A PUBLICATION OF HEWLETT-PACKARD / JULY 1993

HEWLETT PACKARD

HP Computer Update

SMP sets new standards for HP 9000 Series 800 midrange business servers

Highlights of audio conference seminar that explores HP 3000 industry-leading solution to PC integration
see page 15

Enhanced HP Task Broker for HP-UX provides simplified access to computer resources across a network
see page 23

New HP OmniBook 300 Superportable PC sets new standard in computing convenience by combining the smallest full-function computer with the power of Microsoft Windows and applications built into ROM
see page 28

New class of HP DeskJet printers developed for users who need high quality, color capability
see page 35

A PUBLICATION OF HEWLETT-PACKARD / JULY 1993

HP Computer Update

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 inside 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: 800-387-3867 in Canada.

For the number of the HP-authorized dealer closest to you, call HP's 24-hour dealer locator service at 800-243-9812.

On the cover...

New HP 9000 Series 800 symmetrical multiprocessors (SMP) and uniprocessors extend the competitiveness of the midrange servers. The new products offer lower cost of ownership, reduced installation time, and software compatibility with HP Apollo 9000 Series 700 workstations. *See* **article on page 18.**

Volume **3,** Number 5

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

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www.hpmuseum.net

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Computer Museum

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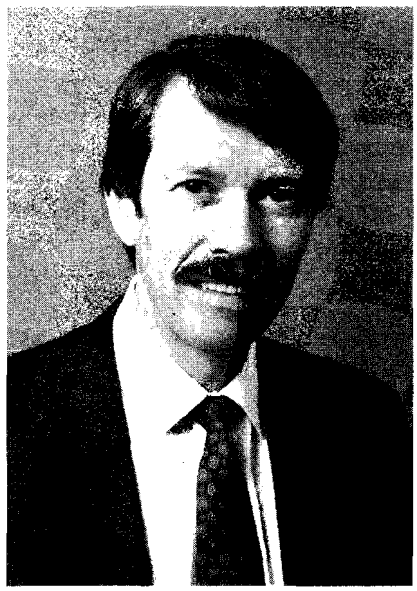
Precision RISC Organization makes progress with PA-RISC standards and availability of PA-RISC solutions

HELLO, MY NAME IS TOM BLACK AND I AM THE DIRECTOR OF MARKETING FOR THE PRECISION RISC ORGANIZATION (PRO). PRO IS AN INDUSTRY CONSORTIUM DEDICATED TO THE PROMOTION OF PA-RISC, THE DEVELOPMENT OF PA-RISC STANDARDS, AND THE PROMOTION OF OUR MEMBERS AND THEIR PA-RISC PRODUCTS. I AM WRITING TO INFORM YOU OF THE OUTSTANDING PROGRESS PRO HAS MADE SINCE ITS LAUNCH IN MARCH 1992, UPCOMING EVENTS REGARDING PA-RISC, AND WHAT THIS MEANS TO YOU AS AN END-USER CUSTOMER OF PA-RISC SYSTEMS.

Since the announcement of PRO a year ago, n-e have successfully brought Stratus, Winbond, and Samsung to our top membership ranks. These members complement the eight other Sponsor and Senior members, including Convex, Hitachi, Hewlett-Packartl, Hughes, Mitsubishi, Oki, Sequoia, and Yokogawa Electric. What this means to you is that a broader range of compatible PA products will be available from multiple vendors. which means variety and *choice*. In addition, PA-RISC will be propelled into new markets such as telecommunications and consumer electronics, lending even rnore credibility to an already highly successful architecture.



Besides recruiting new core members to PRO, we have established special interest and working task groups to accelerate the standards definition process and highly leverage efforts in promoting PA-RISC. PRO has established member-driven teams in the following areas: embedded control, personal systems, localization, and conformance. With respect to conformance, PRO members have taken the first step towards establishing the PRO conformance environment. This environment consists of

the PRO standards, conformance validation tools, and a compliance process. Recently, PRO approved its first standard — the PRO Application Programming Interface (API). In addition. PRO members are actively working on the definition of the Application Binary Interface (ABI), which is scheduled for first release by the end of 1993. Developers' conformance to these standards and achievement of compliance validation will result in a mix-and-match environment where you can literally run any PRO compliant application on any PRO-compliant system platform.

Our goal is to continue building a strong but small team of significant Sponsor and Senior members who will deliver PA to the worldwide market. These members are leaders in industries such as telecom, aerospace, computers, semiconductors, electronics, and factory automation. Each member is fully committed to developing PA-RISC products and helping guide future directions for PA. Please note that today's collective annual revenues for these 11 companies exceeds $160 billion, underscoring the financial commitment to PA-RISC over the long haul and consequently, protecting your investment in PA-RISC. Here is a brief summary of the PRO core members and their PA-RISC products:

Company	PA-RISC plans	Availability Now	Availability Future
Convex Computer	Massively parallel systems		X
Hewlett-Packard	Boards, workstations, and multiuser computer systems		X
Hitachi	Workstations, servers		X
	Microprocessors		Samples 2H93, ship 1H94
Hughes	Ruggedized workstations		X
Mitsubishi Electric.	Workstations		X
Oki Electric	Workstations and servers		X
	Microprocessors		Samples 2H93, slup 1H94
Samsung	Workstations		X
	Microprocessors		X
Sequoia	Fault tolerant systems		X
Stratus	Fault tolerant systems		X
Winbond	Microprocessors		Samples 1H94, Ship 2H94
Yokogawa Electric	Factory automation systems		X

Please note that most PRO systems members are shipping PA solutions today. Some of our semiconductor vendors will have samples of their PA-RISC chips available by years' end with volume shipments in first half of 1994, enabling product developers in a variety of markets and industries to adopt PA-RISC.

As you know, PA-RISC is a highly successful RISC architecture in the computer arena. Hewlett-Packard designed the PA-RISC architecture and has developed seven generations of chips for families of high-performance workstations and multiuser systems. PA-RISC computer systems represented nearly 31% of the total RISC systems revenues in 1992, according to Andrew Allison, editor of *RISC Management newsletter*. PA-RISC led the pack with respect to systems revenues over SPARC at 25.1% and MIPS at 20%. Hewlett-Packard and other PRO members will build on PA-RISC's success in the computer arena by extending PA to related industries and evolving the architecture to serve new markets.

What can you expect from PRO in the next six months? First, you can expect more systems introductions from our member companies including HP, reinforcing PA-RISC's position as the leading RISC technology.

Second, the PRO semiconductor vendors will be announcing their PA-RISC chip families geared towards computer systems and embedded control environments. You'll see increased visibility for PA-WSC at trade shows as members market their systems and chips. You can expect progress on PRO's standards in the areas of applications and platforms. You will hear about the availability of PA-RISC conformance testing tools to ensure the mix-and-match strategy for PA-RISC systems users. You will see leading independent software vendors complying with PRO standards.

In short, PA-RISC will continue to be in the spotlight. The collective efforts of the PRO members will ensure PA-RISC's position as a preferred RISC architecture. You will benefit from these efforts by having more PA-RISC products available from more vendors. End users like you will ultimately enjoy higher performance systems at lower costs... and more *choice* of products in a wider number of markets.

If you would like to join PRO or desire more information on PA-RISC and member companies, please contact our PRO headquarters by phone or by mail at:

19111 Pruneridge Ave., MS 44MU
Cupertino, California 95014.
Phone: 408-447-4249
Fax: 408-447-7568

Thank you for your PA-RISC support to date. There's more to come.

Regards,

Tom Black
Director of Marketing
Precision RISC Organization

INTEREX launches new magazine for users of HP-UX

INTEREX has created a new publication, *hp-ux/usr*, designed specifically for HP-UX users in multiuser, workstation, and networked Hewlett-Packard environments. *hp-ux/usr* was created to meet the unique needs of the growing population of HP-UX users and is the only publication developed specifically to address this segment of the UNIX community. *hp-ux/usr* will provide readers with hands-on solutions to everyday hardware, software, and operating system problems. The premiere issue of this bimonthly magazine was available in March, with an initial circulation of more than 11,000.

This 64-page publication will examine critical issues such as systems integration, networks, and distributed computing. It will also provide solutions to specific problems with step-by-step advice and detailed coding examples. According to Editor Michael Ehrhardt, "The magazine will feature both articles that specifically address the HP-UX flavor of UNIX and articles of general interest and concern to all UNIX users." *hp-ux/usr* will additionally contain articles on networked systems, upgrades to the HP-UX operating system, and product reviews. Readers will find a high level of technical detail as well as basic articles for new HP-UX users. *hp-ux/usr* will not only be for users, but by users. INTEREX will seek well-written user-submitted articles that address the real problems of both the new HP-UX user and the experienced administrator.

hp-ux/usr will specifically address the fastest growing segment of INTEREX membership. The number of HP-UX members in INTEREX increased nearly 50% in 1992. When INTEREX held an HP Focus Group to get the input of its HP-UX members on the content and format of this new publication, the focus group strongly recommended that the magazine include source code, focus on "hands-on" solutions, and contain a systems administration column. The focus group also suggested that the publication be four-color, magazine format, and that it be published bimonthly, rather than monthly or quarterly.

The new magazine will be included in all INTEREX membership packages and will also be available at the annual subscription rate of $49.50. To subscribe to *hp-ux/usr*, call the INTEREX Membership Department at 800-INTEREX ext. 637 or 638.

HP further helps customers adopt distributed object computing through agreements with IBM and SunSoft

Distributed object computing is an emerging computing paradigm that merges distributed computing — so that networks of disparate products can work together as an integrated whole — with the high-level interface and software programming benefits of object technology. HP believes this paradigm will deliver many business benefits to end users such as better ability to manage complexity, respond to opportunities, and evolve the business cost effectively.

HP believes object technology will be the same type of computer industry "breakthrough as RISC, client/server, and open systems. Much like its early commitment to RISC, client/server and open systems, HP has been developing object-oriented products since 1981 and now markets 14 products based on this technology. This extensive experience in commercializing object technology lets HP provide users with several migration-path options to distributed object computing while protection their existing software and hardware investments.

To further help protect users' investments, HP recently announced plans to share object technology with IBM and SunSoft.

HP and IBM plan to integrate their respective object technologies (HP's Distributed Object Management Facility and IBM's System Object Model and Distributed Systems Object Model).

This will let developers, system administrators, and end users build, manage, and use distributed object applications that incorporate across multiple platforms — initially HP's and IBM's. Once the two technologies are integrated, IBM and Hp will both supply the same end result to users.

The HP and IBM object technology will be integrated on top of the open Software Foundation's Distributed Computing Environment standard and the Object Management Group's CORBA specifications that provides a standard for how objects make requests and receive responses.

The HP, IBM, and SunSoft announcement is a continuation of ongoing efforts among the three companies to provide common distributed object interfaces on their products. The companies plan to share object technology so that common interfaces for software developers at the Object Request Broker and Object Services levels are developed. These interfaces will enable software portabihty across the companies' object-oriented platforms.

For more mformation on HP's distributed object computing program or object technology offerings, please call 408-447-5330

HP training — continuing the total HP solution

As part of HP's total solution for our users, comprehensive technical training is offered through HP's Educational Services. Whether your company is overhauling its entire computing environment or simply upgrading an operating system, HP offers a wide range of courses to assist you. With HP training, you get the expertise you need to take advantage of the technology and to maximize your productivity. Courses arc conveniently located throughout the U.S. and Canada. Below is a list of some of our featured courses, their locations, and the dates they start.

To register for a course or to obtain a complete course catalog, call 800-472-5277 (U.S.) or 800-268-1221 (Canada).

HP 9000 Series 300/400/700/800

Fundamentals of the UNIX System — In this five-day course, system administrators and software developers will receive comprehensive coverage of the UNIX system and learn fundamentals of shell programming. Course number 51434S; U.S. list price $1,550.

- Atlanta, GA — July 26, Aug. 9 and 23, Sep. 13 and 20
- Boston, MA — Aug. 2 and 30, Sep. 20
- Chicago, IL — Aug. 9, Sep. 13
- Cleveland, OH — July 26
- Dallas, TX — Aug. 16, Sep. 20
- Denver, CO — Aug. 30
- Detroit, MI — Aug. 2, Scp. 13
- Ft. Lauderdale, FL — Sep. 13
- Houston, TX — Aug. 23
- Los Angeles, CA — Aug. 9, Sep. 13
- New York/Metro — Aug. 9 and 30, Sep. 20
- Philadelphia, PA — Sept. 27
- Rochester, NY — Aug. 23
- San Francisco, CA — Aug. 2 and 23, Sep. 20
- Seattle, WA — Sep. 13
- St. Paul, MN — Aug. 2, Sep. 27
- Washington, D.C. — Aug. 2 and 23, Sep. 13
- Montreal, Canada (Eng) — Sep. 20
- Ottawa, Canada — Aug. 16
- Toronto, Canada — Aug. 9, Sep. 13
- Vancouver, Canada — Sep. 20

HP-UX System Administration Basics — A three-day course for system admstrators in a run-time-only environment. You will learn to use the system administration manager (SAM) and efficiently perform the common administrative tasks necessary to maintain HP-UX systems. Course number 50722S; U.S. list price $930.

continued on next page

- Atlanta, GA — July 26, Sep. 21
- Boston, MA — Aug. 4, Sep. 29
- Chicago, IL — Sep. 1
- Detroit, MI — July 28
- Los Angeles, CA — Aug. 25
- New York/Metro — Aug. 25
- San Francisco, CA — July 28, Sep. 15
- Washington, D.C. — Sep. 1
- Montreal, Canada (French) — Sep. 29
- Toronto, Canada — Aug. 25

HP-UX *System Administration for the HP 9000 Series 800* — Through this five-day course, system administrators will become responsible for the configuration, setup, and overall management of an HP-UX system. Course number 51482S; U.S. list price $1,795.

- Atlanta, GA — Aug. 16, Sep. 27
- Boston, MA — Sep. 13
- Chicago, IL — July 26, Aug. 23, Sep. 27
- Cleveland, OH — Sep. 27
- Dallas, TX — Aug. 30
- Denver, CO — Aug. 2
- Detroit, MI — Aug. 30
- Ft. Lauderdale, FL — Sep. 27
- Houston, TX — Sep. 20
- Los Angeles, CA — Aug. 16, Sep. 20
- New York/Metro — July 26, Aug. 16, Sep. 13
- San Francisco, CA — Aug. 30, Sep. 27
- Seattle, WA — Aug. 23
- St. Paul, MN — Sep. 20
- Washington, D.C. — Aug. 9 and 30, Sep. 27
- Montreal, Canada (French) — Aug. 23
- Toronto, Canada — Sep. 20
- Vancouver, Canada — Aug. 23

HP-US Workstation Administration for the HP *9000 Series 300/400/700* — This five-day course will help to expand what you learned in Fundamentals of the UNIX System (HP 51434S) course in order to successfully administer an HP 9000 workstation. Course number 51436S; U.S. list price $1,795.

- Atlanta, GA — Aug. 9, Sep. 13
- Boston, MA — Aug. 9
- Chicago, IL — Aug. 16, Sep. 20
- Cleveland, OH — Aug. 9
- Dallas, TX — July 26, Aug. 23, Sep. 27.
- Denver, CO — Aug. 16, Sep. 20
- Detroit, MI — Aug. 16, Sep. 27
- Los Angeles, CA — Aug. 16, Sep. 20
- New York/Metro — July 26, Aug. 16 and Sep. 13

  San Francisco, CA — Aug. 9 and 30, Sep. 27
- Seattle, WA — Sep. 20
- St. Paul, MN — Sep. 13
- Washington, D.C. — Aug. 9, Sep. 20
- Montreal, Canada (English) — Aug. 9
- Toronto, Canada — Aug. 16
- Vancouver, Canada — Sep. 27

Experienced HP-UX *System Administration: Moving to* HP *9000 Series 700 System and Network Administration* — This fast-paced five-day course provides the experienced UNIX system and network administrator with the system and networking skills necessary to support the HP-UX system when moving to the HP 9000 Series 700. Course number 50790S+112; U.S. list price $1,820.

- Boston, MA — Aug. 30
- Chicago, IL — Sep. 13
- Detroit, MI — Sep. 20
- Los Angeles, CA — Aug. 23

NetWare for the HP *9000: Fundamentals for Network Administrators* — In this three-day hands-on course for network administrators and techrucal support staff, you will learn how to install, configure, manage, and troubleshoot HP 9000 servers usmg NetWare software on HP 9000 Series 800 and Series 700 computers. Course number B3312S; U.S. list price $1,375.

- Atlanta, GA — Aug. 23
- San Francisco, CA — Sep. 14

HP *OpenView Network Node Manager Fundamentals for Network Managers* — This four-day course is for network managers responsible for managing distributed LANs or workgroup environments that run over TCP/IP. It will teach you the ins and outs of using HP OpenView Network Node Manager on the HP-UX System. Course number B3304S; U.S. list price $1,530.

Atlanta, GA — Aug. 30

- Boston, MA — Aug. 30
- Chicago, IL — Sep. 20

- Dallas, TX — Aug. 2
- Detroit, MI — Aug. 24
- Los Angeles, CA — Aug. 2
- New York/Metro — Aug. 3, Sep. 21
- San Francisco, CA — Aug. 23, Sep. 20
- Washington, D.C. — July 26, Sep. 28
- Montreal, Canada (English) — Sep. 20
- Ottawa, Canada — .Jan. 10
- Toronto, Canada — July 27

Programming

ANSI C Programming — In this five-day course, software development professionals will learn programming in ANSI C syntax, control flow, functions, pointers and the HP-UX operating system interface. Course number 35130S; U.S. List price $1,550.

- Atlanta, GA — Sep. 13
- Detroit, MI — Aug. 30
- San Francisco, CA — Aug. 9
- Washington, D.C. — Aug. 16

C++/Object-Oriented Programnzing — This five-day course is designed for programmers with one year's experience in C or another object-oriented language. You will learn and apply object-oriented concepts in the C++ programnung environment. Course number HP B1810S; U.S. list price $1,550.

- Atlanta, GA — Aug. 2
- Detroit, MI — Sep. 20
- San Francisco, CA — Sep. 27
- Ottawa, Canada — Sep. 13

Programming with OSF/Motif — This five-day course for experienced software developers and application programmers, teaches you how to develop graphical user interfaces using Motif. Course number 50767S; U.S list price $1,820.

- Boston, MA — Sep. 27
- Chicago, IL — Aug. 30
- Dallas, TX — Aug. 16
- Detroit, MI — Sep. 13
- Los Angeles, CA — July 26
- Montreal, Canada (English) — Aug. 30

HP 3000 MPE/iX

HP Technical Satellite Seminar Series — In this series of quarterly MPE courses transmitted by satellite you will stay technically up to date on the MPE system, get tips and techruques, and discuss important computing issues with peers and technical experts. Courses are offered in real-time at 29 HP Education Centers and sales offices. Course number H5809S; U.S. list price $750 subscription ($650 for multiple subscriptions), single event $250.

- September 15, 1993 — *Network Management in the '90s*
- December 3, 1993 — *The Secrets of Client/Server Applications*
- March 10, 1994 — *Building and Using Relational Databases*
- June 9, 1994 — *System Management in a Client/Server Environment*

Locations

- East U.S. — Stamford, CT; Washington, D.C.; Boston, MA; Baltimore, MD; New York/Metro, Rochester, NY; Philadelphia, PA
- Midwest U.S. — Chicago, IL; Detroit, MI; St. Paul, MN; Cleveland, OH
- Southeast U.S. — Ft. Lauderdale, FL; Atlanta, GA; Raleigh, NC
- Southwest U.S. — Phoenix, AZ; Dallas, Houston, TX
- West U.S. — Fullerton, Mountain View, Pleasanton, Sacramento, San Diego, San Francisco, Van Nuys, CA; Denver, CO; Portland, OR; Seattle, WA
- Canada — Montreal and Toronto

MPE/iX System Management Skills — This five-day course teaches new system managers how to use the 900 Series HP 3000 computer running the MPE/iX operating system, and to learn the procedures and guidelines for the effective management and scheduling of system resources. Course number 31119S; U.S. list price $1,550.

- Atlanta, GA — Aug. 23
- Dallas, TX — Sep. 20
- Detroit, MI — Aug. 16
- New York/Metro — Aug. 23
- San Francisco, CA — July 26, Aug. 23, Sep. 27

The HP 3000 user connection events

Hewlett-Packard is committed to ensuring that you have the information you need to get the most from your HP investment. Join us for these upcoming user communications events.

Audio Conference Seminar Series

This ongoing series looks at how information systems managers can leverage their HP 3000 investment to overcome today's information systems challenges. Over 90% of the users who participated in the June seminar found the content to be relevant. Upcoming topics include:

- *How to Get the Most for Your Upgrade Dollar,* August 11 — Special upgrade promotions that are currently available to HP 3000 user. Call for a list of specific promotions
- *How to Maximize Systems Availability,* October 12 — Maximize HP 3000 system availability by minimizing planned and unplanned downtime.

There is no charge for these programs. For more information and registration, call 1-800-945-4951.

Strategic Directions video teleconference

On November 14, this semiannual management update on the strategies and directions of the HP 3000 product h e , including exciting new product announcements, will be coming live via satellite to an HP sales office near you. Of the users attending, 94% thought the program was "worth my time."

Technical Satellite seminar series

Systems and network managers, programmers, and other MPE technical professionals can learn how to design and construct extended networks, manage networks, and plan for new standards in the September 15 "Network Management in the 90's" satellite teleclass. Of those attending the June program, 95% would recommend it to their peers. For detailed information and registration, call 800-HPCLASS, ext. 325 (in the U.S.) and 800-268-1221 (in Canada).

Regional User Group (RUG) events

Also join HP speakers and technical experts at your next RUG event. A complete calendar of upcoming RUG events is included in the following article.

INTEREX and Regional Users Groups calendar of events

The following is a listing of upcoming HP Regional Users Groups (RUGs) events and respective contacts. Some events may involve costs. Call the contact for complete details.

- August 10: SACRUG - Sacramento — Quarterly meeting. For information, call J.C. Strote at 209-368-2993.
- August 13-14: ORERUG - Oregon — Annual Conference and Vendor Show at the Resort At The Mountains in Wemrne, Oregon. The theme is Client/Server and the HP Environment. For information, call Jeff Coffman at 503-233-8511.
- August 19: FLORUG - Florida — Quarterly meeting at the HP Ft. Lauderdale Office, 7:00-10:00 pm. For information, call Walter Hancock at 305-974-6300.
- August 19-20: SERUG — Fall Conference and Vendor Show at the Windy Hill Hilton in Atlanta, Georgia.
- September 8: BWRUG - Baltimore/Washington — All-day meeting in Baltimore, Maryland. The theme is Databases.

- September 8: NTRUG - Texas — All day meeting at the Las Colinas office. For more information, call Marjorie Murphy at 214-960-7200.
- September 9: CENTEXRUG - Central Texas — Quarterly meeting at Omni Hotel in Austin, Texas. For information, call Julie Tereschuk at 512-345-5376.
- September 9: MINNRUG - Minnesota — Quarterly meeting. The theme is Member Appreciation. The meeting will include a paddle boat ride and dinner on the St. Croix River. For information, call Linda Roatch at 612-455-3972.
- September 9: SNUG — Meeting at the HP offices in Glastonbury, Connecticut. The topic is Applying Total Quality Management to MIS/ Cost Justifying MIS and MIS Projects. For information, call Dave Haberman at 617-859-5966.
- September 14: TUG — Full-day meeting at the HP Mississauga office, 6877 Goreway Drive, Mississauga, Ontario. For information, call Wanda Komorowski at 416-877-0161.

* September 16: ALASKA — Meeting. For information, call Marvin Barnes at 907-261-5204.

- September 16: WBTUG — RTE meeting at HP office, 2101 Gaither Road, Rockville, Maryland. For information, call Douglas Hawkland at 410-993-2064.
- September 19-23: INTEREX — 19th Annual HP Computer Users Conference at the Moscone Center in San Francisco, California. For information, call 1-800-468-3739.
- October 7: CRUG — Chicago User/Vendor Day.
- October 14-15: MARUG — Quarterly Meeting and Vendor Show in Myrtle Beach, South Carolina. The theme is Application Software. For more information, call Ray Kelly at 804-740-1581.
- October 19: WRUG — Meeting - for information, call Kraig Kasten at 414-387-4500.
- October 20: BWRUG — Baltimore/Washington — Meeting in Baltimore, Maryland, 6:00-9:00 pm. The theme is POSIX on MPE Platform.
- October 20: SMUG — Meeting at the HP Novi office. For information, call Terry Warns at 313-641-0550.
- October 21: USNYRUG — Quarterly meeting. For information, call Linda Short at 716-424-3600.
- October 21: WNYRUG — Quarterly meeting. For information, call Brian Carrier at 716-891-3125.
- November 9: SACRUG - Sacramento — Quarterly meeting. For information, call J.C. Strote at 209-368-2993.
- November 9: TUG — Meeting at the HP Mississauga office, 6877 Goreway Drive, Mississauga, Ontario. For information, call Wanda Komorowski at 416-877-0161.
- November 17: BWRUG - Baltimore/Washington — All-day meeting. The theme is HP-UX Utilities.
- November 18: ALASKA — Meeting. For information, call Marvin Barnes at 907-261-5204.
- November 18: FLORUG - Florida — Quarterly meeting at HP Ft. Lauderdale office, 7:00-10:00 pm. For information, call Walter Hancock at 305-974-6300.
- November 18: MINNRUG - Minnesota — Quarterly meeting, board nominations. For information, call Linda Roatch at 612-455-3972.
- November 18: WBTUG — RTE meeting at HP office, 2101 Gaither Road, Rockville, Maryland. For information, call Douglas Hawkland at 410-993-2604.
- December 7: SNUG — Meeting at the HP offices in Glastonbury, Connecticut. The topic is Open Systems. For information, call Dave Haberman at 617-859-5966.
- December 9: CENTEXRUG - Central Texas — Quarterly meeting at Omni Hotel in Austin, Texas. For information, call Julie Tereshchuk at 512-345-5376.
- December 15: SMUG — MPE and UX meeting and elections at the HP Novi office. For information, call Terry Warns at 313-41-0550.
- February 11: ORERUG - Oregon — Conference and vendor show at the Sun River Resort in Bend, Oregon. The theme is Interconnectivity in the HP Environment.
- April 12: ICMS — INTEREX Management Computing Symposium in New Orleans, Louisiana.

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. Select promotions are also available through HP DIRECT at 800-637-7740 (U.S. only).

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.

GENERAL

Softbench

Offer 1: If you purchase C SoftBench (P/N B3560BB), you are eligible for a net unit price of $3,300 on quantity of one lo four units and a net unit price of $2,999 on quantity of Eve or more units.

Offer 2: If you purchase C++ SoftBench (P/N B2617B), you are eligible for a net unit price of $6,000 on quantity of one to four units and a net unit price of $4,999 on quantity of five or more units.

Offer 3: If you purchase C++ SoftBench Starter Pak (P/N B3590BB), you are eligible for a unit net price of $4,500 on quantity of one to four units and a net unit price of $3,999 on quantity of five or more units.

- Scope: Worldwide — Offer 1 *(Check with, your HP representative for local availability),* Worldwide (except Europe) — Offers 2 and 3
- Eligible products: P/Ns B3560BB, B2617B, B3590BB
- Start date: July 1, 1993
- End date: October 31, 1993
- Promotion number: 2.744

HP 3000

HP LaserRX to HP PerfRX Migration

If you currently own HP LaserRX/UX or LaserRX/MPE, you are eligible to purchase HP PerfRX Analysis Software at an approximate $1,000 promotional discount.

- Scope: Worldwide *(check with, your HP representative for local availability)*
- Eligible products: P/Ns B1766B, 50700B, B3467AB
- Start date: May 1, 1993
- End date: October 31, 1993
- Promotion number: 2.733

HP 3000/System Upgrade

If you purchase an HP 3000 Series 9X7 or HP 3000 Corporate Business System upgrade, you are eligible for a 10% discount off the system, a 10% discount off all integrated disks and memory and rack cabinets, and a 15% discount off selected add-on HP software.

This promotion represents the basic hardware upgrade offer that can be ordered only when combined with one of the following related promotions: 2.737B HP 3000/MMII Upgrade promotion, 2.737C HP 30001 Transact V to iX upgrade promotion, or 2.737D HP 3000/Selected Upgrade promotion.

Special MMII Upgrade Consulting Offer — When combining this offer with promotion 2.737B HP 30001 MMII Upgrade promotion, you can elect to take 10% off the system or take an equivalent amount in post sales HP consulting or training assistance to implement the HP MPE V to MPE/iX hardware/MMII software upgrade. You can also split the 10% by taking 5% off the system and 5% off the consulting or training.

- Scope: Worldwide *(check with your HP representative for local availability)*
- Eligible products: Check with your HP representative for P/Ns
- Start date: June 1, 1993
- End date: October 31, 1993
- Promotion number: 2.737A

HP 3000/MMII Upgrade

If you participate in an HP 3000 upgrade promotion (2.737A or 2.738) and purchase an MMII software tier upgrade, you are eligible for a 40% discount off the MMII software tier upgrade fee.

Special Consulting Offer — When combiring this offer with promotion 2.737A, HP 3000/System Upgrade promotion, you can elect to take 10% off the system or you can take an equivalent amount in post sales HP consulting or training assistance to implement the HP MPE V to HP MPE iX hardware/MMII software upgrade. You can also split the 10% by choosing to take 5% off the system and 5% off the consulting or training. These discounts are in addition to the 40% off the MMII software tier upgrade fee.

- Scope: Worldwide *(check with your HP representative for local,azlailability)*
- Eligible products: Check with your HP representative for P/Ns
- Start date: June 1, 1993
- End date: October 31, 1993
- Promotion number: 2.737B

HP 3000/Transact V to iX Upgrade

If you participate in an HP 3000 upgrade promotion (2.737A or 2.738) and purchase an HP Transact V to iX software upgrade, you are eligible for a 20% discount off the HP Transact software.

- Scope: Worldwide *(check with your HP representative for Local azlailability)*
- Eligible products: P/N 30138A
- Start date: .June 1, 1993
- End date: October 31, 1993
- Promotion number: 2.737C

HP 3000/Selected Series Upgrade

If you participate in HP 3000 upgrade promotion 2.737A and upgrade from HP 3000 Series 948,958,949,950, 955, or 960 systems, you are eligible for an additional 25% in return credit.

- Scope: Worldwide *(check with your IIP representative for Local availability)*
- Eligible products: Check with your HP representative for P/Ns
- Start date: .June 1, 1993
- End date: October 31, 1993
- Promotion number: 2.737D

HP 3000 Series 980 Upgrade Incentive

If you upgrade from an HP 3000 Series 980 to an HP 3000 Corporate Business System during the promotional period, you are eligible for an additional discount of approximately $50,000 in return credit.

- Scope: Worldwide *(check with your HP representative for local azlailability)*
- Eligible products: P/Ns A1809A, A1811A
- Start date: June 1, 1993
- End date: July 31, 1993
- Promotion number: 2.738

HP 9000

Open for X Business

If you purchase an HP 9000 Series 800 Class F, G, H, or I business server (P/Ns A2428A/29A/30A/31A) during the promotional period, you are eligible to receive a 40% discount off the purchase of one HP 700 RX station with 10 MB RAM and Series 800 software.

- Scope: Worldwide *(check with your HP representative for local availability)*
- Eligible products: P/Ns A2428A/29A/30A/31A
- Start date: March 1, 1993
- End date: August 31, 1993
- Promotion number: 2.720

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WORKSTATIONS

HP Multi-SeatII (formerly HP PowerPack)

If you purchase a Multi-Seat II SSP bundle, you will receive a discount.

- Scope: United States, Canada, and Latin America
- Availability: HP DIRECT
- Eligible products: P/Ns A2870A/71A/72A/73A
- Start date: January 1, 1993
- End date: August 31, 1993
- Promotion number: 2.706

Series 400 to 700 Upgrade with Memory

If you purchase an HP Apollo 9000 Series 400 to Series 700/715 workstation system upgrade, you are eligible to receive an additional 16 MB of system RAM at no charge.

- Scope: Worldwide *(check with your HP representative for local availability)*
- Availability: HP DIRECT
- Eligible products: P/Ns A2090A/93A, A2837A, 98229A/29E, A2202A
- Start date: May 1, 1993
- End date: July 31, 1993
- Promotion number: 2.734

Software Transfer Program

This program allows you to transfer from one HP workstation platform to one of three other strategic workstation platforms, and to transfer your software licenses to the new platform as well.

- Scope: Worldwide *(check with your HP representative for Local availability)*
- Eligible products: Check with your HP representative for P/Ns
- Start date: June 1, 1992
- End date: December 31, 1993
- Promotion number: 2.648

PowerGraphics

All customers, including authorized resellers and distributors, who purchase selected HP Apollo 9000 Model 715 or 735 systems equipped with either a CRX-24Z or CRX-48Z 3D-graphics subsystem are eligible to purchase additional factory-installed RAM memory at 45-56% promotional discount.

- Scope: North America
- Eligible products: Check with your HP representative for P/Ns.
- Start date: March 1, 1993
- End date: August 31, 1993
- Promotion number: 2.721

Get MPowered

If you purchase the MPower multimedia client during the promotional period, you are eligible for an 80% discount.

- Scope: Worldwide *(check with. your HP representative for local availability)*
- Eligible products: P/N B1194A
- Start date: April 1, 1993
- End date: September 30, 1993
- Promotion number: 2.726

PERIPHERALS

HP 700196 Terminals

If you purchase an HP 700196 or 700/96ES &play terminal during the promotional period, you are eligible for a $180, or 19-20%, discount per unit. This discount can be applied to terminals ordered as part of the HP 3000 Series 9X7 structured solutions.

- Scope: Worldwide *(check with your HP representative for local availability)*
- Availability: HP DIRECT
- Eligible products: P/Ns C1064A/G/W, C1084W
- Start date: June 1, 1993
- End date: December 31, 1993
- Promotion number: 2.739

PC integration: An information systems issue close-up

Desktop PCs have forever changed the information systems landscape. As an HP 3000 user, how can you respond to the challenge of integrating PCs into your overall information systems architecture?

The HP 3000 solution

You already own the foundation of an industry-leadmg PC integration solution, the HP 3000. Such a solution offers numerous important benefits, includmg:

- Enterprisewide data access and integration
- Centralized systems and network management
- Integration of PCs, terminals, and desktop peripherals

A PC integration solution based on the HP 3000 has three required components: Network Infrastructure, Network Operating System, and Host/Application Access.

The Network Infrastructure provides the basic connection between the various components of the desktop integration solution. This includes the network wiring (such as ThinLAN or unshielded twisted pair), network interface cards in both the HP 3000 and the PC, and corresponding network driver software.

The Network Operating System (NOS) software offers the core functionality of the PC integration solution. This includes file and print sharing, network administration, and security. Unlike most PC network servers, NOSs on the HP 3000 run as standard MPE applications and do not interfere with the operation of MPE/iX. HP 3000 users have four NOSs to choose from:

- NetWare, the HP 3000 implementation of Version 3.01B of Novell's marketshare-leading product, offers all the functionality of NetWare on an Intel server. Recent enhancements have dramatically improved NetWare performance, making performance comparable to that offered by a dedicated PC server. NetWare is the recommended NOS for users with DOS or Windows PC clients.
- LAN Manager for the HP 3000 offers file and print sharing, support for LAN Manager 2.1 clients, and Named Pipes. LAN Manager for the HP 3000 is a functionally stable product, with no new enhancements planned. Hewlett-Packard will, however, continue to support LAN Manager for those users who find it meets their needs.
- Coming first half of 1994 is AppleShare, providing integration between Macintosh clients and an HP 3000
- For integrating UNIX PCs and workstation, Quest Software offers NFS/iX, a port of Sun Microsystems NFS.

Users whose environments have a mix of clients may need to have multiple NOS running simultaneously on the HP 3000.

Even in an integrated environment, most PC users still require access to applications running on the HP 3000. Host application access has two parts: transport, services and terminal emulation. Transport services provide the underlying transport to connect the PCs to the HP 3000, such as HP's PC NS/ARPA and Walker Richer Quinn's Reflection Network Series. Terminal emulators are also available from both HP and third parties.

With these three components in place, a basic PC integration solution is complete. However, further benefits, both to end users and the information systems organization, can be gained by building on this basic solution. Possible "extras" include:

- Network *printing* — offering users the ability to print their HP 3000 files to any local printer. This can be done using a variety of third-party tools, including Unispool from Holland House, Transpooler from NSD, NBSpool from Quest Software, and Spoolmate from Unison-Tymlabs.

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- *Network PC management* — enabling centralized back-up and management of a distributed PC network. Quest Software's Plan B helps protect valuable PC data by offering automated, on-line back up of distributed PCs. HP's Software Vendor reduces the effort required to distribute and update PC applications by centralizing these efforts on the HP 3000.
- *Data integration* — bringing business information to the desktop by giving PC users easy access to multiple databases. A variety of tools offer this, including Cognos' Impromptu, Gupta's Quest, HP's Information Access, and Trinzic's Forest and Trees.

Putting this all together offers immediate gains to the organization, through better decision making, improved productivity, and more effective use of critical data.

At the same time, this represents the first step towards the future vision of client/server computing. The time is right for action.

This article is based on the recent "How to Integrate PCs with your HP 3000" audio conference seminar, a 60-minute look at how information systems managers can use their HP 3000s to overcome the challenge of PC integration. If you missed this program and are interested in receiving a copy, please call 408-447-4758.

New HP AdvanceLink version 3.18 for MS-Windows and HP NewWave

The new HP AdvanceLink for MS-Windows and HP NewWave license to use and upgrade (PNs D2104C and D2108C, respectively) are comprehensive data communication products that enable users to integrate host/terminal applications with client/server and PC applications and provide emulation of HP and DEC terminals, allowing execution of host software from either MS-Windows or HP NewWave.

The packages were developed for users who want an HP single-vendor solution to satisfy terminal emulation needs.

Features and benefits

- Version 3.18 offers new, leading-edge functionality
- Fast, reliable file transfer simplifies data exchange between PC and host
- Cut and paste, and DDE support allow PC-to-host application integration
- Task automation through extensive scripting language minimizes the effort required to complete complex, frequent activities
- Third-party network support allows connection via TCP/IP to HP 9000 systems using NetManage NEWT or Chameleon software and Frontier SupetTCP software; both are Windows Dynamic Link Libraries that allow connections to hosts over NDIS-compatible TCP/IP networks

Strategic fit

HP AdvanceLink packages for HP 3000 and 9000 computers continue to provide users with quality products and new terminal emulation capabilities. The next HP AdvanceLink release, which will be available in late 1993, will offer additional functionality, such as expanded file transfer capability supporting Z-modem and Y-modem protocols. Users can use HP AdvanceLink today and be prepared for future open systems networking solutions.

CIO SCSI startup support on Series 950/955/960/980 systems

Now users can start up from SCSI devices on high-end CIO HP 3000 systems. CIO systems are members of three separate families. Not all families support SCSI startup and not all families support SCSI devices.

To support SCSI startup, users must order the IODC firmware upgrade kit (P/N A1756A Opt. 423).

System	CIO SCSI support	CIO SCSI startup support
Series *92019221 93219481958*	No, except optical	No
Series *92519951* 949	Yes	No
Series *950195.51* 960/980	Yes	Yes

HP 3000 Series 9871150 extends performance by 40%

The performance of the HP 3000 Series 9X7 family has been extended by 40% with the introduction of Series 9871150.

The Series 9871150 was developed for midrange and high-end users requiring worry-free, business-critical computing and aggressive price/performance.

The product is available in 4-slot (RX) and 12-slot (SX) configurations. The bundled software and HP OpenView console included in the Series 9X7 PLUS menus are also available with Series 9871150. A 4-slot chassis has been added to the Series 987 menu creating the Series 987RX system. Associated field upgrade products for Series 9X7 users who want to move to these systems have been created.

Features and benefits

Series 987/150 provides a 40% performance boost over Series 987 resulting in a 450% performance span over the Series 9X7 entry level. Other configuration specifications of Series 9871150 are similar to those of Series 987.

HP ARPA Services SSP bundle

Effective June 1, 1993, an HP ARPA Services Structured Solution (SSP) bundle (P/N J2258A) replaced the HP ARPA/40 Services (P/N 36955A) and the ARPA/80 Services (PIN 36956A) that are being discontinued as of September 1, 1993, and June 1, 1993, respectively. The HP ARPA Services SSP bundle can reduce the overall cost of ownership for users who require the use of both the HP ARPA File Transfer Protocol product and the HP ARPA Telnet product for interconnecting HP 3000 systems in multivendor environments. The solution adjustment for the SSP is 20%.

New SMP and uniprocessor extensions for HP 9000 Series 800 integrated business server family

HP HAS ENHANCED THE SERIES 800 INTEGRATED BUSINESS SERVER FAMILY TO BE THE MOST COMPLETE AND POWERFUL DESKSIDE SERVERS CURRENTLY DESIGNED FOR CLIENT/SERVER UNIX®-SYSTEM COMPUTING. EFFECTIVE WITH THE JULY 1993 HP PRICE LIST, HP HAS ANNOUNCED NEW SYMMETRIC MULTIPROCESSOR (SMP) EXTENSIONS FOR THE G/H/I-CLASS SERVERS, MODELS G70, H70, AND 170, WHICH OFFER DESKSIDE ONLINE TRANSACTION PROCESSING (OLTP) PERFORMANCE THAT IS AMONG THE HIGHEST AVAILABLE.

HP also has announced new, more powerful uruprocessors, Models G60, H60, and I60, which extend HP's industry-leading uniprocessor performance. The new SMP and uniprocessor systems are available at price points that provide competitive price/performance value and allow users to compete favorably against HP's most price-aggressive competitors.

SMP extensions

The new SMP servers feature dual symmetrical 96-MHz PA-RISC 7100 processors that yield competitive OLTP and file server (NFS) performance. Each of the new servers features a large 4-MB instruction/data cache (2-MB I/D cache per processor) and provides an OLTP boost of nearly 100% over that of current Models G50, H50, and I50. Based on price/performance, new Models G70, H70, and I70 can be aggressively positioned against competitive SMP and non-SMP offerings. They have the advantage of offering the industry's most developed commercial UNIX-system solution environment currently available.

Uniprocessor extensions

The Series 800 family offers a new, more powerful version of the 96-MHz PA-RISC 7100 uniprocessor. The new uniprocessor servers feature a large 2-MB instruction/data cache that is four times larger than that of current Models G50, H50, and 150, and the new servers offer a boost in performance of 45% over that of these current models. This new performance point will especially benefit single-threaded batch-oriented users who must rely on strong uniprocessor performance. New Models G60, H60, and I60 do not require special application tuning to exploit their full server performance capabilities.

HP DCE/9000 enhancements

HP announces the next release of HP DCE/9000, OSF/Motif-based Distributed Computing Environment (DCE) products for HP 9000 Series 800 and HP Apollo 9000 Series 700 platforms running HP-UX 9.0. HP DCE/9000 is based on the latest release of OSF technology and offers additional functionality for development and management of DCE-based applications and environments. With the combination of robust software, leading development tools, and in-depth training and educational services, HP continues to offer the most comprehensive DCE implementation currently available.

The HP DCE/9000 offering was developed for DCE software developers, HP Channel Partners and ISVs, and users planning initial DCE deployments, as DCE is a standard for client/server applications running across multivendor environments. HP DCE/9000 can be applied when:

- The user is downsizing from a mainframe to a computational cluster and the program running on the mainframe is rewritten for distribution across clients and servers within the cluster
- The user needs to write a distributed application on an industry-standard framework that will run on every system in a large, heterogeneous environment
- Channel Partners and ISVs have different versions of their software to accommodate each of their supported systems, and they can now write only one version of their software on top of DCE because DCE will be supported on most computer systems

Current NCS or ONC RPC-based applications also can be converted into DCE-based applications.

Enhancements

With the new HP DCE/9000 release, additional functionality is available for DCE-based application software development and management. For improved programmer efficiency, DCE development can now be done within SoftBench, HP's industry-leadmg software development environment. HP is currently the only vendor that offers a CASE solution for DCE, and DCE developers can take advantage of the tools and utilities available within the SoftBench product family.

Additional enhancements and management tools available for lower operations cost include DCE Security server replication for increased availability of critical DCE services. The performance of DCE Cell Directory Server (CDS) has been increased for improved performance of DCE applications. A new graphical browser and editor is available for efficient management of critical information in the CDS namespace, providing a graphical representation of the CDS namespace for viewing and editing entries and their relationships.

The new enhancements build upon the robust DCE base already available with HP's first release of DCE last year. HP is continuing its leadership and commitment to making DCE as easy as possible to develop with, administer, and use. HP has made it easier to install, configure, and validate DCE implementations by integratmg the DCE install/configure process into HP-UX's Motif-based, menu-driven System Administration Manager. The special validation test suites ensure successful DCE installation and configuration. The full DCE server replication can provide redundant DCE services for increased availability. The additional DCE administration tools. developed by HP, can help HP's online support organization and users perfonn DCE administrative tasks.

The new DCE development tools complement current tools, such as a DCE RPC tracing and logging facility with an error reporting facility to aid in the debugging of DCE applications. The instrumented interface definition language compiler can be used to trace RPC activity in distributed applications. Several online DCE application examples are included to help both novice and expert DCE programmers get started.

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HP DCE/9000 is the foundation for a range of distributed, client1 server computing solutions from HP. Starting with DCE, HP is adding special enhancements needed for specific environment,~For example HP is also introducing the HP Encina/9000 transaction management environment for ensuring data integrity in distributed online transaction processing (OLTP) applications. HP is pursuing a program to continue its leadership position with ongoing releases of DCE, Encina, and other distributed technologies in distributed OLTP and distributed objects. HP plans to continually enhance these environments with industry-leading development and management tools.

DCE core services

HP DCE/9000 consists of two software products: DCE Core Services and DCE Application Development Tools. DCE introduces the concept of a cell. A DCE cell is an administrative unit, typically defined as a group of users that share the same resources. Each DCE cell must contain at least one CDS and one Security server. Systems in the DCE cell, including the servers, are also DCE clients. In addition both CDS and the Security server can be replicated, and so there are two CDS at one time running in a DCE cell. This ensures availability of CDS because if the primary server fails the replicated CDS provides backup.

Ordering information

The new I-IP DCE/9000 software will begin shipping at the end of August 1993. Users on support services will automatically receive the new DCE release as part of their normal support contracts. The new software will be available under the same product numbers as those for the current DCE products. Although the product structure is the same for both the Series 700 and Series 800 product lines, the pricing is different.

Product No.	Description
B2920A	Series 700 media and documentation, U.S. only
B3190A	Series 800 media and documentation, U.S. only
B2921A	Series 700 media and documentation, international
B3191A	Series 800 media and documentation, international

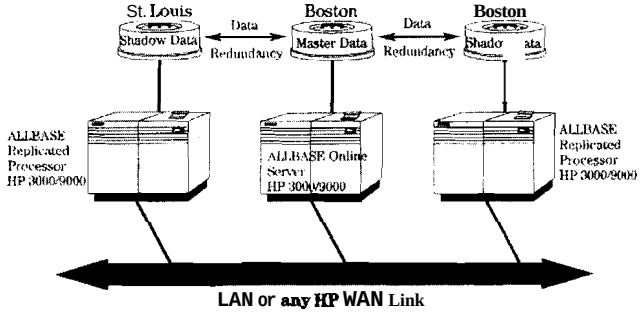
DCE Quick Start Bundle

A bundle is available for users who are getting started with DCE. The bundle offers software, licenses, and documentation required to build and run a five-node DCE cell and for five developers to use the DCE development tools. The bundle is available for Senes 700 and 800 (P/Ns B2903A and B3519AA) and offers significant savings as compared to ordering the individual products (additional licenses must be purchased separately). The international version of the DCE/9000 software is provided with the bundle.

HP ALLBASE/Replicate provides high-availability database solution on HP 9000

HP ALLBASE/Replicate (P/N B3480A) is a new solution that replicates and synchronizes HP ALLBASE/SQL data to other locations on the same or different systems over a network. It provides local access to remote data and improves database performance through offloading read-only applications to the shadow database.

ALLBASE/Replicate Database Fills the Need of High Availability Customers



HP developed this solution for any industry requiring high-availability databases for 24-hour system availability, instant remote system updates, or built-in disaster recovery.

With HP ALLBASE/Replicate, users can shadow or replicate all or part of an HP ALLBASE/SQL database. They also can increase fault resilience by maintaining shadow copies of the database. HP ALLBASE/Replicate is now shipping and has been at user sites for over six months.

Features and benefits

- *Fault resilience* — Users may switch to a secondary (shadow) site if primary site fails.
- *Performance* — Read-only applications may be offloaded to one or more secondary sites to enhance performance of primary database system.
- *Local access to remote data* — Corporate sites have access to regional shadowed databases for enhanced and faster decision support functions.
- *Offload of back-up functions* — Database back-up functions may be performed on shadow databases, enhancing system administration-related performance of primary databases.
- *Remote, unattended back-ups* — With Replicate, customers can perform online and unattended (automated) database backups.

HP ALLBASE/Replicate enhances the ALLBASE/SQL mainframe-class relational database offering and fills a need for high-end and MFA users requiring high-availability RDBMS on the HP 9000 Series 800 and on the HP 3000 Series 900.

New HP 9000 Corporate Business Server Solution Bundles

The new HP 9000 Corporate Business Server Solution Bundles combine HP 9000 Model 890 hardware with expanded memory configurations and include unlimited-user RP-UX licenses and system management software.

The bundles were developed for users evaluating the use of Model 890 as a mainframe alternative platform; these users typically will be offloading or rehosting applications from mainframe environments.

Features and benefits

The bundles include the components that are typically required in high-end system environments:

- Model 890 with expanded main memory configurations
- An unlimited-user UNIX system license
- System management software for performance management, disk mirroring, backup, and print spooling
- System support options for expanded warranty coverage

Ordering information

HP 9000 Corporate Business Server Solution Bundles are implemented as structured solution programs and are on the July HP Price List. The bundles have a 5% solution adjustment discount.

Product No.	Description
A3028A	Model 890, one CPU
A3029A	Model 890, two CPUs
A3030A	Model 890, three CPUs
A3031A	Model 890, four CPUs

New HP Software Integration Sockets release enhances functionality

The new HP Software Integration Sockets (HP Sockets) release A.03.00 is a software product for HP-UX, MPE/iX. MS-DOS", AS400, DEC, VAX, MVS, and Sun Microsystems that is designed to facilitate communication between applications across a network of disparate computer systems. This new release was designed for software developers who need to integrate new and current applications.

Features and benefits

- *Dynamic reconfiguration* — allows for addition of nodes and processes into the HP Sockets environment. without having to restart
- *Larger message size* — provides an increase from 1 KB to 64 KB that expands the amount of information users can send from one process to another
- *Message broadcasting* — increases functionality and improves performance for applications that send the same message to multiple applications simultaneously
- *Shared mailboxes* — increases performance by allowing load balancing, more than one process to read messages from the same mailbox
- *Full COBOL data types support* — reduces programming effort by automatic translation of COBOL data types
- *Improved system administration with new commands* — allows users to query HP Sockets for information such as configured processes and the number of messages queued
- *Reduced solution cost for MPE/iX users* — removes the C compiler requirement for users who do not need data manipulation

HP Sockets and DCE are complementary because they solve &-ferent problems. HP Sockets is better for integration of new and current applications that reside on multiple systems on the network. HP DCE is used for the development of new applications that distribute processing across multiple platforms. HP Sockets and DCE can both run on the same network and same system. HP Sockets adds value on top of BSD Sockets by providing reduced application interdependence, location transparency, programmatic batch file transfer capabhty, message transfer that occurs regardless of network failure or receiving process availability, and multiple means of message access by priority, by sending process, or FIFO.

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

HP 9000 Model 362/382 and Series 7Wi update

Effective July 1, 1993, users can order updated B versions of HP 9000 Model 362 and 382 controllers and Series 700i industrial workstations. The systems will include the latest 15- and 17-inch workstation monitors as part of the standard or optional configurations. There will be changes to the base configurations of the three product f a d e s .

The A-version systems will remain on the HP Price List until October 1, 1993. The list price of these systems increased an average of 15% on July 1, 1993. The list price of the new B-version systems will be higher than the A-version prices due to the addition of RAM and interfaces. Rackmount kits for the new B-version monitors will also be available; order P/N E3907A for P/N D1196A, and P/N E3908A for P/N A2287A.

Increased standard disk for HP 9000 Series 800 I-Class servers

Effective with the July 1993 HP Price List, all I-Class servers will come standard with 4 GB of disk instead of 2 GB to make the products more competitive in the marketplace. The new configuration consists of 2 x 2-GB full-height disk drives. This new 4-GB configuration is orderable only when integrated with an I-Class server. I-Class users have the option to delete or substitute the new standard disk configuration. Maximum internal disk support remains the same at 6 GB.

Task Broker release version 1.1 for HP-UX

The HP Task Broker version 1.1 is an enhanced version of a software tool that provides simplified access to computer resources across a network. This new version was developed for users on a network who perform compute-intensive tasks and could benefit from access to other computer resources.

This enhanced version of HP Task Broker for HP-UX introduces a GUI, new functionality, and improved ease of use with faster installation and setup and better flexibility.

Features and benefits

The new release provides significant enhancements to product ease of use.

- GUI — provides easy access to most HP Task Broker services and configuration information, simplifying Task Broker administration; provides task status monitoring and control
- Centralized configuration *management* — allows HP Task Broker installation to be initialized using a single group configuration and administered from any single machine site
- Integrated forms-based configuration *editor* — provides easier and more robust administration of HP Task Broker information, with simpler configuration syntax and checking that is done during the editing session
- Online *context-sensitive* help subsystem — contributes to HP Task Broker's overall ease of use by providing usage information when it's needed, using the help system on HP W E 3.0

With HP Task Broker, users can do the following:

- Load balance jobs on a group of computer systems
- Distribute computational tasks among heterogeneous UNIX® system-based computer systems
- Perform computational distribution without making changes to the application itself
- Transparently find the most available server for a computational task
- Form a computational cluster, which can replace a more expensive mainframe or supercomputer and provide increased availability, scalability, and reduced costs
- Create a heterogeneous cluster, which allows networks of machines from multiple vendors to interoperate in a completely transparent fashion.

Benefits that result are more efficient access to compute resources, improved productivity and products, greater flexibility and ease of accessing multiple servers, and access to heterogeneous computers.

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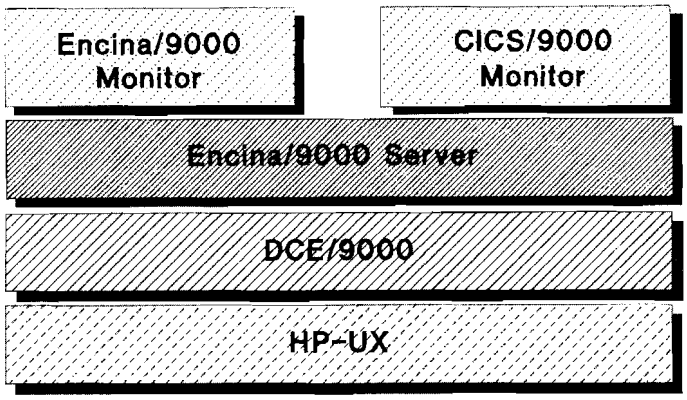
New HP Encina/9000 provides data integrity for distributed OLTP

The new HP Encina/9000 is the first HP release of Encina transaction management software for the HP 9000 product h e . The software was-developed for users in financial services, manufacturing, and other industries whose businesses have been built on online transaction processing (OLTP) applications.

The Encina technology n-as developed by Transarc Corporation and has been licensed by HP as a software product for HP Apollo 9000 Series 700 u-orkstations and HP 9000 Series 800 business servers.

Distributed OLTP From HP



Features and benefits

HP Encina/9000 ensures data integrity, which can be critical to businesses running distributed OLTP applications. In these environments, numerous. distributed systems continually send transactions across heterogeneous databases. Encina acts as a transaction coordinator, handling transaction scheduling, queueing, and load balancing across diverse databases and hardware, to ensure that the multiple transactions do not corrupt one another.

- *Two-phase commit* — an all-or-nothing execution for coordinating distributed transactions
- *Transactional remote procedure call (RPC)* — a facility extension for adding integrity into the DCE RPC
- *Logging, locking, and recovery* — a feature for updating or rolling back multivendor databases upon transaction failure

HP Encina/9000 is layered on top of the HP Distributed Computing Environment (DCE)/9000 product and is HP's strategic enabling technology for OLTP. Using HP Encina/9000 as a foundation users will be able to develop applications using either HP Encinal 9000 Monitor or the CICS monitor.

Encina offers a new approach to transaction management. It differs from traditional approaches in several ways:

- Encina is currently the only transaction manager based on DCE, the industry standard for distributed computing. This means that Encina users will not be locked into a single operating system or vendor. With endorsements by HP, IBM, and Sun Microsystems, DCE has emerged as a premier foundation technology for distributed computing. This feature distinguishes Encina from the USL Tuxedo and NCR TopEnd products.

- Unlike the distributed database approach to OLTP, Encina coordinates transactions across heterogeneous databases and hardware. This frees Encina users from being locked into single database vendors.
- Encina's modular, client/server design gives users a choice in monitoring APIs. Users can use Encina/9000 Monitor or the CICS monitor. The CICS monitor will be available later this year.
- HP and IBM currently are the only hardware vendors providing Encina products on their platforms. Encina is available on Sun platforms but is not backed by Sun as a strategic product. Transarc Corporation sells and distributes Encina on Sun platforms.
- The HP Encina implementation is currently the only Encina product on the market that includes developer validation and debugging tools as well as application templates.

To run HP Encina/9000, users must have HP DCE/9000 software in place. Users should have already configured a DCE cell and should have DCE Executive software in place on all nodes in the cell.

New HP 32-port multiplexer

The new HP 32-channel multiplexer (P/N J2096A) is an HP-PB 32-channel RS-232 asynchronous multiplexer for HP 9000 Series 800. The new multiplexer was developed for environments that need direct-connect ports running HP-UX 9.0 and later.

Features and benefits

The product offers a larger port capacity per I/O slot with the same high performance of current nlultiplexer products. It is a single-high card and includes two 16-port, industry-standard RJ-45 female connectors that can be rackmounted in a standard 19-inch cabinet. Optional DB-25 connectivity is available in a 19-inch direct distribution panel. Users can now double the number of ports in a system at a price that is about 20% lower per port than that of current multiplexers

The product is not available in RS-423 or modem connect. If this is required, use the 16-port products (P/Ns J2093A and J2094A). A factory-integrated version (P/N J2096AZ) will be available in July.

Domain '93 Program

HP supports Domain users by providing current product engineering and user-driven enhancements to help extend current system investments. New updates for Domain SR10.4 have been developed and are a part of the Domain '93 program. The update is available as of July 1, 1993.

Features and benefits

- *X11R5 support* — Run-time environment allows the execution of X11R5-compliant applications. (The X11R5 server is backward compatible with previous versions of X Windows applications.) The major components of X11R5 are an X server, a font server and fonts, a set of shared and archived libraries, various standard clients, and header files. The major differences between X11R5 and the current X11R4 are a new, more general mechanism for storing and accessing fonts, internationalization hooks, the ability to use new color spaces, and defect fixes and performance enhancements.
- *OSF/Motif 1.2 shared libraries* — required to run Motif 1.2-compliant applications within an X11R5 environment
- *hpterm 1.3* — X11R4-compliant application for running an HP 2392A terminal emulation window that is useful for accessing HP 3000 applications such as HP SupportLine
- *User Environment development kit (UEDK) 2.0* — enables creation of applications that are X11R5- or Motif 1.2-compliant and includes X11R5 archive libraries, X11R5 header files, and the Motif 1.2 development environment
- *Configuring your Domain node for X terrnznal-like operation application note* — gives an overview of how to configure a Domain node as an X-terminal; is beneficial when using a high-performance HP Apollo 9000 Series 700 server in conjunction with Domain nodes. With such a configuration, for example, the performance of a DN.3000 can be increased to approximate that of a standalone entry-level HP Apollo 9000 Series 400.

The new functionality is being packaged into two products that will be available as specials effective July 1, 1993. X11R5 on Domain includes X11R5, Motif 1.2, and hpterm 1.3 run-time software. Users who maintain HP support contracts for Domain will be sent a packet describing how to obtain a copy of X11R5 on Domain at no charge. Users without HP support contracts for Domain need to purchase X11R5 on Domain.

LJEDK2.0 includes the development environment for X11R5 and Motif 1.2. It is available only as a new product.

New media options for GFoX

New media options are available for GFoX, the graphics and forms terminal emulator on X11, which runs on HP 9000. GFoX allows users to leverage current HP 1000 applications into an HP-UX X11 environment. It provides support for Graphics/1000-II (AGP/DGL) and Forms/1000 applications.

Ordering information

Product No.	Description
B2696A	
Opt. AAH	DAT media option for GFoX on HP 9000 Series 300/HP Apollo 9000 Series 400
B2698A	
Opt. M 4	QIC media option for GFoX on HP 9000 Series 800

HP RTE-A for A600+ returns to HP Price List

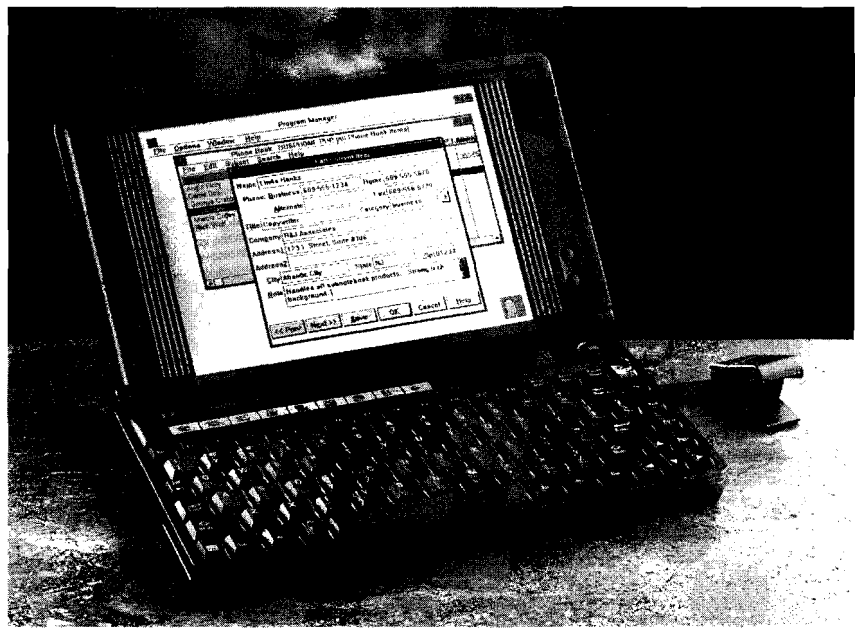
As of July 1, 1993, P/N 92077A Option 600 will return to the HP Price List. This option is the original software product with a license to use HP RTE-A on one HP 1000 A600+ SPU/CPU. With the return of the option, A600+ users will be able to purchase the most current version of the HP RTE-A operating system. All other HP 1000 software available for A-Series platforms is available via Option 600 for these users.

Introducing the HP OmniBook 300 Superportable PC

THE NEW HP OMNIBOOK 300 SUPERPORTABLE PC IS THE ONLY PORTABLE COMPUTER THAT LETS MOBILE MANAGERS CONVENIENTLY WORK AWAY FROM THEIR DESKS WITH NO HASSLES. IT IS THE SMALLEST AND LIGHTEST PC ON THE MARKET TO FEATURE A FULL-SIZE KEYBOARD AND FULL VGA SCREEN.

Superportables are a new class of truly portable PCs that deliver superior customer convenience in on-the-go computing. The HP OmniBook Superportable PC, with add-ons, upgrades, and umbrella support, offers added productivity with no hassles. Pricing is comparable to leading volume notebooks.

The HP OmniBook 300 Superportable PC is available in two versions — 40-MB hard disk storage and 10-MB flash disk storage (P/Ns F1032A and F1031A). The 6.4 x 11.1 x 1.4 inch superportable PC weighs less than three pounds, and includes Microsoft Windows , Microsoft Word, Microsoft Excel, PIM, and an HP financial calculator built into ROM.



Features and benefits

- Microsoft Windows and applications built into ROM giving instant-on capability
- Battery life of approximately nine hours with the 10-MB flash disk version, and approximately five hours with the 40-MB hard disk version, without recharging
- Fast-access keys to switch applications
- Two available versions: 10-MB flash disk version and 40-MB hard disk version
- Twice the disk capacity in each available version because of built-in compression. ROM-based applications leave nearly all the mass storage for your data

- Pop-up mouse with nothing to cable or clip on
- PCMCIA Version 2.0 slots to add mass storage and communications capabilities
- LapLink Remote Access to share files and printers on any desktop PC
- PIM (appointment book, phone book), and financial calculator built in
- Free unlimited user support program

The HP OmniBook 300 is available now through HP's worldwide network of authorized resellers.

To locate the retailer nearest you, or for presale questions, call HP's automated information service at 800-443-1254 between 6:00 a.m. and 5:00 p.m. (Pacific time), Monday through Friday.

Ordering information

Product No.	Description
F1032A	HP OmniBook 300 Superportable PC, 40-MB hard disk storage
F1031A	HP OmniBook 300 Superportable PC, 10-MB flash disk storage
F1040A	HP OmniBook fax/modem communications pack. (4-MB system highly recommended)
F1012A	5-MB/12-V flash disk card
F1013A	10-MB/12-V flash disk card
F1041A	2-MB RAM expansion card
F1051A	HP OmniBook PIM software for Microsoft Windows

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

LapLink is a registered trademark and Remote Access Is a trademark of Traveling Software, Inc

Introducing HP NetServer LM Series

The HP NetServer LM Series (P/N 5091-6999/EUS) is a new line of Pentium™ and Intel 486-based servers that maximize uptime and ease server management with fault tolerant data storage. The servers include bundled server management software, the HP NetServer Assistant, which provides centralization of server management utilities such as configuration of troubleshooting tasks and administration.

The new servers were developed for Fortune 1000 companies with growing LANs and networked workgroups. for users with networks that support mid- to large-size workgroups or handle data-intensive applications, and for users who want growth potential to symmetric multiprocessing and full Pentium processor support with increased system availability and expandability.

Features and benefits

- *Maximum server uptime* — provides hot-pluggable arrayed disk drives that allow continuous usage during drive replacement, internal EISA disk array with RAID levels 0/1/5/6 for superior data protection, and ECC memory accessory to avoid memory errors
- *Ease of management with bundled HP NetServer Asszstant* — manages entire network from single console, diagnoses hardware failures either locally or remotely, and provides access to information on disk subsystem utilization
- *Easy expandability* — has new power cabinet design with eight shelves and eight bus master slots for large internal storage, addresses growth requirements through modular design support for board and chip upgrades, features maximum 384 MB RAM with optional 256-MB memory expansion board, and has twin-channel, EISA fast SCSI-2 controller that connects up to 14 SCSI devices
- *Performance for demanding applications* — optimizes 32-bit, fast SCSI-2 that delivers up to 10 MB/s transfer rate, symmetric multiprocessing support with dual Pentium processor card upgrade, and fast disks with 11-ms average seek time
- *Support* — includes a three-year, on-site, next-business-day, limited warranty with a 4-hour-maximum-response-time, onsite service upgrade available on business days or within 24 hours; no-cost phone support for the U.S and Canada from HP Customer Support Center; no cost HP NetServer Series electronic bulletin board

continued on next page

HP NetServer LM Series provides better performance and expandability than the HP Vectra 486ST PC Series for users with larger networks or more data-intensive applications. HP NetServer LE Series offers a lower price point and less expandability and performance than NetServer LM Series.

Product No.	Description
HP NetServer 4/33 LM 486DX/33 MHz	
D2182A	Model 1. no hard disk
D2183A	Model 530, 535-MB last SCSI-2 hard disk
D2184A	Model 1050, 1 05-GB fast SCSI-2 hard disk
D2185A	Model 2000 Array, 2 X 1-GR fast. SCSI-2 hard disk
HP NetServer 4d/66 LM 486DX2/66 MHz	
D2186A	Model 1, no hard disk
D2187A	Model 530, 535-MB fast SCSI-2 hard disk
D2188A	Model 1050, 1.05-GB fast SCSI-2 hard disk
D2189.1	Model 2000 Array, 2 x 1 0 GR fast SCSI-2 hard disk
HP NetServer 5/60 LM Pentium 60 MHz	
D2194A	Model 1, no hard disk
D2195A	Model 530, 535-MB fast SCSI-2 hard disk
D2196A	Model 1050, 1.05-GB fast SCSI-2 hard disk
D2197A	Model 2000 Array, 2 x 1.0-GB fast SCSI-2 hart1 disk

HP NetServer LM models come standard with 16-MB memory and HP NetServer Assistant (bundled). Through July, HP NetServer Assistant will be supplied through a fulfillment process. Users must specify a language option. Order MS-DOS 6.0 as a separate (not preinstalled) option.

HP 100LX palmtop PC introduced as portable electronic mailbox

The HP 100LX palmtop PC (P/N F1020A) is an 11-ounce, custornizable, handheld PC that was developed for corporate users who need a portable, pocket-size PC.

Features and benefits

The HP 100LX palmtop PC provides one-touch access to built-in applications including:

- cc:Mail Mobile
- Lotus® 1-2-3®
- Datacommunications software for access to e-mail and information services like CompuServe™
- HP financial calculator
- One of the most productive, well-integrated organizer systems available for managing information.

Users can track calendars and assignments and attach a modem to connect with e-mail and other electroruc communications networks. Since the HP 100LX palmtop PC is DOS compatible, users can customize by adding off-the-shelf, MS-DOS''based applications, such as Quicken, Harvard Project Manager, and Microsoft® Project.

With HP 100LX palmtop PC accessories, users can connect with devices like the SkyStream wireless messaging receiver or two-way wireless solutions using the

Ericsson GE Mobidem hardware, RAM Mobile Data Networks service, and Motorola Infotech (U.S. only). With the optional MS-DOS connectivity pack accessory, users can transfer files such as documents, memos, and Lotus 1-2-3 worksheets between a desktop PC and the palmtop PC and run HP 100LX applications like appointment book on a desktop PC. Users can store data files and application programs with the HP flash disk card accessories, which are available in 5- and 10-MB versions and offer the convenience of a flexible disk with the capacity of a hard disk drive.

To locate the retailer nearest you, or for presale questions, call HP's automated information service at 800-443-1254 between 6:00 a.m. and 5:00 p.m. (Pacific time), Monday through Friday.

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

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

New entry-level HP NetServer LE Series

The new HP NetServer LE Series are entry-level, easy-to-manage servers with a 486 CPU. The servers were developed for Fortune 1000 companies that are starting, expanding, or consolidating LANs and standalone workstations, as well as for small- to midsized workgroups that need to maximize file, print, office, and communication applications.

Features and benefits

- *Entry-level server* — provides options and expansion capabilities
- *Easy expandability* — chip upgradable processor socket that supports the Intel OverDrive Pentium technology-based processor; flexible memory upgrade path up to 128 MB of RAM; internal disk capacity up to 3 GB; integrated ISA fast SCSI-2, IDE, and video controllers that allow extra free I/O slots; five open EISA bus master slots
- *Performance for computer-intensive tasks* — provides 256 KB of external write-back cache and Intel 486 CPU family with DX2 speed doubling technology with OverDrive processor support
- *Accessibility for easy servicing and upgrades* — has front accessible storage shelves, easy to remove cover, and expandable base to accommodate HP disk array or storage system
- *Support* — includes a three-year, onsite, next-business-day, limited warranty with 4-hour-maximum-response-time, onsite service upgrade available on business days or within 24 hours; no-cost phone support for the U.S. and Canada from HP Customer Support Center; no-cost HP NetServer Series electronic bulletin board

Ordering information

Product No.	Description
D2335A/36A/37A	HP NetServer 4s/33 LE 486SX/33 MHz
D2338A/40A/41A	HP NetServer 4/33 LE 486DX/33 MHz
D2342A/43A/44A	HP NetServer 4d/66 LE 486DX2/66 MHz

HP introduces new routers

The new HP Local Routers (LR) and HP Backbone Routers (BR) provide Ethernet and FDDI local routing, while the other HP routers (ER, TR, SR, and FR) provide wide area access routing. The routers were developed for small- to mechum-sized PC and system Ethernet LAN environments.

The new routers target requirements for local area segmentation. HP LR and BR support four Ethernet segments for the implementation of a centralized routing/bridging topology within a local site. HP BR also supports an FDDI connection.

Features and benefits

- The new routers support AUI or BNC connections, which are both included, to provide segmentation of network traffic. Segmentation provides response time benefits for end users and aids in the creation of topologies that can be centrally managed (collapsed backbones).
- For campus connections, HP BR extends routing capabilities by providing connection to two FDDI single-attach stations (SAS) or one FDDI dual-attach station (DAS).
* HP LR and RR each employ a 25-MHz Motorola 68040 microprocessor to provide media-speed Ethernet bridging and routing at price points below the competition.
- Over FDDI, transparent and translational bridging and routing are supported.
- As part of the HP EtherTwist family of products, all HP Routers use the same packaging and provide a three-year onsite hardware warranty.
- All six HP Routers ship with software Release 5.76. Users receive Learning Bridge, IP, IPX, DECnet, AppleTalk II, and XNS as standard protocols.
- For the wide area, HP ER, TR, SR, and FR also include X.25, frame relay, PPP, SMDS, and ISDN adapter support.
- All routers contain software in FLASH electronically erasable programmable memory.

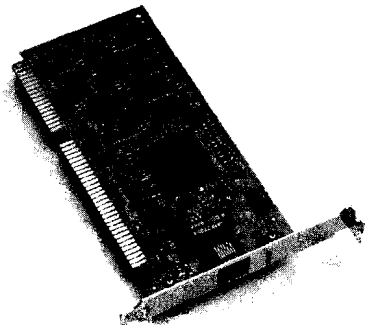
Product No.	Description
27287A	HP LK. includes four AUI/BNC
27290A	HP BR, includes four AUI/BNC, two SAS/one DAS FDDI

New HP EtherTwist PC LAN Adapter

The new HP EtherTwist PC LAN Adapter NC/16 TP (HPNC16, P/N J2405A for single and P/N J2406A for six-pack) is a low-cost, high-performance, 16-bit adapter that was developed for users with ISA and EISA computers who want Ethernet 10Base-T networking.

Features and benefits

- Complies fully with Ethernet1 IEEE 802.3 standards
- Uses pipelined bus-master DMA architecture for market-leading performance
- Provides integrated transmit and receive FIFO for packet buffers
- Incorporates highly integrated hardware design to achieve low cost and high reliability
- Supports a wide selection of interrupts (IRQs 3, 4, 5, 9, 10, 11, 12,15)
- Uses LEDs for status and diagnostics
- Offers full software configuration (no jumpers or switches to be set in hardware)
- Provides drivers bundled with Novell NetWare, Microsoft® Windows NT and LAN Manager, Artisoft LANtastic, and other major network operating systems
- Provides built-in NE2100 compatibility
- Optimizes client applications
- Provides server drivers
- Offers lifetime warranty on the hardware



Product No.	Description
J2405A	HP PC LAN Adapter. NC/16 TP 16-bit 10Base-T LAN adapter for ISA/EISA computers
J2406A	HP PC LAN Adapter NC/16 TP (six-pack)

New HP Model 45 Plus Multiprotocol X.25 Switch versions

HP is introducing new versions of the HP Model 45 plus multiprotocol X.25 switch that use new HP PC platforms (P/Ns J2000C and J2001C). These versions replace P/Ns J2000B and J2001B, respectively, which they are identical to in terms of functionality, performance, structure, and pricing. The related physical interfaces adapters (MAPs) product numbers remain unchanged. P/Ns J2030A, J2031A, J2032A, and J2033A.

HP OpenView Software Distributor available

HP OpenView Software Distributor licenses (P/N J2326AA) and media and manuals (P/N J2325AA) are on the HP Price List. HP OpenView Software Distributor reduces costs by electronically distributing software from a central point across the network and allows users to completely manage software inventory.

HP OpenView Network Node Manager release 3.2

The HP OpenView Network Node Manager (NNM) is a maintenance release designed to provide defect fixes for HP NNM Release 3.1 that also includes support for IP Variable Subnet Masks.

Features and benefits

New functionality includes support for the IP Variable Subnet Mask environment, SunOS 4.1.3, HP SNMP platform Release 3.2, and Ingres software on HP-UX 9.0.

Like Release 3.1, HP NNM Release 3.2 runs on HP-UX 8.X and 9.X. Release 3.2 also runs on SunOS 4.1.1, 4.1.2, as well as 4.1.3.

Ordering information

The product ordering options and pricing have not changed. Users on HP Software Material Update services automatically receive the new release effective July 1, 1993. Other users can update to the new release. Contact your HP representative for product numbers.

OSI Transport Services for HP-RT supported

HP is announcing support for HP OTSrt, the new Open Systems Interconnection (OSI) Transport Services product for use with the HP-RT operating system. HP OTSrt provides the transport layer implementation of the OSI reference model for connectionless network services. HP OTSrt includes the X/Open Transport Interface programmatic interface for application developers.

Ordering information

Users need one HP OTSrt development kit for the HP Apollo 9000 Series 700 or HP 9000 Series 800 computer that they use for HP-RT development, and they need run-time licenses for each target computer running OTSrt software. HP OTSrt support requires HP-RT operating system Revision 1.1. HP OTSrt supports only the OSI transport layer and below.

Product No.	Description
B3486A	HP OTSrt license to use
B3487A	HP OTSrt Developer's Kit for Series 800
B3488A	HP OTSrt Developer's Kit for Series 700

MASS STORAGE

HP-UX 8.02/8.07 support for C302X mass storage systems

HP has recently announced additional operating systems support of the C302X mass storage systems product line. A patch tape (P/N C3301A) is required and available at no cost to users.

Product No.	Description
C3020T/R	1-GB disk/2-GB DAT for HP Apollo 9000 Series 700, HP-UX 8.07
C3021T/R	2-GB disk/8-GB DAT for Series 700, HP-UX 8.07
C3022T/R*	1-GB disk
C3023T/R*	2-GB disk
C3024T/R*	2x2-GB disk
C3027U*	1-GB expansion disk
C3028U*	2-GB expansion disk

* *Opt. 001 should be ordered for Series 700, **HP-UX** 8.07. and Opt. 002 should be ordered for **HP** 9000 Series 800 (NIO only), **HP-UX** 8.02. Root/startup support is not available.*

Japanese manuals for HP C302X/03X mass storage systems

HP now has Japanese localized manuals for the new mass storage products (P/Ns C302XT/R/U, C303XT/R/U, C229XU, and C247XU). Order Option ABJ.

PRINTERS

Introducing HP DeskJet 1200C and 1200C/PS printers

The new HP DeskJet 1200C printer (P/N C1676A) and the HP DeskJet 1200C/PS Postscript" printer (P/N C1686A) is a new class of HP DeskJet printers. These new printers were developed for users who need high-quality, color-capability office printers.

Features and benefits

The new and improved printers are the most advanced HP DeskJet printers. They build upon the features already found in the HP DeskJet printer famdy and offer features that are new to the famdy.

They offer a new family of inkjet print cartridges, 600 x 300 dpi black text with HP Resolution Enhancement technology, print speeds of six pages per minute for black text and one-to two minutes per page for color, and one-year HP Express Exchange warranty.

These printers are also the first in the HP DeskJet printer famdy that provide HP LaserJet printer compatibility. HP DeskJet 1200C and LaserJet 4 printers share features such as:

- Color PCL 5 including HP-GL/2, 45 internal scalable typefaces (35 Intellifont and 10 TrueType)
- HP Resolution Enhancement technology
- Interchangeable scalable and bitmapped typeface cartridges
- Interchangeable memory SIMMs
- HP JetDirect cards that are also compatible with the HP LaserJet IIISi printer
- RISC-based processing and high-speed Centronics parallel port
- Automatic switching between Centronics and network interfaces through optional HP JetDirect cards
- Automatic switching between PCL 5 and optional Postscript language and support far explicit language switching as found on the HP LaserJet IIISi printer

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The new printers raise inkjet technology to a new level of print quality, producing sharp, black text and a spectrum of premium colors on plain paper. Four new 104-nozzle print cartridges — cyan, magenta, yellow, and black — feature new ink formulations. To provide the blackest, sharpest text, and maximize graphic detail, the black cartridge contains pigmented ink. The new print cartridges feature large-capacity ink reservoirs and an ink-level indicator.

The printers produce black and color documents at speeds that will improve productivity in most offices. A RISC-based processor, high-speed Centronics I/O, and optional direct network interface provide the power to print jobs promptly. The duty cycle of these printers is 8,000 pages per month.

Standard memory is 2 MB expandable to 26 MB for the HP DeskJet 1200C printer and 4 MB expandable to 20 MB for the DeskJet 1200C/PS printer, with the same 1-, 2-, 4-, and 8-MB SIMM products used in the HP LaserJet 4 and 4Si printer families.

PostScript™ is a registered trademark of Adobe Systems Incorporated

PC drivers for HP DeskJet 1200C and 1200C/PS printers

An upgraded printer driver for Microsoft Windows 3.0 and 3.1 has been developed for HP DeskJet 1200C and 1200C/PS printers. The driver, Version 2.20, offers improvements over Version 1.10, which was onginally developed for the HP PaintJet XL300 color printer.

- *Improved color calibration capabilities* — The driver allows calibration to support specific computer monitors. Color maps are generated in the driver to optimize screen-to-printer color matching.
- *Error diffusion dither pattern for scanned images* — An error diffusion (scatter) dither pattern for all raster (bitmapped) images is incorporated into the driver. In many cases this provides better rendering of images from scanners.
- *Internal TrueType font support* — The driver supports the 45 internal scalable typefaces (35 Intellifont and 10 TrueType) that are resident in HP DeskJet 1200C printers. It also handles TrueType differently, taking advantage of the internal TrueType rasterizer of HP DeskJet 1200C printers. These features improve printing performance.
- *Installation procedures* — An installation program is included with this driver to provide one-step installation. If HP DeskJet 1200C printers are being used on a network or with the Asian versions of Windows, the driver can also be installed using the standard installation procedure from Windows.

The Windows printer driver Version 2.20 will ship with all HP DeskJet 1200C and 1200C/PS printers. On May 3 the dnver began shipping with HP PainLJet XL300 and PaintJet XL300 Postscript printers. The driver does not support any other printers in the HP DeskJet printer family

The driver is available on HPNN, on CompuServe in the HP Peripherals Forum, or via faxed request to HP Distribution Center at 303-352-6152.

The MS-DOS application driver support disk that ships with all HP DeskJet 1200C and 1200C/PS printers includes printer drivers for WordPerfect 5.1, Microsoft Word 5.5, Lotus 1-2-3 2.4 and 3.4, Lotus Freelance 4.0, and Harvard Graphics 3.05. These printer drivers are also available on CompuServe, on HPNN, and from the HP Distribution Center.

Other MS-DOS software vendors can be contacted directly for HP DeskJet 1200C printer drivers.

Postscript drivers for HP DeskJet 1200C/PS printer

Two PostScript language printer drivers will ship with the HP DeskJet 1200C/PS printer and the PostScript Level 2 Module. The user's choice of driver will depend on the printing environment.

In Microsoft Windows 3.0 and 3.1 environments, choose the PostScript Level 2 printer driver by Adobe Systems. This is the same driver currently shipping with and supporting PostScript language in the HP PaintJet XL300 color printer. It supports the full range of PostScript Level 2 features, including screen-to-printer color matching. Adobe plans to complete a new version of the Level 2 driver in mid 1993. The new version will support Windows 3.1 and include TrueType font support.

In Apple Macintosh environments, choose the generic LaserWriter printer driver. Although the driver will not support some of the key features of HP DeskJet 1200C printers through software, many of those features, such as paper selection and quality mode, are accessible through the printers' front panel buttons. The driver supports color but does not support color calibration.

On April 13, Adobe announced its Level 2 PSPrinter driver for PostScript language printers in Macintosh environments. After Adobe releases the driver, HP will rename and distribute it as the HP LaserJet 8.0 printer driver. The HP LaserJet 8.0 dnver, along with the appropriate Postscript printer description (PPD) files, provides full function, including color, for the HP DeskJet 1200C/PS printer. When available the new driver will ship with the HP DeskJet 1200C/PS printer.

Users who receive the LaserWriter dnver and want the new HP LaserJet 8.0 driver should fill out and return the response card that is shipped with the HP DeskJet 1200C/PS printer. When the HP LaserJet printer dnver is available, it will be mailed at no charge to users who have registered through the response card.

In multiplatform environments where Macintosh computers and PCs are connected to an HP DeskJet 1200C printer, each computer user should install the appropriate printer driver for the user's operating system. HP DeskJet 1200C and 1200C/PS printers can handle all print requests smoothly.

The revised Adobe PostScript™ Level 2 printer drivers for Windows and Macintosh will be available through CompuServe and HPNN.

Adobe™ is a registered trademark of Adobe Systems Incorporated.

HP DeskJet 1200C printers offered in test drive program

As of June 1, 1993, HP DeskJet 1200C printers are now included in the Test Drive program. The HP DeskJet 1200C and 1200C/PS printers are a new class of DeskJet printers that offer 600 x 300 dpi black-text and 300 dpi color printing.

The Test Drive program offers on-site evaluation of HP DeskJet 1200C printers for 30 days. To obtain a Test Drive order form, request P/N 5091-7746EUS or HPNN archive reference L0002088.

HP Express x warranty standard with HP DeskJet 1200C and 1200C/PS printers

The standard one-year warranty for the new HP DeskJet 1200C and 1200C/PS printers includes HP 24-hour Express Exchange Service. This is the first time this service has been included in the standard warranty for a printer in the HP DeskJet printer family.

Users with HP Express Exchange Service can report printer problems to dealer support or Customer Support Center help-he technicians who determine if a replacement unit is needed. If the service order is placed by 4 p.m. Pacific standard time! the user will receive a re-manufactured unit as a permanent replacement for the defective unit typically by the next morning at 10:30 local time. Within 30 days of purchase, users may purchase the HP SupportPack (P/N H5471A) which extends the HP Express Exchange warranty to a total of three years.

Users who choose to have HP repair the original unit should send it to the HP Service Center for repairs, which take about two weeks. With this option the user does not get a replacement unit to use while re-pairs are made to the original unit.

HP Backup EXPRESS — New HP Disaster Recovery service for low-end HP systems

For U.S. only

Disasters such as fires, floods, hurricanes, and earthquakes or other events can instantly shut down data center operations. Losing access can threaten the survival of an entire company.

Now you can be sure your business is prepared for any disaster. A new hardware backup service, HP Backup EXPRESS, extends HP's disaster recovery services to customers with low-end HP systems that require little or no data telecommunications. This comprehensive loaner service reduces the impact of a disaster by restoring Hewlett-Packard computing operations quickly and efficiently so you can get back to running your business.

Features and benefits

- Use of a fully operational HP computer system — provides an alternate hardware solution, reducing the business impact of a disaster or other event.
- One call to HP, 24 hours/day, 365 days/year — ensures initiation of the service at any time.
- Delivery of system (and optional additional hardware) within 48 hours of notification — minimizes downtime.
- System (and optional additional hardware) delivery to customer location of choice — establishes the most appropriate location to restore computer operations.
- HP Support personnel — available to coordinate the recovery process.
- HP BACKUP Express User's Guide — minimizes confusion in preparing for and responding to a computer operations disaster, with step-by-step recommendations and instructions.
- HP assistance (optional) for system installation, verification and I/O configuration — quickly, efficiently and properly restores and reloads from backup tapes.
- Disaster site restoration assistance (optional) — useful for insurance purposes, establishes plans with HP to restore operations back to normal.
- Recovery rehearsals (optional) — allows disaster recovery plans to be tested, reviewed, and audited; verifies planning effectiveness.

Ordering information

For more information or to purchase HP Backup EXPRESS, call Hewlett-Packard service agreement sales, 1-800-835-4747 (U.S. only).

HP product discontinuances/price changes

The following products have either been discontinued or the prices have changed.

For more detailed product information, contact your HP representative.

HP 3000

- *Novell NetWare iX pricing* — Effective June 1, 1993, users can purchase Novell NetWare for HP 3000 at reduced prices. User-based prices of NetWare for HP 3000 (PIN 32020A) have been reduced up to 45%.
- *Series 960/980/99X discontinued SSP bundles* — Effective June 1, 1993, Structured Solution Bundles for HP 3000 Series 960, 980, and 99X (Corporate Business System) were discontinued.
- *Refurbished memory boards price reduction* (for the Americas and Asia Pacific only) — Effective June 1, 1993, users may purchase 8-, 16-, and 32-MB boards at up to 71% off current prices for remanufactured boards. Other refurbished memory boards are available for low-end HP 3000 and 9000 systems.
- *HP 3000 Series 977 discontinuance* — The Series 977 and 977 field upgrade (P/Ns A2300B, A2301B) have been removed from the June HP Price List and replaced with the Series 987. Series 977 systems will continue to have full support from HP and upgrade paths from Series 977 will continue as long as other Series 9X7 field upgrade products are sold.

HP 9000

- *HP NetIPC and Dscopy discontinued on next major HP-UX release* — As of the next major HP-UX release, HP will discontinue the HP NetIPC interface and dscopy service within the NS/9000 product for HP Apollo 9000 Series 700 workstations and HP 9000 Series 800 server systems. The VT3K service will continue to be available.
- *Series 300/400 HP-UX products discontinuance* — HP will remove older HP-UX software products for the HP 9000 Series 300/HP Apollo 9000 Series 300 product lines from the August HP Price List. There are no replacements for these products Final orders must be placed prior to discontinuance date. Product support life will be through the year 2000.
- *HP 9000 Series 800 Business Servers repricing* — To complement the new Model G/H/I60 and G/H/I70 server announcements, HP has repriced all current HP Integrated Business Servers (Models F/G/H/I).
- *HP hard-copy and MPower components price reduction* — Effective June 1, 1993, prices on the following products were reduced: HP SharedPrint/UX for HP 9000 Series 7001800 (P/Ns B2154A/59A); HP ScanJet IIc scanner I/F kit and bundle for Series 700 (P/Ns A2229A, C17884).
- *Series 300 accessories discontinuance* — Several HP 9000 Series 300 accessory products will be discontinued effective October 1, 1993. Models 362 and 382 and Series 700i will be available as Revision B on the July HP Price List. System products will include the newest workstation monitors.

WORKSTATIONS

- *Domain product discontinuance* -- HP will discontinue several older Domain software products for the HP Apollo DN Series and Series 400 workstation product lines effective with the August 1993 HP Price List. There are replacements for some of the products. Final orders must be placed prior to the discontinuance date. Product support life continues through the year 2000.

  HP Apollo 9000 Series 700 workstation and disk price reductions — Effective June 1, 1993, HP reduced disk option pricing on HP Apollo 9000 Series 700 workstations.

HP 1000

- *HP 1000 A990 upgrade credits increase* — On July 1, 1993, P/N 12990C return credits for upgrading from an HP 1000 A400 SPU/CPU or A600+ (parity-only) SPUICPU to an A990 were increased. With the return credit increases, HP 1000 installed-base users will be able to upgrade low-end HP 1000 A-Series processors to latest technology, high-end processors at greater savings.
- *HP 1000 A-Series price increases* — Effective on the July HP Price List, prices for HP 1000 A400 and A900 processor and selected I/O card products were increased. Standard domestic and international grace periods of 30 and 120 days, respectively, will apply.
- *HP 1000 A-Series microprogramming package discontinuance* — On July 1, 1993, the HP 1000 A990 microprogramming package (P/N 92049B) was removed from the HP Price List. No alternative will be offered, no new orders will be accepted, and no support will be available for the package.
- *HP 1000 A-Series A900 product family discontinuance* — The HP 1000 A900 product family will be discontinued on October 31, 1994. The recommended A-Series alternative is the plug-compatible A990 single-board-processor product family. The HP 1000 processor 10-year support life for A900 will end October 31,2004. The standard domestic and international grace periods of 30 and 120 days, respectively, will apply.
- *HP 1000 software upgrade option removal completion* — Effective June 1, 1993, all remaining XX1 upgrade options for HP 1000 software were removed from the HP Price List.

PERSONAL COMPUTERS

- *HP Vectra PC hard disk drive and tape drive price reduction* — Effective June 1, 1993, the price of the 1-GB hard disk drive (P/N D2653A) was reduced by 15% and the 525-MB tape drive (P/N D2034A) by 9% (U.S. list).

NETWORKS

HP Router and bridge price restructuring — Effective July 1, 1993, HP reduced prices on the HP 10:10 Local Bridge MB and the HP Remote Bridge products (P/Ns 28673A/74A) and the HP Router ER and TR (P/Ns 27285A/86A).

- *HP DTC 16iX price reduction* — Effective June 1, 1993, the price of the HP DTC 16iX LAN multiplexer, an HP 3000-only DTC that supports HP AFCP protocol, was reduced.
- *HP-UX classic SNA products discontinued* — Effective December 1, 1993, all HP-UX classic SNA products will be discontinued and replaced with HP-UX SNAplus products. HP will accept orders for classic products through November 1993 and support the products until December 1998.
- *HP NS/3000 iX network services pricing* — The user-based tier prices of HP NS/3000 iX Network Services (P/N 36920A) have been reduced up to 55% effective June 1, 1993.

continued on next page

PERIPHERALS

- *HP-HIL mouse discontinuance* — The current three-button HP-HIL connect mouse (P/N 46060B) was removed from the July HP Price List. Orders for the standalone mouse products will accepted through July 31, 1993. The current mouse will be replaced by the new three-button HP-HIL connect mouse (PIN A2838A). The two mouse products are functionally equivalent.
- *SCSI disk price reductions for HP C302X and C303X* — Effective June 1, 1993, HP has reduced the price of its HP C302X and C303X disk drives, affecting prices of expansion kits and multiple disk drives in cabinet bundles by up to 30%.
- *HP optical products discontinuance* — HP will remove the PIN C17XXA/M optical disk media products from the December HP Price List. The discontinued products, which are based on the original Sony optical drive mechanism, will be replaced by the PIN C17XXC products, which are based on HP's high-performance 5 ¼-inch optical drive mechanism. The discontinued products are fully compatible with the replacements.
- *HP 9000 Series 800 peripherals price reduction* — Effective July 1, 1993, HP reduced prices 12-26% on internal disk, QIC, and data compression DDS DAT drives (P/Ns A2444A/45A/46A, A2311AZ, C2478SZ).
- *Peripherals price reduction* (for the U.S. only) — HP has discounted prices by up to 60% on 13 peripherals. Supply is limited on some peripherals, and all are available on a first-come, first-served basis: 670 MB disk storage (P/Ns C2201R/02AR/03AR), 1.34-GB disk storage (PIN C2204AR), 332-MB SCSI disk drive (C2212AR), 664-MB SCSI disk drive (P/N C2213AR), 670SE SCSI mass storage (PIN C2216TR), 1350SE SCSI mass storage (PIN C2217TR), 2.0-GB SCSI DAT drive (P/N C1520BR), 571-MB HP-IB disk drive (PIN 7937FL/XR), 10016250-bpi autoload ½-inch SCSI tape drive (PIN 7980SR), and ¼-inch cartridge tape drive (P/N 9144AR)
- *Rewritable optical product line discontinuance* — HP will discontinue its rewritable optical product line (P/N C2294A/T) on September 30, 1993. Standalone versions of the products will still be available. Support life for the products is five years.
- *Optical Libraries price reduction* (for the U.S. and Canada only) — HP has reduced prices up to 30% on the refurbished HP Rewritable Optical Disk Drive Library (PIN C1700AR) and the HP Rewritable Optical Disk Drive (PIN C1701AR). Remanufactured ¼-inch cartridge tape drives (P/Ns 9144AR and 9145AR) are available at their lowest prices ever.
- *HP 700/RX prices reduced* — Effective June 1, 1993, specific HP 700/RX model prices were reduced (P/Ns C3227A/05A/01B/04A/12A/13A). The price of HP 7001 RX 4-MB flash ROM card (P/N C2725A) was increased.

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

United States

Alabama	
Birmingham	205-988-0547
Huntsville	205-971-2000
Alaska	
Anchorage	206-643-4000
Arizona	
Phoenix	602-273-8000
Tucson	602-573-7400
Arkansas	
Bentonville	501-271-2362
Little Rock	501-225-7178
California	
Carson (Long Beach)	310-834-6312
Fresno	209-252-9652
Fullerton	714-758-5490
Fullerton	714-999-6700
Goleta (Santa Barbara)	805-685-6100
	714-472-3000
Los Angeles	310-643-511
Mountain View	415-694-2000
Mountain View	415-968-5600
Ontario	714-948-8462
Palo Alto	415-857-5027
Pleasanton	510-460-0282
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San Diego	619-279-3200
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Sarasota	813-377-3562
Tallahassee	904-877-7878
Tampa	813-884-3282
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Atlanta	404-955-1500
Norcross (Atlanta)	404-448-1894
Savannah	912-232-4416
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Boise	208-323-2700
Idaho Falls	208-529-4051
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Charlotte	704-527-8780
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Toledo	419-242-2200
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College Station	409-268-2780
Corpus Christi	210-851-2971
El Paso	915-833-4400
Houston	713-439-5300
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Irving (Dallas)	214-869-3377
McAllen	210-630-3030
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Saskatoon	306-653-6550

HP Computer Update

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To order HP software or hardware products, call your HP representative

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.

For the number of the HP-authorized dealer closest to you, call 800-243-9812.

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