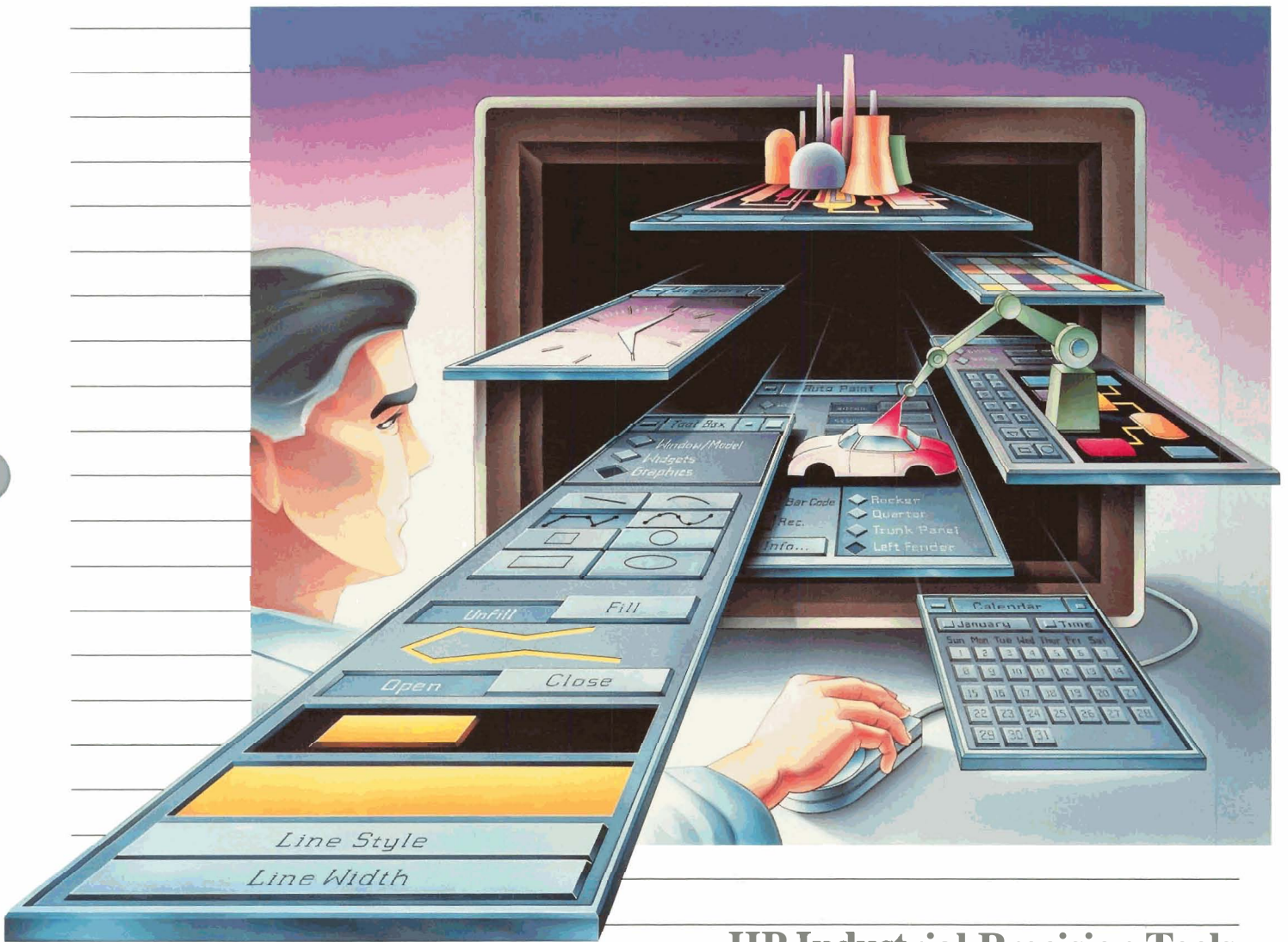


# HP CHANNELS

Information For Hewlett-Packard's Value-Added Businesses

January 1990



**HP Industrial Precision Tools**  
Application development tools for industrial automation

# HP CHANNELS

Volume 9, No. 3

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.

See back cover for subscription information.

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On the cover



HP Industrial Precision Tools help you control manufacturing operations by providing a solid foundation on which to build your applications. See articles beginning on page 2.

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

**For research and education purposes only.**

## Business Computers

General

### What Software ID can do for you

Hewlett-Packard completed a new control feature for value-added resellers and software suppliers to prevent unauthorized usage of your applications. This involves using the recently defined Software Identifier — SW-ID.

SW-ID is unique for all HP 9000 Series 6001800 and 900 Series HP 3000 systems that HP offers today. You can use SW-ID to inhibit execution of an application if the system and application SW-ID values do not match.

Applications need to compare the system SW-ID, with the SW-ID that you embed within your applications. This is a very easy change.

Systems built after November 1, 1989, will arrive with SW-ID correctly set. If you find a system with SW-ID improperly set (zero or less than six digits), have the system manager call the local HP CEO (Customer Engineering Organization) for an explanation of the SW-ID installation guidelines.

Your technical staff should have received a detailed article through a December mailing. Please address all questions to your HP representative.

HP 3000

### X.400 available on MPE XL

#### Features and benefits

HP Desk users on MPE XL and V systems can exchange information in a multivendor environment with HP X.400/3000. This product replaces OfficeConnect to X.400 and provides HP Desk users with the ability to com-

municate with users of electronic mail on non-HP systems.

HP X.40013000 is made up of two components, the HP X.400 server (PIN 32057A) and HP X.400/HP Desk software (P/Ns 32055A and 32056A). The HP X.400 server consists of a dedicated HP 9000 Model 360 system with 802.3 and X.25 links, along with HP X.400 server software and OSI transport services software. The HP X.400/HP Desk software runs on an HP 3000 system, either MPE V or MPE XL, and links HP DeskManager to the HP X.400 server. Multiple HP DeskManager nodes, each with its own HP X.400/HP Desk software, can talk directly to a single HP X.400 server. HP DeskManager nodes without HP X.400/HP Desk can also send X.400 messages using the HP X.400/HP Desk nodes as gateways to the X.400 server.

#### OfficeConnect to X.400 upgrades

For users who have the current OfficeConnect to X.400/MPE V product, upgrades are available. All customers should be upgraded by May 1990. The HP X.400/3000 will be on the January HP Price List. Contact your HP representative for more information.

#### Ordering information

Product No.	Description
32057A	HP X.400 server
Opt. 100	Replace ThinLAN with ThickLAN
Opt. 200	X.25 link
Opt. 300	Modem delete option
Opt. 400	Replace 152-Mbyte drive with 304-Mbyte drive
32058A	HP X.400 server software
32055A	HP X.400/HP Desk for MPE XL
Opt. 310	For use on Series 922LX
Opt. 315	For use on Series 922RX
Opt. 320	For use on Series 925/925LX/9321922
Opt. 330	For use on Series 935
Opt. 335	For use on Series 949
Opt. 340	For use on Series 950. 955
Opt. 350	For use on Series 970
32056A	HP X.400/HP Desk for MPE V
Opt. 310	For use on MICRO 3000
Opt. 320	For use on Series 4X. 5X
Opt. 330	For use on Series 6X. 70

HP 3000

### HP 3000 systems survive October 17 earthquake

HP 3000 computer systems and their peripherals are very rugged. This is the conclusion of a study performed at the Cupertino, California, site after the mid-October earthquake in the San Francisco Bay Area.

On October 17, 1989, a devastating earthquake measuring 7.1 on the Richter scale rocked the San Francisco Bay Area. The quake knocked out power to much of the Santa Clara Valley, including the entire Cupertino site. Several buildings on the Cupertino site housing HP 3000 R&D staff and supporting HP 3000 computer systems were damaged sufficiently that regular work was not resumed for several days. Inventory at the Cupertino site revealed that the HP 3000 systems and their peripherals had withstood the difficult situation of simultaneous earthquake and power failure. Of the 1,000 HP 3000 SPUs, only one Series 70 was unable to reboot due to hardware malfunction, and only 1 percent of HP 3000 systems required a reload. Of the 1,682 HP 7935 disk drives in use at the time of the earthquake, 97.25 percent came through without damage or data loss. Within an hour, the percentage of HP 7935 disk drives out of service had fallen to 2 percent, and by the weekend, all but 1.5 percent were back in service.

Excellent as the performance of the HP 7935 disk drives was, the HP 7937 drives turned in an even better performance. Of the 562 HP 7937 drives in operation at the time of the earthquake and power outage, more than 99.6 percent came through without damage or data loss. A total of two HP 7937 disk

drives required repair. Performance of other peripherals was excellent, as well, with no known plotter, printer, or tape-drive failures.

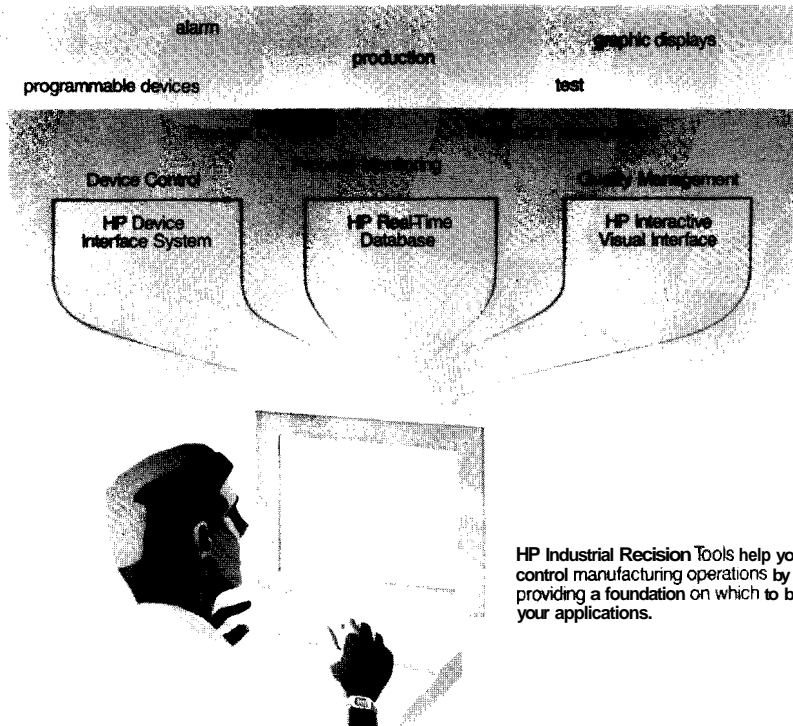
Equally interesting were the stories from local HP 3000 user sites that suffered only momentary power outages. Several sites indicated that of the different vendors' systems that they had in-house, the HP 3000 system was the only one to perform powerfail recovery and continue processing when the power returned. Systems from other leading vendors stayed down.

Users who depend on their HP 3000 systems to run their businesses can be reassured that HP 3000 quality and reliability make a tangible difference when adverse conditions are encountered.

## Technical Computers

General

# Gain control in manufacturing with Industrial Precision Tools



HP Industrial Precision Tools help you control manufacturing operations by providing a foundation on which to build your applications.

*"The Industrial Precision Tools are a strong leverage point unique to HP. They will have the same impact on the factory floor as NewWave is having in the office."* — Bruce Richardson, Vice President of Advanced Manufacturing Research (AMR).

Creating effective industrial automation solutions is a bigger challenge for software developers and VABs today than it's ever been. Manufacturers must be able to effectively monitor and control processes and devices on their plant floors to maintain their competitive edge in today's market. In keeping with the HP Industrial Application Center's

(IAC) mission to help software developers improve their productivity, quality, and flexibility in manufacturing, IAC announces the rollout of the Industrial Precision Tools (IPT) and the first release of HP Interactive Visual Interface (HP IVI).

### A solid foundation for industrial automation solutions

The Industrial Precision Tools is a set of software tools to help worldwide software developers overcome the challenges facing them: high-speed data management, human interface, and factory-floor device communications.



The tools provide the fundamental functionality required for the development of software for cell controller and area management applications to monitor and control manufacturing equipment and processes.

#### A toolset approach

Like the HP 9000 Series 800 and 300 computers on which they are designed to run, the three Industrial Precision Tools are able to meet a broad variety of needs. They are modular and integrable, so any or all of the tools can be used to develop new applications.

#### HP Real-Time Database (HP RTDB)

More and more, today's automated processes require timely access to information that only high-performance, memory-resident databases can provide. But, creating and managing those databases can be very time-consuming. Not anymore; HP Real-Time Database, designed to create and access these databases, offers high-speed performance and a full feature set in a flexible, affordable software tool. (See article in this issue, "HP Real-Time Database — even better for 1990.")

#### HP Interactive Visual Interface (HP IVI)

As manufacturing processes become more automated, shop-floor personnel must deal with increasingly complex design and manufacturing data. This data must be communicated in a readily understandable format for rapid decision support. HP IVI is a powerful user interface development environment, built on the industry-standard X Window System, that gives rich functionality to software solutions creators seeking to develop graphical user interfaces to meet this challenge. (See article in this issue, "Expand your vision with HP IVI — the new X-based graphic user-interface.")

#### HP Device Interface System (HP DIS)

As factory-floor device control becomes increasingly automated, software developers need to link manufacturing equipment and control devices to specific applications. With more than 150 PLC manufacturers introducing an average of six new devices every year, the task of developing new device drivers is both cumbersome and overwhelming. HP Device Interface System now offers software developers a productive and cost-effective means of developing and testing communication links to any RS-232-C plant-floor device. (See article in this issue, "HP Device Interface System — making serial interfacing easier.")

#### Benefits

By using the flexible, standards-based Industrial Precision Tools to design custom manufacturing solutions for the nongeneric factory, software developers can enjoy all the following benefits:

- Significantly enhanced productivity
- Faster time to market
- Widely improved quality
- Drastically reduced development and maintenance time and costs

#### Wide acceptance

There is already a huge ground swell of support worldwide for the Industrial Precision Tools. Listed below are examples of IPT applications.

- A major U.S. automobile manufacturer will be using all the Industrial Precision Tools to develop a statistical process control software package for automotive manufacturing.
- HP RTDB and HP DIS have been used by a software developer to develop a shop-floor data management module to collect and manage shop-floor data required by the aerospace and electronics industries.

- HP RTDB teamed up with ALLBASE to win a project in Taiwan. It will be used to develop a fabric dyeing and industrial printing production management package.
- The HP project center in Japan has selected HP IVI to develop the user interface for a project subcontracted to them for an optical fiber submarine cable system.
- A Belgian software house is using HP RTDB's high speed to develop a cell controller package for a large European steel manufacturer.

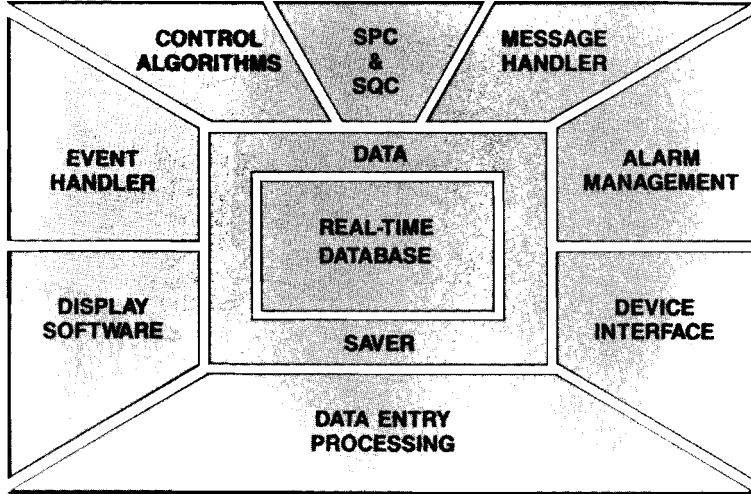
See the article, "IPTs — read all about them," in this issue for more information about literature available through your HP representative.

For more information on the Industrial Precision Tools, contact your HP representative or your nearest HP sales office.



General

# HP Real-Time Database — even better for 1990



Application developers that have been creating their own memory-resident databases are fast discovering the benefits of using HP Real-Time Database instead. These benefits are:

- Faster time to market
- Higher quality in their software solution products
- Lower development and maintenance costs

A solution for applications requiring *blazing performance* from a relational database

For the last year and a half, HP Real-Time Database has been providing a highly functional, memory-resident DBMS for users who told us they "did not want to spend two to three months trying to write their own." One developer wrote that since it lowered their cost, "we passed these savings onto our customer, which made us much more competitive."

### HP Real-Time Database feature set

HP Real-Time Database is a library of routines callable from C or FORTRAN and supports relational or serial data, multiple processes and users, three data access methods, three levels of security, predictable response, dynamic reconfiguration, and more. It also has a complete, SQL-like QUERY facility.

Release 2.0, available in first quarter 1990, adds the following features and enhancements:

- *Trending* — Add a third dimension to your 2D database. This allows a historical look at a particular array of data.
- *Event detection and notification* — Let your application know when something predefined has happened. This allows for immediate response without waiting for polling.
- *Archiving* — Store whole or part, with or without headers. Read them, too. This allows for significantly faster operation than disk-based databases.
- *16 bit NLS* — Up from 8 bits. For Far East users.

### Turbocharge your disk-based database

HP Real-Time Database is 100 to 1,000 times faster than a relational DBMS. Because of its relational structure, the HP Real-Time Database has been used as a high-performance front-end to SQL databases. To facilitate this, HP Real-Time Database includes the ability to share data and schema in four ways: interactive, programmatic, batch, and historical.

Now you can have relational data throughout your entire application with off-the-shelf products.

### Quality ingredients make quality solutions

Our users are quite pleased with the remarkable reliability of our product. One user said, "We could not have written our own code to equal this." After nearly 18 man-years of development, HP Real-Time Database was released on time with zero defects since its release. It has been used in very demanding applications in manufacturing, process, and service industries for everything from cell control to on-line 800-number lookups.

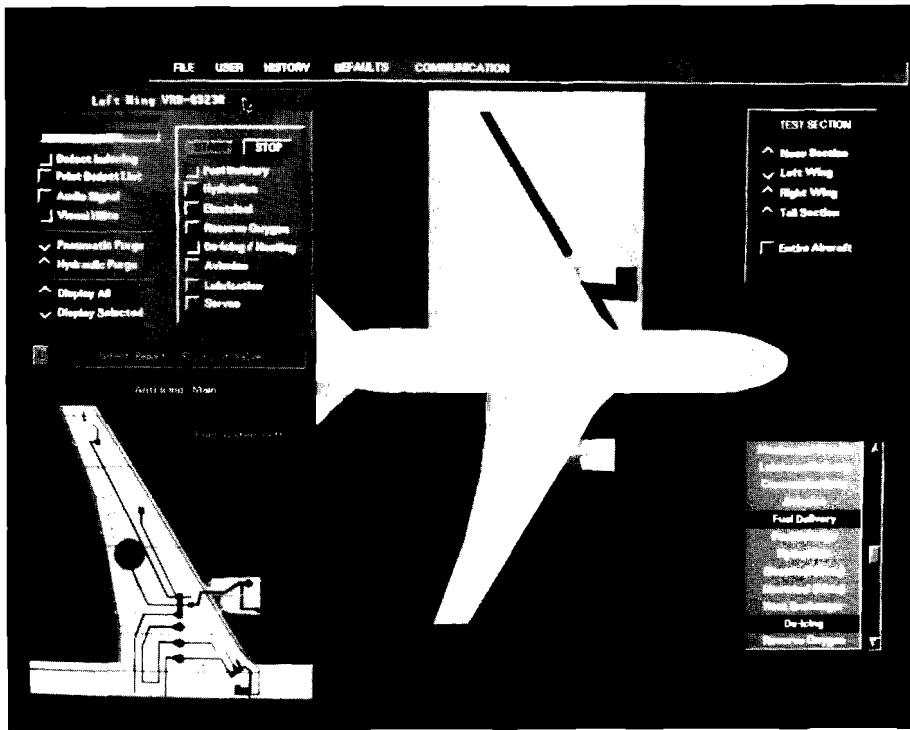
### Ordering information

Product No.	Description
92572A	HP Real-Time Database development copy
Opt. AEQ	For Series 300
Opt. AEM	For Models 825, 835
Opt. AEN	For Model 840
Opt. AEP	For Models 850, 855
92572E	HP Real-Time Database run-time license
Opt. AEQ	For Series 300
Opt. AEM	For Models 825, 835
Opt. AEN	For Model 840
Opt. AEP	For Models 850, 855

For more information on HP Real-Time Database, please contact your HP representative or your nearest HP sales office.

General

## Expand your vision with HP IVI—the new X-based graphic user interface



Software developers worldwide are discovering that the development of user interfaces can equal or exceed the time required to develop the rest of the application. Further, software suppliers and systems integrators are now increasingly recognizing that they can establish a strong competitive advantage by developing a well-designed, intuitive, and flexible user interface for their products.

In November 1989, Hewlett-Packard's Industrial Applications Center introduced HP Interactive Visual Interface (HP IVI), an X-based graphic user interface development toolkit that will be a tremendous productivity booster for programmers and systems integrators alike. HP IVI has been designed to make software developers more successful by alleviating the problems of factory-floor graphics: rapidly changing user requirements, complexity of user-interface standards such as X and OSF/Motif, and extremely low Leveragibility among applications.

### HP IVI — a closer look

HP IVI is a software productivity toolkit for developing graphical user interfaces, targeted for industrial automation solutions creators. HP IVI can be used to create user interfaces for a wide variety of industries: aerospace, chemical, defense, electronics, packaged goods, and pharmaceutical. HP IVI reduces time-consuming and expensive user-interface development and maintenance time by approximately 50 to 70 percent.

HP IVI offers a powerful user-interface builder, plus an Application Program Interface (API). HP IVI, built upon the industry-standard X Window System, Version 11, features 2D process graphics and 3D widgets in one consistent environment.

■ **The builder** — HP IVI's interactive builder is a powerful screen design editor. Following the builder's user-friendly menu, the user can merge 3D

widget (pushbuttons, scrollbars) and 2D graphics (circles, arcs) objects to create the optimum displays for one's applications without writing a single line of code. The builder's extensive editing capabilities make the user interface creation effortless.

- **Application Program Interface (API)** — The API consists of a structured library of subroutines that handle functions ranging from creating and copying new objects to initializing the dynamic attributes of the process elements on the screen. The same API function calls can be used to change one or more attributes of graphics and widgets. The result is fewer calls and enhanced flexibility.
- **Dynamic graphics** — HP IVI provides dynamic animation capabilities through changes in such attributes as color, scaling, and translation. For example, an alarm situation can be depicted as a high-contrast change from blue to red.
- **X Window System Environment** — HP IVI's robust functionality is built upon the industry-standard X Window System, Version 11. The client-server architecture of X is utilized to distribute access to this functionality across the manufacturer's existing network.

### Improved productivity and reliability

HP IVI offers several benefits for solutions creators: improved productivity, faster delivery, increased reliability, and significantly reduced development and support costs. Color-coded graphic depictions such as those offered by HP IVI have significant benefits for both discrete and process manufacturers:

- Reduces waste and scrap
- Supports a safer operating environment
- Real-time decision-support for management

*continued on next page*



## Initial feedback — very exciting

Here are some quotes from the first HP IVI users:

"If we didn't have HP IVI, we'd be looking at man months of effort to develop our application. Instead, it just took us a couple of weeks."

"HP IVI is a great productivity tool to help systems integrators like us, who have to get applications out as soon as possible."

"HP IVI is an excellent prototyping tool. I was able to create my application without having to use (or learn) how to program at the XLib/X intrinsics level."

"It was extremely handy to be able to combine widgets and graphics on the same display."

Software developers in areas outside manufacturing, such as network monitoring, telecommunications, and stock market applications, also have expressed tremendous interest in HP IVI.

## Ordering information

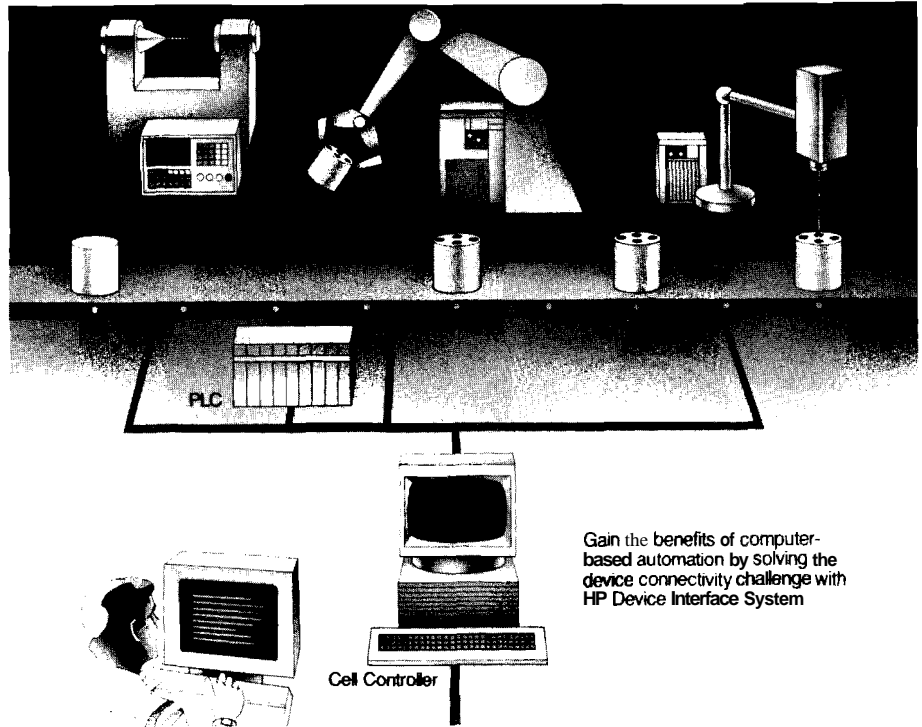
Product No.	Description
92576A	HP Interactive Visual Interface development copy
Opt. AEQ	For Series 300
Opt. AEM	For Models 825, 835
Opt. AEN	For Model 840
Opt. AEP	For Models 850, 855
92576E	HP Interactive Visual Interface run-time license
Opt. AEQ	For Series 300
Opt. AEM	For Models 825, 835
Opt. AEN	For Model 840
Opt. AEP	For Models 850, 855

For more information on the product and its availability, contact your HP representative or the nearest HP sales office.

*X Window System* is a registered trademark of the Massachusetts Institute of Technology (MIT).

General

## HP Device Interface — making serial interfacing easier



Gain the benefits of computer-based automation by solving the device connectivity challenge with HP Device Interface System

HP Device Interface System is a software tool for enabling the creation of protocol interfaces for RS-232-C devices.

### Common problems— uncommon solutions

The problem software developers have been facing when implementing device communications is that there are so many different protocols. Creating protocol interfaces for such devices can add a significant amount of time to the development of an application. Not to mention testing, which can be up to 70 percent of the time to create each protocol interface. The result is often poorly documented, nonreusable code that is embedded into the application — a maintenance nightmare.

HP Device Interface System solves these problems by providing:

- Consistent methodology for the creation and maintenance of communication links.
- Significantly faster development and testing of communication links
- Reusable action routines
- Protocol interfaces separate from the application

In the words of Bruce Richardson of Advanced Manufacturing Research, "HP Device Interface System is a unique way around the support of a plethora of proprietary protocols — a thankless job for the poor, unsuspecting project manager."

## Product features and structure

HP Device Interface System consists of three environments:

- **Development environment** — This is based on the State Machine methodology for creating protocol interfaces. The developer first designs the interface with a state transition graph and a state table. (This discipline from the beginning enables development and maintenance productivity.) The state table is then coded using the Protocol Specification Language (PSL) which is designed to be compatible with state tables. (The developer can also use previously developed Reusable Action Routines.) The result is an easy-to-read and easy-to-modify protocol interface ready for testing. And development only took 50 percent or less than the usual time.
- **Testing environment** — Next use the Protocol Test Specification Language to automatically generate test scripts. The Protocol Test Exerciser enables testing on actual or simulated devices and has a noise generator and time-out delays to simulate actual environments. And testing time was cut to less than half.
- **Run-time environment** — After development and testing, load the compiled PSL protocol interface on the target system.

HP Device Interface System runs on both the HP 9000 Series 300 and Series 800. The Series 300 version features a memory-resident run-time portion making it an excellent target system, while that on the Series 800 is disk-based and well suited for the development system.

HP Device Interface System has been available on the HP 9000 Series 800 since May 1989. It will be released on the Series 300 in early 1990.

## Satisfied users

Our users are software developers who have recognized the benefits of HP Device Interface System in the form of:

- Significantly higher productivity
- Lower development and maintenance costs
- Faster time to market
- Higher-quality end product

The come from manufacturing, process, and service industries. And they are using it to produce protocol interfaces for all types of serial devices, such as factory floor equipment and even a low-cost link between two computers.

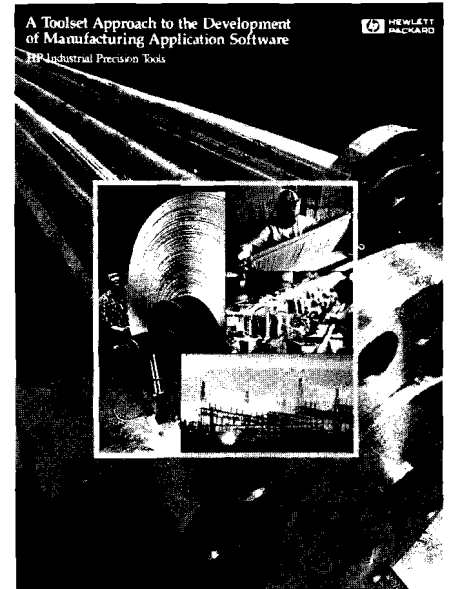
## Ordering information

Product No.	Description
92580A	HP Device Interface System development copy
Opt. AEQ	For Series 300
Opt. AEM	For Models 825, 835
Opt. AEN	For Model 840
Opt. AEP	For Models 850, 855
92580E	HP Device Interface System run-time license
Opt. AEQ	For Series 300
Opt. AEM	For Models 825, 835
Opt. AEN	For Model 840
Opt. AEP	For Models 850, 855

For more information on HP Device Interface System, please contact your HP representative or your nearest HP sales office.

General

## IPTs—read all about them



The following is a list of product literature about the Industrial Precision Tools. This literature is available from your HP representative or your nearest HP sales office.

- **Title:** Software Tools for Plant-Floor Connectivity  
**Type:** Article reprint  
**Audience:** Functional management  
**P/N:** 5951-6975  
**Recommended usage:** Evaluation and selection
- **Title:** Gaining Control in Manufacturing With Industrial Precision Tools  
**Type:** Folder with three enclosures (P/Ns 5951-6977, -6981, -6954)  
**Audience:** Functional management  
**P/N:** 5951-6961  
**Recommended usage:** Introduction
- **Title:** HP Device Interface System  
**Type:** Product brief  
**Audience:** Functional management and technical evaluators  
**P/N:** 5951-6977  
**Recommended usage:** Evaluation and selection

continued on next page

- **Title:** HP Interactive Visual Interface  
**Type:** Product brief  
**Audience:** Functional management and technical evaluators  
**P/N:** 5951-6981  
**Recommended usage:** Evaluation and selection
- **Title:** HP Real-Time Database  
**Type:** Product brief  
**Audience:** Functional management and technical evaluators  
**P/N:** 5951-6954  
**Recommended usage:** Evaluation and selection  
  
**Title:** A Toolset Approach to the Development of Manufacturing Application Software — HP Industrial Precision Tools  
**Type:** Product family brochure  
**Audience:** Functional and upper management  
**P/N:** 5951-6960  
**Recommended usage:** Introduction and evaluation
- **Title:** When There's Not a Microsecond to Lose You Need HP Real-Time Database  
**Type:** Color brochure/technical data sheet  
**Audience:** Functional management and technical evaluators  
**P/N:** 5951-5953  
**Recommended usage:** Evaluation and selection
- **Title:** Expand your vision with HP Interactive Visual Interface  
**Type:** Color brochure/technical data sheet  
**Audience:** Functional management and technical evaluators  
**P/N:** 5951-6980  
**Recommended usage:** Evaluation and selection

- **Title:** Make the Right Connection with HP Device Interface System  
**Type:** Color brochure/technical data sheet  
**Audience:** Functional management and technical evaluators  
**P/N:** 5951-6970  
**Recommended usage:** Evaluation and selection

Below is a list of reprints of published articles without publication numbers. Your HP contact can obtain these reprints for you from the HP Industrial Application Center.

- "Bringing Graphics to the Factory Floor;" *HP Professional*, November 1988
- "Human Interface Solutions Come to the Factory Floor;" *Computer Technology Review*, Spring 1989
- "New User Interface Smooths Factory Automation;" *Computer Technology Review*, November 1989.
- "A Data Base for Real-Time Applications and Environments;" *HP Journal*, June 1989
- "HP Real-Time Database as a Front End to a Disc-Based Database;" Application Note
- "Real-Time Data Management on the factory floor;" *Computer Technology Review*, Fall 1989

General

## **HP ALLBASE/ QUERY— the easy way to go relational**

The new release of HP ALLBASE/QUERY will enable more of your clients to benefit from relational technology.

HP ALLBASE/QUERY is Hewlett-Packard's query management facility for relational data. It enables end users and infrequent database users to utilize the high performance of Hewlett-Packard's relational database — HP ALLBASE/SQL.

Users with no knowledge of the database structure (or computers in general) can quickly and easily satisfy ad hoc queries and generate reports.

### Features

- A "Next Step" function key guides users through the screen forms they must complete to create a report.
- Detailed, context-sensitive help screens are available throughout HP ALLBASE/QUERY.
- The "Display Report" function key enables users to see the report in its present state at any time.

Many of your clients are exploring ways to decentralize information management. Two major enhancements to HP ALLBASE/QUERY, together with the strong performance growth of HP ALLBASE/SQL, provide you with an unbeatable offering for end-user information management.

HP ALLBASE/QUERY is divided into a number of task-oriented modules that have a common, easy-to-use interface.

These are EZAccess for creating ad hoc queries and reports, EZReport for editing and formatting reports, and SQLAccess for the productive implementation of SQL commands. Release B.01 introduces two new modules: EZCreate and EZUpdate.

### **EZCreate: the easy way to create tables**

End users and infrequent users of the database can use EZCreate to step through the process of creating or modifying a table. Users can quickly create a new table, add new columns to an existing table, change the access mode, or delete an existing table definition. Naturally, users can only create or modify a table after being granted appropriate authorities to the database.

### **EZUpdate: the easy way to update data**

The EZUpdate module enables end users to add, delete, or modify data in HP ALLBASEISQL tables. EZUpdate displays the rows (records) of a table and allows the data to be updated one row at a time. Changes are made directly to the DBEnvironment so that each time you access the table, the contents reflect the changes you last made.

### **HP ALLBASEIQUERY gives you more time for major projects**

When you include HP ALLBASEIQUERY in your solutions, your clients get a tool that increases the flexibility of their information management system. With HP ALLBASEIQUERY, your clients can satisfy unforeseen requirements for decision support. Advanced users are likely to identify needed applications that you can then create. HP ALLBASEIQUERY minimizes the time you spend supporting completed applications and gives you more time to work on major projects.

For more information, contact your HP representative.

General

## **Special HP-UX 7.0 mixed cluster requirements**

With the December 1 release of HP-UX 7.0, an HP 9000 Series 800 computer can be a server to a cluster of HP 9000 Series 300 and 800 (Model 815 only) diskless computers. A cluster of this type is called a mixed (or heterogeneous) cluster. In a mixed cluster, the cluster server's file system is used to store HP-UX and applications for both the HP 9000 Series 800 and Series 300 computers. HP-UX clusters provide numerous benefits, such as centralized system administration and easy file sharing, without giving up the local compute power of a workstation.

HP-UX mixed clusters require a mechanism to separate executable files of the same type that are written for different architectures. For example, the HP 9000 Series 800 HP-UX binaries must be separated from the corresponding HP 9000 Series 300 HP-UX binaries to allow the server to provide the proper file when requested. The mechanism used is the context-dependent file (CDF). A CDF is a hidden directory that allows for multiple copies of a file to be accessed with the same path.

The creation of CDFs is automatically performed for HP-UX itself through the HP-UX System Administration Manager (SAM). To allow applications to be loaded onto an HP 9000 Series 800 server, HP has developed a utility that creates CDFs for an application without any effect on the application or the normal installation process.

The mixed application installation utility (PIN 92452-64117 for ¼-inch cartridge or PIN 92452-64118 for ½-inch magnetic tape) creates the CDFs required to allow both the HP 9000 Series 800 and 300 versions of an application to exist on a mixed cluster server.

General

## **New PORT/VX release**

PORTIVX (P/Ns 50729A and 50730A) is a migration product to migrate FORTRAN applications from VAX/VMS to the HP 9000 Series 800 system. Five days of consulting and a set of software porting tools are included with the product. The product is targeted to users with VAX systems running VMS FORTRAN applications.

### **Features and benefits**

With a 7.0 FORTRAN compiler, the second release of PORT/VX release is better designed to meet user needs. PORTIVX migration tools can now preserve user code identification and user case, additional intrinsics have been added to the library, and applications using SYSSQIO are now "debuggable" using XDB. The product supports indexed file access and record/structure/union. Also, many of the library routines have been improved. Many of the migration limitations of the first release are now resolved.

### **Options**

Effective February 1, 1990, new options will be added to reflect the new HP Price List software tier structure. When ordering HP 50729A or 50730A, add the following options depending on the relevant Series 800 model.

Model	Option
808	AHO
815	AEL
82518321635	AE5
835	AE6
8401845	AEN
8501855	AEP
870	AH1

### **Ordering information**

Product No.	Description
50729A	PORTIVX includes migration toolset and five days of
50730A	PORTIVX toolset

HP 9000

## New HP 9000 Models 345 and 375

HP introduces two new HP 9000 systems. The new high-performance Model 345 workstation is ideal for new and existing users who need a high-performance workstation and value the ability to access a wide selection of application software or who may be considering a low-end RISC-based system purchase. The new high-end Series 300 — the Model 375 — is upgradable to the MC68040. This product is targeted for new and existing users who want RAM and slot expandability, as well as an upgrade path to future 68040 workstations.

### Features and benefits

With these two new 12-MIPS workstations, users now have leading-edge MC68030 performance. Both workstations feature 50-MHz MC68030 and 50 MHz MC68882 processors. Eight Mbytes ECC RAM is standard, except for the HP 9000 Model 345MH bundle which has 4 Mbytes, and are expandable to 16 Mbytes on the Model 345; to 32 Mbytes on the Model 375. A three-button mouse is now available for these two new workstations and all other HP 9000 Series 300 systems.

Standard interfaces include HP-HIL, RS-232-C, HP-IB, IEEE 802.3/Ethernet with thinMAU and BNC "T" connector or AUI, and speaker with jack. On the HP 9000 Model 345, SCSI or high-speed HP-IB interfaces are available options, and on the Model 375, SCSI is standard and can be optionally replaced by high-speed HP-IB. In addition, the optional 200-Mbyte disk with "instant ignition" (preloaded HP-UX and a preconfigured X Windows environment) makes setup fast and easy. A Centronics hardware interface is included as a standard feature, and the Centronics software driver is offered as an option.

Users will find more than 1,800 applications available worldwide; HP 9000 Series 300 object code compatibility assures protection of existing software investments.

In addition, these new workstations offer improved reliability through error checking and correcting (ECC) RAM and integration of over 400 ICs and passive components into five ASICs.

Each workstation offers unique benefits designed to fit users' specific application needs and circumstances. The HP 9000 Model 345, for example, provides three times the performance of the Model 340 and it is the first low-end workstation in the industry to provide ECC RAM as standard. It is packaged for low cost and provides

for limited expandability — although the built-in interfaces cover 80 to 90 percent of the needs in the low-end marketplace. Still, the Model 340 maintains its position as an entry-level workstation while the Model 345 provides the strongest price/performance value in the Series 300 family.

The HP 9000 Model 375 functionally replaces the Model 370 with 50 percent performance enhancement and 60 percent price/performance improvement in an expandable flexible package.

It is important to recognize that the HP 9000 Model 345 and 375 offer the same processor and performance in different packages. The Model 345 is packaged for low cost, offering limited expandability. The Model 375 offers more configuration flexibility, and, more importantly, upgradability to the MC68040 later this year.

User need	Best system
Requires expandability	
Needs more than 16 Mbytes RAM now or in the future	Model 375
Needs one to nine DIO-II slots	Model 375
Needs VME connection	Model 375
IBM 5080 gateway	Model 375
Interfaces other than built-in I/O	Model 375
X.25/300 link	
HP-UX DOS coprocessor	
16-bit parallel	
Datacom interface	
Four-port MUX	
More than one LAN	
SDLC interface	
IBM connectivity	
Slot requirements	
Doesn't require slot, no interface required beyond built-in I/O	Model 345
Needs dual graphics displays	Model 375
Future upgradability	
Field upgrade to MC68040	Model 375
Doesn't care about upgrades, wants best performance at low cost now	Model 345

## Product specifications and comparison with existing products

Specification	Model 340	Model 345	Model 360	Model 370	Model 375
Package	340 package	Modified 340 package	325mm package	325mm package	325mm package
Number slots beyond graphics	1 DIO-I	n/a	1 DIO-II	n/a	1 DIO-II
Maximum slots	1 DIO-I	n/a	9 DIO-II	8 DIO-II	9 DIO-II
VME connection	986464	n/a	98577A 986464	98577A 98646A	98577A 986464
CPU clock rate (MC68030)	16.7 MHz	50 MHz	25 MHz	33 MHz	50 MHz
FPU clock rate (MC68882)	16.7 MHz	50 MHz	25 MHz	33 MHz	50 MHz
HP VAX-MIPS	4.0	12	5.9	8.0	12
MFLOPS with 68882	0.14	0.4	0.22	0.27	0.4
With optional FPA	n/a	n/a	0.39	0.65	n/a
External cache	n/a	32 Kbytes	n/a	64 Kbytes	32 Kbytes
RAM type	Parity	ECC	Parity	Parity ECC optional	ECC
Standard	4 Mbytes	8 Mbytes*	4 Mbytes	8 Mbytes	8 Mbytes
Maximum	16 Mbytes	16 Mbytes	16 Mbytes	48 Mbytes (128 Mbytes)	32 Mbytes
Standard interfaces	HP-HIL RS-232-C HP-IB LAN Audio	HP-HIL RS-232-C HP-IB LAN Audio	HP-HIL RS-232-C HP-IB LAN Audio	HP-HIL RS-232-C HP-IB LAN Audio HS HP-IB	HP-HIL RS-232-C HP-IB LAN Audio SCSI
Optional interfaces	SCSI HS HP-IB	SCSI HS HP-IB Centronics	SCSI HS HP-IB	SCSI	HS HP-IB Centronics

\*Except the MH bundle with 4 Mbytes standard

## Ordering information

Product No.	Description
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98563H	HP 9000 Model 345MH bundle with 19-inch display
98564H	HP 9000 Model 345C+ bundle with 16-inch display
98578H	HP 9000 Model 345CH bundle with 16-inch display
98573H	HP 9000 Model 345SRX bundle with 16-inch display
98573J	HP 9000 Model 345 TurboSRX bundle with 19-inch display
98574B	HP 9000 Model 375 SPU bundle
98589J	HP 9000 Model 375MH bundle with 19-inch display
98583J	HP 9000 Model 375C+ bundle with 19-inch display
98588J	HP 9000 Model 375CH bundle with 19-inch display
98587J	HP 9000 Model 375SRX bundle with 19-inch display
98587K	HP 9000 Model 375 TurboSRX bundle with 19-inch display

For more information, please contact your HP representative.

HP 9000

## 200-Mbyte integrated SCSI disk subsystem for HP 9000 Models 340 and 345

HP's first HP 9000 Series 300 internal disk is offered on the Models 340 and 345. The internal disk is targeted for all Model 340 and 345 users who require a high-performance, low-cost disk with capacity up to 200 Mbytes and for current users of Model 340 and 345 systems who require additional disk capacity. The 200-Mbyte SCSI disk is available with a user-installable upgrade kit.

### Features and benefits

This disk subsystem comes preloaded with "instant ignition" to reduce installation time and offers greatly improved disk performance. The system will work the first time it's taken out of the box. This disk drive illustrates HP's commitment to SCSI as the strategic mass storage interface.

The internal disk is a 200-Mbyte 3 1/2-inch form-factor SCSI disk, including an internal SCSI interface, which is mounted in the interior of the Model 340/345 chassis. Dramatically improved disk throughput performance is achieved over existing HP 7957158159 drives shown on the following page.



## Disk performance

Description	Read/write throughput (per second)	Average I/O (per second)
HP 7957/58/59	350 Kbytes	32
Model 340*	481 Kbytes	30.7
Model 345*	920 Kbytes	31.5

### \*200-Mbyte internal disk

Option 412 is HP's lowest-priced, most compact HP 9000 Series 300 disk solution — featuring a reduction in price over the HP 7958S (161 Mbytes). A user-installable upgrade kit, including disk, cables, and documentation is available to all Model 340/345 users.

Option 411 is intended for Model 345 users who wish to include the internal SCSI disk drive and add external SCSI peripherals such as disks and printers.

Option 412 and 411 cannot be ordered concurrently.

Product No.	Description
Opt. 411 (Model 345 only)	200-Mbyte disk and external SCSI connection
Opt. 412	200-Mbyte disk

For more information, contact your HP representative.

### HP 9000

## Announcing new HP 9000 Models 834SRX and 834 TurboSRX

The HP 9000 Model 834 is a 14-MIPS, 2.02-MFLOPS restricted-configuration RISC-based system with a two-user HP-UX license. The Model 834SRX and 834 TurboSRX provide high floating-point performance with 3D solids modeling capability and RAM expansion from 8 to 96 Mbytes. The Model 834 is targeted to leading-edge MCAE users in industry, education, and government.

### Features and benefits

- **Model 835 processing power** — 14 MIPS and 2.02 MFLOPS performance coupled with quality and reliability for predictable response time. Compute capability for demanding applications.
- **SRX and TurboSRX 3D graphics** — High-performance, solids-rendering graphics capability to give "real-time" manipulation of 3D MCAE models.
- **CIO slot** — Expansion choice of a

6-channel MUX, or a second HP-IB or LAN interface.

- **Three central-bus RAM slots** — RAM expandability to 96 Mbytes ECC for fast execution and high productivity on demanding applications.
- **DSL/800** — Preloaded operating system on 304-Mbyte disk drive to reduce installation time and get the system up and running sooner.
- **License-to-use bundled and media and documentation (optional)** — Reduces cluster price by minimizing redundant manual sets.
- **Full compatibility with other Series 800 workstations** — Protects software investment by providing over 1,000 HP-PA applications available worldwide.

The Model 834SRX and 834 TurboSRX provide RISC-based systems for users who have floating-point intensive, 3D solids-rendering applications. Typical users will be leading-edge MCAE users who are unwilling to wait for Motorola 680X0 floating point improvements or

who require RISC-architecture systems as an emotional issue. Typical users will be in industry, education, or government running MCAE applications in areas such as finite element analysis (using SDRC or PATRAN software) and computational fluid dynamics (using Sterling's GAS software).

The Model 834SRX and 834 TurboSRX have identical system processing power as the 835SRX and 835 TurboSRX but have certain restrictions. The Model 834 comes with a two-user HP-UX license compared to a 16-user HP-UX license for the Model 835. The Model 834 has only three RAM card slots compared to seven slots for the Model 835. (Total RAM expansion to 96 Mbytes is expected for the Model 834 with the availability of 32-Mbyte RAM cards.) The Model 834 is restricted to three CIO slots. Two of these three slots are used for LAN and HP-IB cards in the Model 834SRX and 834 TurboSRX bundles. Finally, the Model 834 TurboSRX will *not* support the graphics animation interface (PIN A1047A). All software applications that run on the Model 825 and 835 workstations will run on the Model 834SRX and 834 TurboSRX, except where any of the above restrictions apply.

The Model 834SRX and 834 TurboSRX have much higher floating-point performance than comparable SRX and TurboSRX products on the MC68030 platforms. This will continue until the introduction of the MC68040 platforms, at which time it is expected that the Motorola systems' floating-point performance will exceed that of the Model 834. Users purchasing upgradeable Motorola platforms will have growth paths.

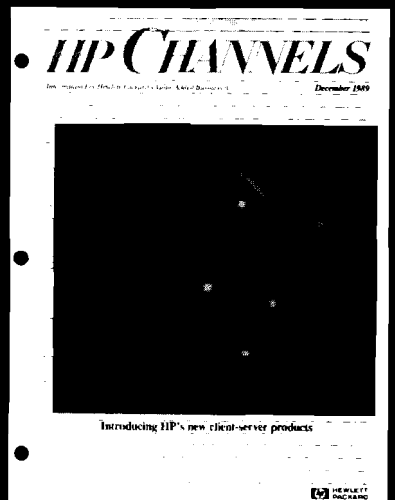
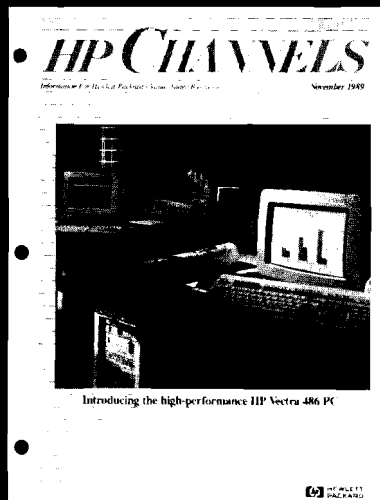
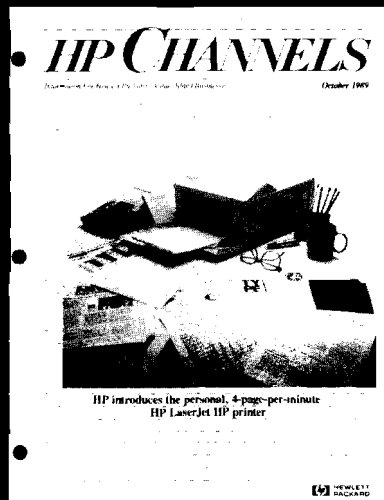
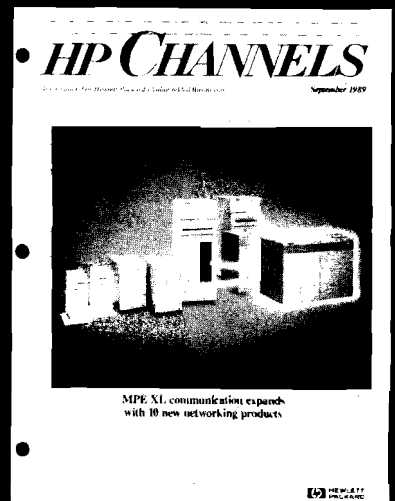
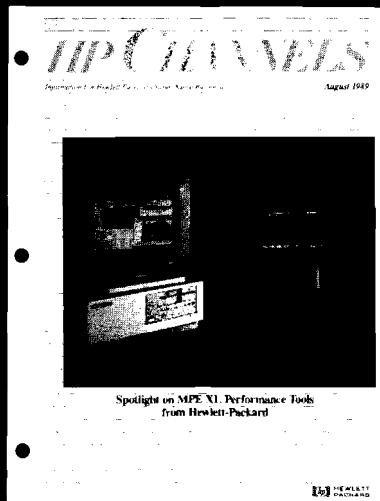
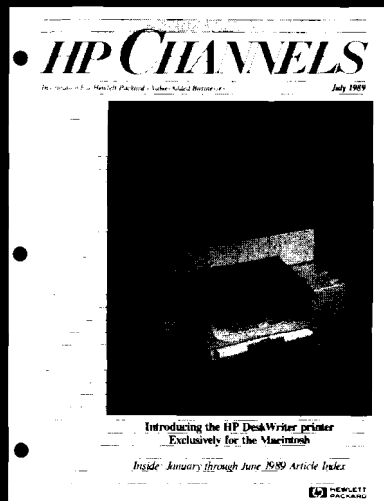
### Model 834 benchmarks

SPU	SRX	TurboSRX
14 MIPS		
2.02 MFLOPS		
Graphics Transforms per second	180,000	900,000
3D vectors per second	67,000	240,000
Polygons per second	3,400	13,500

# HP CHANNELS

Information For Hewlett-Packard's Value-Added Businesses

January 1990



Index for July through December 1989 issues

# HP CHANNELS

Index for July through December 1989 issues

Editor  
**Tracy Wester**

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

This index includes articles that appeared in HP Channels from July through December 1989.

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## Configuration information

The Model 834 offers an "instant ignition" option for ease of installation, which includes a preconfigured HP-UX operating system and X Window system on a disk.

## Ordering information

Product No.	Description
A1091A	Model 834 TurboSRX entry-level solid-rendering workstation includes Model 834 SPU with 8 Mbytes ECC RAM plus:
92466	2-user HP-UX license-to-use with general usage documentation
27110B	HP-IB interface card
91786B	LAN/9000 Series 800 Link
A1017A	Display controller interface
98730A	TurboSRX display controller (with no accelerators) with 8-plane frame and four overlay planes
98752A	19-inch color monitor (1280x1024)
46060B	HP-HIL 3-button mouse
46081A	2.4-meter HP-HIL extension with audio
46084A	HP-HIL ID module
	Keyboard — Must specify one keyboard option
Opt. OBI	Add media (¼-inch tape) and documentation
Opt. 001*	Add asynchronous 6-channel MUX (981964)
Opt. 002	Add AIOIOA 8-Mbyte ECC RAM board
Opt. 003**	Add 28641A ThinMAU
Opt. 004**	Add 30241A ThickMAU plus AUI cable
Opt. 416***	Add one frame buffer card for a total of 16 planes of frame-buffer memory (cannot order more than one of Option 416 or 424.)
Opt. 424***	Add two frame buffer cards for a total of 24 planes of frame buffer memory. (Cannot order more than one of Option 416 or 424.)
Opt. 515+	Substitute A1037A 16-Mbyte ECC RAM board for AIOIOA 8-Mbyte ECC RAM board. (Total system RAM = 16 Mbytes)
Opt. 516	Add A1037A 16-Mbyte ECC RAM board
Opt. 531+	Substitute two A1037A 16-Mbyte ECC RAM boards for AIOIOA 8-Mbyte ECC RAM board. (Total system RAM = 32 Mbytes)

Product No.	Description
Opt. 608***	Add three accelerators for 3D solid rendering and a full 16-bit Z-buffer. (Cannot order more than one of the following options: 416, 424, 608, 616, and 624)
Opt. 616***	Add one frame buffer card (for a total of 16 planes of frame buffer memory), three accelerators for 3D solid rendering, and a full 16-bit Z-buffer. (Cannot order more than one of the following options: 416, 424, 608, 616, and 624)
Opt. 624***	Add two frame buffer cards (for a total of 24 planes of frame buffer memory), three accelerators for 3D solid rendering and a full 16-bit Z-buffer, and Starbase Radiosity and Ray Tracing Libraries (PIN B1681A and B1681L). (Cannot order more than one of the following options: 416, 424, 608, 616, and 624)
Opt. 716	Substitute 98789A 16-inch color monitor for 98752A 19-inch color monitor.
Opt. 834	Add preloaded software on 7959B 304-Mbyte disk drive, includes: 2-user HP-UX Motif NS/ARPA services NS/9000 services Starbase graphics library X-Window system
A1089A	Model 834SRX entry-level solid-rendering workstation includes Model 834 SPU with 8 Mbytes ECC RAM plus:
92466L	2-User HP-UX license-to-use with general usage documentation
27110B	HP-IB interface card
91786B	LAN/9000 Series 800 link
A1017A	Display controller interface
98720A	SRX display controller with 8-plane frame buffer and four overlay planes
Opt. 721	3D solid rendering graphics accelerator
Opt. 722	Frame buffer board
98752A	19-inch color monitor (1280x1024)
46060B	HP-HIL 3-button mouse
46081A	2.4-meter HP-HIL extension with audio
46084A	HP-HIL ID module
	Keyboard — Must specify one keyboard option
Opt. OBI	Add media (¼-inch tape) and documentation

Product No.	Description
Opt. 001*	Add asynchronous 6-channel MUX (981964)
Opt. 002	Add AIOIOA 8 Mbyte ECC RAM board
Opt. 003**	Add 28641A ThinMAU
Opt. 004**	Add 30241A ThickMAU plus AUI cable
Opt. 016++	Add one 8-plane frame buffer board and one power supply for a total of 16 planes of frame buffer memory. Cannot be ordered concurrently with Option 024 or 032.
Opt. 024++	Add two 8-plane frame buffer boards and one power supply for a total of 24 planes of frame buffer memory. Cannot be ordered concurrently with Option 016 or 032.
Opt. 032++	Add three 8-plane frame buffer boards and one power supply for a total of 32 planes of frame buffer memory. Cannot be ordered concurrently with Option 016 or 024.
Opt. 515+	Substitute A1037A 16-Mbyte ECC RAM board for AIOIOA 8-Mbyte ECC RAM board. (Total system RAM = 16 Mbytes)
Opt. 516	Add A1037A 16-Mbyte ECC RAM board
Opt. 531+	Substitute two A1037A 16-Mbyte ECC RAM boards for AIOIOA 8-Mbyte ECC RAM board. (Total system RAM = 32 Mbytes)
Opt. 716	Substitute 98789A 16-inch color monitor for 98752A 19-inch color monitor.
Opt. 834	Add preloaded software on 7959B 304-Mbyte disk drive includes: 2-user HP-UX Motif NS/ARPA services NS/9000 services Starbase graphics library X-Window system

*\*Limited to one Option 001 (add asynchronous 6-channel MUX).*

*\*\*Options 003 and 004 cannot be ordered concurrently.*

*\*\*\*Options 416, 424, 608, 616, or 624 cannot be ordered concurrently.*

*+Options 515 and 531 cannot be ordered concurrently. Limited to one Option 515 or one Option 531 per mainframe.*

*++Options 016, 024 and 032 cannot be ordered concurrently.*

Contact your HP representative for more information.



HP 9000

## New HP 9000 Model 635SV options

Due to popular demand, a variety of new HP 9000 Model 635SV options are now available. These include delete options for the tape autochanger and disk drives, as well as add-on memory options and MAU options. Now the Model 635SV can be better tailored to suit users' needs for tape backup, storage, memory, and LAN cabling. The product structure now looks like this:

Product No.	Description
A1620A	HP 9000 Model 635SV server SPU including: System processor Floating-point coprocessor 24 Mbytes ECC RAM Two HP-IB interfaces 6-channel MUX
35401A	Tape autochanger (67-536 Mbytes)
7963B	304-Mbyte disk drive
97963B	304-Mbyte upgrade for 7963B
917868	LAN/9000 link
92508L	HP-UX server license to use and general usage documentation
50981A	ARPA Services/800
50970A	NFS services
B1155A	X Window System
98876A	SoftPC
Must order either Opt. AAO or AAI below:	
Opt. AAO	Networking software on ¼-inch cartridge tape
Opt. AAI	Networking software on ½-inch 9-track tape
Opt. 0E1	Add A1014A power battery backup system
Opt. IAN	Delete 35401A tape autochanger
Opt. IBC	Delete 79638 and 97963B disk drives and one HP-IB
Opt. 003	Add 28641A ThinMAU
Opt. 004	Add 30241A ThickMAU
Opt. AFK	Add 28664A twisted-pair MAU
Opt. 501	Add A1010A 8-Mbyte RAM board
Opt. 516	Add A1037A 16-Mbyte RAM board
Opt. 517	Substitute A1037A 16-Mbyte RAM board for A1010A 8-Mbyte board

**Note:** The 92211R Design Plus cabinet currently is not included and should be ordered separately. Also, HP-UX 7.0 media and manuals are now modularized. Call your HP representative for more information.

HP 9000

## Enhancements to HP ME Series 10 and 30 offer greater performance

The ME Series 10 (P/N B1310A) is HP's world-class, 2D design and documentation system. Enhancements improve performance and interactivity, plus offer new capabilities such as automatic 2D hidden-line removal. The ME Series 30 (P/N B1330A) provides easy-to-use solid modeling capabilities. Enhancements take advantage of HP's graphics hardware for real-time interaction and improved photorealism. These two products are targeted for the mechanical engineering computer-aided design industry.

### Features and benefits

Enhancements to ME Series 10 include:

- Faster redraw
- Real-time pan and zoom for drawing production
- Hidden-line removal module improves ability to create assembly drawings

Enhancements to ME Series 30 include:

- Now supports double-buffering and interactive graphics on the HP 9000 Series 800, the SRX, and TurboSRX
- Interactively rotate, pan, and zoom ME 30 models, helping users create designs faster and easier
- New capabilities for enhanced photorealism to help users better present their products in the design phase

HP ME Series 10 is supported on the HP Vectra, IBM, and Compaq 386-based PCs and HP 9000 Series 300 computers.

HP ME Series 30 is supported on HP 9000 Series 300 and 800 systems.

For more information, contact your HP representative.

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**Personal Computers**

General

**Introducing HP NewWave Developer Assist services**

Effective December 1, 1989, Hewlett-Packard introduced two new electronic technical support services for the software developer: HP NewWave Developer Assist (PIN D1728A) and HP NewWave Developer Premier Assist (PIN D1729A). Each support service gives developers fast reliable answers to their NewWave questions, boosting their development productivity.

HP's NewWave Developer Assist services offer high-quality electronic technical assistance to NewWave application developers. Two levels of support are

available. Each service enables developers to focus on the unique capabilities of their application by reducing the time they spend solving development problems. HP NewWave Developer Assist services are available in one-year increments.

HP NewWave Developer Assist is targeted to users who develop NewWave applications — independent software developers, corporate developers, value-added businesses, systems integrators, software publishers, educators, computer consultants, and industry analysts.

**HP NewWave Developer**

Services	Assist	Premier Assist
Response time to development questions	3 working days	1 working day
Service request submission and acknowledgement	•	•
Knowledge Base	•	•
Access to interim release software		•
Support for interim release software		•
Knowledge Base for interim release software		•
Sample code for programming	•	•
Software patches	•	•
Technical notes	•	•
Access to NewWave Developer Public Forum	•	•
Register NewWave application I.D. codes	•	•
Access to marketing news	•	•

**HP NewWave Developer Assist**

This is HP's basic technical support service for NewWave developers. Through this service, software developers can submit questions to one of HP's highly qualified NewWave

specialists and receive an answer within three working days. Developers also have access to on-line information in the NewWave knowledge base, sample code, and other time-saving services, designed to improve their overall productivity.

**HP NewWave Developer Premier Assist**

This is an enhanced version of the basic NewWave Developer Assist service. It gives developers all the benefits of NewWave Developer Assist, plus one working day response time to software development questions. They also will have access to early interim release versions of NewWave software and tools. Although this is prerelease software, it does enable them to plan ahead and prepare their application for future NewWave environment enhancements.

**Worldwide connections through CompuServe**

NewWave Developer Assist services use CompuServe's state-of-the-art information network and electronic mail system to support NewWave developers worldwide. CompuServe's advanced communication network guarantees that all communication between developers and HP support engineers is completely confidential.

**HP NewWave developer forum and knowledge base**

NewWave developers can talk to other NewWave developers through the HP NewWave developer public forum.

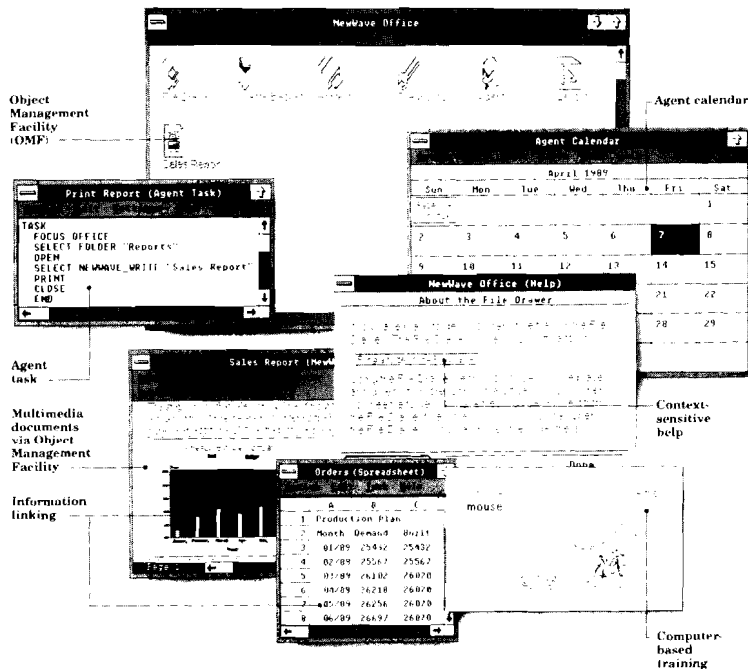
Developers can share ideas and experiences, ask questions, or simply keep abreast of the latest NewWave developments. They are invited to participate in this forum even if they choose not to purchase a support service.

As a subscriber to a NewWave Developer Assist service, developers have access to the NewWave knowledge base. This comprehensive database lets developers query technical information or look at hints and discoveries from other NewWave developers.

Contact your HP representative for more information.

General

## Introducing an enhanced HP NewWave Developer Kit



*HP NewWave's system-wide services facilitate system-wide application integration and task automation, while eliminating redundant development effort.*

The HP NewWave Developer Kit Version 2.0 (PIN D1714A) is an enhanced version of the original NewWave Developer Kit Version 1.0. This advanced software toolkit enables developers to create their own highly integrated and easy-to-use HP NewWave applications. Enhancements include the full HP NewWave Agent and Computer-Based Training (CBT) development facilities.

The HP NewWave Developer Kit is targeted to software developers (ISVs, OEMs, and VABs).

### Features and benefits

The enhanced HP NewWave Developer Kit Version 2.0 is designed to facilitate

the development of HP NewWave applications by improving on the original HP NewWave Developer Kit Version 1.0. This release adds the powerful NewWave Agent and CBT development tools.

The toolkit includes a development version of the HP NewWave environment, software development tools, integration tools, software libraries, user-interface style guide, and sample applications with source code and documentation to aid in the development of HP NewWave applications. HP NewWave's integral systemwide services allow developers to significantly reduce their development time and avoid reinventing capabilities that already exist.

The NewWave environment is designed to improve the productivity of knowledge workers through the integration of systemwide information and resources. HP NewWave was developed to help promote and establish industrywide standards and expand the base for common applications development.

Users who purchased the original HP NewWave Developer Kit Version 1.0 (PIN D1701A) and returned reply cards to HP will be notified by mail on how to receive their free HP NewWave Developer Kit upgrade.

The original HP NewWave Developer Kit Version 1.0 was removed from the HP Price List December 1, 1989. Contact your HP representative for more information.

General

## Introducing Yacc for DOS

Yacc (Yet Another Compiler-Compiler) for DOS (PIN D1715A) is an advanced software tool for the development of HP NewWave applications. It automatically generates parsers that developers can use to implement the HP NewWave Agent in their applications.

Yacc for DOS is intended for software developers (independent software vendors, original equipment manufacturers, and value-added businesses).

Although it is technically possible for programmers to develop the HP NewWave Agent parser without Yacc for DOS, with it they can dramatically increase their software development productivity. The manuals in the HP NewWave Developer Kit Version 2.0 (P/N D1714A) have examples that show developers how to use HP's Yacc for DOS for HP NewWave Agent design. Yacc for DOS supports 100 percent compatible IBM PC AT and PS/2 computers.

HP has licensed Yacc from AT&T. The terms of the HP and AT&T license agreement restrict the sale of Yacc for DOS with a "shrink wrapped" license agreement to only those countries with enforceable copyright laws. These countries include: Argentina, Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Denmark, Dominican Republic, Ecuador, Finland, France, Hong Kong, Hungary, Iceland, India, Israel, Italy, Japan, Luxemburg, New Zealand, the Netherlands, Norway, Philippines, Poland, Portugal, Peru, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, United Kingdom, England, Wales, Scotland, Northern Ireland, United States, Venezuela, and West Germany. Users who reside in countries not on this list are required to sign a software license agreement before they purchase and use the product. These software license agreements are available from your HP representative.

General

## **Graphics Gallery update kit now available**

Graphics Gallery has been enhanced to operate better within limited memory environments. In addition, drivers have been added for the HP PaintJet XL and the HP LaserJet IIP printers. Affected product numbers are listed below. Contact your HP representative for more information.

Product No.	Description
D1711-60012	Graphics Gallery Collection 5¼-inch update kit
D1711-60011	Graphics Gallery Collection 3%-inch update kit
D1709-60005	Drawing Gallery 5¼-inch update kit
D1709-60004	Drawing Gallery 3%-inch update kit
D1710-60008	Charting Gallery 5¼-inch update kit
D1710-60007	Charting Gallery 3%-inch update kit

General

## **Executive Card Manager to be discontinued April 1, 1990**

On January 1, 1990, Executive Card Manager site-license products, PIN 68331L and PIN 68331T, were discontinued. Executive Card Manager, PIN 68331F, will be discontinued on April 1, 1990, and will be supported for five more years.

Executive Card Manager is a personal database that uses a card file metaphor for storing and accessing data. The HP 150 version of Executive Card Manager was discontinued October 1, 1989.

Desktop

## **Embedded-AT controller drives for HP Vectra PCs**

New HP embedded-AT controller drives will be standard with the HP Vectra QS/20, QS/16S, and ES/12 PCs effective January 1, 1990. These new 42-Mbyte and 84-Mbyte half-height, 3%-inch hard disk drives have embedded-AT interface controllers that provide enhanced quality and reliability. Models with HP's new 42-Mbyte and 84-Mbyte drives will replace models with 40-Mbyte ST-506 and 108-Mbyte ESDI hard disk drives, respectively.

HP Vectra PC models that support the 42-Mbyte and 84-Mbyte high-quality drives are available effective January 1, 1990: the HP Vectra ES/12 Models 46 and 47 PCs, the HP Vectra QS/16S Models 1, 46, 47, 86, and 87 PCs, and the HP Vectra QS/20 Models 1, 46, 47, 86, and 87 PCs. The Models 46 and 47 now include the 42-Mbyte embedded-AT controller drive and the Models 86 and 87 include the 84-Mbyte embedded-AT controller drive. The Model 1 easily allows the addition of HP's 42-Mbyte and 84-Mbyte embedded-AT controller hard disk drives. For those users requiring expandability, dual HP embedded-AT controller drives are supported with the HP Vectra QS/20, QS/16S, and ES/12 PCs.

To support HP's high-quality embedded-AT controller drives, HP's new PCs will include an AT multifunction controller card. This card provides the standard HP serial and parallel ports, the flexible disk drive controller, and the hard disk drive interface. The hard disk drive controller is not included on the AT multifunction controller card since it is physically attached and integrated into HP's new 42-Mbyte and 84-Mbyte disk drives. Users wishing to install a hard disk drive without an embedded-AT controller will need to add the appropriate controller.

New and improved HP Vectra ES and QS PC Kits (P/Ns D1351C and D1450D, respectively), are also available effective January 1, 1990. These new PC Kits include a concise and easy-to-use manual that supports HP's high-quality embedded-AT controller drives. The PC Kits will continue to include 5%-inch and 3½-inch setup and utilities diskettes, an AC power cord, and a keyboard cable.

The tables on the following page summarize the new models and products available.

## HP Vectra ES/12, QS/16S, and QS/20 PC configurations

Product No.	Description	Hard disk capacity (Mbytes)	Hard disk controller	Flexible disk size (inches)	Video adapter
<b>HP Vectra ES/12 PC</b>					
D1310A	Model 10	none	ST-506	5¼	none
D1326A	Model 26	20	ST-506	5¼	VGA
D1327A	Model 27	20	ST-506	3½	VGA
D1346B	Model 46	42	Embedded-AT	5¼	VGA
D1347B	Model 47	42	Embedded-AT	3½	VGA
<b>HP Vectra QS/16S PC</b>					
D1481B	Model 1	none	none	5¼	none
D1462B	Model 46	42	Embedded-AT	5¼	VGA
D1464B	Model 47	42	Embedded-AT	3½	VGA
D1488B	Model 86	84	Embedded-AT	5¼	VGA
D1489B	Model 87	84	Embedded-AT	3½	VGA
<b>HP Vectra QS/20 PC</b>					
D1491B	Model 1	none	none	5¼	none
D1422B	Model 46	42	Embedded-AT	5¼	VGA
D1424B	Model 47	42	Embedded-AT	3½	VGA
D1498B	Model 86	84	Embedded-AT	5¼	VGA
D1499B	Model 87	84	Embedded-AT	3½	VGA

## 42-Mbyte and 84-Mbyte embedded-AT hard disk drives

Product No.	Description
D1665A	42-Mbyte embedded-AT controller hard disk drive, 19 ms average seek time, 10 MBits/sec maximum transfer rate.
D1666A	84-Mbyte embedded-AT controller hard disk drive, 19 ms average seek time, 10 MBits/sec maximum transfer rate.

The following HP Vectra ES/12, QS/16S, and QS/20 PC data sheets are available.

- HP Vectra ES and ES/12 PCs data sheet, P/N 5952-1099
- HP Vectra QS/16S PC data sheet, PIN 5952-1097

- HP Vectra QS/20 PC data sheet, PIN 5952-1098

Contact your HP representative for copies of these data sheets and/or for more information.

Desktop

## HP products replaced with embedded-AT controller drives

Models with HP's new 42-Mbyte and 84-Mbyte embedded-AT controller drives provide attractive replacements for models with 40-Mbyte ST-506 and 108-Mbyte ESDI hard disk drives, respectively. Effective January 1, 1990, the HP Vectra ES/12, QS/16S, and QS/20 Models 46 and 47 PCs with 40-Mbyte ST-506 drives will be discontinued. In addition, the HP Vectra QS/16S Model 10 PC was removed from the January 1, 1990, HP Price List. Orders for models discontinued January 1, 1990, will be accepted through January 31, 1990, for delivery by June 30, 1990.

Effective March 1, 1990, the HP Vectra QS/20 Models 10e and 100e PCs will be discontinued. Orders for these models will be accepted through March 31, 1990, for delivery by August 31, 1990.

New and improved HP Vectra ES and QS PC Kits will replace the existing PC Kits January 1, 1990. These new PC Kits include a concise and easy-to-use manual that supports HP's new high-quality embedded-AT controller drives.

The table on the following page is a summary of the models and products that will be discontinued.

Discontinued Products		Replaced by	
Product No.	Description	Product No.	Description
D1346A	HP Vectra ES/12 Model 46 PC with 40-Mbyte ST-506 drive	D1346B	HP Vectra ES/12 Model 46 PC with 42-Mbyte embedded-AT drive
D1347A	HP Vectra ES/12 Model 47 PC with 40-Mbyte ST-506 drive	D1347B	HP Vectra ES/12 Model 47 PC with 42-Mbyte embedded-AT drive
D1460A	HP Vectra QS/16S Model 10 PC with four-function ST-506 Card	D1481B	HP Vectra QS/16S Model 1 PC with AT multifunction card
D1462A	HP Vectra QS/16S Model 46 PC with 40-Mbyte ST-506 drive	D1462B	HP Vectra QS/16S Model 46 PC with 42-Mbyte embedded-AT drive
D1464A	HP Vectra QS/16S Model 47 PC with 40-Mbyte ST-506 drive	D1464B	HP Vectra QS/16S Model 47 PC with 42-Mbyte embedded-AT drive
D1420A	HP Vectra QS/20 Model 10e PC with four-function ESDI card	D1491B	HP Vectra QS/20 Model 1 PC with AT multifunction card
D1422A	HP Vectra QS/20 Model 46 PC with 40-Mbyte ST-506 drive	D1422B	HP Vectra QS/20 Model 46 PC with 42-Mbyte embedded-AT drive
D1424A	HP Vectra QS/20 Model 47 PC with 40-Mbyte ST-506 drive	D1424B	HP Vectra QS/20 Model 47 PC with 42-Mbyte embedded-AT drive
D1425A	HP Vectra QS/20 Model 100e PC with 108-Mbyte ESDI drive	D1498B	HP Vectra QS/20 Model 86 PC with 84-Mbyte embedded-AT drive and VGA adapter card
D1351B	HP Vectra ES and ES/12 PC Kit	D1351C	HP Vectra ES and ES/12 PC Kit
D1450C	HP Vectra QS/16S and QS/20 PC Kit	D1450D	HP Vectra QS/16S and QS/20 PC Kit

The following new HP Vectra ES/12, QS/16S, and QS/20 data sheets are available.

- HP Vectra ES and ES/12 PCs, PIN 5952-1099

- HP Vectra QS/16S PC. P/N 5952-1097
- HP Vectra QS/20 PC, PIN 5952-1098



Desktop

## New 3½-inch flexible disk drive for HP PCs

On January 1, 1990, Hewlett-Packard introduced a new version of its 3%-inch flexible disk drive. The new drive will appear in all new PC models configured with 3%-inch flexible drives. It will also be available as an accessory.

The new drive provides all the functionality of the existing one. It can read and write 3%-inch diskettes formatted

to the industry-standard 720 Kbytes or 1.44 Mbytes, or to the 710-Kbyte format used on early HP personal computers. It provides 3%-inch data interchange with the entire HP Vectra PC line, the HP 150, the HP 110, the HP Portable Plus, and other IBM-compatible systems. It is supported on all HP Vectra PCs except the HP Vectra CS PC.

The new 3½-inch drive also offers the capability of being auto-configurable in systems that can take advantage of this feature. In other words, it can automatically identify itself to systems with HP's new auto-configuration utility, obviating the need to manually enter the drive configuration during system setup. Lastly, it offers industry-leading reliability, surpassing even the current HP 3%-inch drive.

The new drive accessory will be available as P/N D1667A. The current 3%-inch drive accessory, P/N 45813A, will remain on the HP Price List for HP Vectra CS PC owners wishing to add a 3%-inch flexible drive to their existing systems.

Desktop

## Improved PC Kits for HP Vectra PCs



With the improved HP Vectra PC Kits, setting-up HP Vectra PCs is easier and faster. The setting-up manual has been designed to be concise and easy to use.

The VGA utilities and documentation have been added to the PC Kit to further simplify the setting-up process. Users receiving HP Vectra PCs and operating systems with the new PC Kits



will be able to quickly and easily set-up their PCs with no changes in their system's functionality.

HP Vectra ES and ES/12 PC Kits that include the new concise setting-up manual began shipping in October. By the first quarter of 1990, all HP Vectra PC Kits will include the new setting-up manual as well as the VGA utilities and documentation. Users will receive their new PC Kits enclosed in a clear cover shipped inside the box that contains any HP software or operating systems ordered.

Along with the easy-to-use setting-up manual, the improved PC Kits will continue to include a 5 1/2-inch setup and utilities diskette, an AC power cord, a keyboard cable, a support guide, and the HP DIRECT catalog. PC Kits for the HP Vectra ES, ES/12, QS/16S, and QS/20 PCs will also include a 3 1/2-inch setup and utilities diskette.

Desktop

### HP Vectra QS/16S PC price decreased

On January 1, 1990, two exciting changes became effective on the HP Vectra QS/16S PC: new models and price decrease. As described in the previous articles, the new models include 90-Mbyte hard disk drive bundles. These new models will be particularly valuable for users with mass storage needs above 40 Mbytes, such as the office "power user," or PC users running CAD or UNIX systems.

Additionally, HP is decreasing prices of the HP Vectra QS/16S PC by approximately \$200 to \$400 (U.S. list), depending on the model. These price decreases make the 80386SX-based HP Vectra PC even more attractive to users considering a 386 purchase. The HP Vectra QS/16S PC is Hewlett-Packard's entry-level 386 desktop PC. It

uses Intel's 80386SX microprocessor to handle today's and tomorrow's sophisticated 386 applications, at a price approaching that of the 80286.

Product No.	Description
D1481B	HP Vectra QS/16S Model 1 PC
D1462B	HP Vectra QS/16S Model 46 PC
D1464B	HP Vectra QS/16S Model 47 PC
D1488B	HP Vectra QS/16S Model 86 PC
D1489B	HP Vectra QS/16S Model 87 PC

Desktop

### HP Vectra LS/12 laptop PC to be discontinued

The HP Vectra LS/12 laptop PC Model 44 (PIN D1044A) and all remaining options of the Model 24 (PIN D1024A) will be discontinued and removed from the HP Price List on February 1, 1990. All LS/12 accessories except the numeric coprocessor and the 1-Mbyte memory card will remain on the price list for a minimum of three months after the discontinuance. The numeric coprocessor (PIN D1053A) and the 1-Mbyte memory card (PIN D1054A) will be discontinued on February 1, 1990.

No follow-up product to the HP Vectra LS/12 laptop PC is planned at this time. Hewlett-Packard has chosen instead to focus resources on developing mainstream and high-end desktop and desk-side personal computers. Users will be able to source laptops from a variety of vendors that manufacture industry-compatible portable computers.

The HP Vectra LS/12 laptop PC Model 44 will enter a five-year support life after February 1, 1990.

Product No.	Description
D1024A	20-Mbyte HP Vectra LS/12 PC
D1044A	40-Mbyte HP Vectra LS/12 PC
D1052A	U.S. modem
D1053A	Numeric coprocessor
D1054A	1-Mbyte memory card
D1057A	Battery
D1058A	Battery charger

Desktop

### HP Vectra ES PC to be discontinued March 1

Effective March 1, 1990, the HP Vectra ES PC will be removed from the HP Price List. After the March 1 discontinuance, orders will be accepted for the HP Vectra ES PC through March 31 for shipments by September 1, 1990.

This move is being made to focus on mainstream and high-performance PCs, beginning with the 12-MHz 80286 HP Vectra ES/12 PC. HP is committed to providing price-competitive mainstream PCs, demonstrated by the recent price reduction on all HP Vectra ES/12 PC models. (See following article "HP Vectra ES/12 PC price reduction")

The following table summarizes the product numbers to be discontinued, effective March 1, 1990.

Product No.	Description
D1210A	HP Vectra ES Model 10 PC
D1215A	HP Vectra ES Model 15 PC
D1220A	HP Vectra ES Model 20 PC
D1226A	HP Vectra ES Model 26 PC
D1227A	HP Vectra ES Model 27 PC

Desktop

### HP Vectra ES/12 PC price reduction

*Not applicable in Europe*

Hewlett-Packard has reduced the list price of all models of the HP Vectra ES/12 PC, effective December 1, 1989. These price reductions are part of a continuing strategy to maintain HP's competitive position in the mainstream PC marketplace and to respond to changing market conditions.

The following table is a complete list of all the price reductions for the HP Vectra ES/12 PC effective December 1, 1989.

Product No.	Description
D1310A	HP Vectra ES/12 Model 10 PC
D1315A	HP Vectra ES/12 Model 15 PC
D1320A	HP Vectra ES/12 Model 20 PC
D1326A	HP Vectra ES/12 Model 26 PC
D1327A	HP Vectra ES/12 Model 27 PC
D1340A	HP Vectra ES/12 Model 40 PC
D1346A	HP Vectra ES/12 Model 46 PC
D1347A	HP Vectra ES/12 Model 47 PC

## Also in this issue

*New carrying case strap available for HP Vectra LS/12 PC*

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## Peripherals

### Networks

## HP-UX LU 6.2 APZ HP Price List date change

The HP Price List date for the HP-UX LU 6.2 API has been changed from December 1, 1989, to February 1, 1990. At that time, LU 6.2 will have a simplified product structure that decreases product numbers and uses processor options. No longer will there be a separate product number for each of the HP 9000 Series 800 processors. Instead, there will be one product number for the HP 9000 Series 300 and one for the Series 800 version. A processor option on the HP 9000 Series 800 product will indicate choice of processor.

The new structure includes an option for the HP 9000 Model 8251832 processors, and a separate option for the Model 835.

As with other HP-UX/IBM connectivity products that will change to the new structure on February 1, HP 9000 Series 800 orders will require a choice of product number, media option, and processor option.

Following is the new HP-UX LU 6.2 API structure:

Product No.	Description
98162A	HP-UX LU 6.2 API for HP 9000 Series 300
98164A	HP-UX LU 6.2 API for HP 9000 Series 800

Product No.	Description
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#### Media Options

Opt. AAO	¼-inch cartridge tape (HP 9000 Series 800)
Opt. AAI	1600-bpi magnetic tape (HP 9000 Series 800)

#### Processor options

Opt. AHO	Model 808 version
Opt. AEL	Model 815 version
Opt. AE5	Models 8251832 version
Opt. AEN	Model 840 version
Opt. AEP	Models 8501855 version

Upgrades to other models are also available. Contact your HP representative for more information.

### Printers

## ti.u font and recommended replacements for HP LaserJet printer family

The following HP LaserJet printer family font products will be discontinued. The effective discontinuance date and the recommended replacements are listed below. After discon-

tinuance, there will be a 30-day grace period for orders. For example, the HP 92286A discontinues January 1, 1990; however, orders will be accepted through January 31, 1990.

Original Product No.	Recommended replacement Product No.	Discontinuance date
<i>Cartridge</i>		
92286A	92286PC or 92286IC	January 1, 1990
92286B	92286IC or C2053A #C08	January 1, 1990
92286C	92286PC or 92286IC	January 1, 1990
92286H	92286PC	January 1, 1990
92286Q	C2053A #C03 or 92286IC	January 1, 1990
92286X	C2053A #C06	January 1, 1990
92286Y	92286IC	January 1, 1990
92286Z	C2053A #C02	January 1, 1990
92286D	C2053A #C03 or 92286IC	April 1, 1990
92286E	C2053A #C03 or 92286IC	April 1, 1990
92286F	C2053A #C08 or 92286IC	April 1, 1990
92286G	92286PC	April 1, 1990
92286J	C2053A #C07	April 1, 1990
92286K	C2053A #C07	April 1, 1990
92286L	92286PC or 92286IC	April 1, 1990
92286M	C2053A #C03	April 1, 1990
92286N	C2053A #C03	April 1, 1990
92286P	92286IC	April 1, 1990
92286R	C2053A #C04	April 1, 1990

Original Product No.	Recommended replacement Product No.	Discontinuance date
92290S1	92286PC or 92286IC	April 1, 1990
92290S2	C2053A -C08 or 92286IC	April 1, 1990
92286T	C2053A -C05	April 1, 1990
92286U	C2053A -C05	April 1, 1990
92286V	C2053A -C05	April 1, 1990
92286W1	C2053A -C06	April 1, 1990
<i>Soft font</i>		
33412RA/33412RB	C2050A -DI4	December 1, 1989
33412SA/33412SB	C2050A -D06	December 1, 1989
33412TA/33412TB	No exact replacement consider one of the new scalable typefaces	December 1, 1989
33412UA/33412UB	Consider one of the new scalable typefaces	December 1, 1989
33412AC/33412AD	C2054A -ABA	April 1, 1990
33412AE/33412AF	C2054A -ABA	April 1, 1990
33412AG	No exact replacement, consider C2054A -ABA	April 1, 1990
<i>Font utility</i>		
33406B PCL Pak	C2051A #ABA	December 1, 1989

For any of the HP products listed above, HP will waive the restocking fee for the last three months of product life.

There is an entire new MasterType Library of font cartridge or scalable typeface products for the HP LaserJet printer family. These new products offer more variety in sizes, typefaces, and symbol sets — for less.

## Terminals

### Introducing the HP 700/X family of X Window terminals



The HP 700/X family of X Window graphics terminals are network display stations based on the industry-standard X Window System Version 11, Release 3.

When configured as components of an engineering, manufacturing, or business solution, the HP 700/X terminals can substantially reduce the overall

hardware, system administration, and system maintenance costs. For certain applications, the HP 700/X terminals can provide a cost-effective and affordable means of adding more user seats on the network.

The HP 700/X terminals provide the user with interactive network access to graphics applications, text-based information, and utilize compute resources across systems on the LAN. Programs and data, resident on different computers on the network, can be simultaneously displayed in multiple windows on an HP 700/X terminal. The user can also access systems on the network that do not support the X Window system through TELNET (ANSI-standard terminal emulation).

Target applications for the HP 700/X terminals range from design automation in ME and EE CAD, to solutions for CASE, industrial automation, business UNIX systems, and medicine. Example applications include:

- ME-CAD view station
- EE-CAD design capture station
- Desktop publishing
- Software development station
- Financial trader workstation
- Laboratory information management
- Health care information systems
- Manufacturing process view station
- On-line database inquiry station
- Travel reservation systems
- Geographic mapping systems

The HP 700/X terminals connect directly to a standard IEEE 802.3/Ethernet local-area network and communicate with host systems using TCP/IP. The terminals are designed to operate in multivendor networked environments consisting of systems from HP/Apollo, Sun, DEC, and others. All terminals come standard with a BNC port that supports ThinLAN and an AUI port that supports ThickLAN or StarLAN 10 networks (with MAU).

The terminals are available in a variety of low-cost color and monochrome bundled configurations. Bit-mapped graphics monitors with resolutions of 640x480, 800x600, and 1024x768 are supported. All units come standard with 1 Mbyte of RAM expandable up to 4 Mbytes and display 16 colors from a palette of 4,096 or up to 16 levels of gray-scale. The terminals include a high-performance dedicated graphics processor (TI 34010) for executing X-server instructions, and a coprocessor for efficient handling of network communications, keyboard entry, and mouse tracking.

The HP 700/X terminals are positioned to fill the price, performance, and functionality gap between office terminals and diskless workstations. They are a high-end addition to the HP 700 Series family of office terminals and a complementary low-end offering to the HP/Apollo family of workstations.

### Ordering information

The HP 700/X terminals will be orderable starting January 1, 1990. The HP 700/X terminals can be ordered in one of the bundled configurations shown below. For each C230XA unit ordered, a local language option must be specified in addition to ordering one copy of the X Window server software tape. All units ordered include the installation manuals.

### Language options

Option	Language
ABA	U.S. English
ABC	Canadian French
ABD	German
ABE	European Spanish
ABF	European French
ABH	Dutch
ABL	Canadian English
ABM	Latin Spanish
ABN	Norwegian
ABP	Swiss German
ABQ	Swiss French
ABS	Swedish
ABU	U.K. English
ABW	Belgian Dutch
ABX	Finnish
ABY	Danish
ABZ	Italian
ACC	U.S. English with U.K. power cord
ACD	U.S. English with Swiss power cord
ACE	U.S. English with Danish power cord
ACF	U.S. English with Japanese power cord
ACG	U.S. English with Australian power cord

*Note: Kanji language option support for the HP 700/X terminals is currently under investigation. Contact your local HP representative for more information.*

For more information on the HP 700/X family of X Window Terminals, contact your local HP representative.

### Supplies

#### Supplies

## New carrying case strap available for HP Vectra LS/12 PC

A new strap with a metal hook is available free of charge to any users who ordered the HP Vectra LS/12 PC carrying case (PIN 35178F) prior to October 15, 1989. Users should order PIN 5957-8448. HP recommends that all new users who have straps with plastic hooks replace them with the new straps with metal hooks. Contact your HP representative for more information.

#### 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)
Austria	(0222) 2500-614/615/616
Belgium/Luxembourg	(02) 761 31 11
Canada	800-387-3154 Toronto Local 416-671-8383
Denmark	80 30 16 40
Finland	(90) 887 2361
France	(1) 69 86 17 25
Greece	(01) 672 6090
Italy	(02) 9210 3301
Japan	
Sagamihara	0120 091321 (toll-free)
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
Sweden	(08) 750 2400
Switzerland	(057) 31 24 90
Taiwan	
Taipei	080-21 1228 (toll-free) (02) 717-9608
The Netherlands	06-0501
United Kingdom	(0734) 44 12 12
United States	800-538-8787
West Germany	(0130) 3322

Product No.	Description
C2301A	HP 700/X — X Window Terminal Base Unit bundled configuration (no monitor) including: X Window processor base unit with 1 Mbyte of RAM, HP 46021A HP-HIL keyboard with cable, HP 46060B HP-HIL three-button mouse, HP D1191A video monitor cable (for all supported monitors), all local country power cables for base unit and monitor
C2302A	HP 700/X — Gray Scale Monochrome X Window Terminal bundled configuration including: HP 98786A 17-inch monochrome monitor with 1024x768 resolution, HP C2301A X Window terminal base unit (listed above)
C2303A	HP 700/X — Color X Window Terminal bundled configuration including: HP D1182A/B 14-inch color monitor with 640x480 (VGA) resolution, HP C2301A X Window terminal base unit (listed above)
C2304A	HP 700/X High-Resolution Color X Window Terminal bundled configuration including: HP 98785A 16-inch color monitor with 1024x768 resolution, HP C2301A X Window terminal base unit (listed above)
C2310A	X Window Server Software (one copy required per site)
Opt. AAO	¼-inch cartridge tape for HP 9000 systems
Opt. AAI	½-inch 1600-bpi 9-track tape
C2320A	Add 1 Mbyte of customer-installable RAM (maximum 3; 4 Mbytes total)

## 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: Apartment management

**Abstract:** AM/3000-II is an apartment management system for developers and property managers. Operating on the HP 3000 family, it is a full-function lease processing and general accounting system that combines ease of processing with a rich array of management and financial reports.

Tenant processing is completely integrated with general ledger. Amounts due from tenants are automatically calculated, including special charges and prior balances. Application of advance rent is automatically performed in the month due. Move ins, move outs, and transfers are supported, based upon scheduled dates.

AM/3000-II provides a complete balance sheet and income statement, by project or consolidated by owner. Fiscal year is determined by the user, with automatic rolling of current year earnings to date into retained earnings at year end. One month's accounting may be started before the prior month has been closed, eliminating end-of-month scheduling problems. Adjustments to prior year are allowed, with automatic rolling of ETD to retained earnings.

#### Features

- On-line, menu driven, multiuser
- Multicompany
- Multiowner
- Multiproject
- User-defined chart of accounts
- User-formatted financial statements
- Multilevel functional security
- Batch and overnight optional processing of updates and reports
- Complete budgeting facilities
- Complete audit trails with internal and external accounting controls
- Default values for common entries, with override capabilities
- Extensive edits prevent most input errors
- Optional, fully integrated accounts-payable module is available

**Company Name:** Orion Systems Technology, Inc.

**Address:** 325 S. El Dorado  
Suite 102  
Mesa, AZ 85202  
U.S.A.

**Phone:** 602-894-6983

**Contact Person:** Patrick Lockwood

**Type of Distributor Wanted:** Open

**Geographical Coverage:** United States

#### Industry: Wholesale distribution/industrial hardgoods

**Abstract:** The BCS Distribution Plus Software system is a comprehensive and powerful distribution package that integrates the following modules: inventory control, order entry, purchasing management, accounts receivable, accounts payable, and general ledger.

The system is designed to accommodate multicompany, multibranch distribution entities and runs under the HP-UX environment. Each module is written with ease of use for the end user in mind and is fully menu driven. All modules are integrated, but can run stand alone. Standard features include alpha cross-referencing (which eliminates remembering numbers), audit trails and accounting controls, and system documentation and user manuals.

The software has been developed utilizing input from a host of experienced distribution consultants and has been proven in some of the most sophisticated distribution environments. To date, our marketing efforts have concentrated on the Midwest marketplace. BCS is looking to further penetrate the national marketplace via cross licensing. We have excellent user references to assist during the sales cycle.

#### Features

- 20-character item or part number
- Alpha lookup feature for inventory items, vendors, and customers.
- 2,500 additional characters of description.
- Unlimited cross referencing of item numbers
- Multiple locations, branches, and divisions
- Suggested purchase order quantities
- Optional and substitute item numbers
- Multiple units of measure per item number
- Multiple costing methods
- Automatic backorder tracking and matching
- Complete physical inventory handling
- Kit processing/single-level bill of materials
- Audit trails of inventory movement
- Inquiry display screens showing current on-hand, committed, and on-order quantities per branch
- Comprehensive sales analysis reporting with flexibility via Report Generator.

**Requirements:** HP 9000 Series 3001800 — HP-UX  
HP Vectra PC or SCO UNIX/Xenix

**Company Name:** Business Computer Software, Inc.

**Address:** 1825 S. Woodward  
Bloomfield Hills, MI 48013  
U.S.A.

**Phone:** 313-338-6880

**Fax:** 313-338-9817

**Contact Person:** Paul E. Hodges, III

**Type of Distributor Wanted:** Open

**Geographical Coverage:** Select North America markets outside of the Midwest.

## Software Packages Wanted

**Industry:** *Telecommunications — manufacturing, services, and/or end users*

**Abstract:** Automated test solutions for digital radio, cellular phone, PCM, and TDM systems and fiber optics and overlay telephone networks.

The solutions should perform the applicable test for the telecom system/network of case, allow users to select the measurements they want, as well as the required reports, handle alarm conditions, and any other appropriate features generally required by the industry.

### *Additional features*

- User friendly with on-line help feature
  - Menu-driven program
  - Some form of security
  - Drivers for currently available HP printers
- Centralremote systems capabilities
  - Drivers for inputs channel switches

Desired hardware: PCs, HP 1000 or 9000 systems, HP instruments as front ends to perform the required measurements.

**Company Name:** Hewlett-Packard Co.  
Latin American Region

**Address:** Monte Pelvoux III,  
Col. Lomas de Chapultepec  
Mexico, D.F.  
Mexico

**Phone:** Intl -525-202-0155

**Fax:** Intl -525-202-1782 or -525-540-4208

**Contact Person:** Enrique Setaro, RMDM

**Type of Distributor Wanted:** Desirable by solutions developer, including user training, software updates/revisions, installation, and software support. There could be some degree of local help from HP systems engineers.

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: Marcia **Nowicky**  
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.

**How to get your name added to the distribution for HP Channels**

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.

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