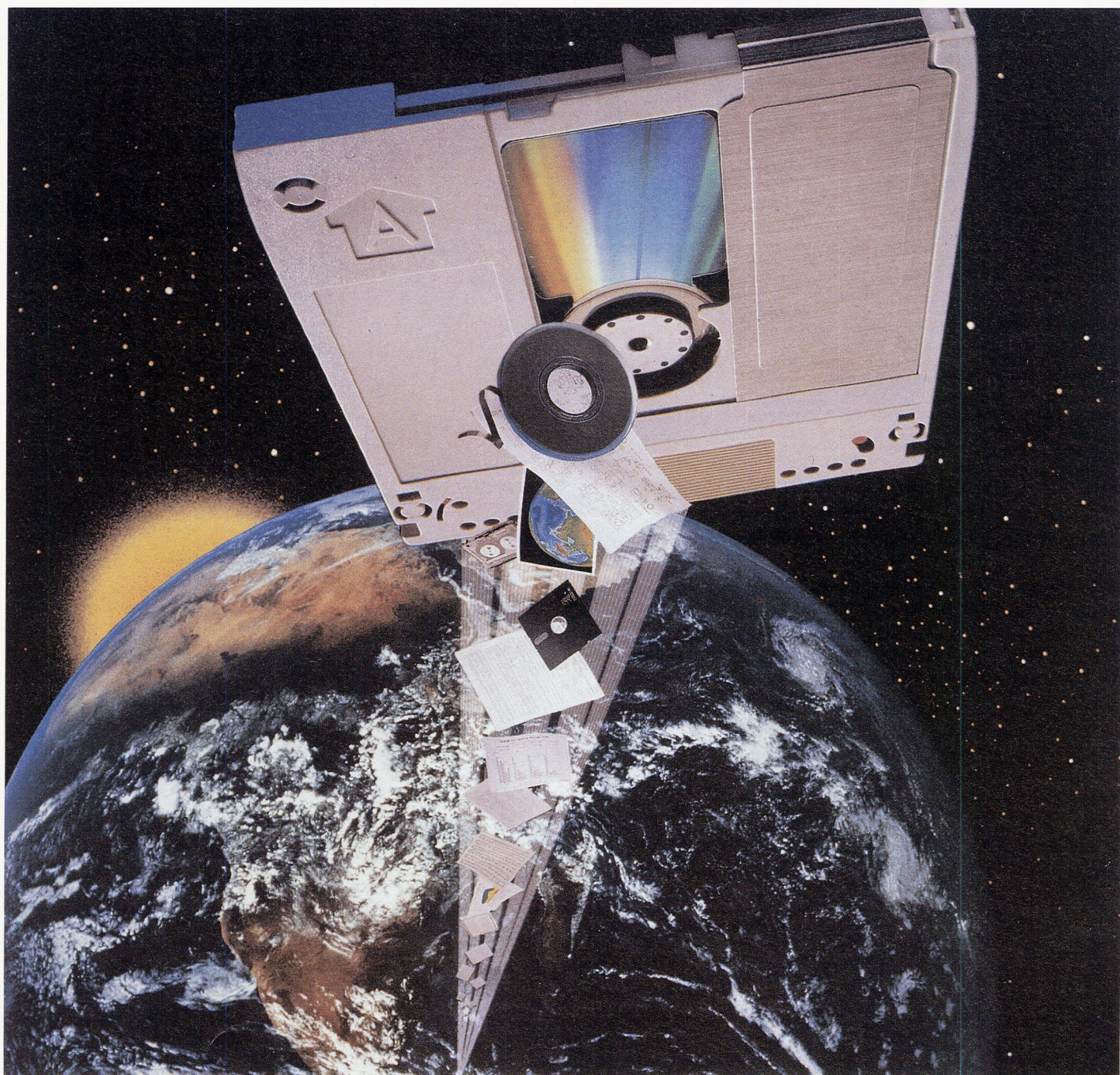


HEWLETT — PACKARD

# UPDATE

COMPUTER SYSTEMS FROM HP

M A Y / J U N E 1 9 8 9



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PACKARD



**COVER STORY ON PAGE 4:**

The HP Series 6300 Model 650/A rewritable optical disk drive is a direct access secondary storage (DASS) system that fills the gap between high-performance hard disks and low-cost tape storage systems. It's a new way to think about storage that provides quicker, easier access to all of your work.

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## **Enhanced software-support service has more features, new names and easier ordering**

Hewlett-Packard has enhanced its systems-support program by expanding the services available. The new software support program is aimed at increased system performance and uptime as well as simplified administration.

All software-support services and features now fall into three areas—HP TeamLine, HP ResponseLine and HP BasicLine.

### **HP TeamLine**

HP TeamLine gives you access to a team of HP engineers, including a personal-support consultant. In addition to rapid problem resolution, HP support consultants examine your business goals, operating environment and applications, and recommend ways to improve system utilization. As the highest level of HP's software-support services, HP TeamLine includes all of the features of HP ResponseLine and HP BasicLine support.

### **HP ResponseLine**

HP ResponseLine provides problem resolution, user assistance and software maintenance out of HP's 32 worldwide response centers and expands upon previously available telephone and remote diagnostic support. HP also has expanded hours of access to HP's response centers by providing 24-hour support, 365 days per year. In addition, you now have three problem-resolution options:

- You may remotely enter a description of the problem and an HP Response Center engineer will respond by telephone within two hours.
- You may gain remote access to databases containing problem and resolution descriptions from the 32 worldwide centers.



- You may opt for the traditional method of calling the HP Response Center, leaving all relevant information with trained support personnel. A Response Center engineer will return the call within two hours or as specified on the support contract.

You also have access to known solutions to problems through HP Power Patch tapes. These preventive-maintenance tapes allow you to apply solutions at your site to keep systems running smoothly. The HP Response-Line includes all of the features available with HP BasicLine.

#### HP BasicLine

HP BasicLine support, a new support offering, is aimed at customers who opt to support some of their own systems. With HP BasicLine, you have electronic access to engineering notes, software-problem fixes and training schedules. Also included is use of HP software and documentation updates, and a complete package of support material updates.

All new features available with HP TeamLine and HP ResponseLine are provided at no additional charge to current applicable contract holders. HP BasicLine will be available when current contracts are renewed and to new customers at time of purchase.

Whichever option you add, or which support package you order, you get the same high-quality service and support you've come to expect from HP.\*

*For more information, check **A** on the HP Reply Card.*

\*Based on results compiled by HP from surveys by DataPro International, a market-research firm, HP ranks No. 1 among industry leaders in overall support satisfaction for the sixth consecutive year. Survey results were averaged across six key categories: maintenance effectiveness, maintenance responsiveness, troubleshooting, documentation, education and software support.

## Faster HP DeskJet printer has more font capabilities

The new HP DeskJet PLUS printer produces laser-quality text and graphics two to five times faster than the original HP DeskJet printer, and it offers larger, improved fonts.

The HP DeskJet PLUS printer has the same features as the original, plus faster printing speeds, built-in landscape printing, larger fonts, better font spacing and more built-in fonts. These features, along with the printer's compact design, quiet operation and high-quality output, make the HP DeskJet PLUS printer a versatile alternative to the dot-matrix impact printer.

#### Faster printing speeds

The HP DeskJet PLUS printer produces a page of text up to twice as fast and a full page of graphics up to five times as fast as the original. A faster microprocessor improves formatting speed, and a faster paper motor and paper pick-up mechanism moves a page through the printer in half the time of the original model.

#### Spreadsheet fonts

The printer comes with 10 fonts—6 portrait and 4 landscape. It can print a legal-size spreadsheet or a page of simple text in landscape without adding a landscape-upgrade cartridge.

#### Larger fonts, improved letter spacing

The HP DeskJet PLUS printer also prints up to 30-point (1/2-inch) fonts. These larger fonts are available in both cartridge and soft-font format and give you new options for titles, headlines and subheads. And, four new font cartridges and two new soft-font products were developed for the HP DeskJet PLUS printer.

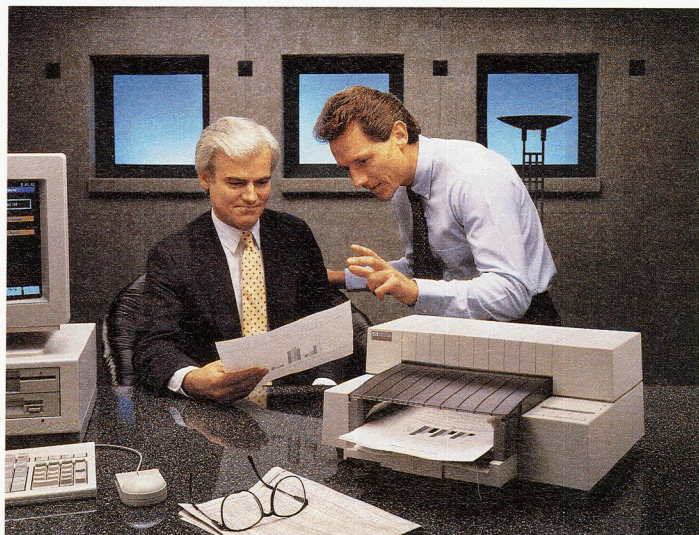
#### Industry-standard compatibility

The HP DeskJet PLUS printer is compatible with popular PC software packages such as MS-Word and MS Windows, WordPerfect, Lotus 1-2-3 and Freelance, Wordstar Professional, Harvard Graphics and Multimate.

The original HP DeskJet printer is still available—at a lower price—making it a good alternative to dot-matrix printers in the home or office. Prices for accessory font products for the HP DeskJet printer family also have been reduced.

*For more information, check **B** on the HP Reply Card.*

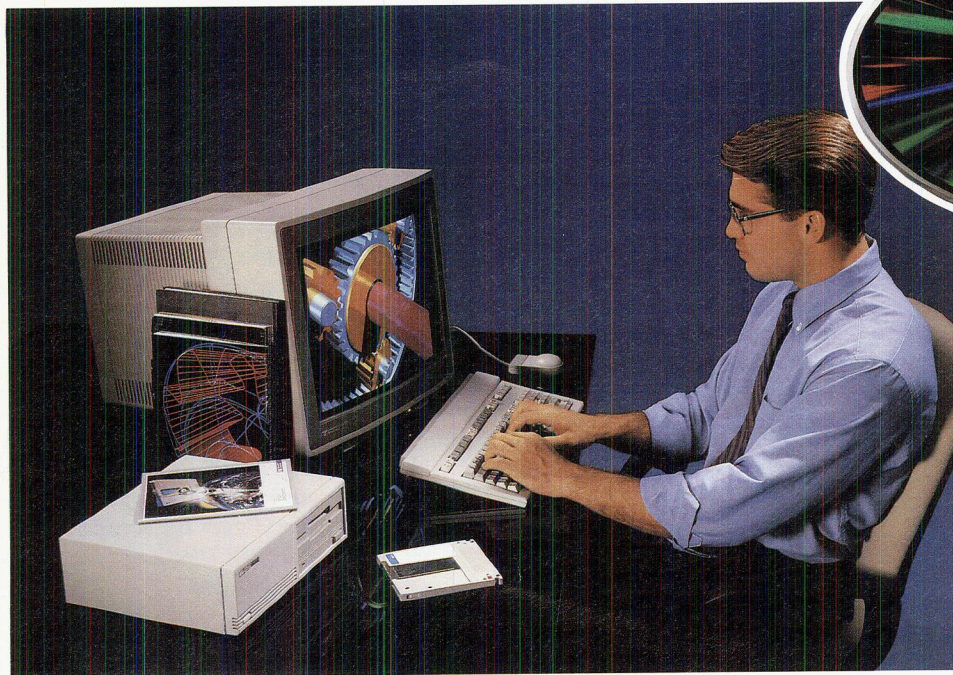
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*Business professionals who want laser quality at a personal-printer price will find the HP DeskJet PLUS printer a versatile alternative to the impact dot-matrix printer.*



# A new way to think about data storage



*HP's new rewritable optical disk drive fills the gap between high-performance hard disks and low-cost tape storage systems. It excels in applications where large volumes of completed work files or collected data must be stored, and where direct access to the data is necessary for repeated use and modification.*

Hewlett-Packard's first rewritable optical storage product, the HP Series 6300 Model 650/A, is available now for the HP 9000 Series 300 workstation family.

The HP Series 6300 Model 650/A rewritable disk drive employs a laser light to read and write data on removable 5 1/4-inch optical-disk cartridges. Each cartridge holds 325 Mbytes of data per side. Disks can be ejected, flipped and reinserted in the drive to access a full 650 Mbytes. One optical disk provides the same storage capacity as 9 1/4-inch cartridge tapes or sixteen 1,600-bpi 1/2-inch tapes. Data can be accessed randomly and changed and rewritten as often as necessary. And, you don't need to buy additional software to use the Model 650/A drive.

## Economical "on-line" storage for previously "off-line" data

The Model 650/A is the first of a family of HP rewritable optical products that defines a new segment of the mass-storage market, which HP calls direct-access secondary storage (DASS). Rewritable optical storage complements magnetic disk and tape by creating a middle ground between primary and secondary storage. It is better than hard disks on cost per Mbyte and has faster access time than tape.

The Model 650/A makes direct access to large amounts of information more affordable. It also offers removable media for data exchange and security. With an average seek time of 95 ms and a sustained read-transfer rate of 680 Kbytes per second, the drive is particularly well suited for large or infrequently accessed files.

## Supports industry standards

The Model 650/A conforms to the ANSI and ISO continuous composite format definition, making it compatible with the rewritable drives and media of other manufacturers. The drive also implements the small computer systems interface (SCSI), an emerging interface standard.

## High-performance graphics file storage, historical data collection and analysis, data backup and security

The Model 650/A excels in applications where large volumes of infrequently used work files or collected information must be stored, and where random access to data is necessary for analysis and modification.

The drive is well suited for high-performance graphics workstation uses, especially 3D design automation, image processing, simulation, solids modeling and animation. The drive's removable and durable media allows sensitive data files to be transported and secured.

Users of small multiuser systems and workstation networks can use the drive to retrieve historical and archival information, such as graphics files, that require occasional use or updating. The drive also allows you to offload data from hard disks to make room for more frequently accessed files. And, you can use rewritable optical disks for backup applications.

*For more information, check C on the HP Reply Card.*



## Notables

### New HP PaintJet printer transparency film

● Now there is new transparency film available for the HP PaintJet printer that provides full-page printing, trouble-free image centering and easier alignment. HP accomplished this by adding a 1-inch "leader" of film and backing sheet to our standard film. This leader fits up under the paper bail to provide an extra inch of printing space. Because the film leader is actually a separate piece, it provides a clear "top-of-form" indicator during loading and then removes easily after printing. We also reduced the width of A-size film from 8.5 to 8.4 inches to facilitate easier loading and alignment. The film comes in sets of 50 sheets and 50 protective sleeves. Order P/N 51630Q for A-size and P/N 51630S for A4-size. For more information about the HP PaintJet printer, check **D**.

### Tape drive trade-in promotion

● As applications grow, your computer systems need more disk capacity—and as a result, a more powerful backup solution. Now you can trade in your HP 9144A and receive return credits towards the purchase of an HP 9145A or HP 35401A. Contact your HP sales representative for information about the promotion, or check **E** for a product data sheet.

### Personal computers

● A new data sheet for the HP TEMPEST Vectra PC is available. It describes the latest enhancements, including a new video graphics subsystem, IEEE 802.3 LAN interface card and a new, detachable 101-key IBM PC/AT compatible keyboard. For a copy of the data sheet, check **F**.

● Now you can upgrade your HP Vectra ES PC to the HP Vectra ES/12 PC—at a fraction of the cost of a new 12-MHz system. The 50% increase in clock speed will give you higher performance for more sophisticated applications—some of which may not have been considered when the original system was purchased. The upgrade includes on-site installation and a one-year warranty on the entire SPU. For more information on the upgrade, contact your HP sales representative. For an HP Vectra ES/12 PC data sheet, check **G** on the HP Reply Card.

## High-performance X Window display server available for the PC

HP AXDS/PC, an accelerated X Window System display server, gives personal computers high-performance network access to UNIX system-based X Window graphics applications.

Together with HP's intelligent graphics controller for industry-standard PCs, this new software is designed to deliver workstation-graphics performance—equivalent to the HP 9000 Model 330 workstation configured as an X Window System server.

Because the code is downloaded into the memory of the HP intelligent graphics controller, performance is not limited by the MS-DOS® operating system or PC configuration. By comparison, most competing X server products are limited in performance since the X11 server code is implemented as an MS-DOS application.

### Network access

The display server, which is based on the industry-standard X Window System Version 11 Release 3, enables the PC user to have network access to both UNIX system-based X Window System applications and MS-DOS.

Adherence to X Window System allows users to access X Window System-based applications on remote multivendor host computers over a standard local-area network. A basic sequence of keystrokes allows HP AXDS/PC users to toggle between X Window System applications and the MS-DOS operating system.

HP AXDS/PC requires an HP Vectra PC (or PC/AT bus compatible) with 640 Kbytes of RAM, the HP intelligent graphics controller, ThinLAN or StarLAN 10 and networking software and one of a variety of high-resolution color monitors.

*For more information, check **H** on the HP Reply Card.*

X Window System is a trademark of the Massachusetts Institute of Technology. UNIX is a registered trademark of AT&T in the U.S.A. and other countries. MS-DOS® is a U.S. registered trademark of Microsoft Corporation.



*HP AXDS/PC gives PC users network access to multi-vendor UNIX-system-based X Window applications ranging from mechanical and electrical design to industrial automation, business and software tools.*

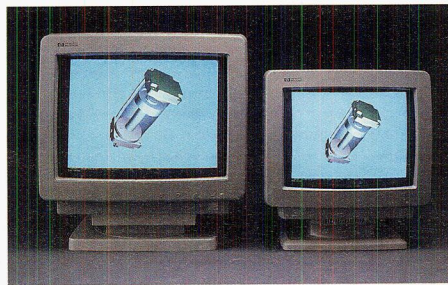


## New multiscanning, high-resolution 16- and 20-inch color displays

You can bring computer-aided-design, desktop-publishing and window environments to life with HP's new 16- and 20-inch high-resolution color displays.

The color displays, along with HP's new intelligent graphics controller, provide users of the HP Vectra PC and other PC-AT compatibles with a high-quality 1,024×768 resolution video solution. Compared with other high-resolution displays, the new HP color displays provide vivid colors and brightness; sharp, focused characters and images; and crisp, straight lines that frame the image.

Packed with features, the new color displays offer:



*The new HP color displays provide vivid colors and brightness; sharp, focused characters and images; and crisp, straight lines that frame the image—at an attractive price.*

- Multiscanning (multiple resolution) capability ranging from 640×480 (VGA) to 1,280×1,024 (30-64 kHz)
- An analog display with RGB interface
- Superior display performance—dynamic focus control for improved corner focus, excellent brightness and contrast range and front-panel controls for easy access
- Automatic synchronization—the display automatically senses and synchronizes on one of the four most popular resolutions preprogrammed into the digital, micro-processor-controlled memory (additional settings easily added)

- Digital controls that provide repeatability and accuracy of adjustments

Custom-fit tilt and swivel bases for both the 16- and 20-inch color displays are available. These bases offer control of the display's viewing angle, which allows for adjustments for room lighting.

Also available is a new VGA-compatible video cable. This two-meter cable lets you connect a VGA video board to the 20- or 16-inch color displays, allowing HP to provide a total solution for those who want to use a VGA (640×480) application on a larger screen display.

*For more information, check I on the HP Reply Card.*

## High-resolution PC graphics card for demanding 2D-graphics applications

With the new HP intelligent graphics controller, PC and PC/AT-compatible personal computer users now have the resolution and performance necessary to run PC-CAD and other graphics-intensive applications.

Coupled with compatible HP monitors such as HP color displays, HP high-resolution color monitors or other industry-standard monitors, the HP intelligent graphics controller allows an extensive array of software packages to be displayed at 1,024 × 768 noninterlaced resolution in 16 colors. An optional emulation module provides EGA compatibility for applications that don't use high-resolution mode.

Based on the Texas Instruments TMS34010 graphics system processor, the controller provides high-speed vector, polygon and circle generation.

### Extensive software compatibility

Software drivers for the HP intelligent graphics controller provide support for a wide variety of applications including AutoCAD, VersaCAD, Personal Designer, Micro Cadam Cornerstone, DataCAD, P-CAD, Conception 3D, GBG and Word Perfect. Support for Microsoft® Windows/286, GEM and GSS CGI provides access to over 200 other applications. The optional emulation module provides compatibility with over 5,000 EGA applications.

### Industry-standard hardware compatibility

PC and PC/AT bus personal computers, as well as monitors from HP, Hitachi, NEC and Mitsubishi, can be used to create the PC-CAD system that best meets your needs. The HP intelligent graphics controller comes with 896 Kbytes of on-board memory. A portion of the dynamic RAM (512 Kbytes) is available for other uses such as storing program code for direct execution by the TMS34010. You can expand this up to 2 Mbytes using the 512-Kbyte RAM expansion kit.

*For more information, check J on the HP Reply Card.*

AutoCAD is a U.S. trademark of Autodesk, Inc. Microsoft is a U.S. registered trademark of Microsoft Corporation.



## HP Vectra PC line expands to offer you more price/performance options

The HP Vectra QS/16S PC is Hewlett-Packard's new entry-level desktop PC of the HP Vectra 386 family. Using the Intel 80386SX microprocessor running at 16 MHz, the HP Vectra QS/16S PC offers the performance and compatibility required for sophisticated applications at an affordable price.

Business software users will enjoy increased productivity with the HP Vectra QS/16S PC. This powerful workstation runs complex spreadsheets, large databases and presentation graphics several times faster than the 80286 generation of PCs. It is also well suited to serve as an affordable workstation for 80386 CAD and multiuser systems. While designed in a compact desktop package, the HP Vectra QS/16S PC offers a high level of expandability to meet your future needs.

The HP Vectra QS/16S PC is fully compatible with existing industry standards, as well as with all 16- and 32-bit software that takes advantage of the power of the 80386. This includes Microsoft's OS/2 operating system, and multitasking capability with Microsoft's Windows/386 Presentation Manager and Xenix.

The HP Vectra QS/16S PC is a member of HP's complete product line of high-quality, industry-standard personal computers. There are three models available, all including 1 Mbyte of user memory, a flexible disk drive, an ST-506 hard-disk controller, a serial port and a parallel port.

*For more information, check **K** on the HP Reply Card.*



*The HP Vectra QS/16S PC delivers powerful 80386 performance—at a price approaching that of 80286 PCs.*

## 18 features added to HP Financial Accounting software

HP Financial Accounting (HP FA) software has been updated to include powerful new features. The A.02.06 update offers 18 new enhancements, including the following:

- General-ledger accounts now can be set up to accept only system-generated entries, and an optional flag can be used to identify system-generated entries (as opposed to user entries).
- Payments from one customer now can be applied to the invoices of others (for example, from headquarters to subsidiaries).
- A field has been added to show the balance-to-date for customers (in Accounts Receivable) and for vendors (in Accounts Payable).
- Asset, liability and equity-account balances now can be displayed on-line, as well as the monthly activity for these accounts.
- Tax enhancements have been added to permit verification of tax amounts, to correct taxes due to discounts or write-offs and to allow tax codes with general-ledger entries.

HP FA runs on both the HP 3000 MPE V and MPE XL operating systems. You can upgrade to this version from A.02.04 or A.02.05.

The HP Financial Accounting solution includes HP General Ledger, HP Accounts Receivable, HP Accounts Payable and an HP Financial Budgeting planning module.

*For general information about HP Financial Accounting products, check **L** on the HP Reply Card. For more specific information on the new release, contact your HP sales representative.*



## Family of HP Maintenance Management solutions expands

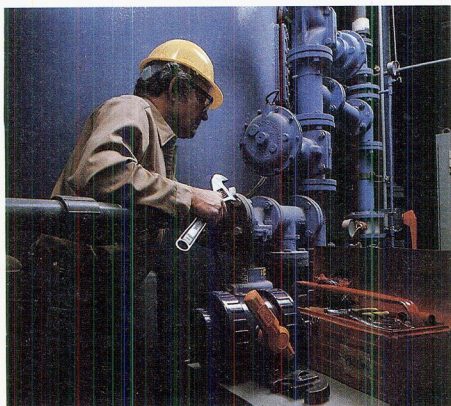
HP's maintenance-management software solutions help you improve the efficiency of your operations. Now HP has a lower-cost solution for small departments that allows up to 10 concurrent users. It is designed for customers who want to add HP Maintenance Management to an existing HP 3000. As the department grows, upgrades are available that require no change in the software.

### Controls downtime and lowers costs

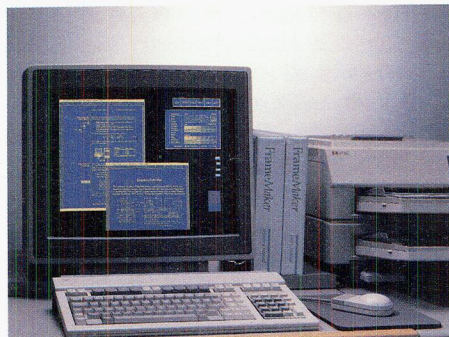
HP Maintenance Management helps you control equipment and facilities downtime, and lowers costs through scheduling preventive maintenance and work orders, tracking spare part inventory levels, maintaining equipment history and tracking purchase orders. It is easy to use and offers extensive customization capabilities.

Many companies already have realized the benefits of HP Maintenance Management. Other firms are focusing on the maintenance department as a prime opportunity to reduce costs. Through decreased equipment and facilities downtime and increased labor productivity you can cut maintenance costs by 10 to 30%.

*For more information, check **M** on the HP Reply Card.*



*You can boost labor productivity up to 30% with HP's Maintenance Management software.*



*You'll save time and money, gain control and flexibility in document design and produce better technical communications with FrameMaker document-publishing software.*

## Advanced electronic document publishing with FrameMaker

Now you can produce technical reports, software documentation, presentations, manuals, specifications and other technical communications quickly and easily with FrameMaker from HP.

FrameMaker is an advanced documentation package that integrates a powerful word processor, a graphics drawing program and a page-layout system. It is easy to use, yet powerful enough to satisfy your sophisticated technical needs.

FrameMaker runs on all HP 9000 Series 300 systems (except Model 310). It supports displays with 1,024 x 768 or greater resolution, the HP LaserJet and Apple LaserWriter PostScript printers and the industry-standard X11 Windows. There are six Frame products available from Hewlett-Packard.

- FrameMaker "what you see is what you get" (WYSIWYG) electronic publishing software provides a complete text processor, a graphics toolbox for creating and manipulating technical graphics, importing capabilities for text and graphics and easy-to-use page and document design formats.

- International FrameMaker offers all the FrameMaker features plus spell checking, fonts and hyphenation in five languages—U.S. English, U.K. English, French, Dutch and German—definable on a paragraph-by-paragraph basis, and user interfaces in English, French and German.
- FrameViewer provides economical view-only access to FrameMaker and International FrameMaker documents for manufacturing environments, for example, where guided, on-line access to up-to-date specifications and instructions is required.
- Graphics FilterPak translates graphical information created with other CAE/CAD/CASE applications into FrameMaker documents.
- Document FilterPak translates documents created on other word-processing systems, such as TROFF, Interleaf, DCA (IBM PC) and Wordstar, into FrameMaker documents.
- A demonstration program lets you test FrameMaker before you purchase the complete application.

*For more information, check **N** on the HP Reply Card.*

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PostScript is a registered trademark of Adobe Systems, Inc.