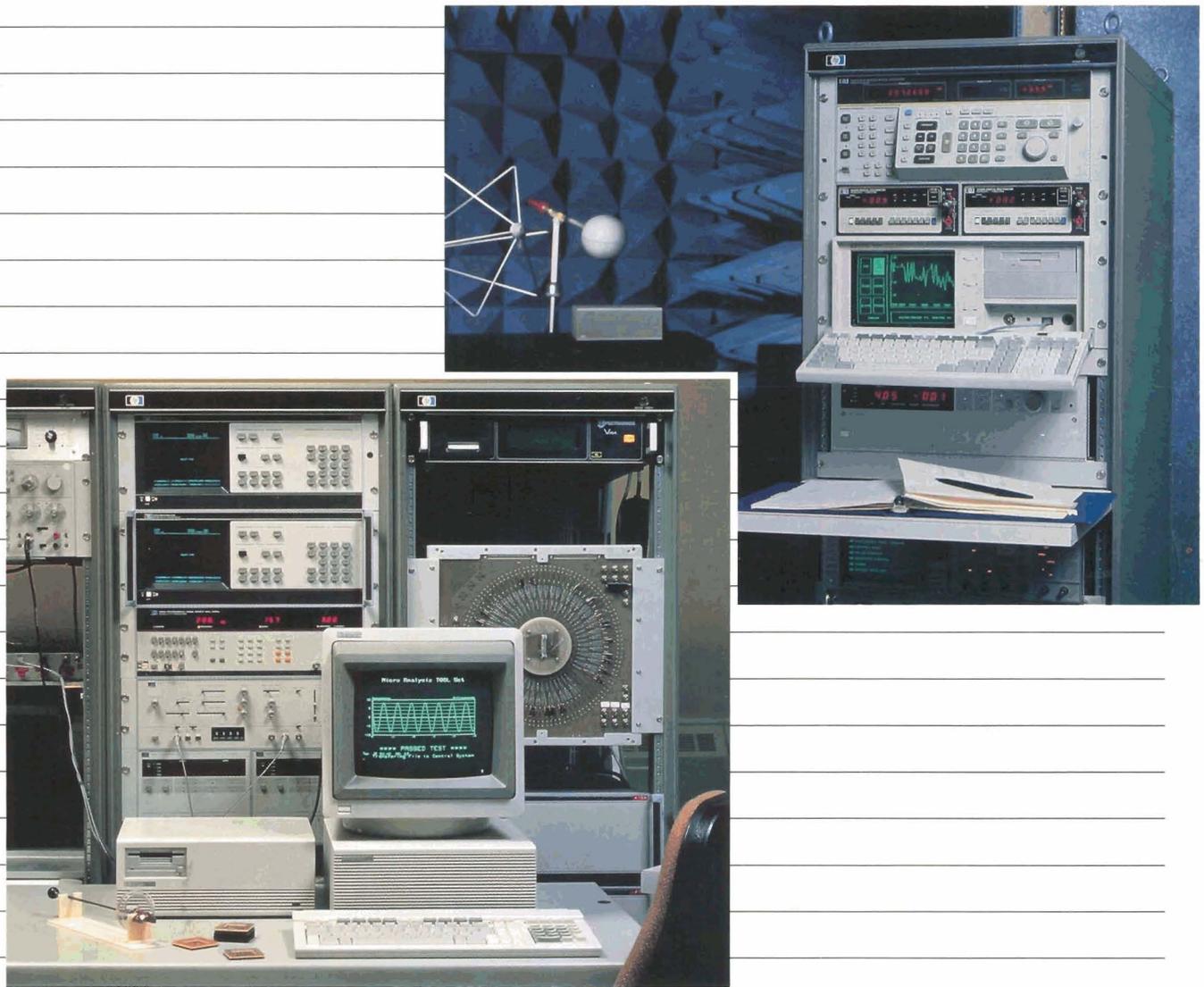


HP CHANNELS

Information For Hewlett-Packard's Value-Added Businesses

March 1989



Introducing HP 9000 Model 332 and R/332 instrument controllers

HP CHANNELS

Volume 8, No. 5

Editor
Tracy Wester

HP Channels is published monthly for Hewlett-Packard's value-added businesses to provide you with information about HP's products and services to help you be more successful.

For further information on any of the products and services discussed in *HP Channels*, please contact your HP sales rep.

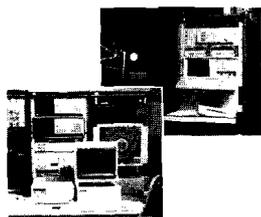
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On the cover

HP CHANNELS



The HP 9000 Model 332 and Model R/332 are new desktop and rackmount instrument controllers based on a 16.7 MHz Motorola MC68030 processor. They combine high performance, flexible configurations, and low prices, yet maintain software compatibility within the HP 9000 Series 300 product family. See articles beginning on page 6.

HP CHANNELS
March 1989

Table of Contents

PRODUCT NEWS

Business Computers

- 1 General**
Introducing the Asian Integrated Business System
Information Access enhanced on MPE XL
- 3 Small Business Computing**
HP 260 StarterPack and PowerPack packages now available as SSP bundles
- 4 HP 3000**
Migrate to MPE XL with Tape Server Demo Development Promotion

Technical Computers

- 5 General**
HP ALLBASE/4GL — smooth and reliable
HP EGS photoplot postprocessor
- 6 HP 9000**
Announcing a new generation of controllers
Introducing the HP 9000 Series 300 Model 332 — four times the power of a Model 310 for the same price
The new Series R controllers: tailored for you
HP 9000 Models 825S and 835S/SE: lower prices for OEMs and VARs
Introducing new low-cost 3D MCAE workstation

Personal Computers

- 11 General**
Introducing enhanced AdvanceLink: the right connection
- 11 Calculators**
New HP calculator — the HP-10B
- 12 Desktop**
HP Vectra PC software discontinued

Peripherals

- 13 Networks**
New networking features in the HP-UX 6.5/3.1
New StarLAN 10 adapter cards and lower ThinLAN card prices
HP StarLAN 10 now supports Novell First OpenView applications now available
- 16 Plotters**
HP 7600 electrostatic plotter translucent media
- 17 Printers**
HP PaintJet color graphics printer now compatible with Macintosh software

Supplies

- 17 Supplies**
HP DIRECT order phone numbers

CROSS-LICENSING CLASSIFIEDS

- 18 Software Packages Available and Wanted**

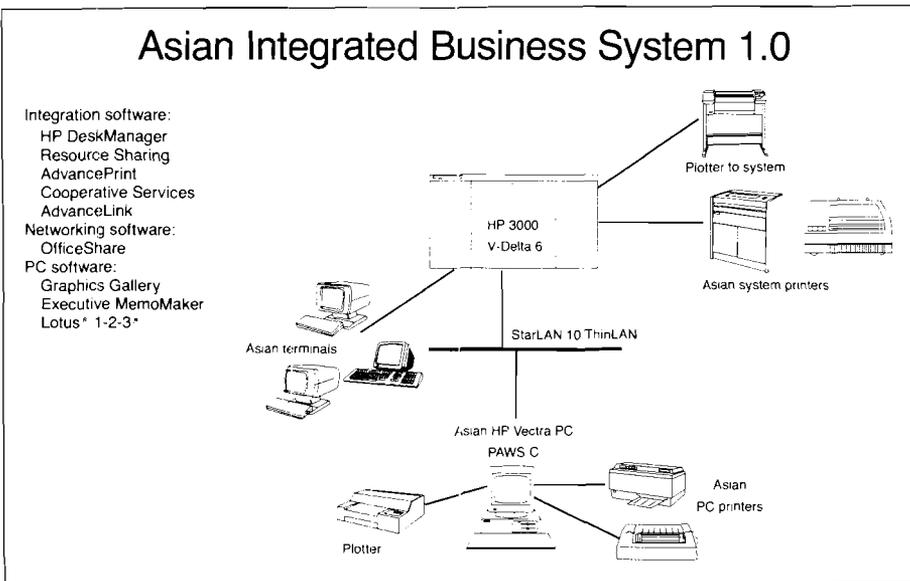
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Business Computers

General

Introducing the Asian Integrated Business System



As the industry leader of PC integration in the U.S. and Europe, Hewlett-Packard has gone a step further to provide a competitive office system to the Asian marketplace, where the economy is typically growing two to three times faster than elsewhere in the world. Asian Integrated Business System (A/IBS) Phase I, a complete office integration platform on MPE V systems, was announced last December in Japan, Korea, Taiwan, and Hong Kong.

A/IBS: a superior office system solution

Asian Integrated Business System, the localized version of HP's worldwide office system platform, was developed based on the Asian-specific needs of local-language user interfaces. All the A/IBS components are designed or certified to handle Asian ideographical characters (16-bit), specifically Kanji (Japanese), Hanguk (Korean), and

Traditional Chinese. The platform includes integration software, networking software, PC software, and various Asian hardware.

A/IBS, consistent with the original IBS concept, provides a powerful office information strategy that combines the strengths of personal computing, office applications, data processing, and networking. The A/IBS platform generates invaluable links between HP 3000 and PCs for effectively accessing, manipulating, sharing, and distributing data and information.

The Asian Integrated Business System offers the following various features and benefits for improving office productivity especially for Asian and multinational companies:

- *Asian language support* provides a familiar and easy-to-use interface for Asian language users.

- *Host system to PC linkage* allows PCs to access the host system's resources.
- *Worldwide electronic mail* provides effective worldwide communication and information distribution.
- *Computer resource sharing* allows disk, printer, and plotter sharing for centralized data storage, increased data integrity, and higher return on peripherals investment.
- *Customization tools* provide tools and flexibility for special custom applications and interfaces.

A good start is the half-way mark to success

The A/IBS new product tour to Japan, Korea, Taiwan, and Hong Kong was a phenomenal success. Over a thousand customers, prospects, reporters, and opinion leaders participated in a series of A/IBS product demonstrations, customer seminars, and press conferences. Local industry watchers were very impressed by HP's local PC-mini integration offerings and our commitment to the Far East market.

A/IBS: a competitive advantage in the global marketplace

In today's increasingly competitive global market, being able to provide a local-language office-computing environment is critical to success. HP's A/IBS is a flexible system platform for all kinds of industries with the needs of PC integration, cost-effective communication, and computer resource sharing in the three Asian languages. A/IBS users can easily create various systems, such as inventory tracking, sales forecasting, and sales quoting for different business needs.

Contact your HP representative for detailed product and ordering information.



General

Information Access enhanced on MPE XL

A powerful software and hardware combination just got better. Beginning in March, HP will ship the newly enhanced version of Information Access XL (A.04.10) for MPE XL host-based systems. Information Access has been upgraded to include most of the advanced features available on MPE V systems.

As a base component of the newly announced Business System Plus XL (BSP XL) (*HP Channels*, December 1988), Information Access XL provides information management to Hewlett-Packard's leading PC integration offering. With Information Access XL, PC users can easily retrieve data from PC and minicomputer applications. Analysts, managers, and other decision makers spend less time gathering data and more time solving problems.

At the heart of Business System Plus Reporting

The introduction of Business System Plus (BSP) Reporting opens new doors for selling solutions on Precision Architecture. Users attending BSP Reporting seminars have expressed enthusiasm over this solution, and are excited about implementing this solution at their sites.

At the heart of BSP Reporting is Information Access XL. As the data retrieval tool for this integrated solution, Information Access XL delivers information in a format easily transformable into presentation graphics.

New and enhanced capabilities

Users have shared with us their needs for information services. In the enhancement process for Information Access XL, many required features have been

added. Some of the most noteworthy are listed below:

- *MPE file support* — In addition to supporting IMAGE and TurboIMAGE databases, Information Access XL allows database administrators (DBA) to also configure KSAM, SD, BRW/IRF, and binary (including ASCII) files. From these data sources, end users can access these sources just as they would access IMAGE tables. Formats for remote file output now include BRW/IRF and binary, as well as previously supported formats.
- *Additional PC data sources* — Information Access XL now supports input and output to dBASE III® and III+, R:base System V, R:base for DOS, Lotus® 1-2-3®, and Symphony®, as well as output to previously supported formats.
- *Information Access XL links with OfficeShare* — Support is now provided for OfficeShare connections between the PC and MPE XL host systems. This means users can now take advantage of the throughput and connectivity of LAN configurations. Timely information means quality decisions.
- *Secondary DBAs for improved work-group efficiency* — With the new version, any number of secondary administrators can be defined by the primary DBA. Information Access allows secondary DBAs to use the Administrator Utility, while limiting their access to definitions set by other administrators. Information Access XL distributes the workload, yet assures the security and integrity of data tables.
- *Easier installation for DBAs* — Installation procedures for Information Access host and PC components

have been greatly simplified. Installation manuals have been replaced by a single installation card, thus off-loading DBA resources and ensuring end users quick access to new applications.

Other enhancements and feature improvements have been made and can be referenced in the Information Access data sheet (P/N 5959-2460).

Integration with HP NewWave environment and MS Windows

Information Access PC also runs in the HP NewWave environment. As a fully context-switchable program, the new version also runs under Microsoft® Windows 2.03 on an HP Vectra PC. PC users will be able to move more easily from data access to further analysis, thus improving productivity and quality of results in their organization.

Ordering process unchanged

Existing Information Access XL users on support service contracts will receive the A.04.10 version as part of their normal SMS support update in March. For new customers, the ordering process — pricing, product number (32586A), hardware options, and support services — for the enhanced version of Information Access XL remains unchanged.

Information Access XL delivers timely information to decision makers. As part of Business System Plus XL, it teams up to deliver industry-leading PC integration and information distribution. Get on board with industry-leading technology — Precision Architecture, Business System Plus XL, and Information Access XL.

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HP 260 StarterPack and PowerPack packages now available as SSP bundles

February 1 brought an exciting enhancement to the HP 260 bundles. Both the StarterPack and PowerPack offer more peripherals at lower prices and at higher solution discounts.

These two new Structured Solution Program (SSP) bundles present system solutions that can be easily and favorably compared with other companies for price and performance — SSP makes it possible. The HP 260, along with all components purchased in these two bundles, applies to HP's most aggressive purchase agreement discount schedule.

Flexible and attractive HP 260 bundles — our contribution to a successful partnership.

HP 260 SSP StarterPack bundle

The new HP 260 SSP StarterPack bundle is HP's lowest-priced entry into multiuser systems. We offer a high level of flexibility through inclusion of new peripherals (for example, HP 7958B, HP 9145A) and the introduction of cost reductions.

The system solution adjustment has been aggressively raised to 24 percent. This means that users will save almost one quarter of the list price on any component in this bundle. Users may choose up to five components. Contact your HP representative for more information on structured solution packages.

Product No: 45073A

Solution adjustment: 24%

Description: HP 260 Series 30 StarterPack Bundle

Revision Date: February 1, 1989

Product No.	Description	Product group	Choices	Choices selected
45070A	HP 260 Series 30	SPU	Required 1 Maximum 1	1
45008A	512 Kbytes memory	Memory board	Optional 0 Maximum 1	
45127A	ASI interface	Terminal	Optional 0	
45128A	Video MUX interface	interface	Maximum 1	
9153C	Data storage box	Mass storage	Required 1	
Opt. 040	40-Mbyte Winchester + floppy	device	Maximum 1	
Opt. 041	40-Mbyte Winchester only			
7957B	81-Mbyte fixed disk			
7958B	152-Mbyte fixed disk			
9144A	¼-inch tape drive	Backup device	Optional 0	
9145A	¼-inch tape drive		Maximum 1	

All options apply

HP 260 SSP PowerPack bundle

The new HP 260 SSP PowerPack bundle now offers more price adjustments on the available components. Price reductions for the peripherals (for example, HP 7957B, HP 7958B) and a solution adjustment of 10 percent increase this bundle's appeal.

Various components are enclosed — choose the terminal interface board, mass storage, and backup device that best fit your HP 260 Model 40 SPU.

Product No: 45074A

Solution adjustment: 10%

Description: HP 260 Series 40 StarterPack Bundle

Revision Date: February 1, 1989

Product No.	Description	Product group	Choices	Choices selected
45072A	HP 260 Series 40	SPU	Required 1 Maximum 1	1
45127A	ASI interface	Terminal	Optional 0	
45128A	Video MUX interface	interface	Maximum 1	
7957B	81-Mbyte fixed disk	Mass storage	Required 1	
7958B	152-Mbyte fixed disk	device	Maximum 1	
9144A	¼-inch tape drive	Backup device	Required 1	
9145A	¼-inch tape drive		Maximum 1	

All options apply

HP 3000

Migrate to MPE XL with Tape Server Demo Development Promotion

Are you hesitating to migrate to MPE XL because cartridge tape is not supported? If you answered yes to this question, read on. HP is introducing a promotion that will enable you to have an MPE V and an MPE XL system in house at incredible savings. Beginning March 1, 1989, you can enjoy savings on the following:

- Demo Development HP 3000 Series 925LX, 925, or 935
- LAN links and services to connect MPE V to MPE XL
- HP MICRO 3000LX for in-house MPE V capability

Who will take advantage of this promotion?

This promotion is designed for value-added businesses (VAB) that support some or all of their customers via cartridge tape. Since cartridge tape is not supported on MPE XL, your support of MPE V customers may be a migration concern for you. The Tape Server Demo Development Promotion addresses this concern by reducing the financial outlay for VABs needing or desiring both an MPE V and an MPE XL system. In addition, VABs taking advantage of this promotion will have both MPE V and MPE XL environments in house for final software testing.

What this promotion offers

The Tape Server Demo Development Promotion offers savings on an MPE XL system *and* on the LAN links and services that connect an MPE V system to an MPE XL system. Specifically, under this promotion, a VAB will receive an additional \$10,000 (U.S. list) off the *combined* purchase price of a Demo Development HP 3000 Series 925LX, 925, or 935 *and* the LAN products to connect the new MPE XL system with an existing MPE V system.

The Tape Server Demo Development Promotion also offers VABs an alternative to keeping their current MPE V system. In addition to the \$10,000 discount on the HP 3000 Series 925LX, 925, or 935 with the LAN products, the VAB can also buy an HP MICRO 3000LX at a substantial discount. This results in combined savings of \$11,000 (U.S. list) above the standard Demo Development discount on these products.

See the chart below for an example using a Series 925LX Structured Solution Package (SSP) which includes SPU, 32 Mbytes of memory, HP 7979 tape, HP 7937 disk, 1 DTC, and 3 port cards.

Description	Price with demo development discount	Price with promotion	Savings
Series 925LX SSP	\$48,700	\$48,700	-0-
Series 925LX SSP and LAN	60,500	50,500	\$10,000
Series 925LX SSP, LAN, and MICRO 3000LX	67,000	56,000	11,000

Note: All prices are U.S. list

And the savings don't stop here. While hardware support prices remain unchanged, VABs will be eligible for significantly reduced software support prices on their MPE V system. This is because the MPE V system will now qualify for "additional system coverage" (ASC), which offers savings of 40 to 70 percent when compared with conventional RCS or AMS support.

How this promotion works

The Tape Server Demo Development Promotion begins March 1, 1989, and will be available for six months. To be eligible for the promotion, a VAB must order an HP 3000 Series 925LX, 925, or 935 *with the LAN products* and must qualify under the terms and conditions of the Demo Development contract. The HP MICRO 3000LX is optional; however, it must be ordered on the same section as the other products to be eligible for the additional discount. VABs may take advantage of this promotion *only once and no substitutions are allowed*. The 900 Series HP 3000 system must include the LAN products specified below, without exception.

Act now

So why wait? Now is the time to plan your migration to MPE XL. The Tape Server Demo Development Promotion gives VABs an opportunity to upgrade to MPE XL at significant cost savings and gives them the option of having an MPE V system in house for very little cost. When combined with the state-of-the-art technology and new market opportunities offered by MPE XL, this promotion offers one more reason to plan your future with Hewlett-Packard.

For more information on this promotion, please contact your HP representative.

The Tape Server Demo Development Promotion includes the following products:

Product No.	Description
A1032A/AH*	Series 925LX or
A1007A/AH*	Series 925 or
A1060A/AH	Series 935
<i>And</i>	
30240A	ThinLAN 3000/V Network Link
36923A	ThinLAN 3000/XL Network Link
32344A	NS3000/V Network Services
36920A	NS3000/XL Network Services
<i>Optional</i>	
32520A	MICRO 3000LX

*Also eligible for Structured Solution Package (SSP) discount.

Also in this issue

HP ALLBASE/4GL — smooth and reliable	5
Introducing enhanced AdvanceLink: the right connection	11
First OpenView applications now available	15

Technical Computers

General

HP ALLBASE/4GL — smooth and reliable

Developing applications in HP ALLBASE/4GL is an attractive proposition because you only need an entry-level HP 9000 Series 300 computer to create solutions for top-end systems such as the HP 9000 Model 850 or the HP 3000 Series 950.

In January of this year, a manufacturer of opto-fiber cables put the scalability of HP ALLBASE/4GL to the test when it moved a complex, quality-control application from an HP 9000 Series 500 to a Series 800 computer.

Gunnar Widen, an HP representative, said, "Their manufacturing process depends heavily on the 4GL application, so it was very important that the migration be free of problems. Everything went smoothly. The customer was very pleased."

To produce opto-fiber cables of consistently high quality, each cable must be measured and tested more than 40 times during production. The HP ALLBASE/4GL application does this with the following functionality.

- Directly interfaces with measuring equipment to retrieve and analyze data.
- Provides a uniform interface to applications throughout the factory, including a variety of specialized applications written in conventional languages. This interface enables staff who are not computer professionals to invoke tests with the appropriate parameters.

- Creates a number of printed reports on the collected data. The cable manufacturer presents these reports to customers as part of the product.

This HP ALLBASE/4GL quality control application has been used intensively for almost 18 months. During this time, production levels have peaked. The automated production environment and the high demand for cables have made it viable for the factory to operate between 16 and 24 hours a day. Widen said, "The performance of HP ALLBASE/4GL has been superb throughout. They are very impressed by its reliability."

The scalability of HP ALLBASE/4GL, which allowed such a smooth upgrade to the Series 800 computer, also applies to HP ALLBASE/4GL for MPE XL systems. All applications created with HP ALLBASE/4GL can be run or modified on any other HP ALLBASE/4GL system. For example, you can develop an application on an HP 9000 Model 330 computer and run it on an HP 3000 Series 950 computer, or vice versa.

For further information on HP ALLBASE/4GL, please contact your HP representative.

General

HP EGS photoplot postprocessor

The HP EGS photoplot postprocessor for the HP 9000 converts HP EGS drawing files for hybrids and printed circuit boards into the required command/coordinate data files for photoplotters.

Functional description

The postprocessor uses HP EGS generate files for its input and then produces Gerber photoplotter drawing files as its output. During this conversion, a "fast-fill" algorithm optimizes the plane-fill process by automatic selection of flash apertures and, where trace apertures are necessary, automatic selection of the maximum trace size. In addition, an optional "aperture sort-by-size" routine can be selected. "Dimension" and "oval" components in the HP EGS generate file are not converted to photoplotter code.

Photoplotter

- Compatibility with Standard Gerber Word Address Formats or Aristo400 Formats
- Photoplotter command syntax customizable via simple user changes to the postprocessor

Hardware

- HP EGS CAD station with an HP 9000 computer, Model 320 or higher, and 3½-inch floppy drive
- Postprocessor requires 1 Mbyte disk space for installation; further disk space required for program execution and output files
- ID-Module (can use any module already connected to the HP EGS station)

Software

- HP EGS version 2.11 or higher

Delivery

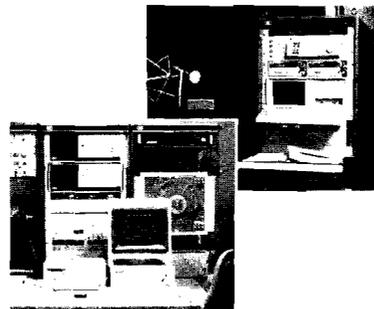
- Software on double-sided 3½-inch floppy (single-sided option available)
- Documentation and installation instructions
- Right-to-use codeword for the postprocessor based on any ID-Module already connected to the HP EGS station

Installation

- User installable
- Can be installed by Hewlett-Packard and combined with user training, in which case, time and materials billed separately

HP 9000

Announcing a new generation of controllers



The HP 9000 Model 310 instrument controller has long been a favorite among HP's value added business partners. On March 1, 1989, HP announced the Model 332 controllers, a new generation of instrument controllers designed to replace the Model 310 with both familiar and new configurations.

To quote Executive Vice President Bill Terry:

"These instrument controllers add new computer power to the broad range of HP and industry offerings of programmable instruments to form automatic systems. Demand for these systems is growing as customers seek ways to improve engineering effectiveness, assure higher levels of quality in manufacturing, and perform more automatic maintenance of systems. HP's new controllers also join new families of modular instruments — VXI and Modular Microwave — to form the systems of the future. We are excited about having the right products at the right time."

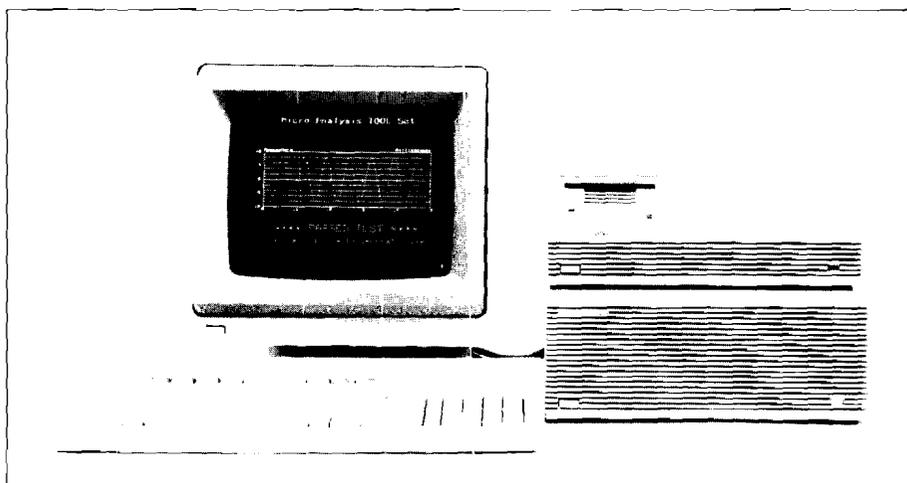
Initially, the family includes the Model 332, a workstation system to replace the Model 310, and the Model R/332, first of the Series R rack-mountable controllers. Both are available as HP BASIC, Pascal, or HP-UX systems, with HP BASIC/UX support to follow.

These controllers offer outstanding performance, thanks to the Motorola MC68030 CPU, DMA, fast memory, and optional MC68882 math coprocessor. Math computations can run four times faster than a comparable Model 310 system. Yet the Model 332 is priced the same as a Model 310, has more standard features, and optional features cost less.

You can learn more about these exciting new products in the following articles.

HP 9000

Introducing the HP 9000 Series 300 Model 332 — four times the power of a Model 310 for the same price



Hewlett-Packard's new HP 9000 Model 332 significantly enhances performance of entry-level Series 300 instrument controllers. The design goals for the Model 332 were to significantly improve price/performance while providing a board upgrade for the popular Model 310. The Model 332 uses the state-of-the-art MC68030 and optional MC68882 floating-point processor to achieve performance three to five times that of a Model 310 using HP BASIC and a four MIPS rating using HP-UX 6.5. The design goals were not only met, but even exceeded, by offering additional benefits such as on-board DMA, on-board monochrome video options, RAM daughter boards (1-8 Mbytes) and optional on-board MC68882 math coprocessor. These benefits mean that a typical Model 332 system will not only work in the same test and measurement application as a current Model 310, but also provide additional DIO card slots, since RAM, DMA, and floating-point DIO cards are no longer needed.

Standard features of the Model 332 are similar to the Model 310 that it replaces and include the following:

- IEEE-488 (HP-IB)
- RS-232-C with DB25 connector
- HP-HIL (Human Interface Loop)
- On-board monochrome video
- Audio
- Clock
- Four DIO slots

For the CPU, the Model 332 uses the MC68030, Motorola's latest generation 32-bit processor. Outstanding performance is achieved with 16.57 MHz clock rate and the MC68030's on-chip MMU, 256-byte instruction cache, and 256-byte data cache.

The Model 332 uses a 32-bit "local RAM bus" to send and receive data to the RAM daughter boards by using two connectors on the CPU board. The local RAM bus offers a 3.45 times performance improvement over external 16-bit RAM (used by the Model 310). One Mbyte of RAM is standard on the Model 332; additional RAM boards for

the Model 332 are offered in two sizes, 1 Mbyte and 4 Mbytes, both with parity checking. The configurations available are 1, 2, 4, 5, or 8 Mbytes, and because they are daughter boards, up to 8 DIO slots may be saved over a Model 310.

The Model 332 has also added on-board DMA (Direct Memory Access) and optional MC68882 floating-point coprocessor. DMA is especially useful for instrument I/O. Another DIO slot is saved since DMA was an option on the Model 310 as a DIO board P/N 98620 (A/B). Likewise, the floating-point processor for Model 310 (P/N 98635A), is now an option on the Model 332 as the MC68882 math coprocessor. Since the MC68882 is socketed, adding the coprocessor is easy and another DIO slot is saved since the MC68882 is on board.

Medium-resolution 512 × 400 monochrome video is standard on the Model 332 system board. In addition, the medium-resolution may be replaced with a high-resolution 1024 × 768 monochrome video option on the system board. Only two socketed parts need to be changed along with one dip-switch setting, again, all on the system board. The addition of high-resolution video eliminates a possible video system card and offers significant cost savings. A graphics upgrade kit makes installation easy for any customer.

The Models 310/332 enclosure includes four DIO slots. The I/O bus of the CPU board was designed to be 16 bit, so DIO-II is not possible with this design. Some 300 cards are *not* supported in the Model 332 because of the system performance issues (the 16-bit DIO bus). The following cards are not supported by the Model 332:

- RAM 98254A (64 Kbytes), 98256A (256 Kbytes), 98257A (1 Mbyte)
- ROM 98603A (ROM BASIC 4.0), 98603B (ROM BASIC 5.1)
- DMA 98620A/B

continued on next page



PRODUCT NEWS

Since all I/O cards will work in the Model 332, popular Model 310 configurations such as two additional 98624A (HP-IB) or 98622A GPIO cards may be used in the Model 332 with *no* changes. No LAN is provided with the Model 332; however, the 98643A LAN card is supported. Likewise, the 98658A SCSI card is also available, but today, both the LAN and SCSI cards are only currently supported by HP-UX.

A new version of HP BASIC, Release 5.13, supports the Model 332. Also supporting the Model 332 are HP-UX 6.5 and Pascal 3.22. HP-UX 6.5 and HP BASIC 5.13 are scheduled for February 1989 shipments. HP Pascal

workstation 3.22 is scheduled for March 1989 shipments. HP BASIC/UX 5.5 is only currently supported under HP-UX 6.2 and will be turned in order to support the Model 332.

Since the majority of Model 310 systems are used as HP BASIC workstations, performance tests have been focused on comparing the Model 332 with Models 310, 330, 332, and 360 workstations using the latest version of HP BASIC. These benchmarks were developed specifically for HP BASIC. Results for HP-UX or Pascal may vary. The benchmarks were normalized to the Model 310 Minimum configuration as listed below.

Model	Configuration	Computation	Graphics	Device I/O	File I/O
310	Min	1.0	1.0	1.0	1.0
310	Max	1.5	1.0	1.0	1.2
330	—	3.8	2.5	1.8	1.3
332	Min	2.5	2.4	1.9	1.3
332	Max	4.9	2.7	1.9	1.4
360	—	7.0	5.2	2.5	1.4

The following details the configurations used in the benchmarks.

Model	RAM	Display	DMA	Fast disk interface	Math coprocessor
310 Min	1 Mbyte	512 × 400	No	No	No
310 Max	1 Mbyte	512 × 400	Yes	Yes (98625B)	Yes (98635A)
330	4 Mbytes	1024 × 768	Yes	Yes (98262A)	Yes (MC68881)
332 Min	1 Mbyte	512 × 400	Yes	No	No
332 Max	4 Mbytes	512 × 400	Yes	Yes (98625B)	Yes (MC68882)
360	4 Mbytes	1280 × 1024	Yes	Yes (98262A)	Yes (MC68882)

The Model 332 became available for sale March 1, 1989, with shipments starting in April. The Model 332 is sold in the same configurations as the Model 310 is today and include those listed below.

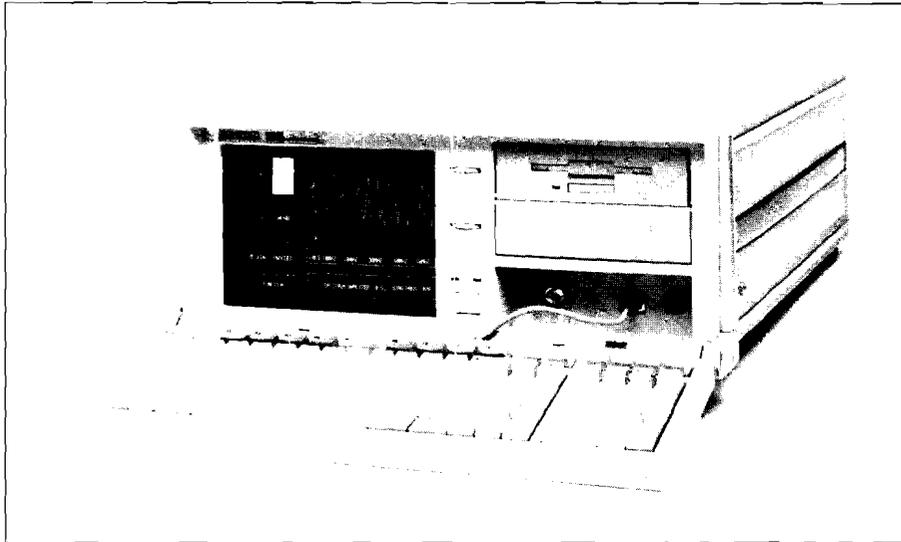
Product No.	Description
98572A	Model 332 SPU
98580C	Model 332 MMA 12-inch medium-resolution monochrome HP BASIC system
98581C	Model 332 CMA 12-inch medium-resolution color HP BASIC system

In addition, a Model 310 to Model 332 field installable upgrade kit is available as P/N 98243C. This provides the Model 332 CPU board with 1 Mbyte of memory. With credit for return of the Model 310 CPU board, the upgrade price is about \$3,000 (U.S. list). Other credits for Model 310 RAM, DMA board, and floating-point board are also available. Options to Model 332 configurations include: 2-Mbyte or 4-Mbyte RAM options, high-resolution graphics, and MC68882 coprocessor. All options are very attractively priced.

The Model 332 helps test and measurement users by offering compatibility with existing systems while taking advantage of the latest technology. Cost savings and much higher performance are the benefits of the Model 332 when users compare to the Model 310.

HP 9000

The new Series R controllers: tailored for you



What if...HP offered a standard controller system in a more specialized package? What if it were ruggedized, integrated, and rack mountable? You asked the question, and the result is the Series R Controllers. The first member of this new product family is the Model R/332, based on the new HP 9000 Model 332 CPU.

The Model R/332 begins life as a seven-inch-high controller system with exceptional capabilities (P/N A1303A). The disk drives and display are built in and shock mounted. There's a touchscreen for user inputs, a key lock to prevent accidental or unauthorized access, and an adjustment for speaker volume. There's a filter on the positive-pressure fan and there's a high-temperature warning alarm. For all the instruments and devices you want to control, eight DIO expansion slots are available without an added bus expander.

For ease of use, the keyboard is hinged to the front and locks into several positions, including fully up for protection while not operating. Or you can detach the keyboard and use it with an extension cable. The keyboard is also designed to remain attached and usable when the controller is installed in a 19-inch rack.

Best of all, the Model R/332 comes as a complete ready-to-run unit with BASIC preinstalled on the internal hard disk — just turn it on and load your program. The 3½-inch flexible disk drive can read older single and double-sided disks as well as the newer disks with 2-Mbyte unformatted capacity. Internal hard disk storage is optional and available in either 20- or 40-Mbyte (P/Ns A1305A and A1307A, respectively) capacity.

You can supplement the built-in peripherals by connecting external displays, printers, disk drives, and input devices to the HP-IB, HP-HIL, RS-232-C, and video interfaces. The internal nine-inch-diagonal CRT is a standard medium-resolution (512 × 400) monochrome display, so an external monochrome display of the same type can be connected instead. Or the CPU board can be upgraded to use an external high-resolution monochrome display.

Series R accessories include rack-mounting hardware and the Series R Custom Engineering Kit. The latter contains parts a skilled person can use to modify the second unused disk drive position. This front-panel area can be converted into a storage drawer or a control panel. Your specialized lights, knobs, or connectors can be mounted here, and there's room inside for a custom circuit. Cables can be fed through to the back of the controller according to the instructions provided.

Contact your HP representative for more information.

Ordering information

Product No.	Description
A1303A	Model R/332 with single floppy and touchscreen
Opt. 001	Delete touchscreen
A1305A	Model R/332 with single floppy, 20-Mbyte hard disk, and touchscreen
Opt. 001	Delete touchscreen
A1307A	Model R/332 with single floppy, 40-Mbyte hard disk, and touchscreen
Opt. 001	Delete touchscreen

HP 9000

HP 9000 Models 825S and 835S/SE: lower prices for OEMs and VARs

OEMs and VARs with 1988 purchase agreements are now eligible for deeper discounts on their HP 9000 Models 825S and 835S/SE computers. Effective February 1, 1989, these systems, and selected accessories and upgrade products, have moved from the 29 percent maximum OEM categories on A1/A1(V) and A2/A2(V) to a new 39 percent maximum discount. In other words, the "*" designation now applies to these products, which allows the more aggressive discount.

This more aggressive discounting posture was incorporated January 1, 1989, on the new system exhibits for resellers (A1001 and A1002) by placing these products on the more aggressive Column IV. The new discount maximums are 36 percent for VARs and 39 percent for OEMs.

Contact your HP representative for further details.

HP 9000

Introducing new low-cost 3D MCAE workstation

Introduced in late January, the HP 9000 Model 340SRX is the industry's first 3D MCAE workstation to break the \$15,000 price barrier (U.S. list). The Model 340SRX allows application software suppliers to offer complete 3D MCAE hardware and software bundled systems for under \$40,000. A few years ago, these systems cost over \$70,000.

Product description

The system is object-code compatible with all other Series 300SRX; hence, users' investment in software is protected. The application performance of the Model 340SRX is roughly equivalent to the Model 350SRX, but the Model 340SRX's price is 70 percent less than the Model 350SRX.

The Model 340SRX is based on the MC68030 and MC68882 microprocessor running at 4 MIPS and the field-proven SRX graphics subsystem. The Model 340 SPU comes standard with 4 Mbytes (expandable to 16 Mbytes), RS-232-C, HP-IB, HP-HIL, and a choice of an AUI LAN or ThinLAN with built-in ThinMAU. A DIO slot accepts optional SCSI or high-speed HP-IB disk interface.

The SRX graphics pipeline performs 70,000 3D vectors per second and 2,300 polygons per second, making it particularly suitable for both wireframe and solid-modeling applications. In addition, the SRX supports advanced hardware lighting models and NURBS with trimming capability.

Ordering information

Product No.	Description
98573C	Model 340SRX with accelerator and 8 planes
Opt. 016	Add 8 planes

Contact your HP representative for more information.

Also in this issue

- Introducing enhanced AdvanceLink: the right connection* 11
- New networking features in HP-UX 6.5/3.1* 13

General

Introducing enhanced AdvanceLink: the right connection

AdvanceLink is a comprehensive data communications software package for the HP Vectra PC, HP Portable Vectra PC, HP Vectra LS/12 laptop PC, IBM PC XT/AT, or IBM PS/2 that provides terminal emulation capabilities for host program execution, file transfer for data exchange, and an extensive command language for building integrated PC/host environments.

The new enhanced version of AdvanceLink enables users to fully integrate their PCs into the workgroup. AdvanceLink provides all the tools, terminal capabilities, file transfer, and command language to perform the connection management and data exchange needed to achieve such integration.

New features

- HP OfficeShare LAN TELNET support offers terminal emulation capability to PCs on an OfficeShare LAN connected to an HP 9000 or HP 1000 RTE host computer.
- Color alphanumeric text offers improved HP 2627 terminal emulation.
- Forms cache to disk functionality offers enhanced HP 2624 terminal emulation.
- MS-DOS INT14h Interface Certification enables the connection of remote PCs or LANs (for example HP OfficeShare or Novell) to the host computer via an X.25 pad.
- Reduced memory requirement enables HP OfficeShare III and terminal emulation in graphics mode to run concurrently.
- Improved Hostcontrol Command improves the reliability of PC/host interaction.

- AdvancePrint and VGA support are also new features, as well as HP Vectra LS/12 laptop PC support (subject to local availability of this PC).

Buy AdvancePrint with AdvanceLink and save

Extend the AdvanceLink connection to the HP 3000 with the AdvancePrint option and extend your printing capabilities. The AdvanceLink/AdvancePrint combination gives the serial-based HP 3000 user advanced shared printing and plotting, in addition to the wide range of data communication capabilities offered by AdvanceLink — all using the existing basic serial connection, and all at an unbeatable price. Include the AdvancePrint option and save about 25 percent (U.S. list) on the AdvancePrint standalone price.

How to order AdvanceLink

Product No.	Description
<i>Single copy</i>	
68333F	AdvanceLink 5¼-inch media
Opt. 003	AdvanceLink 3½-inch media
Opt. 100	AdvancePrint 5¼-inch media
Opt. 103	AdvancePrint 3½-inch media
<i>Site license</i>	
68333L	AdvanceLink 10-user right-to-copy
Opt. 100	AdvancePrint 10-user right-to-copy

Upgrades from any previous version of AdvanceLink to the enhanced version are available from HP DIRECT on return of the application master disk. Upgrade part numbers are as follows:

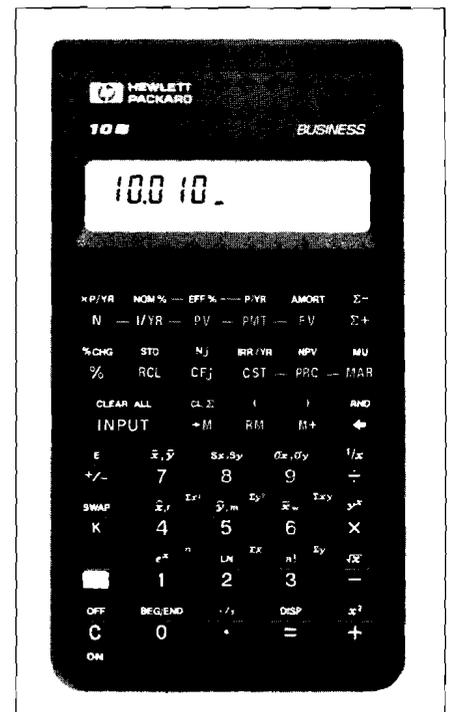
Product No.	Description
68333-65016	5¼-inch media
68333-63003	3½-inch media

For a 10-user right-to-copy site license upgrade, order P/N 68333Z. Users ordering the site license will receive both 3½-inch and 5¼-inch media.

For further information, order data sheet P/N 5959-1199 from your HP representative.

Calculator

New HP calculator — the HP-10B



Hewlett-Packard, as it celebrates its fiftieth year in business, is introducing a new calculator with a price tag under \$50 (U.S. list).

The HP-10B, for cost-conscious business professionals and students, offers the same high quality and reliability of HP's more sophisticated models and delivers all the essential business and math functions for solving problems such as loan calculations and cash-flow analysis.

continued on next page

The HP-10B has a variety of features that make it easy to use. For instance, there's no need to shift modes to access specific functions; all functions on the HP-10B are available all the time.

Because the HP-10B doesn't use a COMPUTE key like competitive products, it saves time by eliminating keystrokes. Also, labels for cash flows and amortization schedules make reviewing entries easier than on most competitive models.

The HP-10B rounds out the new calculator product line HP started introducing a year ago. Now HP offers 12 calculators in a wide range of prices for all types of technical and business professionals and students.

These five business and seven scientific calculators offer a choice of algebraic-entry versions as well as a selection of HP's traditional RPN machines.

Older calculators discontinued

Three older calculators were discontinued on January 1, 1989 — the HP-11C programmable scientific, HP-15C programmable scientific with matrices, and HP-16C programmable calculator for computer science.

Contact your HP sales rep for more information about HP calculators.

Desktop

HP Vectra PC software discontinued

A number of old software products for the HP Vectra PC will be discontinued from the March 1 and April 1, 1989,

HP Price List. The discontinued products and their replacements are listed below.

Off price list	Discontinued Product No.	Description	Replacement Product No.	Opt.	Description
April	45951BX*	MS-DOS® 3.2, 5¼-inch	45951DX*		MS-DOS 3.3, 5¼-inch
April	45951CX*	MS-DOS 3.2, 3½-inch	45951EX*		MS-DOS 3.3, 3½-inch
April	45952A	Vectra BASIC 3.11	none**		
April	45953A	Macro Assembler 4.0, 5¼-inch	none**		
April	45953B	Macro Assembler 4.0, 3½-inch	none**		
March	45954AX*	Windows 1.03	D1318A	ABX*	Windows/286
March	45954B	Windows 2.0, 5¼-inch	D1318A	ABX*	Windows/286, 5¼-inch
March	45954C	Windows 2.0, 3½-inch	D1318B	ABX*	Windows/286, 3½-inch
March	45964A	Aldus PageMaker® 3.0	none**		

*Letter "X" denotes the localized version

**Latest versions are available through dealers

The Windows 1.03-to-2.0 upgrade (P/N 45954-60001) and the Windows 2.0-to-2.1 upgrades (P/Ns D1318-65002 and D1318-63001) will also be discontinued effective March 1.

Note that *all* orders for Windows/286 must include the three-letter country

option (for example, ABA for U.S., ABD for Germany, ABF for France). Orders will be accepted for 30 days after the products have been removed from the HP Price List.

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

Also in this issue

<i>Information Access enhanced on MPE XL</i>	2
<i>First OpenView applications now available</i>	15



Networks

New networking features in HP-UX 6.5/3.1

A number of new networking features will become available in HP-UX 6.5 for the HP 9000 Series 300 and HP-UX 3.1 for the HP 9000 Series 800, both of which will be shipping in March 1989. Release 6.5 on the HP 9000 Series 300 has new NFS features that make it fully compatible with Sun's NFS 3.2. These same NFS 3.2 features will be available in HP-UX 7.0 on the HP 9000 Series 800, which will be shipped in August 1989. The features include the following:

- *Lock manager* is a new feature that provides advisory file locking over the network. Lock manager is the answer to potential data corruption problems where many users are accessing the same data at the same time on an NFS server. It prevents users from inadvertently overwriting each other's files.
- *Remote procedure call generator (RPCGEN)* is a tool used by distributed application developers that allows them to easily write C language-like descriptions of networked applications and then automatically produce the C code for the server and client sides of the applications. This greatly simplifies distributed application development using remote procedure calls (RPCs).
- *Remote execution service (REX)* is an NFS 3.2 tool that provides transparent access to compute servers from clients. It allows a user to execute a command on a remote machine but makes it look as though the command is being executed on his own machine.

In addition to the NFS 3.2 features on the HP 9000 Series 300, both HP-UX 6.5 and 3.1 will contain the following new features:

- UNIX® domain sockets
- SIGIO in sockets (asynchronous sockets)
- NFS support for named pipes
- NFS support for device files

The NFS 3.2 features discussed here are standard in the NFS product for the HP 9000 Series 300 (P/N 50969L/A) in the HP-UX 6.5 release and for the Series 800 (P/N 50970A for Models 825/835, P/N 50971A for Model 840, P/N 50972A for Models 850/855) in the 7.0 release. UNIX domain sockets and SIGIO in sockets are included in NS-ARPA Services/300 (P/N 50952L/C) and LAN/9000 Series 800 link (P/N 91786A for Models 825/835, P/N 98194A for Model 840, and P/N 91788A for Models 850/855).

Contact your HP representative for more information.

Networks

New StarLAN 10 adapter cards and lower ThinLAN card prices

HP is enhancing its leadership position in StarLAN 10 by offering two new PC adapter cards that will significantly enhance the network's price/performance. One new link product is the HP StarLAN 10 PC link II for the HP Vectra PCs and IBM PCs with AT backplane; the other is the HP StarLAN 10 Micro Channel link for IBM PS/2s with Micro Channel backplanes (Model 50 and above).

Better price/performance

The new StarLAN 10 AT was reduced in price close to 30 percent. The U.S. list price of the StarLAN 10 Hub remains the same. An upgrade package will still be available for users who wish to upgrade from StarLAN to StarLAN 10 PC link II. The new cards will incorporate increased buffering capabilities, which will result in performance improvements. Preliminary measurements using the standard OfficeShare performance test suite (Lotus®, dBase®, DOS copy, Gallery, and MemoMaker) indicates that the new StarLAN 10 product will have 20 percent better performance than the old StarLAN 10 product.

In addition to introducing new StarLAN 10 cards, HP will be lowering the U.S. list prices on the old StarLAN 10 cards and the ThinLAN cards.

continued on next page

Extended market

IBM has stated that as of September 1988, it has shipped a total of three million PS/2s, half of which were Micro Channel machines. Our previous solution for connecting Micro Channel PS/2s was by referencing the Western Digital card and selling users our OfficeShare driver for that card (D1805A). The old solution did provide connectivity, but at a premium cost to our users. The new Micro Channel StarLAN 10 card will provide Micro Channel connectivity at less than half of our previous price. These new prices will enable HP's StarLAN 10 solution to compete with IBM's newly announced 16-Mbps token-ring solution.

Competitive analysis

In November 1988, IBM announced its long-awaited 16-Mbps token-ring network. The new token-ring cards have a switchable rate of 4 and 16 Mbps, and are priced at \$895. With our new pricing of StarLAN 10 cards, HP is very competitive with IBM's 16-Mbps token-ring offering. HP offers an additional advantage in that StarLAN 10 runs on unshielded twisted-pair wiring, whereas IBM's 16-Mbps token-ring network requires shielded twisted-pair wiring. In addition, IBM had previously stated that the distance between wiring closets can be up to 200 meters. With the new 16-Mbps token-ring LAN, that distance now can be only 65 meters. Customers who do not meet this distance constraint will be forced to use IBM's 8220 Optical Fiber Converter at each wiring closet and run fiber between them. A pair of these converters will cost customers \$3,000. At a recent Local-Area Communications conference, Gartner Group stated, "unshielded twisted-pair wiring will be the horizontal medium of choice in buildings over the next five years." HP's StarLAN 10 solution can leverage existing wiring schemes in buildings to provide users with cost-effective connectivity.

Pricing summary

Price reductions have been made on the following products.

Product No.	Description
<i>Old products</i>	
50927F	ThinLAN/HP Vectra PC link
D1802A	StarLAN 10/HP Vectra PC link
D1802AN	StarLAN to StarLAN 10 link upgrade credit
<i>New products</i>	
D1808A	
Opt. 100	HP StarLAN 10 PC link II
Opt. 200	HP StarLAN 10 Micro Channel link
D1808AN	StarLAN to StarLAN 10 link II upgrade credit

The D1802A will remain on the HP Price List even after the introduction of the new D1808A cards because the new cards do not support ARPA Services on the HP Vectra PC. Users who require ARPA Services for their PCs will need to order the old StarLAN 10 cards.

Contact your HP representative for more information.

*Lotus® is a U.S. registered trademark of Lotus Development Corporation.
dBase® is a U.S. registered trademark of Ashton-Tate Corporation.*

Networks

HP StarLAN 10 now supports Novell

HP is enhancing its position in multi-vendor connectivity by offering the StarLAN 10 PC card standalone that is certified for use with Novell Advanced Netware Version 2.15 networking software, allowing users greater flexibility in network operating system choices. The HP 27236A StarLAN 10 PC Card is supported in the HP Vectra PC line and IBM PC/XT/ATs.

The PC card (P/N 27236A) will be shipped with an installation manual, diagnostics disk, diagnostics user's manual, and diagnostics loopback hood. The card will not be shipped with network transport software; this software is provided with the network operating system or on a supplemental disk available from Novell.

Users purchasing HP OfficeShare should still order the D1802A HP StarLAN 10 PC Link which includes the HP OfficeShare transport software with the PC card.

Extended market

The offering of a software-independent PC network will allow HP to support users in all environments using 10-Mbps twisted pair LANs who already have invested in proprietary networking software from other vendors. Market research indicates that the installed base of Novell networks is between one and two million nodes. This increased flexibility further demonstrates HP's commitment to multivendor connectivity and leadership in 10-Mbps unshielded twisted-pair LANs.

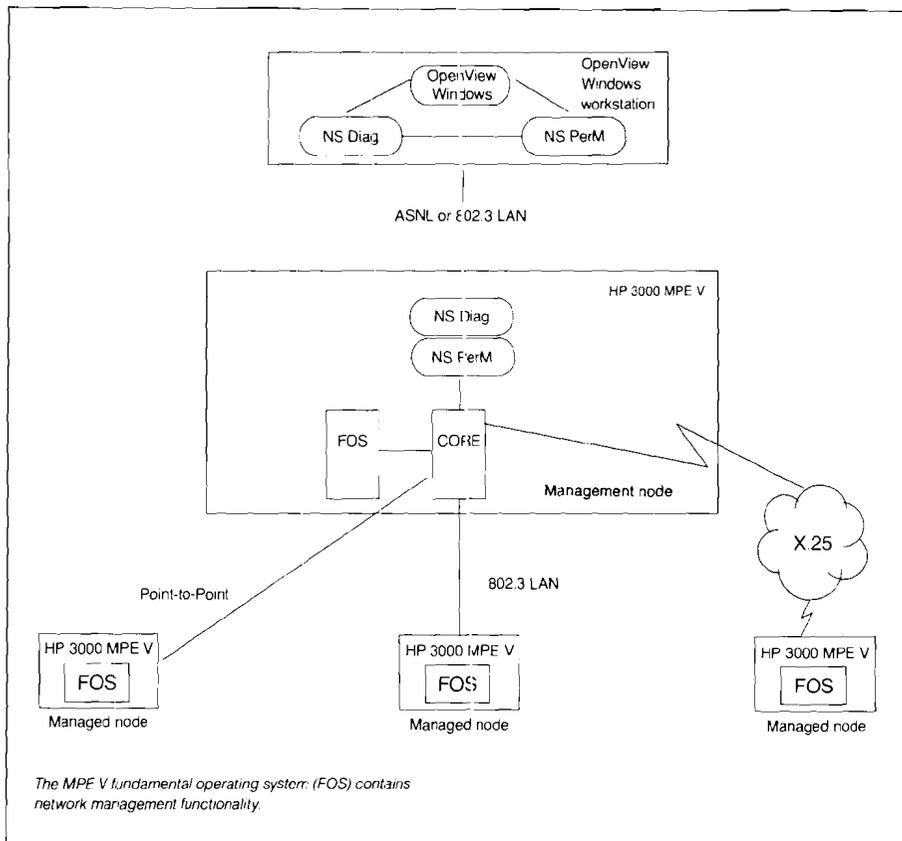
Related products

HP has recently announced the new HP StarLAN 10 PC link kits for AT and Micro Channel backplanes (P/N D1808A Options 100 and 200, respectively). These cards will initially run only OfficeShare. After the introduction of the industry-standard LAN Manager in late 1989, the D1808A will also support that LAN Manager. Contact your HP representative for more information.

First OpenView applications now available

In the March 1988 OpenView announcement, several applications were introduced. The first of these applications is now available to users. These applications are OpenView NS Diagnostic Monitor and OpenView NS Performance Monitor. These applications currently manage HP 3000 MPE V systems in a LAN or WAN environment, and will be available on MPE XL and UNIX® systems.

OpenView NS Diagnostic Monitor and OpenView NS Performance Monitor extend the network management capabilities of today's NS network. These applications are a set of distributed applications with part of the functionality residing on an OpenView Windows workstation (HP Vectra PC) and part residing on an HP 3000 system. See the following figure for an illustration of the OpenView application structure.



Features and benefits

The OpenView NS Diagnostic Monitor (NS Diag) helps the user to monitor the status of HP 3000s anywhere on the network:

- Status is indicated by symbols and colors on the OpenView Windows graphical map. NS Diag notifies the user of any status change as it occurs on a node; not only does the node change color, but a message box also notifies the user of the change. Colors indicate node status allowing the user to visually assess the current condition of the network.
- The user can read network resource parameters about each managed node in the network.
- The user can read fundamental system configuration information, such as the OS version, the system series type, and the active links, about each managed node in the network.
- Network protocol parameters may be read.
- NS Diag has diagnostic tests designed to isolate the networking problem associated with the HP 3000 MPE V running over NS LAN, NS Point-to-Point, or NS X.25. Echo tests can be executed at levels 2, 3, and 4 of the ISO reference model for the TCP/IP link products.
- Link-level counters that monitor interaction with the link-level protocols can be reset to their default values.

The OpenView NS Performance Monitor (NS PerM) allows the user to collect performance and utilization data from the network protocol stack of HP 3000 MPE V systems:

- Data may be collected at the link level (level 2) and at the transport level (level 4). The information can be gathered through data collection runs which are specified by the user.

continued on next page

- Link data can be collected from LAN, LAP-B Bisync, ASNL, and SDLC.
- Link data provides information about how much traffic is being generated on the network.
- Transport (TCP) data provides information about which users or programs are initiating and terminating connections.
- Data is stored in a TurboIMAGE database on an HP 3000 called the "management node." The information is accessible through Information Access, Query, or by using IMAGE on the management node. Users can then design their own reports to meet their specific needs.

Staying consistent with all OpenView applications, OpenView ND Diagnostic Monitor and OpenView NS Performance Monitor share common features:

- *Single-user interface* — There is one consistent, common "look and feel" user interface for all OpenView applications.
- *On-line help facility* — On-line help is available at every screen and menu. OpenView also provides an on-line tutorial that is designed to help the user learn about the user interface.
- *Easy installation* — The OpenView applications are user installable with an AUTOINSTALL facility.

Product structure

OpenView NS Diagnostic Monitor and OpenView NS Performance Monitor require OpenView Windows running on an appropriately configured HP Vectra PC (see OpenView Windows data sheet in the HP AdvanceNet Specification Guide for proper HP Vectra PC configuration) and OpenView Core Software. OpenView Core Software provides common data management services to all OpenView system-based applications and is a one-time purchase per management node for all OpenView applications. A user buying OpenView for the first time and purchasing OpenView NS Diagnostic Monitor and OpenView NS Performance Monitor would need to order these products:

- OpenView Windows, P/N 32048A
- OpenView Core Software, P/N 32052A
- OpenView NS Diagnostic Monitor, P/N 32051A
- OpenView NS Performance Monitor, P/N 32053A

It is important that users understand that the first release of these products will manage HP 3000 MPE V systems running V-Delta-5 and using NS 3000/V link products.

Contact your HP representative for more information on OpenView.

Plotters

HP 7600 electrostatic plotter translucent media

Translucent media for the HP 7600 electrostatic plotter is now available. This media, which works well in low-humidity environments, is a low-cost alternative to vellum. Due to its translucency, it can be used for diazo reproduction and overlays. To order, specify P/N 17267T for 24 inches (609mm) or P/N 17268T for 36 inches (914mm).

Printers

HP PaintJet color graphics printer now compatible with Macintosh software

There is finally an affordable, high-quality color printing solution for Macintosh users.

Hewlett-Packard has introduced the new HP PaintJet interface kit for Macintosh computers (P/N 17305A). This kit enables the HP PaintJet color graphics printer to interface with nearly all QuickDraw-based Apple Macintosh software. It consists of operating disks with driver, printer fonts, installer, cable, and users' guide.

Using thermal inkjet technology to produce 180 dots-per-inch (dpi) resolution, the HP PaintJet color graphics printer produces a full page of color graphics in less than four minutes. It also prints near-letter-quality (NLQ) text at 167 characters per second.

The HP PaintJet printer interface kit for Macintosh computers supports 256 colors on the Macintosh II and 8 colors on the Macintosh SE or Plus. Depending upon the software application, these colors can be mixed, or dithered, to produce thousands of shades and hues.

The chooser-selectable driver software for the HP PaintJet printer converts QuickDraw commands to Printer Command Language (PCL), the HP PaintJet's printer language. This lets users print from most popular QuickDraw-based software, such as MacDrawII from Claris, MS Word 3.2, Excel 1.5, and Powerpoint from Microsoft, Cricket Presents, and many more.

The driver software is compatible with any application that follows Apple's standard printing guidelines, including text, object-oriented-graphics, and/or bitmapped graphics programs. Output quality and feature support will vary, depending on the capabilities of the application.

Included with the HP PaintJet printer interface kit for Macintosh computers are hand-tuned bitmapped printer fonts corresponding to Apple's Times, Helvetica, Courier, and Symbol screen fonts. All fonts are provided in 10- to 36-point sizes for true WYSIWYG (what you see is what you get) output.

The HP PaintJet printer interface kit for Macintosh computers, currently shipping in the U.S. and non-European countries, will be available in Europe on April 1, 1989. Contact your HP representative for more information.

Also in this issue

Introducing enhanced AdvanceLink: the right connection

11

Supplies

Supplies

HP DIRECT order phone numbers

HP DIRECT Fast Phones—the easy, direct way for users to order supplies, accessories, media, furniture, and software from HP DIRECT.

Location	Telephone Number
Australia	(03) 895-2645 (03) 895-2615 (03) 895-2815 (03) 895-2861 (03) 895-2619 (800) 339-861 (toll-free) (0222) 2500-614/615/616
Austria	(02) 761 31 11
Belgium/Luxembourg	800-387-3154
Canada	416-671-8383
Toronto Local	(043) 01 640
Denmark	(90) 887 2361
Finland	(1) 69 86 17 25
France	(01) 672 6090
Greece	(02) 9236 9702
Italy	
Japan	
Osaka	06 300 3150
Sagamihara	0427 59 1321
Middle East/Africa,	
Geneva	(022) 831212
Norway	(02) 24 60 90
South Africa	
Johannesburg	(011) 802 5111
Cape Town	(021) 537 954
Spain	(91) 637 4013 (91) 637 0011 (08) 750 2400
Sweden	(057) 31 24 90
Switzerland	06-0501
The Netherlands	(0734) 44 12 12
United Kingdom	800-538-8787
United States	(0130) 3322
West Germany	

Software Packages Available and Wanted

If you have a software package available for cross-licensing, or are looking for a package to cross license, this section will help you. Your entry will appear for two months; the most recent additions are shaded. To list your company in the Cross-Licensing Classifieds (at no charge), see the address at the end of this section.

Software Packages Available

Industry: Retail

Abstract: Crowe, Chizek and Company, a midwest public accounting firm, is releasing its point-of-sale (POS) software package. This POS package provides the ability to combine the MCBA Distribution System with a point-of-sale operation. This approach combines the ease of use and efficiency of a POS terminal with the immediate integration and power of a multiuser distribution system. This combination is possible without investing in expensive and specialized POS devices.

Features

- Accessible through the MCBA Customer Order Processing module
- POS control file that designates by POS device:
 - Valid POS payment methods (cash, credit card, check)
 - Ability to specify if coupons are acceptable
 - General Ledger account number specification for each payment type
 - Running total of sales by each payment type (check, credit card, etc.)
 - Escape sequence for opening of cash drawer
 - Cumulative sales total for cash drawer
- On-line validation and updating of inventory
- Ability to read bar codes and UPC codes
- Interface to a cash drawer that is opened from an HP 700/92 terminal
- Ability to add multiple screens of items with 15 line items per screen

- Ability to review all items on a cash sale by scrolling forward and backward through multiple screens
- Option to add, change, and delete line items during cash sale processing
- Ability to use MCBA's pricing structure to calculate default pricing
- Default calculation of sales tax amount for taxable items
- Automatic calculation of change due after amount tendered is entered
- Printing of a sales slip that includes:
 - Company name and address
 - Time and date of sale
 - Each line item
 - Item taxable flag
 - A "Thank You" message
- Ability to track POS transactions through MCBA's Sales History module
- Ability to print on-demand reports of sales by cash drawer at any time during the day, including a breakdown of sales by payment type
- Two days of training and installation services provided with the first installation of the package at no extra cost

Requirements: HP 3000 (any series) and one or more workstations. Each workstation consisting of an HP 700/92 terminal, a receipt printer, a bar code reader, and a cash drawer.

Company Name: Crowe, Chizek and Company

Address: 55 Campau Avenue, N.W.
Grand Rapids, MI 49503
U.S.A.

Phone: 616-774-0774

Contact Person: Jack Andrzejak CDP

Type of Distributor Wanted: Open

Geographic Coverage: United States

Industry: *Manufacturing — programmable controller users*

Abstract: MDT, Inc. is a software development firm specializing in UNIX system-based software for the support of programmable controllers. The ProDoc software family provides integrated PLC program development and documentation capabilities for Allen-Bradley controllers. Additional software packages provide for data transfer via data highway, ASCII dumps, to/from XL-2/XL-3.

Features

Marketed since 1983, ProDoc provides an easy-to-learn menu and command system. The same user interface is implemented for PLC-2, PLC-3, or PLC-5 packages. The integrated software provides for simultaneous program development and documentation. The ladder diagram with its associated documentation is displayed for development and modification of logic, dual reference descriptions, and extensive commentary in five different fields.

Work-reducing features include instantaneous display of current cross-reference information; powerful search/replace/modify/copy/move/paste commands; quick display and modification of data-table values. A unique program comparison feature compares two versions of a program and prints or displays rungs containing differences.

ProDoc provides many reports including a fully-documented and cross-referenced ladder listing; reference and cross-reference reports; various data-table prints.

Requirements

HP-UX on the HP 9000 Series 300 or 800; also available on other UNIX system-based computers.

Company Name: MDT, Inc.

Address: P.O. Box 70757
Marietta, GA 30007-0757
U.S.A.

Phone: 404-587-2653

Contact Person: Lisa Ladd Myers

Type of Distributor Wanted: Experience with factory automation, and UNIX system software applications

Geographic Coverage: Worldwide

Industry: *Cross industry*

Abstract: Operations Control Systems develops and markets an integrated line of data center management software for the HP 3000. The product line includes the following:

- **OCS/EXPRESS — Multiple-CPU batch job management system.** OCS/EXPRESS runs the data center 24 hours per day, controlling complex production schedules automatically and launching jobs in exactly the right sequence. OCS/EXPRESS includes fully integrated Tape Library and Chargeback Modules. OCS/EXPRESS is the leading job scheduler for the HP 3000.
- **OCS/LIBRARIAN — Multiple-CPU program library management and version control system.** OCS/LIBRARIAN manages source code libraries, controls changes to versions and releases, and automates file movement from development to production. OCS/LIBRARIAN has recently been purchased by Hewlett-Packard for use within its data centers worldwide.
- **OCS/PRIVATE — Password management, access control, and automatic logoff system.** OCS/PRIVATE provides comprehensive control, yet retains the ease-of-use necessary for user acceptance.

Company Name: Operations Control Systems

Address: 560 San Antonio Road
Palo Alto, CA 94305
U.S.A.

Phone: 415-493-4122

Fax: 415-493-3393

Contact Person: Jonathan Rosenberg

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Industry: *Cross Industry*

Abstract: The Corporate Retriever (TCR) is a free text retrieval system developed by QCOM Pty. Ltd., a long established Brisbane software company.

The product is used to interrogate text databases, usually word-processing systems. In the HP environment, there is a direct interface to HP Word documents and ASCII files. Documents can be indexed 'in situ' without copying from their usual environment.

Using simple English commands:

FIND (references to words, numbers, phrases, or combinations thereof)

LIST (the document titles)

BROWSE (display any or all of the listed documents)

Users require little more than two hours training to become proficient researchers of the database.

Documents can be structured into variable length sections — "Text Section Names," giving the product application in an endless number of ways.

User-defined names allow the researcher to search WITHIN a section, for example:

FIND SHAKESPEARE *WITHIN* AUTHOR

FIND COBOL *WITHIN* SKILLS.

Wildcards are available, for example:

FIND L??D

Will find LOAD, LIED, LEAD, etc.

FIND SHARE?*

Will find 'SHARE' and all words longer, e.g.,

SHARES

SHAREHOLDER

SHAREBROKER, etc.

A phonetic search will find words that sound similar to the search term.

AND, OR, EXCEPT, NEARBY, Boolean logic can be used in complex search patterns.

Commonly used searches can be stored.

Retrieved text can be stored or printed.

Basically a horizontal market product. TCR is predominantly used in the government, legal, research, and financial markets.

Versions are available for the HP 3000, UNIX, and MS-DOS equipment, among others.

Users in Australia/New Zealand include federal, state, and local governments, major legal companies, and police forces; whereas, in the U.K., the 200-plus user base is primarily in the private sector — Reckitt and Coleman, Barclays and Midland Banks, Prudential Assurance, Price Waterhouse, The Stock Exchange, The Bank of England, RTZ, etc.

An attractive distributor package is available to an organization prepared to invest some effort to get the product to market.

Fully functional MS-DOS demonstration systems are available priced at U.S. \$200 (cash with order).

Company: QCOM Pty. Ltd.

Address: 457 Upper Edward Street,
Brisbane Qld. 4000
Australia

Phone: 617-839-3544

Fax: 617-832-2110

Contact: Patrick F. Wood
Divisional Manager

Type of Distributor Wanted: Open

Geographic Coverage: United States
Central Europe
Southeast Asia

Software Packages Wanted

Industry: *MCBA-based verticals*

Abstract: Brant Computer Services is interested in cross-licensing software based on the M.C.B.A. financials. They market solutions to Atlantic Canada, an area too remote to most of you. Brant is open to discuss any application with any company with more than 10 years of experience in providing HP 3000-based software to this region.

Company: Brant Computer Services Ltd. (Atlantic)

Address: 3845 Dutch Village Road
Suite 306
Halifax, Nova Scotia B3L 4H9

Phone: 902-453-5288

Fax: 902-455-5323

Contact: Patti McCaffrey

Geographic Coverage: All Atlantic Canada

You can list your company in the **Cross-Licensing Classifieds** (either **Software Packages Available** or **Software Packages Wanted**) by sending the information in the format used here to:

Hewlett-Packard Company
Value-Added Channels Development
Attn: Gina Adams
19091 Pruneridge Ave.
Building 46UV
Cupertino, CA 95014
U.S.A.

Entries will run for two months. The most recent additions are shaded. Be sure to send the information in at least one month before you wish it to appear.

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If you work for a company that is a value-added business for Hewlett-Packard and want to receive a courtesy subscription to *HP Channels*, call Hewlett-Packard and have your sales rep add your name to the distribution list.

HP sales reps only: To add *new* U.S. or Canadian accounts to the distribution for *HP Channels*, please fill out a copy of "The Data Kit for Value-Added Businesses," P/N 5954-9091D, and return it to the appropriate contact listed on the cover page of the data kit. To add additional contact names to existing accounts, use your VALID edit sheets.

For accounts outside of the U.S. and Canada: contact Tracy Wester for the name of the person responsible for the distribution of *HP Channels* in your country.

Please address editorial correspondence to Tracy Wester at address listed below.

HP CHANNELS

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