.

Hewlett-Packard announced a new CD-ROM upgrade kit for the HP 9000 Model 8X7/HP 3000 Series 9X7 system enclosure. There is now an extra half-height slot available with the new 2.0-Gbyte 3%-inch DAT drive. The 2.0-Gbyte DAT now takes up only one half-height slot versus the previous 1.3-Gbyte 5¼-inch DAT drive that took up two half-height slots. For more information, contact your HP representative.

Product No.	Description
C2464F	Model 20000 F mini-tower DAT storage system
C2464R	Model 20000 R rackmount DAT storage system
C2465F	Model 2002D F mini-tower DAT storage system
C2465R	Model 2002D R rackmount DAT storage system

F models are standard with customer installation; R models are standard with Hewlett-Packard field personnel installation.

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# Technical specifications for 2.0-Gbyte DAT drive on HP Series 6000 mass storage systems

The new 2.0-Gbyte HP digital-audio tape (DAT) drive offered with the HP Series 6000 mass storage products is based on proven technology, designed specifically for data-intensive users. Hewlett-Packard's DAT drive incorporates the digital data storage (DDS) recording format that maximizes storage capacity and performance while offering fast access.

The 3%-inch DAT uses a 4-mm tape that allows unattended backup of up to 2.0 Gbytes (90-meter tape) of data in less than three hours. The DDS format tape does not require any preformatting or tensioning, so a cassette can be loaded and be ready for operation in less than 25 seconds. For more information, contact your HP representative.

Features

- 2.0-Gbyte storage capacity
- Compact 3%-inch half-height form factor
- 183 Kbytes per second transfer rate
- 5 Mbytes per second burst transfer rate (synchronous)
- 1.5 Mbytes per second burst transfer rate (asynchronous)
- Standard DDS recording format
- Industry standard small computer standard interface
- Industry-leading 50,000 hours mean time between failures

New HP DAT system backup solutions
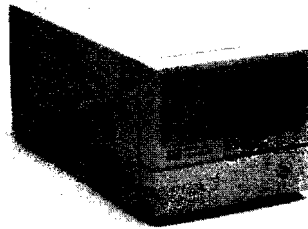
Hewlett-Packard introduces two new standalone small computer standard interface (SCSI) digital-audio tape (DAT) products; the HP Series 6400 Model 2000 (P/N C1520B) and Model 2000DC (P/N C1521B).

The HP Series 6400 Model 2000 is a 2-Gbyte low-cost backup device with a SCSI-2 interface and replaces HP's existing DAT product (P/N C1512A). The HP Series 6400 Model 2000DC is a SCSI DAT drive that uses data compression to provide up to 8 Gbytes of capacity on a smgle 90-meter DDS cassette.

Features and benefits

The HP Series 6400 Models 2000 and 2000DC incorporate the latest 3%-inch form factor DAT technology, use the industry standard digital data storage (DDS) recording format, and have a SCSI-2 interface.

The HP Series 6400 Model 2000 is a low-cost backup solution for unattended backup and software distribution. With this product, you

are able to back up 2 Gbytes of data on a single 90-meter DDS cassette at transfer rates of up to 650 Mbytes per hour. When four of these drives are combined with HP OmniBack/ Turbo or TurboSTORE/XL II software, transfer rates of up to 2.5 Gbytes per hour can be achieved. Transfer rates are host and operating dependent.

The HP Series 6400 Model 2000DC offers significant performance benefits over the Model 2000 by using data compression. Through an industry standard method of data compression, the HP Series 6400 Model 2000DC can provide compression ratios on commercial databases of around 4:1. This means that up to 8 Gbytes of data can be stored on a smgle 90-meter DDS cassette at transfer rates of up to 2.5 Gbytes per hour. On UNIX-based systems, you should typically see compression ratios of 2 to 2.5:1. The data compression factor is dependent on the type of data being compressed.

Other features of both models include full compatibility with existing HP DAT drives using 60-meter DDS cassettes, fast file access in an average of 30 seconds, and DATIO, a software utility providing a complete backup solution for all HP-UX based systems. For more information, contact your HP representative.

System support

A system support matrix for the HP Series 6400 Models 2000 and 2000DC follows.

HP system	HP Series 6400 Model 2000	HP Series 6400 Model 2000DC
HP 9000 Series 300	Yes, on some	Under investigation
HP Apollo 9000 Series 400 (HP-UX)	Yes	Planned
HP Apollo 9000 Series 400 (Domain)	Yes	No plan
HP Apollo 9000 Series 700	Yes	Yes
HP 9000 Model 8X7	Yes	April 1992 with patch
HP 3000 Series 9X7	Yes	Under investigation
HP 1000 A-Series	March 1992	June 1992

The HP Series 6400 Models 2000 and 2000DC will be fully supported across the range of HP 9000 Series 800 systems under future releases of HP-UX. The HP Series 6400 Model 2000 will be supported across the range of 900 Series HP 3000 systems under future releases of HP MPE/iX.

Product No.	Description
C1520B	HP Series 6400 Model 2000 2-Gbyte standalone SCSI DDS DAT drive
C1521B	HP Series 6400 Model 2000DC data compression standalone SCSI DDS DAT drive

Initial availability for both products is six weeks. It is not possible to upgrade the HP Series 6400 Model 2000 to a Model 2000DC data compression product. No 19-inch rackmounting kits are available for these products. There will be no HP-IB version of these products.

Interchanging 60- and 90-meter DDS media

This month Hewlett-Packard introduced two new HP digital-audio tape (DAT) drives. These drives are fully compatible with existing HP DAT drives when using 60-meter DDS cassettes. The 90-meter DDS cassettes that are now available for use with the new drives must not be used in existing HP 1.3-Gbyte DAT drives.

Hewlett-Packard's first generation of 5 ¼-inch full-height DAT products have been available as an integrated part of various HP systems, HP mass storage sub-systems, and as standalone box products (P/Ns C1511A and C1512A). They offer a capacity of 1.3 Gbytes through the use of 60-meter DDS cassettes. These 1.3-Gbyte DAT drives must not use 90-meter DDS cassettes, since this may result in data loss.

HP's new DAT drives are 3%-or 5%-inch half-height products. These products also are available as an integrated part in various HP systems, HP mass storage subsystems, and as standalone box products. These new drives can use both 60- and 90-meter DDS cassettes. When using 90-meter DDS cassettes you can achieve a capacity of 2 Gbytes on the low-cost product (P/N C1520B) and up to 8-Gbyte capacity on the Data Compression (DC) product (P/N C1521B). DC drives are able to read and write data in both DC and non-DC format. This gives backwards compatibility with Hewlett-Packard's non-DC drives.

To help you distinguish between Hewlett-Packard's 60- and 90-meter DDS cassettes, the casettes are color coded. HP 60-meter DDS cassettes are red and are available in boxes of five (P/N 92283A). HP 90-meter DDS cassettes are yellow and also are available in boxes of five (P/N 92283B). If you are uncertain as to the type of DDS media supported by your DAT drive, consult your User and Installation Guide or contact your HP representative

New workstation disk pricing

Effective January 1, 1992, Hewlett-Packard reduced prices of workstation disks. These disks connect to HP 9000 Series 300 and HP Apollo 9000 Series 400 and 700 CPUs. The prices put HP disks to within 10 to 13% of Sun Micro-system's recent price changes. Contact your HP representative for more information.

Product No.	Description
1.3-Gbyte disk products	
C2482A	Model 1350SX
C2492A	Model 1350SX upgrade; also fits Model 670SX
C2214B	Model 1350S
C2295	Model B1350S upgrade; also fits Model 330/660 S/D with Opt. OMG
C2217T	Model 1350SE
C2274T	Model 1350SE upgrade; also fits Model 670SE
677-Mbyte disk products	
C2481A	Model 670SX
C2491A	Model 670SX upgrade; also fits Model 1350SX
C2216T	Model 670SE
C2473T	Model 670SE upgrade; also fits Model 1350SE

HP optical library system support

The following support matrix details the operating system and host that currently support the HP Series 6300 Models 10GB/A, 20GB/A, 60GB/A, and 100GB/A optical libraries.

For the HP 9000 and HP Apollo 9000 systems, each library includes installation documentation and scripts necessary for their support on the Series 300/400, 700, and 800 with the proper operating system. Each library is now shipping an optical disk with the correct installation scripts to configure each library on the system.

HP AIMS supports the HP Series 6300 Models 20GB/M, 60GB/M, and 100GB/M multifunction library systems, not the rewritable versions.

Optical library support on HP systems

Platform	Model 20GB/A	Model 10GB/A	Model 60GB/A, 100GB/A	Model 20GB/M, 60GB/M, 100GB/M
Series 3001400	HP-UX 8 0	HP-UX 8.0	HP-UX 8.0	
Series 700	HP-UX 8.05	HP-UX 8.05	HP-UX 8.05	
Series 6001800	HP-UX 8.0, 8.02	Under investigation	1992	HPUW AMSO/AIMS: HP-UX 8.0.8.02
Series 900/XL	MPE/iX 3.01 TurboSTORE			
Series 400	Domain/OS 10.4 March 1992			

1.3-Gbyte and HP-IB DAT drives discontinuance

The 1.3-Gbyte small computer standard interface (SCSI) digital-audio tape (DAT) drive (P/N C1512A) will be removed from the May 1992 HP Price List. The HP-IB DAT drives (P/Ns C1511A and C1590A) will be removed from the July 1992 HP Price List.

The HP-IB DAT tape drives offer 1.3-Gbytes capacity on 60-meter DDS cassettes. They are used on HP 1000, 3000, and 9000 systems for unattended backup. These products are being replaced by the HP Series 6400 Model 2000 (P/N C1520B). See related article in this issue for information on this replacement product.

For 900 Series HP 3000 users, the future release of HP MPE/iX will provide SCSI support, making product number C1520B a viable and lower-cost solution for some users. For other HP-IB DAT users Hewlett-Packard's remarketing divisions will continue to provide an alternative source. For more information, contact your HP representative.

Product No.	Description	Replacement
C1512A	HP Series 6400 Model 1300S 1.3-Gbyte SCSI DAT drive	HP Series 6400 Model 2000 2-Gbyte SCSI DAT drive, P/N C1520B
C1511A	HP Series 6400 Model 1300H 1.3-Gbyte HP-IB DAT drive	P/N C1520B*

'This is a SCSI DAT drive. There will be no HP-IB version of this product.

¼-inch tape drive discontinuance

The %-inch HP-IB tape drives (P/Ns 9144A and 9145A) will be removed from the September 1992 HP Price List. The tape drives offer 67 and 133 Mbytes respectively and are used as low-cost tape backup solutions by HP 1000, 3000, and 9000 systems users. Software distribution, install, and update will continue to be supported for HP 9144A and 9145A users. The recommended low-cost tape backup replacement for these products is the new HP 2-Gbyte small computer standard interface (SCSI) digital-audio tape (DAT) drive. This is available as an integrated mechanism in various HP systems, HP mass storage subsystems, and as a standalone box product (P/N C1520B). This new SCSI DAT drive offers a higher capacity, higher performance product and will be supported for both unattended backup and software distribution on most HP systems. On HP Apollo 9000 Series 700 systems, the install and update capability on DAT are already available. In addition, software distribution as well as HP-UX install and update capability on DAT are being planned for HP 9000 Series 300 and HP Apollo 9000 Series 400 users in the next major 68K operating system release.
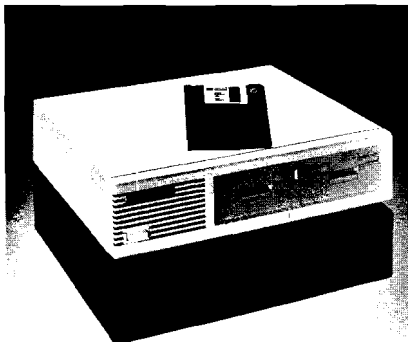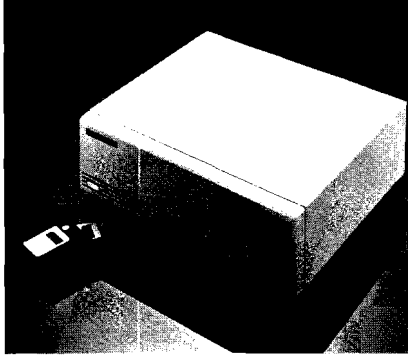
Contact your HP representative if you wish to purchase the %-inch drives after they have been removed from the HP Price List.

HP Personal Data Storage product family discontinuance

The HP Personal Data Storage product family will be removed from the July 1992 HP Price List. With the introduction of the HP 9000 Models S362/S382 and the R362/R382 integratable rack-mountable controllers, the need for low-capacity external HP-IB storage is being eliminated. With the move toward industry-standard interfaces, the demand for HP-IB is shifting to interfaces like the small computer system interface (SCSI).

There are no direct replacements for these external HP-IB products.

Other external solutions available are the HP Series 6000 Models 330S/D, 660S/D, and Models 670SE, 1350SE, and 1350S. Each of these models integrate multiple mechanisms into a single box using a SCSI interface. Check the individual system configuration guides for support. For more information, contact your HP representative.

Product No.	Description
9122C	2-Mbyte, 3%-inch microfloppy disk drive; standard version contains two drives
Opt. 001	Delete one microfloppy drive
9153C	
Opt. 010,020, 040	10-, 20-, or 40-Mbyte, 3%-inch hard disk drive with integrated 2-Mbyte, 3%-inch microfloppy disk drive
9153M	20-Mbyte, 3%-inch hard disk mechanism only
Original equipment manufacturer (OEM) products, contracts must be factory negotiated	
97501B	20-Mbyte, 3%-inch hard disk mechanism, intended for OEM sales
97502B	Hard disk controller for P/N 97501B, IBM PC/XT/AT compatible
97515C	Hard disk controller for P/N 97501B, intended for OEM sales

HP 7957B and 7958B discontinuance reminder

This is the final notice of the HP 7957B and 7958B product discontinuance. These products will be removed from the February 1992 HP Price List. Contact your HP representative if you *still* require these products.

Price changes on color printers, plotters

Prices on the HP PaintJet/HP PaintWriter series color printers and the small-format pen plotters listed here have changed. The new prices took effect January 1, 1992, with price protection for all orders placed by January 31, 1992.

Product No.	Description
3630A	HP PaintJet printer
Opt. 001	RS-232-C interface
Opt. 002	HP-IB interface
Opt. 004	Centronics parallel interface
C1602A	HP PaintJet XL printer
Opt. 1A8	HP-IB interface
C1607A	HP PaintJet XL font cartridge
C1662A	HP PaintWriter printer
7440A	HP ColorPro plotter
Opt. 001	RS-232-C interface
Opt. 002	HP-IB interface
17440A	Graphics enhancement cartridge
7475A	HP 7475A plotter
Opt. 001	RS-232-C interface
Opt. 002	HP-IB interface
7550B	HP 7550 Plus plotter
Opt. 005	HP-IB interface
Opt. 006	Centronics and RS-232-C interfaces

HP 7600 Series Model 250 plotter price reduction

Effective January 1, 1992, the price of the HP 7600 Series Model 250 plotter (P/N C1625A) was reduced.

Printers

New HP LaserJet IIISi printer for Apple Macintosh with EtherTalk

On January 6, Hewlett-Packard introduced the HP LaserJet IIISi printer for the Apple Macintosh with Etheffalk (P/N 33491A Option 003), allowing the printer to be used on high-speed EtherTalk networks.

Not only can the printer be hooked to EtherTalk networks, it can also be connected to Novell Ethernet networks with the use of Mac VAP 2.2 on Netware 286 and Mac NLM V.3.01 on NetWare 386 V.3.11. Postscript[a] jobs now can be printed from the MS-DOS side onto the HP LaserJet IIISi printer for the Macintosh with EtherTalk and vice versa Also on an EtherTalk/LocalTalk mixed environment with the use of existing routers, jobs can be printed on this printer.

This 16-page per minute (ppm) high performance EtherTalk printer is designed specifically for the Macintosh environment. Standard features include:

- 5 Mbytes of memory
- EtherTalk interface that supports BNC and AUI connections
- Integrated true Adobe® PostScript on SIMM
- 35 Adobe Type 1 typefaces
- HP written zoner utility that allows system administrators to

assign the printer to a specific zone of their choice

- *HP* written namer that allows system administrators to name any printer anywhere on the internet
- Macintosh System 6 and 7 printer resources

Key competitive advantages of the HP LaserJet IIISi printer for the Macintosh with EtherTalk include:

- *High speed printing* — This is currently the only 16-ppm printer with an EtherTalk interface using a RISC-based formatter and 5 Mbytes of standard memory.
- *Plug-and-play Macintosh compatibility* — The printer comes pre-configured with authentic integrated Adobe Postscript memory and EtherTalk interface and Hewlett-Packard's chooser-level printer resource for easy installation and access to all printer features.
- *Versatile and flexible paper handling* — The printer is designed to output 50,000 pages per month and comes standard with two 500-sheet input trays with a total input capacity of 1,000 sheets. A 500-sheet output bin is built into the top of the printer for correct order, face down output. An additional 50-sheet face up output tray also is standard.
- *Print jobs may be offset one inch for easy separation and location in the output tray* — Users also can activate a tray full sensor on the 500-sheet output bin.

Two additional convenient paper handling options are available to Macintosh users: the user installable duplex option that offers two-sided printing, selectable from the Macintosh or printer front panel; and the power envelope feeder that holds up to 100 envelopes. The feeder installs directly on the printer and serves as a third input source.

- *Best 300 dots per inch (dpi) print quality* — With the help of HP Resolution Enhancement Technology that smooths edges in text and graphics and microfine toner, available only in HP LaserJet IIISi printers, this printer challenges the print quality of many 600-dpi printers.
- *Price/performance* — All of these enhanced features and EtherTalk connectivity are available at an affordable price and provide you with excellent performance backed by Hewlett-Packard quality and support.

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

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New HP LaserJet IIISi printer EtherTalk upgrade kit

The HP EtherTalk interface upgrade kit (P/N C2059E) for the HP LaserJet IIISi printer is designed to allow the printer to be connected to Apple Macintosh computers and EtherTalk/Ethernet networks using the Postscript page description language.

The kit includes the following items: EtherTalk interface card, AppleTalk user guide, and printer resources disks including System 6.0 and 7.0 drivers, Aldus PageMaker® APD, and screen fonts utilities.

For the upgrade kit to work successfully, the HP LaserJet IIISi printer must;have a minimum of 2 Mbytes of standard memory and PostScript Release 6.4 B firmware (P/N 33494B) or greater. Release A Postscript firmware (P/N 33494A) will not work. Qualified kit users will be provided with a Postscript B upgrade at no cost. The upgrade procedure is outlined in the LaserJet IIISi AppleTalk user guide that accompanies this kit.

You can receive an HP LaserJet IIISi printer for the Macintosh with EtherTalk already preconfigured from Hewlett-Packard (P/N 33491A Opt. 003). See related article in this issue for more information.

PageMaker is a U.S. registered trademark of Aldus Corporation.

HP OpenSpool/UX supports LAN-connected HP LaserJet printers

HP OpenSpool/UX now also supports HP LaserJet Series II and III printers that are connected to an HP 9000 Series 800 business server through a local-area network (LAN). The operation of such printers is identical to printers connected via RS-232-C (serial) or Centronics (parallel) interfaces. Improved end-to-end print time performance for text and graphics and the higher connection flexibility as a result of LAN connectivity are the only visible differences to users.

This announcement comes simultaneously with Hewlett-Packard's announcement of the Network Printer Driver (NPX) software designed to provide LAN connection for HP LaserJet Series II and III printers attached to HP 9000 Series 800 business servers. By design, the NPX product will run only on HP-UX 8.0 or 8.02.

Effective January 1,1992,the prices of HP OpenSpool/UX for the HP 9000 Series 600 and 800 business servers increased in order to keep the price-per-user at a fair level compared to workstation users. Workstation prices of HP OpenSpool/UX were not affected.

New 19-inch monochrome X station

A new HP 700/RX 19-inch monochrome X station now can be ordered and is on the January 1992 HP Price List. The HP 700/RX Model 19Mi (P/N C2702B) includes a 19-inch monochrome display with 1,280 x 1,024 resolution,a RISC processor base unit, a PS/2 keyboard, PS/2 three-button mouse, and 4 Mbytes of DRAM.

Owners of previous models (P/Ns C2701A and C2702A) should upgrade the base unit with at least a 2-Mbyte SIMM (DRAM module). The minimum configured memory on these products is adequate for minimal functionality.The suggested memory upgrade is required to run applications such as HP VUE. This memory upgrade also will allow you to take advantage of future releases of X station server software. For more information, contact your HP representative.

Features and benefits

The previous product (P/N C2702A) included 2 Mbytes of DRAM while the present product (P/N C2702B) includes 4 Mbytes of DRAM. The increased amount of DRAM will allow you to take advantage of future X station server software releases. This will also allow for an increased number of application

windows. A monitorless version also is orderable (P/N C2701B) and replaces product number C2701A.

Product No.	Description
C2702B	HP 700/RX Model 19Mi, includes 19-inch monochrome display, 1,280 x 1.024 support, RISC processor base unit, 250-Kbyte VRAM, 4-Mbyte DRAM, PS/2 keyboard, PS/2 three-button mouse; replaces P/N C2702A
C2701B	HP 700/RX Model M i X station base, includes RISC processor base unit, 250-Kbyte VRAM, 4-Mbyte DRAM, PS/2 keyboard, PS/2 three-button mouse; replaces P/N C2701A

New software for HP 700/ RX stations adds features

Effective January 21, 1992, software Release B.03 is available for the HP 700/RX family of X stations. The HP 700/RX family of X stations offers industry price/performance leadership with a variety of color and monochrome X stations. This new version of server software offers unique features and functionality that will make the HP 700/RX family even more competitive in the X station market.

Release B.03 server software addresses user networking and software functionality needs, while complementing Hewlett-Packard's industry-leading performance. Software Release B.03 offers features and functionality that will be key differentiators against competitors such as Network Computing Devices (NCD) and Tektronix (TEK).

Features and benefits
The unique features allow for increased remote collaboration,

improved network security, and a wider variety of input devices.

- *HP SharedX* — allows increased productivity of X station users by allowing the sharing of applications with any other workstation or X station user on the network. Participants can communicate and share windows/data in real time
- *Client authorization/Magic Cookie* — improves network security through a client authorization mechanism that prevents unauthorized clients from accessing a server
- *Input extension support* — allows for use in a wider variety of environments by supporting core input devices other than the PS/2 HP-HIL keyboard and PS/2 HP-HIL mouse. Support now extends to devices like button boxes, tablets, and knob boxes. This release supports HP and MIT-type input extensions.

HP X stations are among the only in the industry to provide the following features. The features serve as key differentiators among competitive offerings.

Feature	HP	NCD	TEK	IBM	DEC
HP SharedX	Yes	No	No	No	No
Magic Cookie	Yes	Yes	No	No	No
Input extension	Yes	No	Tablet	No	No

- *Simple Network Management Protocol* — provides better network management by allowing a network administrator to query an HP X station for standard TCP/IP parameters and statistics and for terminal configuration parameters

- *Serial Line Internet Protocol (SLIP)* — allows *X* station dial-up capability by supporting serial connection via modem and telephone lines
- *ANSI terminal emulation* — gives access to a wider variety of applications by supporting VT100 functionality. This also allows the X station to be used as a system console device via serial connection. This terminal emulation operates offline.

The added functionality of the server software allows the HP 700/RX family to be even more competitive. This software release also demonstrates Hewlett-Packard's commitment to adding features and functionality.

Ordering information
The software release is available with product numbers C2715A, C2716A, C2718A, C2721A, C2722A, C2725A, C2726A, C2727A, and C2728A. If you currently are on software support services for these products, you will automatically receive Release B.03 after January 21, 1992.

HP SharedX media and manuals for the HP 700/RX family of X stations with hosts running HP-UX 8.0X must be ordered separately. If you use SLIP, you may require a ROM server card to boot the X station. This can be ordered as product number C2725A or C2727A.

The price of server software Release B.03 has been increased to reflect the increase in value-added features and functionality available with the new release. The Release B.03 server software tape still includes a site license; only one

copy of the server software is required per site, and there are no per-user license fees.

Software Release B.03 requires more memory than previous releases of server software. If you have the minimum configured 2 Mbytes of memory for product numbers C2701A and C2702A, you will require more memory to achieve the functionality that was realized with Release B.02. For more information, contact your HP representative.

HP 9000 Series 800 console obsolescence

The previously obsoleted devices listed here will no longer be s u p ported as a system console on HP 9000 Series 800 systems beginning with the future HP-UX release. Contact your HP representative for more information.

Product No.	Description
98720A	High-resolution display controller
98730A	High-resolution display controller
A1020A	2D graphics process adapter
C2300A	X-Window graphics terminal
Devices still supported as an HP 9000 Series 800 system console:	
C1002A	HP 700/94 block-mode terminal
C1001A	HP 700/92 block-mode terminal
2392A	Graphics display terminal
2393A	Graphics display terminal
2394A	Graphics display terminal
2397A	Graphics display terminal
C1010C	Chinese data entry terminal
C1010J	Japanese data entry terminal
C1010T	Taiwanese data entry terminal

HP SharedX available for HP 700/RX family of X stations
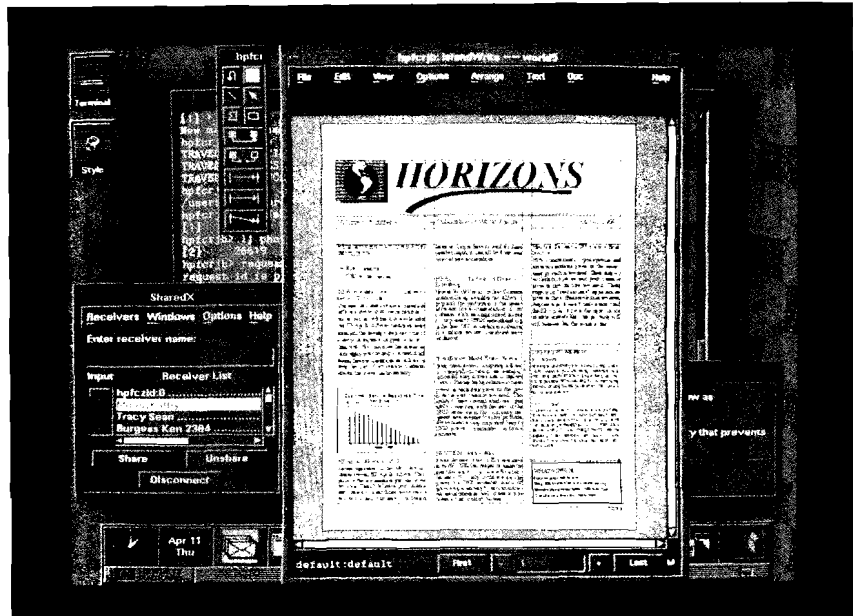
Now you can take advantage of the real-time collaboration capabilities of HP SharedX. Two new HP SharedX products are available that support HP SharedX on the HP 700/RX family of X stations with an HP 9000 Series 300, 600, or 800 and HP Apollo 9000 Series 400 or 700 host running HP-UX 8.0X and the new release of X-station server code B.03.

You can now share applications with any other workstation or X-terminal on your network. Each participant can see and input to the shared window. Only the originator of the sharing session (the sender) needs HP SharedX.

Each X-terminal running HP SharedX must have a license to use (P/N B2305L). Products can be ordered today and are available four weeks after receipt of order. For more information, contact your HP representative.

Product No.	Description
B2305L	License to use SharedX I.X on any platform
Opt. UAO	Single-node license
Opt. UA3	8-node license
Opt. UA6	24-node license
Opt. UA8	48-node license
Opt. UAA	96-node license
B2827A	HP SharedX media/manuals for HP 700/RX X stations with Series 300/400 host running HP-UX 8.0
Opt. AAO	Media on ¼-inch cartridge tape
Opt. AAU	CD-ROM certificate
Opt. OBJ	HP SharedX users guide
B2827A	HP SharedX media/manuals for HP 700/RX X stations with Series 600/700/800 host running HP-UX 8.0X
Opt. AAO	Media on ¾-inch cartridge tape
Opt. AA1	Media on ½-inch 9-track tape
Opt. AAH	Media on digital-audio tape
Opt. AAU	CD-ROM certificate
Opt. OBJ	HP SharedX users guide

HP SharedX available for direct purchase

For the U.S. **only**

HP SharedX is now available for you to purchase directly from Hewlett-Packard. HP Apollo DIRECT will accept your orders. In the U.S., call 800-637-7740 to place orders. Products will be shipped directly to you.

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

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Nashville (615) 255-1271

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Dallas (214) 231-6101
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