

# HP Computer Update

A Publication of Hewlett-Packard

June 1992

**New Corporate Business Systems offer mainframe performance at less than one-fifth the cost**

The **HP Apollo 9000 Model 705** is a new low-end, **PA-RISC based** color workstation for the entry-level **market**.

See **page 28**

The **HP Standard Instrument Control Library** is an I/O library for **instrument control applications** on **HP Apollo 9000 Series 700** and **HP 9000 Model V/300** controllers.

See **page 28**

New network-ready **HP Vectra 386/25N** PC — latest addition to **HP's** network-ready **PC family**.

See **page 34**

**HP OpenView Release 3** — the next generation of network and system **management solutions**.

See **page 41**

New **HP DTC** represents a **significant** step toward **making** the **DTC** the **chosen** server for **HP-UX**.

See **page 46**

 **HEWLETT  
PACKARD**

# HP Computer Update

Vol. 2, No. 6

June 1992

*HP Computer Update* is a monthly publication of Hewlett-Packard Company that provides information on new Hewlett-Packard computer software and hardware products, events, and promotions.

**Managing Editor: Tracy Wester**

Address editorial correspondence and address corrections to:

*HP Computer Update*  
P.O. Box 51827  
Palo Alto, CA 94303-0724

## 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.*

*Hewlett-Packard does not warrant the accuracy of the information provided in HP Computer Update and shall not be liable for any use made of the information provided herein. Information provided in HP Computer Update is subject to change without notice.*

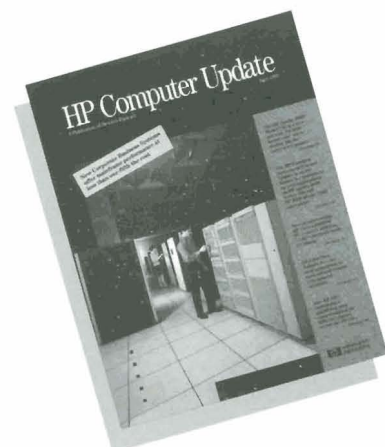
To order HP software or hardware products, call your HP representative. A telephone listing for sales offices in the U.S. and Canada appears on the back cover.

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

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

## On the cover . . .

The introduction of the new HP 9000 Corporate Business Server Model 890 and HP 3000 Corporate Business Systems Series 990 and 992 sets a new direction and supports and expands HP's high end. Mainframe alternatives and up to 80% lower cost of ownership are now available. See articles on pages 14 and 24.



**HP Computer Museum**  
**[www.hpmuseum.net](http://www.hpmuseum.net)**

**For research and education purposes only.**

**Management Perspective**  
5

**General News**

- 7** Events
- Strategic concerns of HP users
  - HP executive management seminar
  - U.K. object orientation and ObjectIQ seminar series

**Promotions**  
9

**HP 3000 Systems**

- 12** The open HP 3000 — the best commercial system
- Announcing the HP 3000 Corporate Business Systems
  - New HP 3000 Series 987
  - HP 3000 Corporate Business System DX data center solution
  - HP 3000 NFS interoperability testing
  - Networking enhanced with HP MPE/iX Release 4.0
  - HP Series 6000 HP-FL disk array support on HP 3000 systems
  - HP 3000 Series 9X7 memory enhancement
  - HP 3000 management with HP OpenView Network Node Manager
  - 3480-compatible tape drives supported on HP 3000 Series 990/992
  - HP Model 10 GB/A rewritable optical autochanger on HP 3000 CIO systems
  - HP OpenView Console: administration made easy

- HP 3000 field upgrade changes
- HP Premier Account Support
- NetBase brings disaster tolerance to HP 3000
- New HP TurboSTORE/iX II trial copy
- Peer-to-peer connectivity for HP LU 6.2 API/XL
- Return credits for high-end memory and I/O add-on products
- Reduced high-end memory prices

**HP 9000 Systems**

- 23** Making sense of the standards morass
- Introducing HP 9000 Model 890 Corporate Business Server
  - HP 9000 Corporate Business Server Model 890 upgrade program
  - Mainstream available on HP 9000 and HP Apollo 9000
  - HP EDA software discontinuance
  - HP EGS discontinuance

**Workstations**

- 28** New HP Apollo 9000 Model 705 color workstations
- Introducing HP Standard Instrument Control Library
  - Introducing GRAFPAK-GKS
  - HP ADVISE software migration tool
  - Video card for HP Apollo 9000 Series 700 workstations
  - HP Apollo 9000 Model 425e to 710 upgrades

- HP Apollo 9000 Series 700 Dual CRX multimonitor upgrade
- HP NCS 2 for Domain and OSF/1
- SoftPC 3.0 now shipping on Series 700 and 800
- HP FTAM/9000 on HP Apollo 9000 Series 700
- Wingz, Island Graphics, and Lotus obsolescence

**HP 1000 Systems**

- 33** HP 1000 A-Series microfloppy discontinuance

**Personal Computers**

- 34** New network-ready HP Vectra 386/25N PC
- HP Vectra 486U PC series — desktop PCs for Windows and CAD
  - Built-in support of Novell and MS LAN Manager remote startup in HP Vectra 386/N PCs
  - HP Vectra 486U, 486s, and 386s PCs rackmount kits
  - Display drivers for HP Ultra VGA+ video
  - HP's PC Instrument Tools for Windows integration service
  - HP's PC-300 Controller Integration service
  - HP Vectra RS/25C and HP Vectra 486/25T PC discontinuance
  - HP IGC 10 and IGC 20 Graphics Controllers discontinuance
  - HP PC-308 and PC-312 controllers replaced

## Networks

- 41** HP OpenView Release 3 for strategic NSM solutions
- HP OpenView Network Node Manager Release 3.0
- Introducing HP OpenView network and systems management platform products
- New HP OpenView Management Stations based on Release 3.0
- Ordering HP OpenView Windows/DOS products
- HP OpenView upgrade and support products
- A new step toward making the DTC the clear terminal server of choice for HP-UX

HP DTC surpasses competition with nailed ports

Management software requirements for enhanced HP DTC

New high-performance, low-cost HP EtherTwist PC LAN adapters

HP EtherTwist PC LAN Adapter lifetime warranty

HP Modular Adapter for HP 12-Port Hub Plus shipping

Throughput improvements for HP Resource Sharing

HP LAN Manager for OS/2 upgrade program ending

HP EtherTwist 8-bit LAN Adapter price decrease

## Peripherals

### 50 Mass Storage

New SCSI-2 8.0-GB data compression DAT for HP Apollo 9000 Series 700 workstations

Ordering options for disk storage products and kits

New HP 3000 and HP 9000 external storage prices

"HP 1.3-GB DAT upgrade kit discontinuance" correction

# Management Perspective



When the *HP Computer Update* editor asked me to write an article on open systems, I must admit that I took on the challenge with a fair degree of trepidation. As a topic, it's right up there with quality and productivity. It's good stuff, but the kind of topic that is often discussed in vague, indefinite terms. So, since

you are not a captive audience, I'll try to be as specific as I can and talk about open systems as a reality rather than as a promise.

First, a definition is probably in order. My boss, John Young, defines open systems as "the technical equivalent to teamwork." More specifically, an open system is a network of heterogeneous computers that can work together as if they were a single integrated whole. I can hear you now . . . "So, what?" A fair question. So, let me try to answer it.

Open systems hold different appeals for different people. From the MIS perspective, open systems mean that MIS directors don't have to apologize to their CEOs for the technical choices they've made in the past. Because open systems can allow us to continue realizing value from our significant installed base of hardware and software. For others, the appeal of open systems lies in their ability to reduce dependence on any particular vendor. Then there are those who are involved in global markets and see open systems as a "weapon" for breaking down the barriers of time and distance — thus allowing computers and information systems to be a full participant in the realization of a global economy. Finally, there are the many third parties that hope that open systems will allow everyone to capitalize on their significant product contributions. Personally, I think the ultimate benefit of open systems is their ability to break down the artificial barriers that have prevented us from harnessing the full power of computers and to finally maximize the return on the

zillions of dollars we have invested in them. If open systems can help us do that — and I think they can — then their promise is very great indeed. But will the promise become a reality? Have we made any progress? The answer is "Yes."

First, there have been a number of meaningful standards and standards organizations put in place to facilitate the realization of the open systems promise. OSI, OSF™, X/Open\*, COS, POSE, the SQL Access Committee, and others are beginning to deliver on the promise. HP's own "Openview" network management tool has been licensed by IBM and chosen by OSF as a key part of its Distributed Management Environment. So, there's no question that a great deal of progress has been made and that there is not a single hardware or software vendor that is not trying to introduce products compatible with the open systems vision.

But I must ask, as you probably do, whether open systems are enough. And I believe the answer is a qualified "I don't think so." I don't believe that open systems alone will make information systems more responsive. They won't necessarily lead to breakthrough improvements in software development times. They won't eliminate that troublesome backlog of user requests. And they won't make the job of day-to-day software maintenance easier. I believe that the real answer to these problems lies in a new computing paradigm that must be combined with open systems — client-server computing.

While open systems alone fall short of delivering true business benefits, client-server computing in a proprietary environment doesn't solve the problems that open systems can. Together though, the two can offer a tremendous potential for delivering business benefits in a timely manner.

The term "client-server" refers to an architecture in which some components request services and other components deliver those services. Both components can be widely distributed across the network, and they can be heterogeneous or "open."

*continued on next page*

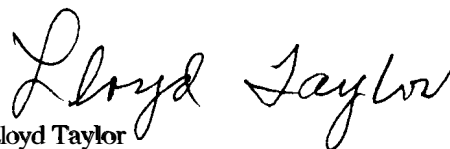
We at HP MIS are fully committed to this architecture. In fact, all our significant new development is being delivered in a client-server architecture that is heterogeneous. But I can assure you that we didn't move from a blank piece of paper to full adoption of this architecture in one step. Like everyone else, we started with some experiments. And when we began, we assumed that this architecture was going to be more complex, that it would be hard to learn and would take lots of training, and that it would take longer to develop applications in this environment. But we wanted to try. Why? Because we also assumed that the benefits of this architecture would include lower costs, easier-to-maintain software, and tighter controls. So we experimented. The result: Our experiments confirmed nearly all of our assumptions as to benefits, and provided some pleasant surprises, as well. For example, contrary to our original assumption, a client-server computing paradigm actually led to faster application development. We also found that the client-server architecture offered enormous potential for reusability, especially in the code that is enabling in nature. And finally, client-server computing turned out to be a simpler architecture. When coupled with modularity and reusability, we found that it was much easier to do system integration and testing.

So from HP's perspective — and more importantly, from HP's experience — the potential for the open systems/client-server computing paradigm to deliver real business benefits in a timely manner is enormous. This is not to say that this combination solves all problems or that all of the pieces necessary to make it effective are currently available off the shelf in the marketplace; but I can promise you that the benefits

are so significant that you would be doing yourselves and your company a considerable service if you at least try an experiment using heterogeneous clients or servers. This way, when you're finished, you'll be able to see the power of both open systems and client-server computing.

Now, maybe you're reluctant to try such an experiment on that new application your business partners have been clamoring for over the last several months or years. OK, maybe I wouldn't take that risk either. In fact, our very first experiment was to reengineer an existing application into a client-server architecture implemented across heterogeneous platforms. We literally took the existing application and cut the code apart implementing portions on the client and portions on the server within our predefined architecture. What resulted was a reengineered client-server application accomplished in an elapsed time of eight months, using two development teams totaling less than a dozen people.

Our experiments have convinced me that the combination of open systems and client-server computing offers the IT community the best way to quickly and responsively align our function to support our organization's business goals. It offers us a chance to position ourselves as enablers of change — not impediments, not cost centers — but a very real strategic resource. By the way, if you're willing to experiment, HP would be delighted to help.



Lloyd Taylor  
Director, Corporate Information Systems

*OSF is a trademark of the Open Software Foundation in the U.S. and other countries.*

*\* X/Open is a trademark of X/Open Company Limited in the U.K. and other countries.*



Events

## Strategic concerns of HP users

# INTEREX

INTEREX, an independent worldwide association of Hewlett-Packard computer users, surveyed 3,270 MIS and higher level managers in the U.S., Canada, and Mexico in mid-January. Based on the 22% response rate, the voice of HP users was represented by \$700 million budget dollars per year.

The managers surveyed cited the following top 10 strategic concerns:

1. Database technology
2. Open systems and industry standards
3. Professional development
4. Application development
5. Interoperability and network integration
6. Performance and capacity
7. LAN operations
8. UNIX® standards
9. Distributed data
10. Data management

The survey's preliminary results revealed that MIS Managers' concerns of both open systems and migration increased sharply this year. Although responses came predominantly from MPE users, "concern over UNIX standards went from being the nineteenth concern in 1991 to being the eighth concern

in 1992. That is an incredible jump," said Jeff Zajas, INTEREX MIS director. Zajas also noted that this year's survey revealed "29% of those who answered the question 'Are you migrating in 1992?' said 'yes.' This shows that the cost of maintaining old technology, coupled with the high performance and cost benefits of new technology, has made migrating to MPE/iX and HP-UX more attractive," interpreted Zajas.

The survey also revealed that MIS managers were spending significant amounts of time on projects relating to PCs, system security, data management, performance, and capacity.

New to the survey in 1992 was the tracking of business concerns "such as product delivery, ease of installation, and cost of hardware and software contracts," said Zajas. Polling these concerns allows INTEREX to "better understand what the business community's needs are and relay that to HP," Zajas stated.

HP values INTEREX as a viable channel of communication between the company and its customers. To this end, INTEREX is continually developing advocacy and support programs that address issues expressed in the Strategic Concerns Survey.

One of the most valuable support programs INTEREX offers is the annual release of Contributed Software Libraries (CSLs). The

libraries contain hundreds of user-written programs and applications that have been contributed to INTEREX, tested in real-world environments, and then made available to members through an annual release. The INTEREX technical staff offers telephone support for the RTE, HP-UX, and MPE CSLs.

INTEREX offers many additional support services to HP users. For example, publications bring users varied yet in-depth information on HP computing. *Interact* focuses on HP computer users in both business and technical environments, providing third-party product information and featuring technical MPE and HP-LIX articles written by users. Real-Time Interface for RTE users serves HP computer users in technical real-time environments. *INTEREXPress*, a monthly news publication, features timely industry and product news, updates members about INTEREX services and events, and informs them of affiliated user group activity.

Conferences are another important means of information exchange between HP and users. INTEREX's annual International HP Users Conference is the largest gathering of HP users and vendors in the world and features presentations from HP representatives and fellow users dealing with topics of interest. Also at the conference, high-level HP management answers questions and hears concerns of attendees at the HP Management Roundtable.

*continued on next page*



This year's conference will be August 24-27 in New Orleans, Louisiana. Conference registration information is available from the INTEREX Conference Department.

INTEREX and HP continually work together to identify needs and provide products and services that support HP's users. Call 800-INTEREX for a free MPE CSL demo disk, free sample of *Interact* magazine, or a summary of the 1992 Strategic Concerns survey, complete with charts and graphs of the survey results.

*UNIX is a registered trademark of UNIX System Laboratories Inc. in the USA and other countries.*

- 
- 
- 
- 
- 
- 

## HP executive management seminar

HP's Software Engineering Systems Division will host the next Software Engineering Management Seminar September 2-3 in Burlington, Massachusetts. The seminar is targeted at directors and vice presidents with software engineering responsibility from principal and target accounts. The seminar focuses on HP's software practices. HP managers will share tools and methods for achieving quality software. The seminar is an opportunity for users to become familiar with HP and HP's CASE program.

Contact your HP representative for registration information.

## U.K. object orientation and ObjectIQ seminar series

*For Europe only*

A seminar entitled "Introducing Object-Oriented with ObjectIQ" will be given during June and July at six locations in the U.K.: London, Bracknell, Edinburgh, Manchester, Birmingham, and Bristol. The seminar introduces the benefits of object orientation and HP's role in the technology. It describes the background of ObjectIQ, an object-oriented rapid applications development tool kit.

The seminar is aimed at explaining the significance of object-oriented technology and how to take the next step in its implementation. It introduces ObjectIQ and the services, training, and consulting that can be offered to support its use. Services will be delivered by HP's European Knowledge Systems Center (EKSC) based in Bristol, U.K.

Contact your HP representative for more information.

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

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

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

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

#### HP 3000 Systems

##### HP 3000 Series 957 **end** Backlog Protection

If you have HP 3000 Series 957 orders in the backlog as of April 1, 1992, you can save on the price of an HP 3000 Series 967 when purchased.

- **Scope:** Worldwide (check with your HP representative for local availability)
- **Eligible products:** P/N A1710A
- **Start date:** April 1, 1992
- **End date:** June 30, 1992
- **Promotion number:** 2.623

##### HP 3000 Series 947 **end** Backlog Protection

If you have HP 3000 Series 947 orders in the backlog as of April 1, 1992, you can save on the price of an HP 3000 Series 957 when purchased.

- **Scope:** Worldwide (check with your HP representative for local availability)
- **Eligible products:** P/N A1709A
- **Start date:** April 1, 1992
- **End date:** June 30, 1992
- **Promotion number:** 2.624

##### Why Wait — Series 980 **new** to HP 3000 Corporate Business System upgrade

If you are upgrading your recent HP 3000 Series 980 system (shipped on or after December 1, 1991) to the HP 3000 Corporate Business System, you are eligible for promotional credits on the Series 980 system.

- **Scope:** Worldwide (check with your HP representative for local availability)
- **Eligible products:** P/Ns A18094 A1811A, processor options 881, 882, 883, 884, plus Series 980 return credit/product options 725, 726, 727, or 728
- **Start date:** May 1, 1992
- **End date:** September 30, 1992
- **Promotion number:** 2.634

##### HP 3000 Series 950/ 955/960/980 **change** Delivery Incentive

If you are upgrading your HP 3000 Series 950, 955, 960, or 980 system to the HP 3000 Corporate Business System, you are eligible for promotional credits on the Series 980 system. You must take delivery of the Corporate Business System by October 31, 1992.

- **Scope:** Worldwide (check with your HP representative for local availability)
- **Eligible products:** P/Ns A1809A, A1811A Opts. 880, 881, 882, 883, 884 plus return credit option for one Series 95X, 960, or 980
- **Start date:** May 1, 1992
- **End date:** September 30, 1992
- **Promotion number:** 2.635

##### HP 3000 Series 6X/70 **new** Installed Base Upgrade

If you own an HP 3000 Series 64, 68, and 70 and are upgrading to the Series 937/LX, 947/LX, 957/LX, 9671 LX, 977, or 987, you can receive 10% off the SPU, integrated peripherals, DTC and associated ports, rack cabinets (P/N A1883A/84A), and associated options, as well as 15% off selected software products.

- **Scope:** U.S., Canada, and Europe (check with your HP representative for local availability)
- **Eligible products:** P/Ns A1707A/08A/09A/10A/52A/57A/58A/72A, A2300A/17A
- **Start date:** June 1, 1992
- **End date:** October 31, 1992
- **Promotion number:** 2.641

**HP 3000 Series 925/LX, 935,950 Installed Base Upgrade** *new*

If you own an HP 3000 Series 9251 LX, 935,950 and are upgrading to the HP 3000 Series 937/LX, 947/LX, 957/LX, 967/LX, 977, or 987, you can receive 10% off the SPU, integrated peripherals, DTC and associated ports, rack cabinets (P/N A1883A/84A and associated options, as well as 15% off selected software products.

- **Scope:** U.S., Canada, and Europe (check with your HP representative for local availability)
- **Eligible products:** P/Ns A1707A/08A/09A/10A/52A/57A/58A/72A, A2300A/17A
- **Start date:** June 1, 1992
- **End date:** October 31, 1992
- **Promotion number:** 2.642

**Workstations**

**Measurement Coprocessor Software Upgrade**

If you purchase an upgrade to HP BASIC 6.2 for your measurement coprocessor, you can receive a copy of HP BASIC Plus and HP BASIC 6.2 upgrade at a promotional price.

- **Scope:** Worldwide (check with your HP representative for local availability)
- **Eligible products:** P/Ns 82300U, E2160A, and either Option AA8 or AA9
- **Start date:** March 1, 1992
- **End date:** August 31, 1992
- **Promotion number:** 2.609

**HP 9000 Series 300 Trade-up**

If you purchase an HP A2240A or A2251A and trade in your HP 9000 Series 300 or 200, you can receive a promotional discount per unit traded in.

- **Scope:** For North America only
- **Eligible products:** P/Ns A2240A/41A/42A/50A/51A
- **Start date:** March 1, 1992
- **End date:** September 30, 1992
- **Promotion number:** 2.613

**HP GlancePlus UX Trial Software Kit Discount** *change*

If you purchase an HP GlancePlus UX license within 90 days of purchasing an HP GlancePlus UX trial software kit, you can receive a promotional discount off the price of the software license.

- **Scope:** For North America only
- **Eligible products:** P/Ns B1790A, B2660A, B1791A, B2661A, B1807A, B2804A
- **Start date:** April 1, 1992
- **End date:** December 31, 1992
- **Promotion number:** 2.626

**HP Design Plus Workstation Furniture**

If you purchase a quantity of three, any combination of eligible products, you will receive a task chair at no additional charge.

- **Scope:** For North America only
- **Eligible products:** P/Ns 92213B/F and 92214K (workstation tables), 92214A/B/C (system tables), 92211N/R (cabinets)
- **Start date:** May 1, 1992
- **End date:** October 31, 1992
- **Promotion number:** 2.630

**Buy a Model 720/730 and X Station — receive memory discount** *new*

If you order an HP Apollo 9000 Model 720 (P/N A1933A) or a Model 730 (P/N A1950B) server with 64 MB of RAM and at least one X Station configuration (on the same order), you can receive a promotional discount on 32 MB of the 64 MB of memory ordered. Also, if you order SoftBench (P/N B2600A), you can receive a 10% discount per license ordered.

- **Scope:** For North America only, Mexico, and Latin America only (check with your HP representative for local availability)
- **Eligible products:** A1933A, A1950B, B2600A
- **Start date:** June 1, 1992
- **End date:** October 31, 1992
- **Promotion number:** 2.645

**Software Transfer Program** *new*

If you are moving from an HP 9000 Series 300/400 HP-UX platform to an HP Apollo 9000 Series 700 PA-RISC platform, you are eligible to transfer software licenses and receive the discounts on the Series 700 products.

- **Scope:** Worldwide (check with your HP representative for local availability)
- **Eligible products:** Too many to list here, check with your HP representative
- **Start date:** June 1, 1992
- **End date:** November 30, 1992
- **Promotion number:** 2.648

## Personal Computers

### HP Instrument BASIC for Windows Introductory Offer

If you purchase HP Instrument BASIC during the promotional time period, you are eligible to receive a discount.

- **Scope:** For the U.S. only
- **Eligible products:** P/N E2200A
- **Start date:** March 1, 1992
- **End date:** August 31, 1992
- **Promotion number:** 2.614
- **Redemption:** Available only by contacting HP DIRECT at 800-452-4844

### HP-IB for Windows and MS-DOS Introductory Offer

If you purchase HP-IB for Windows and MS-DOS® during the promotional time period, you are eligible to receive a discount.

- **Scope:** For the U.S. only
- **Eligible products:** P/N 82335B
- **Start date:** March 1, 1992
- **End date:** August 31, 1992
- **Promotion number:** 2.615
- **Redemption:** Available only by contacting HP DIRECT at 800-452-4844

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

## Networks

### System Management Installed Base Program

If you are an HP system management installed based customer, you can receive eligible evaluation copy software at no charge.

- **Scope:** Worldwide (*check with your HP representative for local availability*)
- **Eligible products:** Check with your HP representative
- **Start date:** April 1, 1992
- **End date:** July 31, 1992
- **Promotion number:** 2.625
- **Redemption:** Available also by contacting HP DIRECT at 800-225-5290 in the U.S.; for other countries contact local HP DIRECT offices

## Peripherals

### Line Printer Trade-in Program

If you purchase an eligible line printer, you can trade in an HP line, impact dot matrix, or a competitive line printer and receive credit.

- **Scope:** For Europe and Mexico only
- **Eligible products:** P/Ns C2562C/63C/64C/66C/67C
- **Start date:** February 1, 1992
- **End date:** July 31, 1992
- **Promotion number:** 2.608

### HP Block Mode Terminal Trade-in

If you purchase a minimum of five HP 700/96 or 700/98 block mode terminals, you can trade in your old HP 3000 block mode terminals and receive a trade-in credit. One trade-in credit per eligible terminal order.

- **Scope:** Worldwide, except for Mexico (*check with your HP representative for local availability*)
- **Eligible products:** P/Ns C1064A/G/W, C1065A/G/W, C1084W, C1085W. Block mode terminals: 262X/4X, 239X, 700/92, 700/94
- **Start date:** March 1, 1992
- **End date:** August 31, 1992
- **Promotion number:** 2.611
- **Redemption:** Available also by contacting HP DIRECT at 800-225-5290 in the U.S.; for other countries contact local HP DIRECT offices

### Byte for Byte — Disk Drive Trade-in **new**

If you order any of the eligible multiuser C225X disk arrays, you can trade in "byte for byte" eligible HP disk drives and receive trade-in credit.

- **Scope:** North America, Latin America, Europe (*check with your HP representative for local availability*)
- **Eligible products:** P/Ns C2252B/HA, C2254B/HA; trade in: 7933/35/36/37, C2200/01/02/03/04
- **Start date:** May 1, 1992
- **End date:** October 31, 1992
- **Promotion number:** 2.636

## The open HP 3000—the best commercial system

The HP 3000 is one of the most durable success stories in the information processing industry. In September of 1992, the HP 3000 will mark the 20th anniversary of the start of HP 3000 shipments. Throughout its history, the HP 3000 has provided the industry with a number of important firsts. The HP 3000 was the first mini-computer to offer an integrated database — IMAGE. IMAGE is now TurboIMAGE and is the information foundation for literally thousands of businesses worldwide. The HP 3000 was the first commercial system to adopt a RISC (Reduced Instruction Set Computing) architecture. The adoption of PA-RISC, a RISC architecture extended for the commercial environment, has allowed the HP 3000 to lead the industry in performance, price/performance, and reliability. While HP 3000 users reaped the performance and reliability benefits of the PA-RISC architecture, they also enjoyed complete object code, command, and job-control language compatibility with their previous generation HP 3000 systems. The recently introduced HP 3000 Corporate Business Systems provide performance that rivals that of large water-cooled mainframe systems yet require a fraction of the power, cooling, and floorspace with a significantly reduced cost of ownership as well.

The last two years have witnessed dramatic changes in the world of computing; the emergence of wide-spread and widely used standards

have allowed greater interoperability between heterogeneous systems and also lessened the dependence of computer users on any particular vendor. This industry trend is frequently referred to as Open Systems.

At the same time that Open Systems has emerged as a recognizable theme in the industry, the HP 3000 has embraced open systems as a strategic direction for the HP 3000. From 1989 onwards, virtually all new HP 3000 development and recruitment of application development toolsets or application solutions have been consistent with the adoption of open systems standards. De facto standards (PC networking, third-party databases, 4GL, and client/server toolsets), official and consortia-based standards (CCITT X25, TCP/IP, IEEE 802.3, IEEE POSIX, Open Software Foundation™ Distributed Computing Environment), and IBM System Network Architecture (LU 6.2, PU 2.1, SNADS) are all dominant components of the HP 3000 open systems strategy. The HP 3000 open systems strategy is above all a pragmatic approach to open systems; virtually no one would assert that IBM SNA standards are true open systems standards and are proprietary in the truest sense of the word. However, since interoperability is the primary open systems benefit desired by 70% of open systems survey respondents and IBM continues to be the world's largest computer vendor, a pragmatic approach to open systems requires the ability to interoperate with IBM systems.

Interoperability and portability are the two benefits most desired by open systems survey respondents. Interoperability refers to the ability to communicate via networking with unlike systems. The HP 3000 today provides one of the most robust and complete set of networking products in the industry. From the mainframe to the desktop, there is virtually no system the HP 3000 is not able to communicate with. Protocol families supported by the HP 3000 include ARPA, OSI, SNA, IBM Bisync, Novell, and LAN Manager with AppleTalk support coming in 1993.

Portability, while currently viewed as less critical than interoperability, is nevertheless an important benefit of open systems. Portability refers to software portability whereby software is easily moved from one platform to another. Portability requires that different systems provide similar or identical software interfaces. The idea of software portability became popular after UNIX became widely used in the academic environment. UNIX is written in a high-level language (C) and has been ported over the years to a number of different hardware platforms. However, while highly portable, UNIX tends not to have the performance and robustness desired by commercial computer users. To address this issue, the IEEE, under charter from ANSI, is developing a set of standard operating system interfaces under the umbrella term POSIX (Portable Operating System Interface). In developing several of the first operating system interface standards, the IEEE POSIX committee

sought to provide the best of the two most widely used versions of UNIX in the market: AT&T System V and Berkeley UNIX. The results of this are two POSIX standards: POSIX.1 and POSM.2.

POSE.1 defines a standard **programmatic** interface to be used by application programs. It also defines the directory structure, a hierarchical directory structure similar to that used by UNIX today. The POSIX.2 standard defines a standard user interface and provides features from the two most popular UNIX shells today: the Bourne and Korn shells. The **HP 3000**, along with other popular commercial operating systems, is providing support for both POSE.1 and POSIX.2. A POSIX developer's **kit** for the **HP 3000** has been available since late 1991 and volume end-user shipments are expected to begin in the second half of 1992.

While the support of operating system standards, such as POSIX, is important for software portability, POSE is only part of the environment that is becoming the de facto standard for software portability. X-Windows and OSF/Motif are likely to become de facto user interface standards for UNIX workstations; these standards are already supported on the **HP 3000**. Berkeley Sockets is likely to be one of the dominant **networking** interfaces for process to process communication. Berkeley Sockets are supported on the **HP 3000** as of the middle of 1992.

In addition to supporting leading official and de facto standards for **interoperability** and software portability, the **HP 3000** has recruited a large number of UNIX **4GL** toolsets, UNIX **4GL** client/server toolsets, and UNIX applications. **Uniface**, one of the best-known **4GL** application development toolsets for UNIX in Europe, is in beta-test for the **HP 3000** and **will** be shipping in volume in the second half of 1992. SAP, one of the largest and best-known software suppliers in Europe, recently ported to the **HP 3000** from UNIX. A large number of additional UNM toolsets and applications are currently in the process of porting to the **HP 3000**.

While HP is today adding the interfaces that provide for the portability of UNIX software to the **HP 3000**, thus protecting the current investments of **HP 3000** users while providing greater choice and availability of applications on the **HP 3000**, future plans include the incorporation of key technologies from the Open Software Foundation, technologies such as OSF's Distributed Computing and Distributed Management Environments. OSF DCE **will** be a key enabling technology for **distributed transaction** processing and OSF DME **will** allow for the management of systems and applications in a network of distributed systems.

Although many of the new standards supported on the **HP 3000** are standards that originated in UNIX environments, it is not the objective of the **HP 3000** Open Systems program to make the **HP 3000** a UNIX system. For users who desire UNIX, HP today offers the best

UNIX systems on the market. MPE/iX is today superior to UNIX in its ability to handle large numbers of users, in its ability to perform batch processing, its **high-performance** and robust file system, and in the transparent **data** integrity provided by the MPE/iX integrated transaction manager. The objectives of the **HP 3000** Open Systems program are to provide **interoperability** second to none, provide easy portability of UNIX applications to the **HP 3000**, and allow for the development of applications on the **HP 3000** which are easily ported to other open systems. In this way, UNIX applications and UNIX users are provided with a familiar environment that also provides the features and functionality that have made the **HP 3000** the number-one system in industry in terms of reliability, **price/performance**, **service** and support, and overall user satisfaction.

The **HP 3000** has provided software compatibility and investment protection for nearly 20 years. It provides today the most advanced architecture in the world for commercial data processing. The **HP 3000** is ranked tops in user satisfaction, **price/performance**, reliability, and **service** and support. With open system. on the **HP 3000**, open systems users can enjoy the same benefits as today's **HP 3000** users, and **HP 3000** users enjoy the benefits of open systems on a top-ranked commercial system.

*Open Software Foundation is a trademark of the Open Software Foundation in the U.S. and other countries.*

## Announcing the HP 3000 Corporate Business Systems



*The HP Corporate Business System is designed to be integrated into data centers. In the center background, the HP system is shown coexisting in this data center environment with IBM and Amdahl mainframes.*

Hewlett-Packard recently introduced a new **high-end** platform for the **HP 3000**, the **HP 3000 Corporate Business System**. If your organization has not considered using high-end **HP 3000** systems before, read on —this could be an excellent time to consider making that investment in your business success.

The Corporate Business System is the latest entry in a two-year campaign to strengthen HP's data center offering. The first step was the Series **980** one-to-four-processor systems, which provided **high-end** performance to handle applications that previously required IBM mainframes. With the introduction of this new platform, we've taken another big step **forward**. The **HP 3000 Corporate Business Systems** are highly functional, highly expandable computers offering superior value and ease of use for their power class.

For installed base users, a move to the **HP 3000 Corporate Business System** offers power, **generally 60 to 70%** more performance across comparable multiprocessor levels than the current **high-end** systems. In addition, they offer over twice the **configurability** and connectivity of current Series **980** systems, high interoperability with **mainframe** computers, and **data center** functionality for ease in integrating the **HP 3000** into a data center environment. **An intelligently** planned, modular design means that this platform will continue to support your **high-end** processing requirements and protect your investments well into the next century. Users can expect a Compound Annual Growth Rate for **high-end** performance of **100%** per year through the late **1990s**.

The Corporate Business System is therefore an excellent choice for offloading applications from expensive mainframes, for upgrading existing **HP 3000 high-end** systems through upgrades, or for consolidating two or more smaller machines to a single, larger system. If you were to **offload** selected mission-critical applications from your mainframe onto the **HP 3000 Corporate Business System**, your computing costs could be cut to as little as **one-fifth** of a mainframe level. For example, an IBM ES/9000 Model **740** has a three-year cost of ownership of **approximately \$15 million**, whereas the highest performing **HP 3000 Corporate Business System** has a three-year cost of ownership of **\$2.7 million**. **That's** quite a savings. The **HP 3000 Corporate Business System** also requires only one-twentieth the floor space of a large **water-cooled mainframe**.

**This** new **HP 3000 Corporate Business System** is the highest performing platform ever introduced by Hewlett-Packard and is among the fastest business systems on the market today. The five performance levels of the **HP 3000 Corporate Business System** range from a **114-TPS** entry-level uniprocessor to a four-way multiprocessor attaining over **400 transactions** per second.

All of these **HP 3000** models are available in a "DX" package which includes a window-based PC system console and high-functionality software for automatic recovery management, performance **manage-**ment, and unattended on-line parallel backup.

The Corporate Business Systems are designed for balanced system performance. The system bus, for example, is 10 times faster than that of the Series 980, and the I/O channel throughput is almost 13 times greater. And with its reduced physical I/O activity, MPE/iX provides an ideal environment for robust interactive workloads such as on-line transaction processing, as well as for demanding batch workloads such as MRP.

Other new HP 3000 functionality includes:

- *High availability functionality with bullet-proof software* — Thanks to an ongoing commitment to software excellence on the HP 3000, MPE/iX's resilience against failure continues to increase. For instance, "Try/Recover" routines have been implemented in more places to reduce total system failures caused by application and operating subsystem failures. Another new feature, called "Aggregate Parallel Recovery," dramatically reduces recovery time at system bootup and reduces time to switch between SPUs with SPU Switchover.
- *High availability functionality with NetBase* — In conjunction with Quest Software, only the HP 3000 offers the NetBase software solution. By linking multiple HP 3000 systems together, NetBase provides performance growth while supporting automatic load leveling among the systems. And with the ability to support an expanded data center over a broad geography (via wide-area network), a high degree of disaster tolerance is provided in the event of a catastrophe.

- *Data center functionality* — HP's strong systems and network management capabilities offer ease of operations through a comprehensive suite of integrated data center management tools. A new addition to our offering is our OpenView Console.

- *OpenView Console* — The OpenView Console is a special high-end console for the new HP 3000 Corporate Business System DX that is based on OpenView System Manager. HP OpenView Console provides highly effective tools for automated operations. OpenView Console functionality is particularly important for your high-end computing needs.

As configurations grow, there are so many messages generated that it can be difficult for an operator to deal with them. Using color, icons, and windows technology, our OpenView Console can help your operators to deal with these messages more easily. It offers task-based filtering, exception-based reporting, and automatic responses that increase the efficiency of systems management. Task-based filtering, for example, allows you to set up separate consoles for tape messages, printer messages, and system messages if you desire.

- *New peripherals* — High-end peripherals are another important element in the success of your data center operations. Last fall, HP introduced its new 100-ppm data center printer, the F100. The next addition to our portfolio of offerings comes from StorageTek, the industry's premier name in IBM 3480-compatible backup

devices. This new product will be available on the HP 3000 in late summer of this year. It will offer you a high performing backup device for use in your company's data center. Data interchange with mainframe systems will be an additional benefit because of its compatibility with IBM 3480 tape systems.

- *Support services* — HP has also introduced Premier Account Support for Corporate Business Systems as part of our new worldwide, comprehensive support solutions for data center environments. Building upon HP's strengths in service and support, these high-end support services give you the assurance of maximum uptime, complete coverage, and technology leadership, all at a single fixed price. Highlights include immediate, around-the-clock responses to your requests for hardware, software, and networking support, a dedicated account team that is thoroughly familiar with your business and technical support requirements, and a partnership approach that focuses on your total data center needs, for both the present as well as the future.

Hewlett-Packard looks forward to helping you successfully implement your largest applications. The Series 980 has been used successfully in a wide range of business-critical installations worldwide. With the HP 3000 Corporate Business Systems, and your continued trust, we plan to build further on these mutual successes.



## New HP 3000 Series 987

The HP 3000 Series 987 (P/N A2317A) is an extension to the Series 9X7 platform offering 20–30% more performance than the Series 977. It is for midrange and high-end users requiring high performance for online transaction processing applications at a competitive cost of ownership. A field upgrade (P/N A2318A) is also available.

### Ordering information

Product No.	Description
A2317A	HP 3000 Series 987 preconfigured integrated system (includes 96-MHz processor with integrated floating-point capability, 96-MB ECC memory, 12-slot package, 1.3-GB embedded disk drive, 2.0-GB DAT embedded tape drive, Series 9X7 documentation, HP 700192 console, 100-user license, HP MPE/iX, HP TurboIMAGE, and HP SQL)
A2318A	Field upgrade to Series 987 (includes class/concurrent license to use, HP MPE/iX on Series 987 by 1–100 users)

Many user options are available for these two products. Check with your HP representative for more information.

## HP 3000 Corporate Business System DX data center solution

The HP 3000 Corporate Business System DX (P/N A1809ADX) version of the HP 3000 Corporate Business System; includes high-functionality software for the data center as a standard feature.

### Features and benefits

- *HP OpenView Console* — windows-based, color PC console features customizable,

exceptions-based systems management through highlighted icons

- *HP TurboSTORE/iX II* — for online, unattended parallel backup of rewritable optical disk, ½-inch tape, or DDS
  - *HP AutoRestart/iX* — automatic recovery management software for operatorless system restart after a system software failure
- HP GlancePlus, LaserRX/MPE, and RXForecast* — for performance management, monitoring, and capacity planning

Key benefits over the basic HP Corporate Business System include:

*Better positioning for IBM-oriented users* — By including common data center functionality as a standard offering, the DX system addresses the needs of users experienced in the IBM mainframe environment.

- *Ordering simplicity* — A single product line item containing system software reduces ordering complexity and provides capabilities expected in data center environments.

*Easy installation* — If a system disk and an integrated expansion cabinet are ordered, the user has the option to request factory preloading of the data center software, excluding HP LaserRX/MPE and RXForecast.

- *Savings* — System software is provided with the DX system at a reduced price from the item-by-item cost, providing a financial advantage to users who choose the DX over the basic system.

### Ordering information

DX systems savings are available only upon initial HP Corporate Business System purchase. There is no upgrade path from a basic

HP Corporate Business System to a DX system; but software can be ordered and added separately.

Specific software upgrade credits are available for users upgrading to the DX system from smaller HP 3000 systems who have previously purchased one of the software products provided standard with the DX system.

HP DTC Manager is not currently offered standard with the DX system. Some literature may list HP OpenView DTC Manager as a component of HP Corporate Business System DX.

## HP 3000 NFS interoperability testing

The HP 3000 made its first appearance at the annual Sun Microsystems' Connectathon in Spring 1992. Connectathon is a networking proving ground where participating vendors can test ONC/NFS implementations. The HP 3000 with Network File System (NFS) proved itself as an open system and was integrated with 17 different vendors such as Data General, Fujitsu, DEC VMS, DEC Ultrix, NCR, Silicon Graphics, RS/6000, and IBM ES/9000.

NFS is a de facto standard for distributed file access and is widely used among UNIX systems. With NFS, all systems such as PCs and workstations that support network file system can access files on an HP 3000. NFS on the HP 3000 also provides print services to and from NFS servers and clients.

For more information on NFS, contact Quest Software at 714-720-1434.



## Networking enhanced with HP MPE/iX Release 4.0

HP MPE/iX Release 4.0 provides users with additional multivendor capabilities such as Domain Name Resolver, Berkeley Sockets, NCS, SNMP Agent, and HP LU 6.2/PU 2.1 API. Additional connectivity options to access the HP 3000 such as a native Token Ring solution, a second HP-Precision Bus (HP-PB) 802.3 LAN card, and host-based X25 management also are available. Users are provided with increased capacity and performance. HP MPE/iX Release 4.0 is representative of the HP 3000 commitment to support de facto, industry-standard, comprehensive open networking solutions.

### ARPA/NS transport (TCP/IP) enhancements

Functionality enhancements to TCP/IP improve connectivity of the HP 3000 in multivendor environments and increase the capacity and performance of the HP 3000 in client/server environments, which allows the HP 3000 to be used as a server for more clients. Performance improvements match the increasing power and performance of the HP 3000.

Additional enhancements include transparent support for Domain Names Resolver (client), default gateway, cache aging, negative advice, and the ability to use only Ethernet frames and ARP (turn off 802.3 frames and HP Probe protocol). Increased capacity includes support for 4,096 TCP connections, up from 1,024 previously, and the number of remote nodes increases to 4,096. Performance improvements offer better throughput and

CPU utilization. Users can expect a throughput increase of 45% and a CPU-utilization reduction of up to 60% compared to the 3.1 release transport.

At the services level, users should see comparable performance improvements. For example, HP Resource Sharing realizes a throughput gain of 50% and a CPU-utilization reduction of up to 20% (see "Throughput improvements for HP Resource Sharing" on page 49 of this issue), and NS NFT realizes a throughput gain of up to 35% compared to release 3.1.

TCP/IP functionality is incorporated with HP 3000 LAN and WAN products: HP ThinLAN/iX, Token Ring/iX, X.25 Link, and NS Point-to-Point Link.

### Berkeley sockets

Application developers can port applications to the HP 3000 using a standard networking interface, which allows the HP 3000 to be integrated into UNIX system computing environments. BSD sockets Release 4.0 supports basic stream and datagram communication types and can operate on local and internet domains.

Berkeley sockets functionality will be a part of the fundamental operating system (FOS) on HP MPE/iX 4.0 and later releases. The FOS allows users to develop interprocess communications between applications on the same CPU. In order to implement applications that use interprocess communications to remote nodes via the

network, users must have Release 4.0 or later of TCP/IP, which is included with HP 3000 LAN and WAN products: HP ThinLAN/iX, HP Token Ring/iX, X.25 Link, and NS Point-to-Point Link.

NETIPC will continue to be supported on the HP 3000. Users can migrate existing NETIPC applications to BSD sockets to increase application portability but are not required to do so. Users are encouraged to develop new applications using BSD sockets, since it is an industry-standard interface.

### NCS 1.5.1

NCS is a remote procedure call mechanism that allows applications to be split and run on systems with the best computing resources. HP 3000 has an enabler for creation of distributed client/server applications with support of NCS 1.5.1. NCS 1.5.1 is the basis for application developers to build distributed applications. Applications can be partitioned to run on systems containing data, thus minimizing the network traffic and maximizing application performance. NCS 1.5.1 is the predecessor to the NCS component of Open Software Foundation distributed computing environment (OSF DCE). Application developers can begin building distributed applications today on the HP 3000 using NCS 1.5.1 and can migrate easily in the future to OSF DCE.

NCS 1.5.1 for the HP 3000 will be shipped as a limited distribution product.

*continued on next page*

### SNMP agent

Simple Network Management Protocol Agent (SNMP) is available on 900 Series HP 3000 systems. Prior to Release 4.0, the SNMP agent was only available with Release 3.1 for Series 9X7LX and 9X7 systems. The SNMP agent allows the HP 3000 to actively participate in management of the multivendor network in which it resides. Availability of the SNMP agent reflects the HP 3000 commitment to meeting user multivendor needs.

SNMP is a de facto standard for managing TCP/IP networks. An HP 3000 with the SNMP agent installed is capable of reporting fault, performance, and configuration information to an SNMP-based management station such as HP OpenView Node Manager. The HP 3000 SNMP agent complies with RFCs 1155, 1157, and 1213.

Management Information Base (MIB) I and II are supported by the agent, as well as private MIB extensions for CPU and disk space utilization. The HP 3000 SNMP agent is included with HP 3000 LAN and WAN products: HP ThinLAN/iX, Token Ring/iX, X.25 Link, and NS Point-to-Point Link.

### HP LU 6.2/PU 2.1 API

HP 3000 enhances the HP LU 6.2 API to include support for HP PU 2.1 capabilities. The enhancement allows for peer-to-peer communications with IBM systems such as AS/400. HP 3000 systems can communicate directly to IBM systems without going through the IBM host, increasing network efficiency. The number of supported sessions has been increased

from 8 to 256 to allow more users and programs to run simultaneously. The enhancement supports the Mainframe Alternative initiative by providing peer-to-peer connectivity to IBM systems and by supporting LU 6.2. This enhancement is included in the existing LU 6.2 API product (P/N 30294A).

### Virtual Terminal enhancement

The Virtual Terminal (VT) enhancement to Network Services increases the number of supported sessions from 600 to 1,250. The increase aligns with users' current and future capacity needs. The enhancement is only included with Network Services. The basic VT capabilities that come with the HP ThinLAN/iX and HP Token Ring/iX links do not include the improvement.

### Native Token Ring

The availability of the Token Ring product enables the HP 3000 to be easily integrated into installed Token Ring networks. Users can connect an HP 3000 system into any industry-standard Token Ring or 802.3/Ethernet network. Since the HP 3000 system supports both LAN protocols, users can select a LAN protocol that best meets business needs without having to rewire or purchase additional equipment.

### Second HP-PB 802.3 LAN card

A second 802.3 LAN interface card (LANIC) provides Series 900 HP-PB users with the flexibility to separate DTC and system-to-system traffic.

### Host-based X.25 management

Host-based X.25 management is available for all 900 Series HP 3000 systems. Prior to Release 4.0, host-based X.25 management was only

available with Release 3.1 for Series 9X7LX and 9X7 systems. Users are now offered two X.25 management solutions: HP OpenView PC-based X.25 management and host-based X.25 management.

For more information on positioning and differences between host-based and HP OpenView PC-based X.25 management contact your HP representative.

## HP Series 6000 HP-FL disk array support on HP 3000 systems

The HP Series 6000 HP-FL disk arrays for HP 3000 Model 9X7 systems (P/Ns C2254HA, C2252HA, C2254B, C2252B) offer capacities of 5.44 or 2.72 GB per array with optional data protection. They are ideal for HP 3000 Series 9X7 users who need high availability, increased disk connectivity, and high functionality.

HP Series 6000 HP-FL disk arrays are supported on HP 3000 Series 9X7 systems running MPE/iX 4.0 and using the NIO/FL interface (PM 28615A).

HP MPE/iX 4.0 will support the 2.7-GB arrays (P/N C2252B/HA), as LDev 1. With the NIO/FL interface the full 2.7-GB of disk storage capacity will be available for use. On all other systems that use the CIO/FL interface, only 2.0 GB of disk storage is available when the 2.7-GB array is configured as LDev 1.

Contact your HP representative for more information.

## HP 3000 Series 9X7 memory enhancement

Current memory products for the HP 3000 Series 9X7 systems are sold in 8-, 16-, 32-, and 64-MB increments. With the development of a new 128-MB memory product, the Series 977 and 987 **will** be able to double maximum supported memory from 384 to 768 MB, and the Series 967 **will** support 512 MB. In addition to the existing memory options, new options for the 128-MB memory product will be added to the Series 967, 977, and 987 on the July HP Price List.

## HP 3000 management with HP OpenView Network Node Manager

If you use HP OpenView Network Node Manager to manage your multivendor network devices and systems with simple network management protocol (SNMP), you can also **manage** HP 3000 systems in this environment using the HP 3000 SNMP Agent. HP 3000 systems with the SNMP Agent installed are capable of reporting **networking** statistics such as fault, performance, and configuration information to HP OpenView Network Node Manager stations. The SNMP Agent represents HP's ongoing commitment toward meeting the needs of HP 3000 users with multivendor environments. See "Networking enhanced with HP MPE/iX Release 4.0" on page 17 of this issue.

The SNMP Agent is included with the following HP 3000 LAN and WAN products: ThinLAN/iX,

Token Ring/iX, X.25 Link, and NS Point-to-Point Link. The SNMP Agent is not a separate product on the HP Price List. HP MPE/iX Release 3.1 or later is required.

## 3480-compatible tape drives supported on HP 3000 Series 990/992

The introduction of support for the 3480-compatible ½-inch cartridge tape drives from StorageTek extends and expands HP's **high-end/high-performance** backup offering. The technology is the de facto industry-standard tape device for mainframe class systems.

These SCSI devices, available from StorageTek and its distributors, are available in both tabletop (P/N 4220) and **rackmount** packages (P/N 4280). The rackmount comes with either one drive (Model A01) or two drives (Model A02). Each unit is available with a stacker that holds up to 10 cartridges, with each cartridge holding approximately 200 MB. The transfer rate is 1½ MB/s.

Support for the drives is through **HP-specific firmware** that **will** be available on floppy disk from StorageTek. The drives **will** facilitate data interchange with IBM Tape Label format. Data can also be exchanged via **F-Copy**. Standard backup **format** data are not interchangeable. The drives are not supported for software distribution or as a dump device.

At **first** release, the devices **will** be supported only on the HP 3000 Series 990 and 992. Availability **will** be coordinated with the **first** shipments of these systems.

## HP Model 10 GB/A rewritable optical autochanger on HP 3000 CIO systems

The HP optical library system Model 10 GB/A rewritable optical autochanger is available on HP 3000 CIO systems. The Model 10 is a reliable, low entry price optical library for users who need data management for **small** system configurations. The product can automate the backup and restore needs of a small group of systems or servers with its single optical disk drive. Users are encouraged to **try** optical at a low entry point and as their capacity requirements grow, an onsite field upgrade can be provided to increase the capacity from 10.4 to 20.8 GB.

Optical storage is for users who can benefit from rugged, removable disks **with** long, maintenance-free shelf lives, affordable access to high volumes of data, and unattended backup with HP TurboSTORE/iX II.

The Model 10 optical autochanger requires operating system Release 3.0 of MPE/iX. CIO systems include HP 3000 Series 920, 922LX, 922RX, 922, 932, 948, 958, 925LX, 925, 935, 949, 950, 955, 960, and 980 systems. Support for NIO systems (Series 9X7 systems) is currently targeted for last half of calendar year 1992.

## HP OpenView Console: administration made easy

HP OpenView Console is a Corporate Business System DX system console for systems administrators. With the systems being delivered today from HP, systems administrators may expect configurations with thousands of users. They will have to respond to hundreds of console messages. HP OpenView Console allows systems administrators to pick out important messages from thousands of logons.

HP OpenView Console is designed as a Microsoft® Windows-based exception reporting tool. Leveraging the technology from HP OpenView System Manager, it gives operators an easy-to-use method of managing their systems "by exception." Icons, representing the various functions being controlled by a systems administrator, will change colors only if something goes wrong. The systems administrator can group similar types of messages together. Printer messages and logon messages can each appear under a separate icon. This flexibility enables the systems administrator to manage similar tasks all at once.

Many IBM mainframe users have separate operators for disk, tape, and printer management. HP OpenView Console supports up to five different consoles. If a person is assigned to respond only to disk or tape requests, a console can be set up to track only those functions. The operator will not need to see other requests.

HP OpenView System Console also has the capability to accept scripts for automatic replies to various requests or problems. This feature enables the system to be more self managing, which frees up system administration resources. Users or application providers can develop specific scripts as needed.

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

## HP 3000 field upgrade changes

Because of the April 1 changes to the HP 3000 Series 9X7LX and 9X7 integrated systems, repricing and product restructuring changes have been made to these system upgrades. Field upgrades for Series 9X7LX and 9X7 systems now come standard with a 100-user license and have new product numbers. Prices have been increased to reflect the new user license configuration.

A new Wuser license option has been added to the HP 3000 Series 937 and 937LX systems (P/Ns A1790A, A1791A). Users who want a 64-user license system should order Series 937LX or 937 systems instead of Series 947LX or 947 (P/Ns A1759B, A1792B).

Changes have also been made to the HP 3000 Series 957LX, 957, 967LX, 967, and 977 systems (P/Ns A1760A, A1761A, A1763A, A1762A, A2301A).

Contact your HP representative for pricing information.

## HP Premier Account Support

HP Premier Account Support is an integrated service and support solution for corporate business systems or server configurations providing new support capabilities focused on the data center environment.

Each new HP 3000 Corporate Business System and HP 9000 Corporate Business Server has an associated fixed-price HP Premier Account Support package easily purchased with the system that features complete support for the system configuration. Current HP users may add the new capabilities of this solution to their contracts through the flexible HP Comprehensive Support for Premier Accounts.

### Features and benefits

Each HP Premier Account Support package contains premium features delivered by a fully integrated support team of account-assigned representatives.

- A new 24x7 hardware support service level with immediate response
- An enhanced level of software support with expanded 24x7 software coverage
- A new account-assigned Response Center engineer who handles daily technical problems and ensures that users receive the highest level of remote support possible
- An enhanced level of 24x7 network support for the system
- Two person weeks of customer training

- Approximately five weeks of consulting time for general and specialist consulting as it relates to the planning and implementation of the corporate business system or server (user can determine the frequency of onsite consulting)

This support solution contributes to the success of corporate business systems users and addresses areas crucial to users who operate in a data center environment: solution availability, resource management, and technology planning.

### Ordering information

Product No.	Description
<i>HP 3000 Corporate Business Systems (CS)</i>	
H5331A <sup>1</sup>	CS 992/100 HP Premier Account Support
H5332A <sup>1</sup>	CS 992/200 support for regular and DX systems
H5333A <sup>1</sup>	CS 992/300 support for regular and OX systems
H5334A <sup>1</sup>	CS 992/400 support for regular and DX systems
H5340A <sup>1</sup>	CS 990 support for regular and DX systems
H5329A <sup>2</sup>	Comprehensive Support 3000 CS
<i>HP 9000 Corporate Business Servers</i>	
H5335A <sup>3</sup>	Model 890 1 CPU support HP Premier Account Support
H5336A <sup>3</sup>	Model 890 2 CPU support HP Premier Account Support
H5337A <sup>3</sup>	Model 890 3 CPU support HP Premier Account Support
H5338A <sup>3</sup>	Model 890 4 CPU support HP Premier Account Support
H5330A <sup>4</sup>	Comprehensive Support 9000

<sup>1</sup> HP Premier Account Support for regular and DX systems

<sup>2</sup> HP Comprehensive Support for Premier Accounts

<sup>3</sup> HP Premier Accounts Support

<sup>4</sup> HP Comprehensive Support for Premier Accounts

Products are on the HP Price List. The described product contents can differ in some countries outside of the U.S. Contact your HP representative for more information.

## NetBase brings disaster tolerance to HP 3000

The success of the HP 3000 in large data center, mainframe offloading, and mainframe replacement deals has led to an awareness of the need for flexible disaster tolerance solutions such as NetBase software from Quest. With the HP Corporate Business System introduction, HP is announcing a strategic relationship with Quest.

NetBase is significant for high-end users because it enables a group or network of HP 3000 systems to look like one large system to end users. The "one system" can be a set of dispersed applications, databases, and processors. The ability to geographically distribute the systems while replicating the data and applications enables NetBase users to configure cost-effective networks that provide disaster tolerance with data integrity. For example, if the system and applications in Kansas are hit by a tornado, users can easily access the same applications and data on another system.

In addition to disaster tolerance, NetBase's group of modules or services provide other benefits such as load balancing across systems.

Contact your HP representative for more information.

## New HP TurboSTORE/iX II trial copy

HP TurboSTORE/iX II trial copy (P/N B2492A) is a no-cost, 90-day trial copy of the 900 Series HP 3000 high-performance backup solution for user evaluation.

This trial copy is beneficial for users running HP MPE/iX release 4.0 who do not already own HP TurboSTORE/iX II with online backup (P/N 36388A), users who need to reduce the time needed to backup their systems, and users who desire unattended backup.

### Features and benefits

The trial copy includes a full manual. Each trial copy can only be installed and used on one system, one time. The trial copy's 90-day clock does not start until the demo is used the first time. HP support is provided for HP ResponseLine subscribers.

HP TurboSTORE/iX II offers unattended, online backup and more efficient use of operator resource and backup media.

Contact your HP representative for more information.

### Peer-to-peer connectivity for HP LU 6.2 API/XL

The HP LU 6.2 API/XL (P/N 30294A) is a set of tools that enable HP 3000 systems to communicate program-matically as low-entry networking nodes to IBM systems in an APPN environment.

The LU 6.2 API/XL has been enhanced to allow peer-to-peer communications with IBM systems such as the IBM AS/400. HP 3000 systems can now communicate directly to IBM systems without going through the IBM host, increasing network efficiency.

With the new networking capability, CPU cycles are off loaded from the user's IBM mainframe by allowing the peer systems to share the routing and management of sessions.

The number of sessions has been increased to 256 to allow more users and programs to run simultaneously.

HP 3000 products are on the HP Price List and available in mid-June. For more information, contact your HP representative.

### Return credits for high-end memory and I/O add-on products

Effective June 1, new return credits are available for 64-MB memory cards, HP-FL cards, and channel adapters on HP 3000 Series 95X/960/980 and HP 9000 Models 85X/86X/870 systems. The current return credit for the 16-MB memory board will decrease effective July 1. These memory and I/O products can only be returned toward the purchase of equivalent products for HP Corporate Business Systems.

Product No.	Description
A1101AN	Channel adapter
A1104AN	16-MB memory card
A1152AN	64-MB memory card
27115AN	CIO fiber-optic interface

### Reduced high-end memory prices

Effective June 1, high-end add-on memory prices for HP 3000 Series 950/955/960/980 and HP 9000 Models 85X/86X/870 systems were decreased to \$850 per megabyte (U.S. list), the same price as the current option memory for HP 3000 systems. HP 9000 option memory prices will also decrease to \$850 per megabyte.

Product No.	Description
A1104A	16-MB memory card
A1152A	64-MB memory card

also  
in this  
issue

New HP 3000 and HP 9000 external storage prices

51

## Making sense of the standards morass

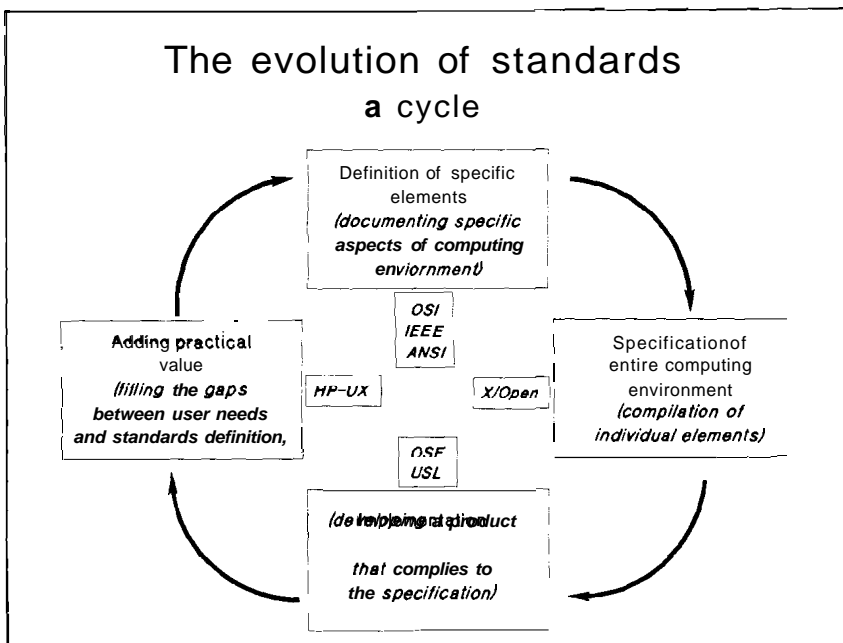
Over the past few years, standards emergence has really accelerated. There are standards for operating systems, user interfaces, programming languages, data management, data interchange, graphics, networking, and others. Hewlett-Packard with the HP 9000 alone complies to over 50 standards. Standards are providing a revolution in computing, but only if computer users can understand and use the standards.

### The nature of standards

"Standards" means lots of different things to lots of different people. The standards we are addressing here are standards for the computing or application environment. They are not a meter stick. They are not a kilogram. There is no museum somewhere that displays The Standard.

Standards for the application environment are continuously evolving. As a standard is determined for each portion or element of the computing environment, it makes room for the next elemental standard, and so on. We can expect to see standards in the future that address computing technologies that we haven't even conceived of yet.

The development of a standard takes time. Inevitably, user needs or market needs race ahead of standards creating a gap between the standards that exist and what the market needs. Vendors must fill that gap with "extensions" or "enhancements" or "added value" which in turn become the seeds for the next area of standards development (or adoption). See graph below.



### Standards to watch

X/Open was formed when the world's major information system suppliers, users, systems integrators, and software developers came together to make open systems a practical reality. X/Open defines a Common Application Environment (CAE) which ensures portability and interworking of applications and allows users to move between systems without retraining.

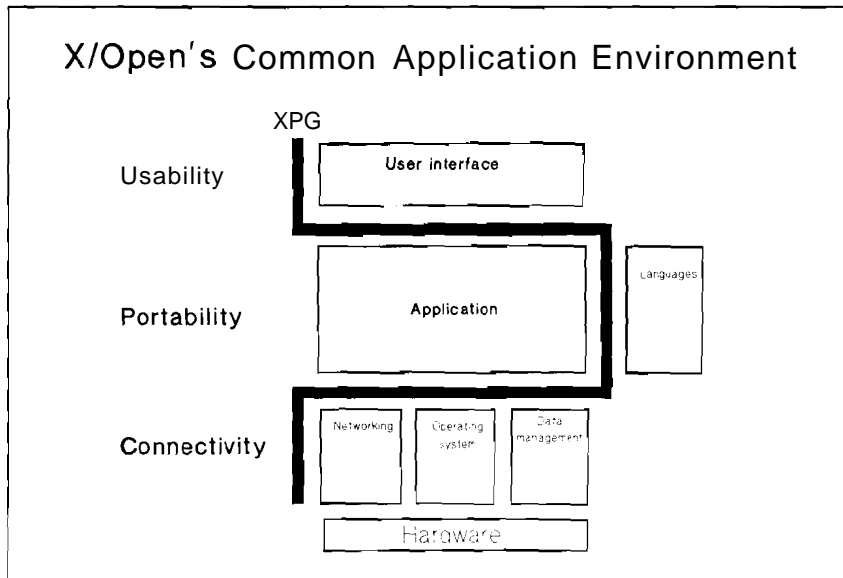
Unequivocally, the standard to watch and pay attention to is X/Open's Portability Guide (XPG, currently revision 3; XPG4 is due to be published in mid-1992). XPG is the "meta" standard that enables portability by compiling a set of relevant standards that address the entire common application environment (see graph on following page). XPG is the best standard for guaranteed portability because of its widespread acceptance.

The best part about XPG is that it provides an even higher degree of software portability than System V Interface Definition (SVID). The SVID was the first attempt (by AT&T) to document a standard interface to the operating system. While the SVID was successful, its usefulness is now limited because it's not widely accepted as a standard for the entire computing environment — only the operating system.

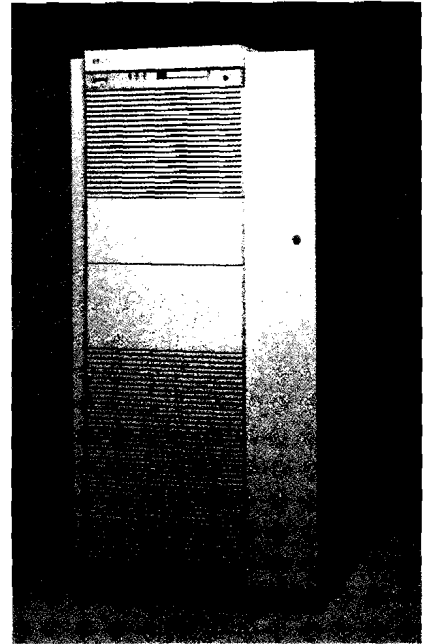
Many people were frustrated when they first got involved with standards because they expected levels of software portability from SVID compliance that can only really be addressed by XPG compliance.

*continued on next page*





## Introducing HP 9000 Model 890 Corporate Business Server



With W-UX, HP is committed to continuing to adhere to the XPG and to provide practical open systems. HP's commitment to standards overall is demonstrated by its participation in standards organizations, its leadership of standards-setting efforts, and its timely implementation of standards.

### Standards vs. implementations

There are different kinds of standards in the world. It's confusing if you don't keep in mind that computer application environment standards **define** interfaces, **not** implementations, and are continually evolving, **not** static. XPG **is** the standard that brings the various elemental standards together and is the overwhelmingly recognized standard to follow for portability.

HP-UX is an implementation of XPG3. HP-UX will continue to adhere to XPG as more and more System V.4 and OSF technology is incorporated into HP-UX. In addition, HP-UX will add practical value for nonstandard areas, especially in the area of commercial functionality. HP-UX will provide **portability** to all types of open systems through compliance to the XPG and other standards.

When you're evaluating open systems and standards for your company, keep in mind that a single standard that addresses a single area of the computing environment will not allow you to achieve the full potential of open systems. Look at the entire environment to understand what benefit you **will** receive from standards.

The HP 9000 Corporate Business Server 890 (P/N A1826A) is a high-end UNIX system-based server designed for large-scale commercial applications. It was designed for new business users who need high-end online transaction processing performance (OLTP) and installed-base HP 9000 users who have performance growth needs.

The HP Corporate Business Server 890 is designed to meet demanding needs of large-scale, mission-critical, commercial UNIX system applications. The Corporate Business Server 890 is part of an overall high-end solution that includes robust commercial operating system functionality, high-end system management and CASE tools, and mainframe-class applications. To support growing demands for high-end commercial

processing, the system infrastructure has been designed for future growth of performance and configurability.

**Features and benefits**

- *Next-generation high-end family* — The HP Corporate Business Server 890 is designed to meet the processing demands of large-scale commercial business applications. It is currently the highest-performance UNIX OLTP system in the industry. The server uses a new air-cooled packaging design with new processor, memory array, and system bus designs. The Corporate Business Server 890 uses the same HP-PB VO bus architecture as the Model 8X7S family.
- *High-end processing capacity* — The HP Corporate Business Server 890 is currently the highest-performing HP 9000 available, supporting up to four-way symmetric multiprocessing (SMP). The OLTP performance capability of this system is roughly twice that of the prior generation Model 870S/400 and is equivalent to that of traditional mainframe systems.
- *Enhanced I/O capability and configurability* — To complement the increased CPU performance, the HP Corporate Business Server 890 has substantially improved memory and I/O bus bandwidth in comparison with the Model 8X7S and 870S families. The Corporate Business Server 890 has higher levels of configurability with support of 2 GB of main memory, 600 GB of disk storage, and 112 HP-PB I/O slots.

**Ordering information**

Product No.	Description
A1826A	HP Corporate Business Server 890
Opt. 101	Uniprocessor system
Opt. 102	2-way SMP system
Opt. 103	3-way SMP system
Opt. 104	4-way SMP system
A1827A	HP Corporate Business Server 890 SMP upgrades
Opt. 102	Upgrade from 1-way to 2-way SMP system
Opt. 103	Upgrade from 2-way to 3-way SMP system
Opt. 104	Upgrade from 3-way to 4-way SMP system

The HP Corporate Business Server 890 will be supported on the next HP-UX version. The server and upgrades are on the HP Price List and will begin shipping in October.

**HP 9000 Corporate Business Server Model 890 upgrade program**

With the introduction of the HP 9000 Corporate Business Server Model 890, installed-base Model 870S users will be provided with upgrade paths to the new systems. The upgrades provide a growth path for Model 870S users who are performance constrained.

Return credits for the Model 870S family depend on the degree of multiprocessing. The largest return credits are for Models 870S/300 and 870S/400. Return credits for Models 870S/100 and 870S/200 are less because these systems can be upgraded without a platform change. Overall, it is more financially attractive for Model 870S

users to upgrade within the package before moving to the Model 890 platform. Return credits are available for memory and selected VO cards.

In addition to the installed-base upgrades, a bridging program is available for users who require delivery of the Model 890 prior to the start of shipments in October. Users can order and take delivery of a Model 877S for software development and installation and receive a return credit when they order the Model 890 prior to November 1 and take immediate delivery.

**Return credits**

Product No.	Description
A1135AN	Model 890 (1, 2, 3, 4 CPU) upgrade from Model 870S/100
A1146AN	Model 890 (2, 3, 4 CPU) upgrade from Model 870S/200
A1147AN	Model 890 (3, 4 CPU) upgrade from Model 870S/300
A1148AN	Model 890 (4 CPU) upgrade from Model 870S/400
A1769AN	Model 890 (1, 2, 3, 4 CPU) upgrade from Model 877S

The return credits are currently orderable on the HP Price List. Contact your HP representative for specific upgrade credit pricing.

Users are encouraged to take advantage of these upgrade return credits prior to November 1. All return credits will be reduced by over 25% percent (U.S. list) at that time.

## Mainstream available on HP 9000 and HP Apollo 9000

MainStream bridges the *gap* between business planning systems and control systems. It monitors, supervises, and coordinates level 1 production equipment such as PLCs, weigh scales, robots, computerized numeric control (CNC) systems, and distributed control systems (DCS). Data collected by Mainstream can be shared with other applications such as MRP II and scheduling. MainStream can store captured data in SQL databases. Cell control or level 2 applications are easily configured without programming. Plant and area level applications are developed by integrating Mainstream tools and user programs.

### Features

Features include:

- Animated color graphics
- Data acquisition
- Event/action processing
- Alarm management
- Record management
- Historical data management
- Statistical process control
- Program and recipe management
- System test simulator
- Program library access
- SQL database integration
- Downtime tracking
- Application integration tools
- Production reporting

### Benefits

Benefits include:

- Reduced system development costs
- Shortened implementation schedules
- **Linking/coordinating** devices from different vendors
- Characterizing and controlling the manufacturing process in real time
- Reduced waste and downtime; increased quality and yields
- Rapid identification and **management** of alarm conditions
- Application integration in a heterogeneous computer environment, protecting the users' existing hardware investment
- **Enterprisewide** process management over a distributed computer network

Supported industry standards include TCPAP, MMS, X Windows, OSF/Motif,™ and POSIX. Supported hardware includes HP Apollo 9000 Series 700, HP 9000 Series 800, and HP 700/RX Xstations.

*OSF/Motif is a trademark of the Open Software Foundation in the U.S. and other countries.*

## HP EDA software discontinuance

HP's proprietary Electronic Design Automation (EDA) software products for HP 9000 Series 300 and HP Apollo 9000 Series 400 workstations will be removed from the September HP Price List. This includes all Engineering Graphics System (EGS), Design Capture System (DCS), Design Verification System (DVS), and Printed Circuit Design System (PCDS) products.

When HP made the decision to exit the proprietary EDA software market, a **transition** program was implemented. The program provides current users of the HP products a smooth transition to any of several HP VAB partners that supply similar solutions, such as Racal-Redac, Mentor Graphics, Cadence, and Zuken.

HP is committed to provide support to users who would like to continue to use HP's EDA products through 1997. Ongoing software maintenance will include critical and serious defect correction. Response Center support **will** be provided during this period. Users are encouraged to maintain current support contracts.

Final orders from new users for these products **will** be accepted through August 31. Please be sure that **final** purchases are made before this date. In certain cases, current users of HP's EE DesignCenter products will be able to purchase additional **right-to-copy** licenses for these products after August 31.

Product No.	Description
<b>HP Electronic Design Automation (EDA) software</b>	
B1646A	HP Engineering Graphics System (HP EGS-UX)
74210A	HP Design Capture System (HP DCS)
74230A	HP Design Verification Interface (DVI)
74400A	HP Printed Circuit Design System (HP PCDS)

Additional accessories and options for these products will also be discontinued. Contact your HP representative for part numbers and more information.

## Additions to HP FIRST

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.

A special section has been added to HP FIRST. "HP sales/training tools for VABs" (index number 2295) lists HP sales and training tools that VABs (in the U.S. only) can order directly through an 800 telephone number. The section will be updated monthly.

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

Title	Fax ID number
HP 1000 A990 computer systems technical data	2030
HP 1000 A990 systems configuration information	2031
HP 1000 A990 systems upgrade program	2032
HP 1000 C/1000 compiler systems, technical data	2232
HP remanufactured products: A New Tradition	2226
HP Apollo Series 700 Multimedia backgrounder Section 3	2255
HP EtherTwist product catalog	1515

## HP internal sales and training tools for VABs

*For the U.S. only*

Authorized U.S. VABs can use a toll-free 800 telephone number to directly purchase selected HP internal sales tools and training materials.

To qualify, your company must have a current channel contract or catalog agreement with HP and be listed in the U.S. Value-Added Channels Marketing Center database (VALID).

To place orders, call 800-227-8164, specify the part number of the items you are ordering, and provide your U.S. customer number.

### 1992 Winning Combination Card Binder — June update

- **Audience:** U.S. VABs sales and marketing reps; for internal use only
- **Format:** 7½ x 9%-inch; approximately 80 new and revised reference cards
- **P/N:** 5960-7848
- **Price:** \$6.00
- **Description:** *The Winning Combination Card* binder is a quick reference sales tool designed to help HP sales reps prepare for sales calls, customer conversations, and presentations. It contains succinct information on HP's marketing strategies, products, and programs. The June update is the first quarterly update to the 1992 binder.

- **Note:** The 1992 *Winning Combination Card* binder and the June update can be ordered together under one part number — P/N: 5960-7849; price: \$20.00.

### Corporate Business Systems Sales Kit

- **Audience:** U.S. VAB sales and marketing reps; for internal use only
- **Format:** Binder
- **P/N:** 5960-7846
- **Price:** \$85.00
- **Description:** The Corporate Business Systems sales kit is a one-stop source of sales tools and information that will help you identify the unique needs of high-end users and how the new HP solutions address those needs. The kit contains: Introduction Edition of Radio HP; Corporate Business Systems Solutions Overview workbooks; Financing for the High-End Sales Guide; Premier Account Support Sales Guide; Customer Presentations/High-End Success Stories; Competitive Analysis of RISC Architecture; RISC versus CISC White Paper; Mainframe Alternatives Resource Guide; Mainframe Alternatives Collateral Guide; Ordering Information and Data Sheets; HP 9000 Corporate Business Systems Strategy Brief; and HP 3000 Strategic Directions White paper.



## 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

#### **Quality Lessons from Hewlett-Packard brochure**

- **Audience:** business and quality managers, VPs
- **Format:** 2 pages, 8½ x 11 inches, four color
- **P/N:** 5091-3704E
- **Description:** Brochure has John Young discussing various aspects of HP's drive toward higher standards of quality, including QMS, TQC, and continuous improvement.

#### **HP DIRECT Business Systems Catalog**

- **Audience:** HP 3000 and HP 9000 Series 800 installed-base users
- **Format:** 64 pages, 8½ x 11 inches
- **P/N:** 5091 4175EUS
- **Description:** The catalog focuses on products such as terminals, additional memory, software, and peripherals, and it features select low-end system bundles. Users will be able to order low-cost, low-complexity products directly from HP DIRECT.

#### **The Mainframe Alternative reprint**

- **Audience:** users
- **Format:** 1 page, black and white
- **P/N:** 509142053
- **Description:** *Information Week* reprint tells users about downsizing to HP and calls HP the "Mercedes-Benz of computing solutions." Consultants quoted state that as users move to UNIX system platforms, they are choosing HP over IBM.

#### **HP 3000 Systems**

##### **HP DeskManager and HP DeskManagerPLUS Information Distribution Services for HP 3000 Systems data sheet**

- **Audience:** MIS managers, technical evaluators
- **Format:** 6-sided foldout, 2 color
- **P/N:** 5091-3843E
- **Description:** Introduces the new release of HP DeskManager B.05.00. It lists added functionality, new features and benefits, and hardware and software requirements. It also outlines the technical features of HP DeskManagerPLUS to give a comprehensive overview of the HP DeskManager family.

#### **HP 3000 Corporate Business Systems sales tools**

- **Title:** Series 990/992 data sheet
- **P/N:** 509140603
- **Title:** Mainframe Alternative Resource Guide
- **P/N:** 5091-4059E
- **Title:** Corporate Business Systems photo card
- **P/N:** 509140973
- **Title:** HP 5000 Series Model F100 data sheet
- **P/N:** 509140583

- **Title:** HP 3000 Price Guide (U.S. only)
- **P/N:** 5091-4221EUS
- **Title:** HP 3000 Ordering Guide (non-U.S.)
- **P/N:** 5091-4222EN
- **Title:** HP 3000 Configuration Guide
- **PM:** 5091-4064E

#### **HP 9000 Systems**

##### **HP 9000 Corporate Business Server 890 Family data sheet**

- **Audience:** Sales and marketing personnel, users
- **Format:** 6 pages, black and white
- **P/N:** 509136093
- **Description:** Contains information on the HP 9000 Model 890 corporate server, describing it as the industry's most capable and expandable high-end UNIX system server for commercial applications. Benefits and product features are highlighted.

##### **HP 9000 Series 800 Business Servers configuration guide**

- **Audience:** sales, marketing, support
- **Format:** 175 pages, black and white
- **P/N:** 5091-4367E
- **Description:** Contains detailed information on the HP 9000 Series 800 business servers and the capabilities necessary to configure Series 800-based solutions. It includes information on the HP 9000 Corporate Business Server 890, high-performance Model 887S and 897S business servers, Model 8X7S family upgrades, and the next HP-UX release.



## Workstations

**Hewlett-Packard Workstations: the Benchmark of Excellence supplement**

- **Audience:** executives, MIS and trading managers, banking end uses, securities, trading companies
- **Format:** 8 pages, 8% x 11 inches, four color
- **P/N:** 5091-4125E
- **Description:** Appears in *Wall Street & TECHNOLOGY* and *bank SYSTEMS + TECHNOLOGY* and includes several excerpts from Aberdeen Group's report that tout HP Apollo 9000 Series 700 workstations and HP's position for 1992 as the leader in workstation price/performance.

**Network Computing System (Version 2) data sheet**

- **Audience:** technical buyers
- **Format:** 4 pages
- **P/N:** 509141383
- **Description:** Data sheet has a technical overview of HP's NCS 2 product for Domain/OS. It explains features and benefits of the HP NCS 2 product, the remote procedure call component of Open Software Foundation's Distributed Computing Environment.

**Moving to Open Systems brochure**

- **Audience:** Domain/OS and all Motorola-based users
- **Format:** 8 pages, full color
- **P/N:** 5091-4247E
- **Description:** Provides an overview of the Open Migration Program for Domain/OS users.

**HP's Path to Open Systems for Domain Customers white paper**

- **Audience:** Domain workstation install-base users
- **Format:** 34 pages, 8% x 11
- **P/N:** 5091-4311E
- **Description:** Provides information Domain accounts need for planning migration to HP-UX/PA-RISC. It discusses HP Open Migration Program products, services, and programs to facilitate migration, provide interoperability, and protect user investments. Detailed hardware and software migration planning considerations are included.

**HP multimedia sales tools for HP Apollo 9000 Series 700 workstations**

- **Title:** Series 700 Multimedia pocket guide
- **Audience:** users
- **Format:** 4 pages, pocket size, color
- **P/N:** 5091-3224E
- **Description:** A brief overview of HP multimedia
- **Title:** HP SharedX photo data card
- **Audience:** users
- **P/N:** 5091-1671E
- **Title:** HP SharedX technical data sheet
- **Audience:** users
- **P/N:** 5091-1669E

**HP 9000 Series 300 Family Price and Configuration Guide**

- **Audience:** HP 9000 Series 300 systems users
- **Format:** 78 pages, 8% x 11, two-color cover, black and white text
- **P/N:** 5091-4280EUS (U.S.), 5091-4280EN (international)
- **Description:** Contains ordering information on the new 19-inch monitors for the HP 9000 Model 382 products and the new V/382 VXI system. Supplies complete information on 040 upgrades, new RAM pricing, and additional configuration. It is designed to be a complete source of product information on the Series 300 family.

**Make Your Increase to More Memory— Cheap! flier***For the U.S. only*

- **Audience:** HP 9000 Series 300 users
- **Format:** 1 page, 3/4 x 8 1/2, two color
- **P/N:** 5091-4423EUS
- **Description:** Flier gives users information on new memory pricing for the HP 9000 Series 300 family. In some situations, memory prices have been reduced by 80%.



## Networks

**HP OpenView literature and sales tools**

- **Title:** HP OpenView Network and System Management brochure (English)
- **P/N:** 5091-33793
- **Title:** HP OpenView Product Strategy white paper
- **P/N:** 509143853
- **Title:** HP OpenView Solutions catalog
- **P/N:** 5091-4380E
- **Title:** HP OpenView technical evaluation guide
- **P/N:** 5091-4384E
- **Title:** HP OpenView Network Node Manager data sheet
- **P/N:** 509143823
- **Title:** HP OpenView Network and System Management Platforms data sheet
- **P/N:** 509143813
- **Title:** HP OpenView Support Products data sheet
- **P/N:** 5091-33073
- **Title:** HP OpenView Extensible SNMP Agent data sheet
- **P/N:** 5091-2843E
- **Title:** HP OpenView TCP/IP Agent data sheet
- **P/N:** 5091-2427E
- **Title:** HP Distributed Management Environment (DME) Technologies data sheet
- **P/N:** 5091-4414E
- **Title:** HP OpenView Management Stations data sheet
- **P/N:** 509140163
- **Title:** HP OpenView Solution Partners Program data sheet
- **P/N:** 5091-3449E
- **Title:** HP OpenSpool data sheet
- **P/N:** 5091-21763
- **Title:** HP OmniBack and OmniBack/Turbo data sheet
- **P/N:** 5091-3022E
- **Title:** HP PerfView data sheet
- **P/N:** 509141773
- **Title:** February 15 *Datamation* cover story reprint: HP Opens Up Network Management (describes HP OpenView strategy)
- **P/N:** 509141453
- **Title:** November 1991 *Data Communications* reprint: Users Rate SNMP Multivendor Network Management Systems (HP OpenView Network Node Manager rated number one over all SNMP management station competitors)
- **P/N:** 5091-3266E
- **Title:** January 27 *Computerworld* reprint: Buyers' Scorecard, OpenView satisfaction rises; SunNet's declines (HP OpenView Network Node Manager rated number one over SunNet Manager and IBM NetView)
- **P/N:** 5091-4017E
- **Title:** January 27 *Communications Week* editorial reprint: Step in the Right Direction (contains letters extolling HP OpenView Extensible SNMP Agent)
- **P/N:** 5091-4076E
- **Title:** HP OpenView Network and System Management brochure (French)
- **P/N:** 5091-2514FR
- **Title:** HP OpenView Network and System Management brochure (German)
- **P/N:** 5091-2514GE
- **Title:** HP OpenView Network and System Management brochure (Italian)
- **P/N:** 5091-2514IT
- **Title:** HP OpenView Network and System Management brochure (Spanish)
- **P/N:** 5091-2514SP
- **Title:** April 1991 *Network Management System & Strategies* newsletter reprint: IBM Promises NetView — Or Was That OpenView? — On the RS/6000
- **P/N:** Contact your HP representative for a copy.
- **Title:** January 1992 *Network Management Systems & Strategies* newsletter reprint: HP Fills Holes In Quest For Industry Standard Management Platform
- **P/N:** Contact your HP representative for a copy.
- **Title:** HP OpenView Network Node Manager (2.0) video, English, (10-minute video demo on HP Apollo 9000 Model 425e)
- **P/N:** #S-1546
- **Title:** HP OpenView Network Node Manager (2.0) video, Japanese, 10-minute video demo on HP Apollo 9000 Model 425e)
- **P/N:** #S-1640

## Peripherals

**HP 5000 Series Model 5100 data sheet**

- **Audience:** technical evaluators, decision makers, VABs
- **Format:** 4 pages, black and white
- **P/N:** 5091-4058E
- **Description:** Contains updated information on product features, benefits, technical specifications, and ordering information. It outlines the components available for a complete production-capacity printing solution and highlights printer connections to HP 3000 or 9000 systems.





### HP EGS discontinuance

The HP Engineering Graphics System (HP EGS) on the HP-UX operating system will be removed from the September HP Price List. Until that time, HP EGS will be available only to installed-base users at the price in effect at the time of order. HP EGS is a customizable, two-dimensional graphics software product for multidiscipline engineering design, including electronic, mechanical, and general engineering applications. After price list removal, HP EGS will enter a standard five-year support life, during which right-to-copy products will be available for purchase by installed-base users pending approval.

HP EGS on the Pascal operating system (HP EGS/Pascal) was removed from the November 1990 price list. Right-to-copy versions of the base HP EGS/Pascal product and its options are available for purchase by installed-base users pending review and approval. No future releases are planned.

Automatic distribution of the new HP EGS/UX Release k01.00 will occur in mid-June to installed-base users on support. The release will be available at standard prices to installed-base users not on support. Release k01.00 provides fixes to serious/critical defects, requires the HP-UX 8.0 operating system, and adds support of the HP Apollo 9000 Models 425e and 433. Previous HP EGS/UX and HP EGS/Pascal versions are not compatible with the HP-UX 8.0 operating system.

HP EGS/UX and HP EGS/Pascal do not run on HP Apollo 9000 Series 700 hardware. A third-party vendor offers a comparable product on the Series 700.

Contact your HP representative for more information.

Product No.	Description
B1646A	HP EGS/UX
Opt. OAN	Single-user license
Opt. 103	Adds schematic, printed circuit board layout, and mechanical engineering design modules
Opt. 203	Adds hybrid circuit design module and related manual
Opt. 303	Adds HP EGS photoplotter and N/C drill utilities and related manual; allows HP EGS to interface with Gerber photoplotters and Excellon drill machines
Opt. 0B1	Adds manual set for HP EGS base product; includes Install, Learning, Understanding, Reference, and MasterIndex manuals
Opt. AEQ	Software on 1/4-inch cartridge tape for use on HP 9000 Series 300 HP-UX workstations

also  
in this  
issue

HP Premier Account Support	20
New HP 3000 and HP 9000 external storage prices	51



## New HP Apollo 9000 Model 705 color workstations

The HP Apollo 9000 Model 705 16- and 19-inch color workstations are low-end, PA-RISC based color workstations for the entry-level market.

These new color workstations deliver leading price/performance with a rating of 34.6 SPECmarks and are the first color workstations available from HP for under \$10,000 (U.S. list). These systems are ideal for the price-sensitive user in the commercial, office automation, and CASE application markets.

HP is offering to users that purchase an HP Apollo 9000 Model 705 today a board upgrade to a Model 710 color workstation. The board upgrade is in line with HP's strategy for providing investment protection for users. In addition to the new Model 705, the prices of the Model 710 19-inch color products have been reduced.

Product No.	Description
A2647A	HP Apollo 9000 Model 705 to 710 color CPU upgrade
A2648A	HP Apollo 9000 Model 705, 16-inch color, 16 MB RAM, diskless
A2649A	HP Apollo 9000 Model 705, 19-inch color, 16 MB RAM, diskless
<i>Products affected in the Model 710 price reduction</i>	
A2213A	HP Apollo 9000 Model 710 19-inch color, 16 ME RAM, diskless
A2214A	HP Apollo 9000 Model 710 19-inch color, 16 ME RAM, 420-MB disk
A2215A	HP Apollo 9000 Model 710 19-inch color, 32 MB RAM, 840-MB disk
A2222A	HP Apollo 9000 Model 710 19-inch color, 32 MB RAM, 420-ME disk with DDS DAT drive

## Introducing HP Standard Instrument Control Library

The HP Standard Instrument Control Library (SICL, P/Ns E2091A and E2092A) is an VO library for instrument control application on HP Apollo 9000 Series 700 and HP 9000 Model V/300 controllers.

HP SICL provides an instrument communications library that works with a variety of computer architectures, VO interfaces, and operating systems. Applications written using the library can be ported at the source code level from one system to another with no or few changes.

HP SICL is the initial offering for providing a consistent programming model for HP-IB and VXI instruments. The initial release of SICL will include the following:

- The HP SICL interface library and documentation for C and C++ programmers
- HP-UX drivers for the HP-IB interface (PIN E2070A) for the Series 700 (SICL PIN E2091A)
- HP-UX drivers for the built-in HP-IB and VXI interfaces of the HP V/360 and V/382 (P/Ns E1480A, E1499A) C-size VXI controllers (SICL PIN E2092A)
- Diagnostic tools for testing instrument system configurations and verifying instrument operation

### Features and benefits

- *HP SICL code portability* — increases productivity by allowing code reuse; increases speed of porting applications between platforms and operating systems

*High-level library routines for handling formatted I/O* — similar to the ANSI C printf/scanf, but provides for IEEE-488.2 data types and protocols; promotes ease of use for programmers because data manipulation by the user's program is not required

- *Command set* — provides the largest consistent set of interface-independent commands with interface-specific commands as required
- *Improved error handling* — reduces the number of lines of code and moves error-handling routines to a centralized area in the program

### System requirements

HP SICL Release 1 requires HP-UX Revision 8.X for HP 9000 Series 300 and 700 workstations. The internal HP-IB and VXI interfaces of the V/360 and V/382 controllers are supported. An HP-IB card (PIN E2070A) is supported on the Series 700. The Series 700 requires EISA expansion capability in order to install the interface.

### Ordering information

Product No.	Description
E2091A	HP SICL C-Language application development package media and documentation for Series 700 computers with EISA backplane
Opt. AAH	DDS tape
Opt. AAF	CD-ROM
E2092A	HP SICL C-Language application development library media and documentation for HP 9000 Series 300 Model V/382 controllers
Opt. AAO	%-inch cartridge tape
Opt. AAH	DDS tape
Opt. AAF	CD-ROM

## Introducing GRAFPAK-GKS

Hewlett-Packard announces HP GRAFPAK-GKS in developers kit and run-time versions for the HP 9000 Series 300 and HP Apollo 9000 Series 400 and 700. For the first six months, users who have HP GKS can upgrade to GRAFPAK-GKS and receive a one-time credit. The product replaces the HP GKS product that was obsoleted as of February. However, it will not support HP 9000 Series 800.

GRAFPAK-GKS is a complete implementation of the graphical kernel system (GKS) as specified by ISO 7942-1985 and ANSI X3.124-1985. GRAFPAK-GKS features X Window System, extensive font libraries, extended prompt and echo types for graphics input, numerous generalized drawing primitives (GDPs) and escape functions, and booth CGM and output.

GRAFPAK-GKS was designed for:

- HP GKS users with HP 9000 Series 300/HP Apollo 9000 Series 400 and 700 systems
- Application developers who want to write graphics applications that are portable across a variety of computer platforms and display devices
- OEMs, SIs, and laboratories developing applications for areas such as civil, mechanical and electronic design, mapping, network analysis, seismic analysis, resource planning, atmospheric research, scientific data analysis, spreadsheets, and C31

## Features and benefits

- *X-specific escape routines* — allow developers to take further advantage of X11. Escape includes color predefinition, plane mask, background color, save-restore pixmap, enable-disable backing store, resize window, event trapping on-off, regeneration on expose-resize of window, events dispatch for expose, resize, button press, motion, keypress, graphics input interaction, color map identification, and set pixel value.
- *Graphics library in strict compliance with international GKS standard* — provides graphics application development environment and ease of learning and use for immediate productivity. Device and machine independent for application portability.
- *Gateway to key industry and de facto standards* — includes Computer Graphics Metafile (CGM) and X Window System.
- *Full range of extensions* — increases functionality
- *C and FORTRAN language bindings*
- *Drivers* — allow the broadest range of output devices
- *GKS* — complements X with hard-copy output and metafile archiving. CGM (ANSI/ISO 8632) is a leading standard for device-independent graphics files, and CGMs are suitable for long-term archiving because the files may be imported into advanced graphics applications. GRAFPAK-GKS can output CGMs in clear text, character, or binary encodings.
- *Compliant with FIPS, ANSI, and ISO specifications* — is the first GKS implementation to be certified by the National Institute of Standards and Technology

## Ordering information

Product No.	Description
<i>Developers kit</i>	
	GRAFPAK-GKS for Series 300/400/700
SB2201L	License
SB2201M	Media DAT
<i>Run-time kit</i>	
	GRAFPAK-GKS for Series 300/400/700
SB2202L	License
SB2202M	Media DAT
SB220DC	Documentation package
SB2201U	Developers upgrade kit (HP GKS current users credit)

## HP ADVISE software migration tool

HP ADVISE (P/Ns LAC7ABLD, LBC7ABL0) is a set of tools to assist Domain/OS software developers in their ports of applications from Domain/OS to a standards-based UNIX system environment.

HP ADVISE is one of the new migration-related products available to the Domain/OS installed base with the advent of the Open Migration Program. HP ADVISE helps Domain/OS users migrate to HP Apollo 9000 Series 700 systems without having to learn a new user interface or editor.

## Features

- Source Code Scanner
- System Call, includes file and graphics databases
- Graphics porting examples (GPR to Xlib)
- Extensive porting guides

*continued on next page*

The Source Code Scanner consists of executables to scan C, FORTRAN, and eventually Pascal source code; a set of databases containing hints that flag nonstandard system and library calls; and documentation. The documentation contains tool set use instructions as well as principles and techniques for porting programs from Domain/OS to standards-based environments. An example code set is included to demonstrate porting six Domain/OS-specific programs to open systems compliance.

Supported systems include Domain DN2500, DN3000, DN4000, DN3500, DN4500, DN5500 (DN10000 will be supported in late 1992); HP Apollo 9000 Series 400 and Models 425 and 433. SR10.3.5 and above is required to run HP ADVISE.

Supported languages include C, FORTRAN, and Pascal (Pascal version will be available in late 1992).

**Ordering information**

Product No.	Description
LAC7ABLD	HP ADVISE for Domain/OS license to use for one DN Series workstation; includes license, media, documentation
LBC7ABA0	HP ADVISE additional licenses for Domain/OS license to use for one DN Series workstation; license certificate only (does not include media or documentation)

**Video card for HP Apollo 9000 Series 700 workstations**

Hewlett-Packard is announcing that RasterOps Corporation will supply an EISA-based, video-in-a-window card for the HP Apollo 9000 Series 700 PA-RISC workstation family.

RasterOps will design and manufacture the analog card. HP will distribute and market the product under the RasterOps name through its worldwide sales force. The first units will be available through HP in mid-1992.

The video card allows HP Apollo 9000 Models 720, 730, and 750 workstations to accept input from any NTSC, PAL, or SECAM source such as VCRs and video cameras and to display 24-bit real-time, full-motion images in a window on the workstation monitor. In addition to live video capability, the video card for HP workstations can be used as a frame capture board to save images to memory and disk. The live video window can be resized and positioned anywhere on the screen. The card can accept video signals from Composite, Svideo, and RGB cables.

Contact your HP representative for more information.

**HP Apollo 9000 Model 425e to 710 upgrades**

The HP Apollo 9000 Model 425e is HP's lowest cost Series 400 workstation and has been successful with Domain/OS and HP-UX. Now that HP's migration strategy has been clarified, users want to move from the Series 400 to the Series 700 and HP-UX.

The HP Apollo 9000 Model 425e to 710 upgrade (P/N A2087A) includes parts necessary to modify the system from a CPU providing 22 MIPS and 11 SPECmarks into one with 58 MIPS and 50 SPECmarks. The upgrade is ideal for installed-base Model 425e users who want to move easily to the HP Apollo 9000 Series 700 and HP-UX.

**Features and benefits**

The upgrade is essentially a system replacement, but is designed to allow users to maintain both their serial number and the system's remaining depreciation. Users then achieve higher performance and position themselves firmly on the HP-UX and Open Software Foundation (OSF) operating system path.

Many of the more expensive Model 425e system components are preserved through the upgrade process. While the Model 710 upgrade provides different graphics hardware, the monitor does not need to be replaced. System RAM is maintained, although in some cases additional RAM may be required. Internal peripherals are simply moved to the new system.



Included in the upgrade price is onsite HP installation of both the upgrade and HP-UX 8.07 run time. If the user orders the 420-MB disk option, it **will** come preloaded with 8.07 Instant Ignition. This saves both time and money.

Domain/OS users **will** port to HP-UX as part of the upgrade process. HP offers several documents to make the conversion clear and straightforward. Any upgrades ordered in June **will** ship along with the planning documents. After June, the documents **will** be available at no charge to users ordering Series 400 upgrades.

HP is making a major effort to help installed-base users move to the Series 700 and HP-UX, where they **will** be positioned to use the best workstation technology as it becomes available. The HP Open Migration Program was established to provide products and services that **will** help users make this move. As part of the program, HP is committed to **providing** upgrades from Series 400 products to Series 700 technology. The Model 425e to 710 upgrade is the **first** of these products to be **available**.

Product No.	Description
A2087A	HP Apollo 9000 Model 425e to 710 upgrade
Opt. AN4	8-MB (2 x 4 MB) RAM
Opt. AN8	16-MB (2 x 8 MB) RAM
Opt. AMY	420-MB disk with HP-UX 8.07 Instant Ignition
Opt. AL9	AUI IAN configuration

An HP-UX localization kit (P/N A1099B or A2205A) should be ordered for systems currently using Domain/OS keyboards.

## HP Apollo 9000 Series 700 Dual CRX multimonitor upgrade

The HP Apollo 9000 CRX to Dual CRX upgrade product (P/N S2280A) for Models 720 CRX, 730 CRX, and 750 CRX enables a single CRX user to upgrade to a **single** user, multimonitor configuration of HP Apollo 9000 Series 700 workstations..

### Features and benefits

With multiple monitor configurations, users now have access to two times as much screen real estate as on a single monitor workstation and can simultaneously access more visual information and detail.

The Dual CRX upgrade is a board that contains two CRX controllers and frame buffers. It includes one 1,280 x 1,084 72-Hz monitor with RGB cables and power cord. The user must return the old CRX controller board to the factory but should keep the monitor.

The Dual CRX card requires only one graphics slot and is offered as an upgrade on HP Apollo 9000 Series 700 CRX Models 720, 730, and 750 workstations. In all three models, each monitor of the multimonitor configuration offers about the same graphics performance as the single-monitor offering. The Dual CRX upgrade also supports PowerShade Software.

The Dual CRX upgrade is user **installable** and includes installation documentation.

Contact your HP representative for more details and for ordering **information**.

## HP NCS 2 for Domain and OSF/1

HP Network Computing System (NCS) Version 2, the remote procedure call (RPC) mechanism developed by HP, is available for Domain/OS and OSF/1 TR systems. HP NCS 2 **will** be available for HP-UX systems as part of the Distributed Computing Environment (DCE). HP NCS 2 is the RPC component of Open Software Foundation's (OSF) DCE.

### Features and benefits

HP NCS makes it easy to develop and run applications **that** use computing resources throughout the network. Individual program modules within an application can be distributed to computers best suited for the task. The result is higher performance and better use of computing resources.

### Ordering information

HP NCS 2 consists of two products, the network computing kernel (NCK), which is needed to run an NCS 2-based application, and the network interface definition language (NIDL), which is used to develop NCS 2 applications. On Domain/OS, NCK is bundled with base software, and NIDL is **available** as a separate product. HP NCS 2 requires Domain/OS SR10.4. On OSF/1 TR, NCK is bundled with the base software, and NIDL is bundled with the developer's kit.

Product No.	Description
LA400BAD	HP NCSINIDL 2 for Motorola
LA400BBD	HP NCSINIDL 2 for Prism

## SoftPC 3.0 now shipping on Series 700 and 800

SoftPC 3.0 (P/Ns B2382A, B2399A) is a software-only 286 DOS emulator with an MS-Windows driver that allows HP-UX users to run MSDOS and Windows applications on UNIX system workstations, servers, and X-terminals. With SoftPC 3.0, HP Apollo 9000 Series 700 and HP 9000 Series 800 users can run any UNIX system, MSDOS, or MS-Windows application.

SoftPC 3.0 is ideal for traditional workstation users who use PCs for productivity applications, users integrating workstations into the DOS environment, and power PC users migrating to UNIX systems for the first time.

### Features and benefits

SoftPC 3.0 on HP-UX workstations, servers, and X-terminals offers the benefits of a PC in seamless integration with all the benefits of UNIX systems, for example, the ability to run multiple SoftPCs concurrently on one workstation and UNIX system networking.

SoftPC 3.0 comes prebundled with MSDOS 5.0, has 3 1/2-inch SCSI floppy support, supports VGA with SuperVGA extensions, and has online help. Limitations of SoftPC include no inherent networking functionality and no access to EISA or other hardware cards. It is a 286 emulation product and 286 performance is expected on low-end Series 700 and 800, with 386 performance for nongraphic

applications on Models 720 and above. Under MS-Windows, 286 graphic performance is expected across the platform.

### Ordering information

Product No.	Description
B2382A	SoftPC 3.0 license to use for Series 700
B2399A	SoftPC 3.0 license to use for Series 800
<i>Options for both products</i>	
Opt. OBJ	Hard-copy manual
Opt. AAH	DDS/DAT tape
Opt. AA0	1/4-inch cartridge tape
Opt. AAU	CD-ROM certification

## HP FTAM/9000 on HP Apollo 9000 Series 700

The OSI file transfer and management product (FTAM) for HP 9000 systems is now available on the HP Apollo 9000 Series 700 workstation product line. HP FTAM/9000 for the Series 700 (P/N J2163A) requires the use of OTS (P/N J2160A). HP FTAM/9000 provides the OSI industry standard for file transfer, access, and management of ASCII and binary files over an OSI network.

HP is the first vendor to be registered with NIST as having passed all U.S. GOSIP conformance tests for an FTAM product. HP has also proven interoperability with many major vendors running FTAM.

## Wingz, Island Graphics, and Lotus obsolescence

*For the U.S. and Canada only*

Effective July 1, third-party software — Wingz, Island Graphics Productivity Series, and Lotus® 1-2-3® — will be removed from the HP Price List. If you are interested in purchasing these products, contact the manufacturers: Informix (Wingz), 800-438-7627; Island Graphics, 800-255-4499; Lotus Development, 800-343-5414.

Users who have purchased these products from HP should purchase a maintenance contract for software support from the vendors.

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

**also  
in this  
issue**

<b>MainStream available on HP 9000 and HP Apollo 9000</b>	<b>26</b>
<b>New SCSI-2 8.0-GB data compression DAT for HP Apollo 9000 Series 700 workstations</b>	<b>50</b>
<b>New HP 3000 and HP 9000 external storage prices</b>	<b>51</b>

## HP 1000 A-Series microfloppy discontinuance

Due to the recent addition of DAT media to HP 1000 software products, and to the increased manufacturing costs for microfloppies, microfloppy media options for HP 1000 A-Series computers **will** be discontinued November 1. The microfloppy media, Option 044, will be discontinued from HP 1000 software products, including the RTE-A operating system, compilers, database software, and A-Series hardware products with bundled software.

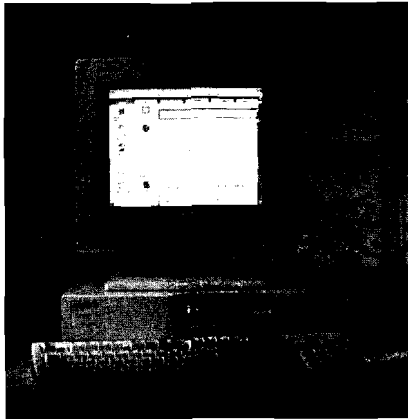
HP recommends DAT media as a replacement. DAT drives offer reliable, **high-capacity** storage supported on HP 1000 A-Series computers as startup, load, and archival storage devices.

HP 1000 software **will** remain available on the following media options:

Product No.	Description
Opt. 022	5/8-inch cartridge tape
Opt. 051	1/2-inch, 9-track magnetic tape
Opt. AAH	DAT



## New network-ready HP Vectra 386/25N PC



The HP Vectra 386/25N PC is the latest addition to HP's network-ready PC family, which includes HP Vectra 386/16N and 386/20N PCs.

It is ideal for general business environments; security-conscious operation like banking or online transaction processing; users seeking Microsoft Windows capable PCs to replace low-functionality clones, 80286-based PCs, or terminals; Fortune 1000 companies in which networks fill a critical function; environments such as reservation systems, credit card processing, and order processing migrating from mainframe-to-terminal connections to minicomputer-to-PC connections.

With the addition of the new HP Vectra 386/25N PC, HP offers a line of PCs to users who are connected to or are intending to connect to networks. The HP Vectra 386/25N PC provides performance and ease of use to increase productivity in standalone environments and adds security and networking features that make the PCs easy to connect.

The HP Vectra 386/25N PC offers a combination of network and application compatibility with security, setup, performance, and ergonomic features. MSDOS, Windows, and a mouse are included in hard disk models.

### Advanced security features

- *Security options in setup program* — helps prevent unauthorized access to information and guards against data thefts
- *Separate passwords for users and system administrators* — gives administrators easy access to security options that cannot be changed without administrator password
- *Push-button keyboard lock/screen blank* — ensures user confidentiality; at the touch of a button, users can lock keyboard and blank screen while applications run in the background

### Multivendor network connectivity

- *Industry-standard PCs fully network tested* — connection and operation are trouble free, even in complex environments. Full testing with major network operating systems and leading network adapter cards.

### Easy setup and connection

- *Simplified setup procedures* — built-in setup program automatically detects hardware changes
- *LAN bundles* — preconfigured hardware allows short work of setting up these PCs

### Full PC functionality and leading performance

- *25-MHz 386SX processor with 16 KB cache* — highly integrated design brings affordable power and thereby high productivity to general office users
- *4 MB memory standard, upgradable to 16 MB on system board* — memory all on motherboard; no expensive memory boards to add
- *Hard disk drive support ranging from 52 MB to 240 MB with new 85- and 170-MB hard disks for hard disk models* — users can select the right capacity for their storage needs
- *Integrated super VGA and high-performance hard drives* — integration means faster overall performance and higher reliability

### Advanced ergonomic design

- *High refresh rate video modes: support for low emissions monitors* — reduces eye strain caused by screen flicker; reduces potential health risks
- *Front control panel* — all user functions are within convenient reach
- *Variable-speed fan (less than 36 decibels)* — helps create a quiet, pleasant work environment

### Investment protection

- *Advanced security and ergonomic support* — HP offers features standard today that other vendors will need to add in the future
- *System board upgrade to future HP Vectra 486 PCs* — system board upgrade renews video, so total performance is improved

### Product line positioning

Within the connected marketplace, the HP Vectra 386N PC Series offers advanced yet **easy-to-use** security features to security-conscious operations such as financial institutions, government agencies, law firms, healthcare providers, and pharmaceutical companies.

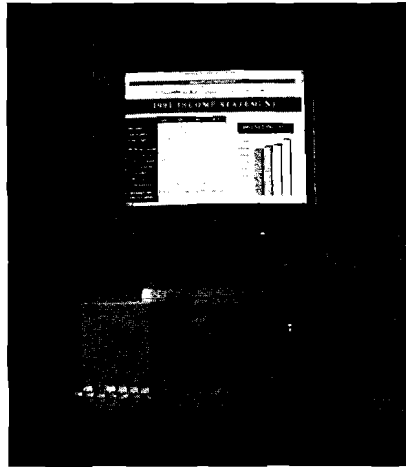
### Ordering information

Product No.	Description
D2490A	HP Vectra 386/25N Model 0
D2491A	HP Vectra 386/25N Model CL, 16-bit HP EtherTwist, not available in the U.S.
D2496A	HP Vectra 386/25N Model 1, 1.44-MB flexible disk
D2492A <sup>1</sup>	HP Vectra 386/25N Model 80, 1.44-ME flexible disk, 85-MB hard disk
D2493A <sup>1</sup>	HP Vectra 386/25N Model 80L, 1.44-MB flexible disk, 85-ME hard disk, 16-bit HP EtherTwist
D2494A <sup>1</sup>	HP Vectra 386/25N Model 170, 1.44-MB flexible disk, 170-MB hard disk
HP Vectra 386/25N-specific accessories	
D2329A	85-ME hard disk drive, 3½-inch IDE (embedded-AT)
D2330A	170-MB hard disk drive, 3½-inch IDE (embedded-AT)
D2408A	80387SL numeric coprocessor

<sup>1</sup> MS-DOS 5.0, Windows 3.1, and a mouse are included in all hard disk models.

HP Vectra 386/25N products and specific accessories, including the new 85- and 170-MB hard disks and 80387SL numeric coprocessor, are available for dealers to order as of June 1.

## HP Vectra 486U PC series — desktop PCs for Windows and CAD



HP introduces the most powerful desktop systems in the HP Vectra PC family — the HP Vectra 486/25U, 486/33U, 486/50U, and 486/66U PCs. These PCs are engineered for graphics-intensive environments like Microsoft Windows and PC-CAD. They have networking capability to perform as LAN or multiuser servers. The 25- to 66-MHz Intel486 microprocessors and other built-in performance features, including the integrated PC video, industry-leading upgrade system, reliable computing environment, EISA architecture, and 128-KB external cache, give demanding applications a solid foundation.

### Features and benefits

There are plenty of features that make the HP Vectra 486U PC Series stand out from the competition. A complete Intel486 PC line, they're among the first to offer the 486 DX2 processor. Their high-performance, high-resolution, ergonomic HP Ultra VGA+ is blazing fast due to the local bus implementation of S3's graphics accelerators.

With HP's new Universal Processor Upgrade Socket, users can upgrade these PCs by simply adding one of eight Intel486 processors including any 25- or 33-MHz Intel487 SX, Intel 486 DX, Intel486 DX2, or Intel OverDrive CPU. No other class of PCs gives you so many upgrade options.

- The 25- to 66-MHz Intel486 microprocessors — offer speed choices to fit user needs and budgets and optimal performance for 32-bit computing
- 4 MB standard *upgradable* to 64 MB on system board and autodetection of industry-standard SIMM *memory* upgrades — no expensive memory boards needed, *easy-to-upgrade* memory
- 128-KB *write-thru* cache with four *levels* of *write buffers* and 8-KB integrated cache — up to 20% faster than noncached; critical for microprocessor *upgrades*
- 32-bit *local* bus Ultra VGA+ *supports* 1,024 x 768, 800 x 600, 640 x 480 *modes in 16 or 256* colors, *noninterlaced*; integrated S3 graphics accelerators; enhanced mode *video* drivers for applications including Windows 3.0/3.1, AutoCAD™, AutoShade, 3DStudio, Microstation, VersaCAD, CADvance, DataCAD/CADKey, Generic CADD, and others; 512 KB VRAM standard, 1,024 KB *optional* — resolution and speed for graphics-intensive applications like Windows and AutoCAD; currently fastest integrated PC video

continued on *next* page



- *3½-inch 1.44-MB standard, 5¼-inch 1.2-MB optional* — flexibility and investment protection; floppy controller interface with up to three devices
- *85-, 120-, 170-, 240-MB IDE drives and 430-MB SCSI-2 drive* — optimal capacities for target applications; 860 MB total internal capacity
- *Two 3½-inch and two 5¼-inch shelves* — internal expansion for mass storage and backup devices
- *Five full-size 8/16/32-bit EISA slots* — room to add current and future accessories and peripheral devices
- *HP Universal Upgrade Socket accepts Intel 487 SX, 486 DX, 486 DX2, and OverDrive chips at 25 or 33 MHz* — increased number of user-installable upgrade options
- *Autoconfiguration of chip upgrade* — easy to install chip upgrades
- *Flash ROMs for BIOS* — easy to upgrade system BIOS
- *Flicker-free video modes* — reduced eye strain
- *Easy access control panel* — ease of use and service
- *Can be used as desktop or minitower* — choice of operation to fit user environment
- *Temperature-controlled fans* — quiet operation
- *Built-in diagnostics in ROM that recommend problem resolution* — simple intuitive approach to common tasks

- *Single-system board design with HP-designed ASICs* — integrated design improves reliability
- *Snap-together package design minimizes service tools* — for most service operations, no tools are required
- *No system battery required*
- *Power-on password; push-button keyboard lock; chassis lock; control of hard and floppy disks, configuration and network operation; lock configuration; ISA configuration protection* — guard against data corruption, unauthorized information, and physical theft
- *Certified and tested with Novell NetWare, Banyan VINES, SCO UNIX, and Microsoft LAN Manager; support of SCSI-2 hard disk drives and other devices* — ensured multivendor network connectivity

### Product line positioning

The HP Vectra 486U PC Series is part of HP's line of advanced PCs for graphics-intensive environments like Windows and CAD. With an industry-leading upgrade system, these PCs are ready for future computing needs.

Within the HP Vectra PC family, HP offers smaller network-ready PCs and more expandable server PCs. Network-ready PCs are well suited for networked environments and server PCs offer reliability and expandability for server applications.

### Ordering information

Product No.	Description
D2266A	HP Vectra 486/25U PC, no hard disk, 486 SX CPU
D2268A	HP Vectra 486/25U PC, 120 MB IDE hard disk, 486 SX CPU
D2269A	HP Vectra 486/25U PC, 240 MB IDE hard disk, 486 SX CPU
D2272A	HP Vectra 486/33U PC, no hard disk, 486 DX CPU
D2274A	HP Vectra 486/33U PC, 120 MB IDE hard disk, 486 DX CPU
D2275A	HP Vectra 486/33U PC, 240 MB IDE hard disk, 486 DX CPU
D2278A	HP Vectra 486/50U PC, no hard disk, 486 DX2 CPU
D2280A	HP Vectra 486/50U PC, 240 MB IDE hard disk, 486 DX2 CPU
D2281A	HP Vectra 486/50U PC, 430 MB SCSI hard disk, 486 DX2 CPU
D2284A	HP Vectra 486/66U PC, no hard disk, 486 DX2 CPU
D2286A	HP Vectra 486/66U PC, 240 MB IDE hard disk, 486 DX2 CPU
D2287A	HP Vectra 486/66U PC, 430 MB SCSI hard disk, 486 DX2 CPU

All models have UVGA+ video.

HP Vectra 486/25U, 486/33U, and 486/50U PCs are available on the June HP Price List. HP Vectra 486/66U PC will be available in second half 1992 subject to Intel DX2 66 MHz availability.

Contact your HP representative for more information.

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

## Built-in support of Novell and MS LAN Manager remote startup in HP Vectra 386/N PCs

Effective June 1, HP Vectra 386/16N and 386/20N PC LAN bundles roll to include the remote startup capability under Microsoft LAN Manager 2.1. HP Vectra 386/16N and 386/20N PC LAN bundles will support remote startup under both Novell NetWare and LAN Manager 2.1.

### Features and benefits

Users will be able to start up from a Novell NetWare or a Microsoft LAN Manager 2.1 server using the same Boot-ROM chip. Users will benefit from an optimal use of memory for applications and hardware drivers as the Boot-ROM does not take up any memory.

For users who wish to upgrade current HP Vectra 386/16N and 386/20N PC systems, a Boot-ROM accessory (P/N D2407A) that supports both Novell NetWare and LAN Manager has been available since the April HP Price List. To give the distribution channel a way

of identifying old and new versions of HP Vectra 386/16N and 386/20N PC LAN bundles, product numbers will roll from D24XXA to D24XXB. B versions that will support both NetWare and LAN Manager will be available on the June price list while A versions that support only NetWare will be removed from the June price list. Orders for A versions will be accepted through June 30.

### Ordering information

Product No.	Description
D2471B	HP Vectra 386/16N PC Model CL
D2473B	HP Vectra 386/16N PC Model 50L
D2481B	HP Vectra 386/20N PC Model CL
D2483B	HP Vectra 386/20M PC Model 50L
D2471A	HP Vectra 386/16N PC Model CL
D2473A	HP Vectra 386/16N PC Model 50L
D2481A	HP Vectra 386/20N PC Model CL
D2483A	HP Vectra 386/20N PC Model 50L

The new HP Vectra 386/25N PC will support remote startup under both NetWare and LAN Manager from June 1.

## HP Vectra 486U, 486s, and 386s PCs rackmount kits

The HP Vectra SPU rackmount kit (P/N E3904A) for mounting HP Vectra PCs into system cabinets (P/N C2785A/86A), or for using HP Vectra PCs as controllers in 19-inch EIA racks contains a base, cover, and mounting hardware designed to fit the SPU. Separate kits are available for mounting the monitor.

### Ordering information

Product No.	Description
E3904A	HP Vectra SPU rackmount kit for 486U, 486s, or 386s
E3901A	Monitor rackmount kit for 14-inch SVGA monitors (P/N D1194A/95A)
E3902A	Monitor rackmount kit for 16-inch monitor (P/N A1497A)
E3903A	Monitor rackmount kit for 16-inch monitor (P/Ns 98785A and 98789A)



## Display drivers for HP Ultra VGA+ video

The HP Vectra 486U PC series includes HP Ultra VGA+, the fastest integrated PC video. HP Ultra VGA+ combines the advantages of local bus video and graphics accelerators to provide exceptional performance for graphics-intensive environments like Microsoft Windows and PC-CAD.

HP Ultra VGA+ video hardware is only one component of the video subsystem. To complete the video subsystem, software called display drivers is required. Display drivers help applications take advantage of any specialized video hardware present such as graphics accelerators and high-resolution modes.

Display drivers help your applications take advantage of any specialized video hardware present, for example graphics accelerators and high-resolution modes. HP Ultra VGA+ video includes display drivers for enhanced modes for the following applications:

- Microsoft Windows 3.0 and 3.1 (covers all applications running under Windows)
- AutoCAD, AutoShade, and 3D Studio (ADI 4.1)
- MicroStation 4.0.3.1
- CADKEY 5.0
- DataCAD 5.0
- CADVance 4.02
- VersaCAD 6.0
- Generic CADD 6.0

Many other video solutions have display drivers for Windows and AutoCAD only.

Most PC software is written to run in standard VGA mode, for which no specialized display driver is required. If there is no display driver for a given application, you can still run it on HP Ultra VGA+ in standard VGA mode. Although performance will be reduced compared to Ultra VGA+ enhanced modes, the local bus implementation makes it faster than competitors' standard VGA modes.

## HP's PC Instrument Tools for Windows integration service

The HP PC Instrument Tools Integration (P/N D1867A/B/C) service provides HP PC Instrument Tools for Windows product integrations with any model HP Vectra PC, including Microsoft Windows and combinations of the following products: HP Instrument BASIC (HP-IB) for Windows, HP-IB Interface and Software for Windows, and HP Interactive Test Generator II.

Users can create a custom HP PC Instrument Tools bundled system with a single integration product service. The service preinstalls HP PC Tools for Windows software and hardware, MS-DOS, and Microsoft Windows on HP Vectra PCs. On a single order, choose an HP Vectra PC platform and Instrument Tools for Windows products and add PC Instrument Tools for Windows Integration. The service

U.S. list price (nondiscountable) includes the acquisition of Microsoft Windows (3.X), installation and integration, final configuration testing, and shipping of a custom-created HP PC Instrument Tools solution.

### Configuration information

Because this integration service includes software, the HP Vectra PC configuration should contain a hard disk drive of at least 50 MB. The recommended system configuration is 386 SPU, 80-MB hard disk drive, and 4 MB RAM.

The following product combinations are recommended and available with the service:

- HP Language System (P/N D1807A), HP-IB for Windows (P/N E2200A), and HP-IB interface and software for Windows (P/N 823351)
- HP-IB System (P/N D1867B) and HP-IB interface and software for Windows (P/N 82335B)
- HP Full PC CAT System (P/N D1867C), HP-IB for Windows, HP-IB interfaces and software for Windows (P/N 82335I), and HP Interactive Test Generator II (P/N E2020B)



## HP's PC-300 Controller Integration service

With the HP PC-300 Controller Integration (P/N D1865A), users can have either HP Measurement Coprocessor or High-Performance Measurement Coprocessor and appropriate software (HP BASIC and MSDOS) preinstalled on any HP Vectra PC product. On a single order, the user can choose the HP Vectra PC platform, the HP Measurement Coprocessor (P/N 82300C/D), or High-Performance Measurement Coprocessor (P/N 82324A/B) and add PC-300 Controller Integration (P/N D1865A).

The integration service includes installation, integration, final configuration testing, and shipping of a custom-created PC controller solution. As the HP measurement coprocessor products include both software and hardware, the HP Vectra PC configuration should contain at least a 40-MB hard disk drive.

- 
- 
- 
- 
- 
- 
- 

## HP Vectra RS/25C and HP Vectra 486/25T PC discontinuance

The HP Vectra RS/25C and 486/25T tower PCs will be removed from the August HP Price List. For users who need the expandability of a

tower PC, HP will continue to provide this capability through the premiere HP Vectra 486/33T tower PC.

Product No.	Description	Replacement
D2219C	HP Vectra 486 25T PC Model 1	PIN D2236A, HP Vectra 486/33T PC Model 1
D2220C	HP Vectra 486 25T PC Model 1	PIN D2237A, HP Vectra 486/33T PC Model 1
D2221C	HP Vectra 486 25T PC Model 170	P/N D2238A, HP Vectra 486/33T PC Model 170
D2222C	HP Vectra 486 25T PC Model 440	P/N D2239A, HP Vectra 486/33T PC Model 440
D2223C	HP Vectra 486 25T PC Model 670	PIN D2240A, HP Vectra 486/33T PC Model 1000
D2080A	HP Vectra RS/25C PC Model 1	PIN D2236A, HP Vectra 486/33T PC Model 1
D2020A	HP Vectra RS/25C PC Model 1	P/N D2237A, HP Vectra 486/33T PC Model 1
D2082A	HP Vectra RS/25C PC Model 170	P/N D2238A, HP Vectra 486/33T PC Model 170
D2083A	HP Vectra RS/25C PC Model 330	P/N D2239A, HP Vectra 486/33T PC Model 440

## HP IGC 10 and IGC 20 Graphics Controllers discontinuance

HP Intelligent Graphics Controller 10 (IGC 10, P/N A1086A), and Intelligent Graphics Controller 20 (IGC 20, P/N A1083A), and the following accessory products for the IGC controllers: VRAM upgrade kit (P/N A1084A), DRAM upgrade kit (P/N A1085A), and IGC 10 extension module (P/N A1087A), will be removed from the July HP Price List.

HP IGC 10 has been replaced by HP Ultra VGA Board (P/N D2325A). Like IGC 10, HP Ultra VGA Board

offers a maximum resolution of 1,024 x 768 noninterlaced, but adds faster performance, high-refresh rate modes, and VGA modes for less than half the price. Capabilities of the two products are not identical; be sure to choose a video board that supports the applications you will run and a monitor capable of supporting your selected video modes.

For users requiring 1,280 x 1,024 resolution, we recommend Number Nine Computer Corporation's #9GX1 high-resolution graphics card.

Product No.	Description	Replacement
A1086A	HP IGC 10	D2325A, HP Ultra VGA board
A1087A	HP IGC 10 extension module	None
A1083A	HP IGC 20	None
A1084A	VRAM upgrade kit	D2326A, HP VRAM upgrade kit
A1085A	DRAM upgrade kit	None

## HP PC-308 and PC-312 controllers replaced

With the March 1 introduction of the HP PC-313CM controller based on the HP Vectra 386s/20 PC, and recent HP Vectra PC product discontinuance announcements, the PC-308 (P/Ns 82314G and 82319F) and PC-312 (P/Ns 823323 and 823333) controllers will be removed from the product file June 1 and **will** be orderable through June 30.

For users preferring controller solutions based on other HP Vectra PC platforms, the U.S. Field Service Center **will** offer a new service called PC-300 controller integration. Contact your HP representative for more information.

**also  
in this  
issue**

**SoftPC 3.0 now shipping  
on Series 700 and 800 32**

## HP OpenView Release 3 for strategic NSM solutions



HP recently announced HP OpenView Release 3.0, the next generation of network and system management (NSM) solutions. With HP OpenView Release 3.0, EDP and MIS users can get manageable information systems and access accounts at high management levels to supply strategic, long-term NSM solutions.

Release 3.0 products feature the enhanced HP OpenView Windows graphical user interface (GUI) and are the first available management solutions implementing Open Software Foundation (OSF) distributed management environment (DME) selected technologies. The new, enhanced HP OpenView Windows (OVW) leads in providing powerful, customizable GUI. OVW provides an integrating environment and common look-and-feel graphical interface for management applications. OVW users gain an integrated picture and broad monitoring/control over a distributed network environment potentially containing thousands of devices. Release 3.0 offers both an

end-user management solution and developers' kits. The HP Network Node Manager (NNM) 3.0 end-user product builds on award-winning NNM 2.0, offering the same discovery and mapping, single-view management, and Application Builder and DataCollector features and adding the new, more powerful OVW user interface. The release also provides a simple network management protocol (SNMP) management platform and an SNMP Developer's Kit. These products meet demands for standards-based developer tools and a lightweight run-time platform with which value-added management applications can be built and resold.

Also announced was the HP OpenView Distributed Management (DM) Release 3.1, expected to be available in third quarter 1992. This product builds on the 3.0 release, adding features for multiprotocol distributed system management. The HP OpenView DM Platform includes the features of the SNMP Management Platform and provides a communications

infrastructure and common management services (event management, data management, and object registration) that allow integration and distribution of management applications using multiple standards — SNMP; and CMOT, which is common management information protocol (CMIP)/transmission control protocol (TCP). The platform has OSF/DME-selected consolidated management API, also chosen for the X/Open Management Protocol, and application access to multiple management protocols. The HP OpenView DM Platform will include a structured query language database option based on Ingres software. The platform and associated developer's kit open development capabilities to meet the range of industry requirements from management of standards-based environments to integration with proprietary environments (such as IBM SNA and DECnet). They also provide a starting point for management solutions that can evolve to the DME.

Furthering its commitment to open systems, HP will extend the HP OpenView DM Platform capabilities to include full OSI standard CMIP services and an integrated OSI communications stack. This CMIP/OSI product is planned for release in fourth quarter 1992.

### User needs/HP OpenView solutions

HP OpenView NSM solutions increase NSM service levels, control NSM costs, and apply information technology to meet strategic business goals.

- *HP OpenView integrating environment* — HP OpenView management platforms provide

*continued on next page*

an integrating environment for current and new management applications. The new HP OpenView Windows GUI offers a range of integration possibilities from simple drop-in menu bar encapsulation of current applications to full integration of new applications with the displayed network map. The automatic discovery and mapping feature provides real-time inventory and status information on all systems and devices attached to the network, enabling an immediate increase in service levels.

- **Hardware independence** — HP OpenView management solutions are available from HP on HP-UX and Sun SPARCstation platforms and from IBM on the RS 6000 system (IBM NetView 6000, which is based on HP OpenView NNM). Users have choices in implementing HP OpenView management and can preserve the user's investment.
- **Applications** — HP OpenView supports a range of NSM applications including HP's Network Backup, Output Spooling, Performance Management, Software Distribution, and Network Device managers, and applications from HP partners. Systems administrators can mix and match these applications, integrating them under the HP OpenView Windows menu bar, to create custom management solutions. HP OpenView's growing third-party developer program makes possible availability of hundreds of focused NSM applications integrated under the HP OpenView Windows GUI and providing a common look and feel to users. These applications, including Network Service Manager, Trouble Ticketing,

Fault Management, LanProbe Manager, and configuration management, will increasingly use HP OpenView Windows and management platform services to provide integrated solutions to management problems.

- **Strategic choice** — HP OpenView provides standards-based management solutions to current problems and ensured evolution to OSF DME. Applications developed now using HP OpenView's OSF-selected DME APIs will roll forward to the future HP OpenView DME-based platform with little or no change. The HP OpenView platform will evolve to incorporate new DME technologies and other key industry standards (such as OMNIPOINT and X.700) as they become available. This offers investment protection and lasting value for strategic adopters of HP OpenView. HP OpenView's lasting value is further evidenced by the growing number of strategic adopters including IBM, Groupe Bull, and other network element providers and ISVs.
- **Solid business case** — HP OpenView can lower costs of open distributed computing. Typical cost savings are documented and backed by an independent study of the value of NSM. This Strategic Valuation Model of cost drivers in distributed computing is tailored to specific user environments to confirm cost savings resulting from use of HP OpenView solutions. Savings of \$100,000 (U.S. dollars) are typical in medium-sized enterprise computing environments and can be higher in large, multinational enterprise networks.

## HP OpenView Network Node Manager Release 3.0

The industry's best network and system management solution for multivendor TCP/IP networks is now even better. HP OpenView Network Node Manager Release 3.0 (P/Ns J2316A/J2317A/J2318A) is consistently rated number one in independent industry surveys. The third release of Network Node Manager provides significant enhancements to a proven deal maker.

### Features and benefits

New features in the graphical user interface allow maximum management station flexibility and customization. Users can create a management environment that mirrors distributed environments. Unlimited map views, background graphics, and custom symbols can be added to the standard user interface without programming.

By defining symbols that automatically execute programs or script when selected by the mouse, users can accelerate the execution of any manual task, clearly linking the task to the proper map icons. Coupled with the ability to perform specific operations on the connections between objects on the map, management of the entire environment from a single station is more efficient.

HP OpenView Network Node Manager's planning and problem management tools are also improved. With enhanced Data Collector graphing capability, users can identify trends across the

environment with graphs that are easy to create and print. The same graphs can be used in real time to identify and evaluate deviations from normal operating conditions.

**Product line positioning**

HP OpenView Network Node Manager is part of the HP OpenView family. The product represents application functionality and the HP OpenView SNMP Platform functionality. For users who have previously purchased the HP OpenView SNMP Platform, a credit may be applied to the purchase of HP OpenView Network Node Manager.

**Configuration information**

HP OpenView Network Node Manager runs on HP 9000 Series 300/600/800, HP Apollo 9000 Series 400/700, and Sun SPARC systems. Hardware requirements are as follows:

- RAM — 24 MB for Series 300/400; 32 MB for Series 600/700/800
- Color graphics — 1,024 x 768 resolution and six color planes minimum; 1,280 x 1,024 and eight color planes recommended
- Hard disk — supported on root server of diskless clusters
- Mouse

**Ordering information**

Product No.	Description
J2316A	HP OpenView Network Node Manager for Series 300/400
J2317A	HP OpenView Network Node Manager for Series 600/700/800
J2318A	HP OpenView Network Node Manager for Sun SPARC systems

**Introducing HP OpenView network and systems management platform products**

Some users need network and systems management applications that are not satisfied by third-party or previous HP offerings. These users, if they have relevant development expertise, can be interested in HP's network management developer products.

HP OpenView Platform products are a series of software, documentation, training, and support products that enable communications professionals to develop network and systems management applications in a comprehensive, standards-based environment.

Here is a listing of the basic software products:

- *HP OpenView Simple Network Management Protocol (SNMP) Developer Kit* — the development environment for creating applications to manage SNMP/TCP/IP devices or networks. Kit contains two major application program interfaces (APIs): HP OpenView Windows API, for manipulation of the graphical user interface; and the Direct SNMP API, for issuing and receiving management messages across networks.
- *HP OpenView SNMP Platform* — the run-time environment for applications developed with the SNMP Developer Kit.
- *HP OpenView Distributed Management (DM) Developer Kit* — the development environment for creating applications to manage networks using multiple management protocols or multiple communications stacks (including

CMIP over an OSI stack in late 1992). Kit contains all the elements of the SNMP Developer Kit and a preliminary version of the HP X/Open Management Protocols (XMP; formerly CM MI) MI for accessing SNMP, CMOT (CMIP over TCP/IP), and Event Management Services (EMS).

- *HP OpenView DM Platform* — the run-time environment for applications developed with either the DM or SNMP Developer Kits

HP's documentation, training, and support combine with the basic software products to provide a fundamental value of minimized time to market.

DM platform products are attractive to users such as telecom companies, governments (or their suppliers), and other large, sophisticated end users. SNMP platform products are aimed at network element providers (NEPs).

**DM platform products features and benefits**

- *HP OpenView platform products are based on standards* — Standards imply stable programming methods and interoperability with other standards-based network devices.
- *HP OpenView is the fast path to OSF's Distributed Management Environment (DME)* — DME is the emerging standard for network applications development environments. As a major contributor of technology to DME,

*continued on next page*



HP has early access to DME functionality from other contributors. Developers have access to key DME technology with HP's assured compliance.

- *HP has the support developers need* — HP delivers training, access to factory support engineers, thorough documentation, design and consulting assistance, and top-ranked VAB programs.
- *HP OpenView is available on multiple computer systems* — HP OpenView platform products are available on HP, Sun Microsystems, and IBM systems. Developers using HP OpenView can move their applications between major computer platforms with minimal effort.

**Ordering information**

Product No.	Description
<b>SNMP products (on June price list)</b>	
J2310A	HP OpenView SNMP Developer Kit (HP 9000 Series 300/HP Apollo 9000 Series 400)
J2311A	HP OpenView SNMP Developer Kit (HP 9000 Series 600 and 8001 HP Apollo 9000 Series 700)
J2312A	HP OpenView SNMP Developer Kit (Sun)
J2313A	HP OpenView SNMP Platform (Series 300/400)
J2314A	HP OpenView SNMP Platform (Series 600/700/800)
J2315A	HP OpenView SNMP Platform (Sun)
<b>DM products (will be on August price list)</b>	
J2319A	HP OpenView DM Developer Kit (Series 300/400)
J2320A	HP OpenView DM Developer Kit (Series 600/700/800)
J2321A	HP OpenView DM Developer Kit (Sun)
J2322A	HP OpenView DM Platform (Series 300/400)
J2323A	HP OpenView DM Platform (Series 600/700/800)
J2324A	HP OpenView DM Platform (Sun)

**New HP OpenView Management Stations based on Release 3.0**

Effective July 1, the HP OpenView Campus and Enterprise Management Stations will be based on HP OpenView Release 3. The stations will contain HP OpenView Network Node Manager 3.0 pre-installed and preconfigured. See preceding article, "HP OpenView Network Node Manager Release 3.0."

New system and network management products are provided as options to the stations. The interactions of the applications have been tested and any additional hardware or software needs are taken care of in the one product. The solutions are preinstalled and preconfigured; users will be set up and managing faster with fewer complications.

The HP OpenView Management Station price is designed to be equal to or less than the cost of the individual parts ordered. HP OpenView Management Stations make selling, quoting, ordering, and installing HP OpenView quick and easy.

The HP OpenView Campus Management Station (P/N B1039A) and HP OpenView Enterprise Management Station (P/N B1040A) are the fundamental hardware and software for system and network management using HP OpenView. HP OpenView Campus Management

Station is configured for environments of 50 to 500 nodes; HP OpenView Enterprise Management Station is configured for 500 to 3,000 users.

HP OpenView Campus Management Station includes:

- HP Apollo 9000 Model 710 (P/N A2214A)
- Added memory to 24K (PRV A2216A)
- Internal CD-ROM drive (P/N A2224A)
- HP-UX on CD-ROM (P/N B2358A Opt. AAB)
- HP OpenView Network Node Manager (PRV J2317A)

HP OpenView Enterprise Management Station includes:

- HP Apollo 9000 Model 720 (P/N A1933A)
- Added memory to 32K (Opt. AN8)
- External CD-ROM drive (PRV A1999A)
- SCSI cable/terminator (P/N K2294/K2291)
- HP-UX on CD-ROM (P/N B2358A Opt. AAB)
- HP-UX installed on hard disk (Opt. ODC)
- HP OpenView Network Node Manager (P/N 52317A)

## Ordering HP OpenView Windows/DOS products

This is an explanation of how to order HP OpenView Windows/DOS (OVW/DOS) products. HP OVW/DOS is a platform upon which developers can write applications to manage devices on a network for graphical network management applications that are relatively easy to use and to program in Microsoft Windows. Multiple applications can manage the same network map. The current version is A.05.03; BOI.OO, with major enhancements including combining OVRUN, OVDRAW, and OVADMIN, is scheduled for the end of June. Three categories of products are available — Developer, End-user, and Bundled.

Product No.	Description
<b>Developer products</b>	
D1825A	Developer kit (platform software, manuals, D1826A, one copy of run time)
D1826A	Developer assist (updates and support for one year)
D1828A	Evaluation kit (not on HP Price List; call 800-848-9283 or 303-353-7650, or fax 303-352-6152)
<b>End-user products (platform executable as base for application)<sup>1,3</sup></b>	
32048C	HP OVW/DOS A.05.03 run-time boxed set of disks and manuals
32011R	HP OVW/DOS A.04.00 right to copy run time <sup>2</sup>
32011S	OVW/DOS A.05.03 right to copy run time <sup>2</sup>
Opt. 401	50% upgrade from A.04.00 to A.05.03
<b>Bundled products<sup>4,6</sup></b>	
32054C	HP Vectra 386s/20 PC, cable for HP ThinkJet printer, mouse, lock, OVW/DOS, Windows, DOS
Opt. 101	HP ThinLAN connection
Opt. 102	HP ThickLAN connection
Opt. 103	HP EtherTwist connection
Opt. 104	M45 connection
Opt. 201	HP DTC Manager plus ARPA (AdvanceLink)

Opt. 202	HP System Manager with NS (AdvanceLink)
Opt. 204	HP SwitchPAD Manager for 1-5 nodes
Opt. 205	HP SwitchPAD Manager for 6-10 nodes
Opt. 206	HP SwitchPAD Manager for 11 or more nodes
D1824C	Upgrade for workstation bundle to include all workstation bundle software <sup>5</sup>
D1812B	Upgrades HP OfficeShare to ARPA

- <sup>1</sup> Simple network management protocol is available by contract.
- <sup>2</sup> These right to copy run-time products give developers a license to duplicate and are available in volume discounts.
- <sup>3</sup> Run time for A.04.00(P/N 32048A) and run-time product with volume discount (P/N 32012A) are obsolete.
- Options are available for localization and the HP ThinkJet printer.
- <sup>5</sup> Order Options 201-206 for appropriate application and networking software. Users must have purchased P/N 32054X, a support product that is not part of HP Material Update Services or Basic/Response/TeamLine support
- <sup>6</sup> Currently support for each piece of the bundle must be ordered separately.

Contact your HP representative for prices, features, and current version numbers.

## HP OpenView upgrade and support products

HP OpenView network and systems management support products and services are available for end users and application developers. A range of support products are available for the HP and Sun Microsystems versions of these products, including HP BasicLine, ResponseLine, TeamLine, and Software Materials Update services. Through local Sales Centers and Customer Information Centers, HP can enter into custom contracts for entire networks that include HP systems. Online technical support is available to companies developing applications to run on the HP OpenView platform through the HP OpenView Developer Assist Plus support product.

HP OpenView end users that have bought a copy of HP OpenView Network Node Manager and are on Software Materials Update services will receive a copy of HP OpenView Network Node Manager 3.0 after it is released. Other users may obtain HP Network Node Manager 3.0 at a discount using the upgrade credit for the previous version (Option 14).

Contact your HP representative for more information.

## A new step toward making the DTC the clear terminal server of choice for HP-UX

The latest revision of HP DTC software represents a significant step toward making the DTC the chosen server for HP-UX. HP continues to enhance support of third-party applications on HP MPE/iX for PAD and Telnet users' operational efficiency. PC software installation enhancements virtually eliminate risk of errors and increase ease of use for network managers.

### Features and benefits

With the latest revision of the DTC software, HP takes another important step toward making the DTC the clear server of choice for HP-UX. Major enhancements include the following:

#### *HP 9000 mux-compatible interface (Telnet Extension Utilities)*

Allows the use of most applications designed for Muxes with the DTC without modifications. This provides more functionality and better system integration than some solutions available with third-parties terminal server implementation (see following article, "HP DTC surpasses competition with nailed ports").

- Access to DTC-connected devices via standard UNIX system device file I/O — most applications designed to access multiplexers can use terminal server technology without modification
- DTC port identification (via IP address or DTC board/port identifiers) — provides identity checking of DTC devices, thus allowing security checks and printing of documents on appropriate DTC printer

#### *Performance improvements*

- 20% performance improvements in host-based configurations — ability to support more users/printers per systems and DTC
- Telnet/TCP/IP tuning for output-intensive applications

#### *Large HP 9000 configurations*

Extended configuration capabilities are provided to support large scale OLTP for the HP 9000

- Extended terminal configuration capabilities to support large-scale online transaction processing with up to 150 DTCs — allows high-end systems to achieve full user capacity potential
- Tools for large numbers of users (PC-based only) — provides configuration, management, and troubleshooting functions that can be used on DTC groups, making configuration of multiple devices faster and easier
- Find port tool (PC-based only) — Returns the physical location of a DTC port

#### *Enhanced third-party applications support on HP 3000*

HP continues the evolution of the DTC as a means to increase the user's operational efficiency through enhanced support of third-party applications on MPE/iX for PAD and Telnet users.

- Telnet/iX user block-mode and type-ahead support — enlarges the number of applications supported through Telnet/iX products, such as Cognos Quick products
- Padsup/iX application type-ahead support — enlarges the number of applications supported through DTC/X.25 PAD Support, such as Cognos Quick products

- Enable/disable user logon and enable/disable ENQ/ACK protocol — enhance application support in DTC back-to-back configurations; ensure HP MPE V migration

#### *PC software installation*

Network managers are provided with significant PC software installability enhancements that virtually eliminate the risk of errors and increase the ease of use.

- PC installer using expert technology — reduces installation time of the PC software and dramatically reduces the risk of installation errors

### Requirements for installed base

HP DTC16 hardware (P/N 2340A) has no specific requirements. HP DTC48 hardware (P/N 2345A) with date code less than 3110 requires a memory extension (P/N 2348A) to take advantage of new functionality. HP OpenView DTC Manager software must be updated to the 12.1 release, and HP OpenView DTC Entry-Level Manager/UX must be updated to the 2.0 release (see "Management software requirements for enhanced HP DTC" on the following page). For the HP MPE/iX fundamental operating system, 900 Series HP 3000 specific enhancements are supported with MPE/iX Release 2.2 or later. For the HP-UX operating system, HP 9000-specific enhancements are supported with Release 8.0 or later.

HP DTC Telnet Extension Utilities will be available with the next release of HP-UX, but are currently available through standard electronic delivery.

## HP DTC surpasses competition with nailed ports

Hewlett-Packard introduces new competitive features for the DTC with HP 9000 systems that no third-party terminal server can currently offer. The new DTC Telnet Extension Utilities for HP-UX and the DTC provide interface and functionality compatible with those of HP 9000 system multiplexers. The DTC Telnet Extension Utilities surpass competitive offerings by providing the extended features, system integration, and lowest host-CPU overhead that only a single-vendor solution can deliver.

The utilities are designed for LAN-based HP 9000 Series 300/800 and HP Apollo 9000 Series 400/700 systems using either the DTC16 or DTC48 (P/Ns 2340A and 2345A) for terminal/printers/device connectivity. With these new HP-UX utilities for the DTC, you can use current HP-UX applications designed for use with multiplexers over LANs and benefit from using the terminal server technology. The utilities can be used when the DTC is managed by the host or by a dedicated HP OpenView PC.

Currently, two utilities are available: DTC Device File Access provides system interface for nailed/dedicated devices (host access to DTC-connected devices via standard UNIX system device file I/O) and DTC Port Identification provides system interface for identification of DTC-attached devices.

### Benefits

These two utilities give you greater investment protection as HP-UX applications can use the terminal server technology without loss of functionality. Now most HP 9000 applications can use the DTC without any modification. The utilities also allow superior HP system integration with security checking, document printing on appropriate DTC printers, and easy online diagnostics capabilities such as user device identification for operator logout.

HP is working on decreasing the functional and performance differences between multiplexers and DTCs. The increasing transparency between DTC and HP 9000 multiplexer solutions will continue to differentiate HP's DTC from third-party terminal servers as a solution for HP 9000 systems.

### Product structure

The DTC Telnet Extension Utilities **will** be part of the ARPA software of the next general release of HP-UX. Contact your HP representative for more information.

## Management software requirements for enhanced HP DTC

The new 12.1 release of the PC-based HP OpenView DTC Manager (P/Ns D2355A and 32054C Option 201) or the new 2.0 release of the HP-UX host-based HP OpenView DTC Entry Level Manager/UX (P/N J2120A) is required to take advantage of new HP DTC functionality.

### Migration information

The PC-based HP OpenView DTC Manager Release 12.1 *runs* with the latest software version of the HP OpenView PC workstation and requires at least HP OpenView 4.0 and MSDOS 3.3, 4.0, or 5.0. It also requires one of the following

combinations:

- Microsoft Windows 3.0A and ARPA Services 2.1/MS-DOS Version B.02.00
- Microsoft Windows 3.0A and ARPA Services 2.1/MS-DOS Version B.03.00
- Microsoft Windows 3.1 and ARPA Services 2.1/MS-DOS Version B.03.00

Users on support services for HP OpenView DTC Manager **will** automatically receive Release 12.1 with the ARPA Services 2.1/MS-DOS version B.03.00. Users running the HP OpenView DTC Manager Release 6.0, 10.5, or 12.0 without the support services should order

*continued on next page*

HP OpenView Windows workstation upgrade (P/N D1824C Option 201). They will then receive HP OpenView DTC Manager Release 12.1 and the HP OpenView workstations software upgrade, including HP OpenView, Microsoft Windows, HP ARPA Services, and MS-DOS.

For HP OpenView DTC Entry Level Manager/UX users, Release 2.0 requires DTC48 with a date code greater or equal to 3110. DTC48s with date codes lower than 3110 require the P/N 2348A memory upgrade. Release 2.0 will operate without restriction on DTC16s.

**Installed base users**

With HP OpenView, DTC Manager Release 12.1 support will end for Release 10.5. Support will continue for Releases 6.0 and 12.0. Migration tools and an enhanced software installer are available with Release 12.1 to facilitate migration from these previously supported releases.

For the HP OpenView DTC Entry Level Manager/UX, support will continue for Release 1.0. Transparent upgrade to the Release 2.0 is provided by an embedded migration tool.

Contact your HP representative for ordering information.

**New high-performance, low-cost HP EtherTwist PC LAN adapters**

Hewlett-Packard has introduced the newest additions to the HP EtherTwist family of PC LAN adapters — the HP PC LAN Adapter 16/TP Plus (P/N 27247B), a 16-bit 10Base-T card; and the HP PC LAN Adapter 16/TL Plus (P/N 27252A), a 16-bit thin coax 10Base2 card.

These industry-standard architecture cards provide leading performance and have new features. The HP PC LAN Adapter 16/TP Plus is the recommended replacement for the previous 16-bit 10Base-T adapter card (P/N 27247A), and the HP PC LAN Adapter 16/TX Plus is the replacement for the previous 8-bit thin LAN (10Base2) card (P/N 27250A). The new adapter cards are priced lower than the previous cards (P/Ns 27247A/50A). The original cards will remain available as they support SCO UNIX, but will become obsolete later this year when SCO UNIX support becomes available on the new cards.

**Features and benefits**

- Industry-leading performance of 941 KB/s with only 30% CPU utilization
- Driver support for popular network operating systems including Novell's NetWare Lite, NetWare 286, NetWare 386, and Microsoft LAN Manager
- Remote startup for Novell NetWare 286 and 386 (Novell Boot ROM, P/N 27260A)
- No jumpers or switches; completely software configurable
- Easy installation with HPLANSet, an easy-to-use configuration and &agnostic program

- Industry-leading reliability backed by a lifetime warranty
- AUI port for connection to other media such as fiber optics
- LED indicators for quick network troubleshooting
- Dual mode operation; shared-memory mode for highest performance and repetitive-VO mode for plug-and-play installation

**Ordering information**

Product No.	Description
272478	HP PC LAN Adapter/16 TP Plus
272698	HP PC LAN Adapter/16 TP Plus 6-Pack
27252A	HP PC LAN Adapter/16 TL Plus
27260A	Novell Boot ROM

**HP EtherTwist PC LAN Adapter lifetime warranty**

The following HP EtherTwist LAN adapter cards purchased on or after June 1 will be backed by a limited lifetime warranty:

Product No.	Description
27245A	HP PC LAN Adapter/8 TP
27246A	HP PC LAN Adapter/16 TP
27247B	HP PC LAN Adapter/16 TP Plus
27248A	HP EISA LAN Adapter/132 TP
27252A	HP PC LAN Adapter/16 TL Plus
27267A	HP PC LAN Adapter/8 TP 6-Pack
27269B	HP PC LAN Adapter/16 TP Plus 6-Pack

To obtain the limited lifetime warranty, users must fill out and return to HP a warranty registration card included in the product package. Users who do not submit a warranty registration card are still covered by the HP EtherTwist LAN Adapter standard five-year warranty.

## HP Modular Adapter for HP 12-Port Hub Plus shipping

As of June 15, HP 12-Port Hub Plus (P/N 28688B) will include the HP Modular Adapter (P/N 28638A) at no additional cost. HP Modular Adapter provides the convenience of the plug-and-play RJ45 connector, preferred for small workgroup environments, versus the 25-pair cable Telco connectors solution.

The external packaging will include an end-flap sticker to identify the addition of HP Modular Adapter to HP 12-Port Hub Plus.

The HP Modular Adapter will not be added to the HP 48 Port Hub Plus standard product (P/N 28699A). HP 48-Port Hub Plus is positioned for larger workgroups and installed in a wiring closet, and a large percentage are installed with 25-pair cable Telco connectors.

- 
- 
- 
- 
- 
- 

## Throughput improvements for HP Resource Sharing

Initial performance tests of HP Resource Sharing (P/N B1718A) on MPE/iX 4.0 release (also available with Structured Solution, P/N B2345A) were recently completed. The tests show that HP Resource Sharing running on MPE/iX 4.0 realizes a 50% or greater gain in throughput compared to HP Resource Sharing on MPE XL 3.1. The gain is due to major enhancements made to the TCP/IP transport code in the MPE/iX 4.0 release. HP Resource Sharing's CPU utilization has improved, which reduces the CPU resource requirements at a given user load and allows the server to support more users.

The server used for the test was an HP 3000 Series 917LX. The benchmark used was the PC Magazine Benchmark, which has been used in the past to characterize other HP 3000 and 9000 file servers.

## HP LAN Manager for OS/2 upgrade program ending

The HP Manager for OS/2 upgrade program will end June 30. HP obsoleted HP LAN Manager for OS/2 (P/Ns D1809B, D1810B) earlier this year and worked with Microsoft to provide an upgrade program from HP OS/2 LAN Manager to the Microsoft LAN Manager 2.1 release.

Contact your HP representative for more information.

## HP EtherTwist 8-bit LAN Adapter price decrease

The price of the HP PC LAN Adapter18 has been lowered effective June 1 as follows. Affected products are listed below:

Product No.	Description
27245A	HP PC LAN Adapter/8 TP
27267A	HP PC LAN Adapter/8 TP 6-Pack

also  
in this  
issue

<b>Networking enhanced with HP MPE/iX Release 4.0</b>	<b>17</b>
<b>HP 3000 management with HP OpenView Network Node Manager</b>	<b>19</b>
<b>HP OpenView Console: administration made easy</b>	<b>20</b>
<b>NetBase brings disaster tolerance to HP 3000</b>	<b>21</b>
<b>Peer-to-peer connectivity for HP LU 6.2 API/XL</b>	<b>22</b>
<b>Built-in support of Novell and MS LAN Manager remote startup in HP Vectra 386/N PCs</b>	<b>37</b>

Mass Storage

## New SCSI-2 8.0-GB data compression DAT for HP Apollo 9000 Series 700 workstations

The HP Series 6000 SCSI-2 Mass Storage System (P/N C2298A) and SCSI-2 8.0-GB Data Compression (DC) DAT DDS format upgrade kits (P/N C2298T) are a high-capacity, low-cost solution for unattended backup, archival storage, software distribution, and data interchange.

These two new upgrade kits extend the HP 6000 Series family of mass storage solutions announced earlier this year. The products use the same cartridge tape as P/N C2297A and C2297T 2.0-GB DAT drives and provide up to 8.0 GB of data storage by using data compression. The kits are ideal solutions for:

- High-capacity, unattended backup
- Archival storage
- Software distribution
- Data interchange

The products underline HP's strategic commitment to DAT as the future tape backup/archival solution. The kits are also offered as internal upgrade options to HP Apollo 9000 Series 700 CPUs.

### Operating system support

The product is supported on HP-UX 8.07 for Series 700 CPUs only. Support for Series 400 CPUs is planned.

### Ordering information

Product No.	Description
C2298A	8.0-GB DC DAT for Model 1350S (specify manual option integration options)
C2298T	8.0-GB DAT for Model 670SE/1350SE (specify manual and integration options)
Manual and integration options	
Opt. ABA	English manuals
Opt. W03	Convert warranty to 90-day onsite
Opt. 0DF	User integrated
Opt. 0DG	HP field integrated
Opt. 0D1	Factory integrated
C2283A	Upgrade cable for installing P/N C2298A into older Model 330S/660S mass storage systems (required if box serial number less than 3172xxxxxx)
92283B	Box of five DAT/DDS 90m cassettes

## Ordering options for disk storage products and kits

When ordering storage options for HP's new disk products, users must specify an integration option and a manual option. When these two options are not included in an order, users could receive a different product than expected.

In reference to the integration options, users must specify how the kit is to be integrated. Refer to the HP Price List for details. In reference to the manual options, no manuals will be shipped with the product unless required language is specified.

Product No.1	Description
Integration options	
Opt. 0D1	Factory installation (kit only)
Opt. 0DF	User installation (kit only)
Opt. 0DG	Field installation (kit only)
Manual options	
Opt. ABA	English manuals
Opt. ABD	German manuals
Opt. ABF	French manuals
Opt. ABJ	Japanese manuals



## New HP 3000 and HP 9000 external storage prices

Effective June 1, 1992, prices on certain HP external SCSI mass storage solutions were reduced. List prices on selected rack and minitower cabinets and disks connecting to HP Apollo 9000 Series 400 and 700, and HP 9000 Series 300 were decreased by 8–13% (U.S. list). This puts the list price on HP's minitower cabinet, when upgraded to three 1.3-GB drives, 17% below Sun's expansion pedestal with four 1.3-GB drives, and equal to the pedestal with eight 1.3-GB drives. (Comparable Sun products include a single disk storage module, and the expansion pedestal which holds up to eight 1.3-GB drives). Comparisons are based on Sun's recently reduced prices.

List prices on cabinets and disks connecting to HP 3000 Series 9X7 and HP 9000 Model 8X7 will decrease by 7–29% (U.S. list). Internal upgrade disks will decrease up to 30%. In addition, the list price of the 1.3-GB FL rack was decreased by 13%.

Product No.	Description
<i>Workstation products</i>	
C2216T	Model 670SE
C2473T	677-MB SE disk
C2217T	Model 1350SE
C2474T	1.3-GB SE disk
C2214B	Model 1350 SE
C2295B	1.3-GB SE disk
C2481A	Model 670SX
C2491A	673-MB diff disk
C2482A	Model 1350 SX
C2492A	1.3-GB Diff disk
<i>Multuser products (all disks are single ended, except the FL disk)</i>	
<u>External</u>	
C2460F	Model 420F
C2472F	422-MB disk
C2460R	Model 420R
C2472R	422-MB disk
C2461F	Model 670F
C2473F	677-MB disk
C2461R	Model 670R
C2473R	677-MB disk
C2462F	Model 1350F
C2474F	1.3-GB disk
C2462R	Model 1350R
C2474R	1.3-GB disk
C2204A	Model 1.34FL
<u>Internal</u>	
C2471S	328-MB disk
C2472S	422-MB disk
C2473S	673-MB disk
C2474S	1.3-GB disk

## "HP 1.3-GB DAT upgrade kit discontinuance" correction

In the April *Computer Update* article referenced above, there is a footnote error in specifying the serial number range of products that need an upgrade cable product. The footnote should read, "P/N C2283A internal cable upgrade to C2212/13 cabinet is needed if C2212/13 serial number is less than 3172xxxxxx." The last number in the original article was transposed as "3712xxxxxx."

also  
in this  
issue

HP Series 6000 HP-FL disk array support on HP 3000 systems

18



## HP Sales Offices

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

### United States

#### Alabama

Birmingham (205) 988-0547  
Huntsville (205) 971-2000

#### Alaska

Anchorage (907) 563-8855

#### Arizona

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

#### Arkansas

Little Rock (501) 2257178

#### California

Calabasas (818) 8803400  
Fresno (209) 252-9652  
Fullerton (714) 999-6700  
Irvine (714) 472-3000  
Los Angeles (213) 337-8000  
Mt. View (415) 694-2000  
Pleasanton (510) 460-0282  
Sacramento (916) 929-7222  
San Diego (619) 279-3200  
San Francisco (415) 882-6800  
Santa Barbara (805) 685-6100  
Santa Clara (408) 988-7000  
Ventura (805) 658-6898

#### Colorado

Boulder (303) 938-3065  
Englewood (303) 649-5000

#### Connecticut

Glastonbury (203) 633-8100  
Stamford (203) 325-5600

#### Florida

Ft. Lauderdale (305) 938-9800  
Jacksonville (904) 636-9955  
Melbourne (407) 729-0704  
Orlando (407) 859-2900  
Pensacola (904) 476-8422  
Tampa (813) 884-3282

#### Georgia

Atlanta (404) 955-1500  
Norcross (404) 448-1894

#### Hawaii

Honolulu (808) 526-1555

#### Idaho

Boise (208) 323-2700

#### Illinois

Bloomington (309) 662-9411  
Chicago (312) 930-0010  
Naperville (708) 5058800  
Roll. Meadows (708) 2559800

#### Indiana

Ft. Wayne (219) 482-4283  
Indianapolis (317) 844-4100

#### Iowa

Cedar Rapids (319) 393-0606  
Des Moines (515) 224-1435

#### Kansas

Wichita (316) 636-4040

#### Kentucky

Louisville (502) 4280100

#### Louisiana

Baton Rouge (504) 467-4100  
New Orleans (504) 467-4100

#### Maryland

Baltimore (301) 644-5800  
Rockville (301) 258-2000

#### Massachusetts

Andover (508) 682-1500  
Burlington (617) 270-7000

#### Michigan

Grand Rapids (616) 957-1970  
Novi (313) 349-9200

#### Minnesota

St. Paul (612) 644-1100

#### Mississippi

Jackson (601) 957-0730

#### Missouri

Kansas City (816) 737-0071  
St. Louis (314) 542-1500

#### Nebraska

Omaha (402) 493-0300

#### Nevada

Las Vegas (702) 736-2256

#### New Jersey

Paramus (201) 599-5000  
Piscataway (908) 562-6100

#### New Mexico

Albuquerque (505) 823-6100

#### New York

Albany (518) 458-1550  
Buffalo (716) 689-3003  
Melville (516) 753-0555  
New York City (212) 330-6900  
Rochester (716) 223-9950  
Syracuse (315) 451-1820  
Wappinger Falls (914) 298-9125  
Woodbury (516) 682-7800

#### North Carolina

Charlotte (704) 527-8780  
Greensboro (919) 665-1800  
Raleigh (919) 467-6600

#### Ohio

Akron (216) 666-7711  
Cincinnati (513) 891-9870  
Cleveland (216) 243-7300  
Miamisburg (513) 433-2223  
Toledo (419) 242-2200  
Westerville (614) 891-3344

#### Oklahoma

Oklahoma City (405) 946-9499  
Tulsa (918) 481-6700

#### Oregon

Wilsonville (503) 682-8000

#### Pennsylvania

Harrisburg (717) 657-5900  
Pittsburgh (412) 782-0400  
Valley Forge (215) 666-9000

#### South Carolina

Columbia (803) 732-0400  
Greenville (803) 232-8002

#### Tennessee

Knoxville (615) 966-4747  
Memphis (901) 763-4747  
Nashville (615) 255-1271

#### Texas

Abilene (915) 673-7843  
Austin (512) 346-3855  
Corpus Christi (512) 289-8271  
Dallas (Love Fd.) (214) 630-6330  
Dallas (214) 231-6101  
El Paso (915) 833-4400  
Houston (713) 776-6400  
Irving (214) 869-3377  
McAllen (512) 630-3030  
San Antonio (512) 494-9336

#### Utah

Salt Lake City (801) 974-1700

#### Virginia

Falls Church (703) 204-2100  
Norfolk (804) 424-7105  
Richmond (804) 747-7750  
Roanoke (703) 774-3444  
Rosslyn (703) 204-2100

#### Washington

Bellevue (206) 643-4000  
Spokane (509) 922-7000

#### West Virginia

Charleston (304) 925-0492

#### Wisconsin

Milwaukee (414) 792-8800

#### Regional Sales Headquarters

Eastern (301) 6704300  
Midwest (708) 255-9800  
Southern (404) 955-1500  
Neely (Western) (818) 5055600

#### Canada

**Alberta**  
Calgary (403) 262-0777  
Edmonton (403) 4886666

#### British Columbia

Richmond (604) 270-2277

#### Manitoba

Winnipeg (204) 6942777

#### New Brunswick

Dieppe (506) 858-9800

#### Nova Scotia

Dartmouth (902) 4684725

#### Ontario

London (519) 6482900  
Markham (416) 678-9430  
Mississauga (416) 6789430  
Ottawa (613) 820-6483

#### Quebec

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

#### Saskatchewan

Saskatoon (306) 242-3702

*Please send undelivered copies of  
HP Computer Update to: P.O. Box 51827,  
Palo Alto, CA 94303-0724.*