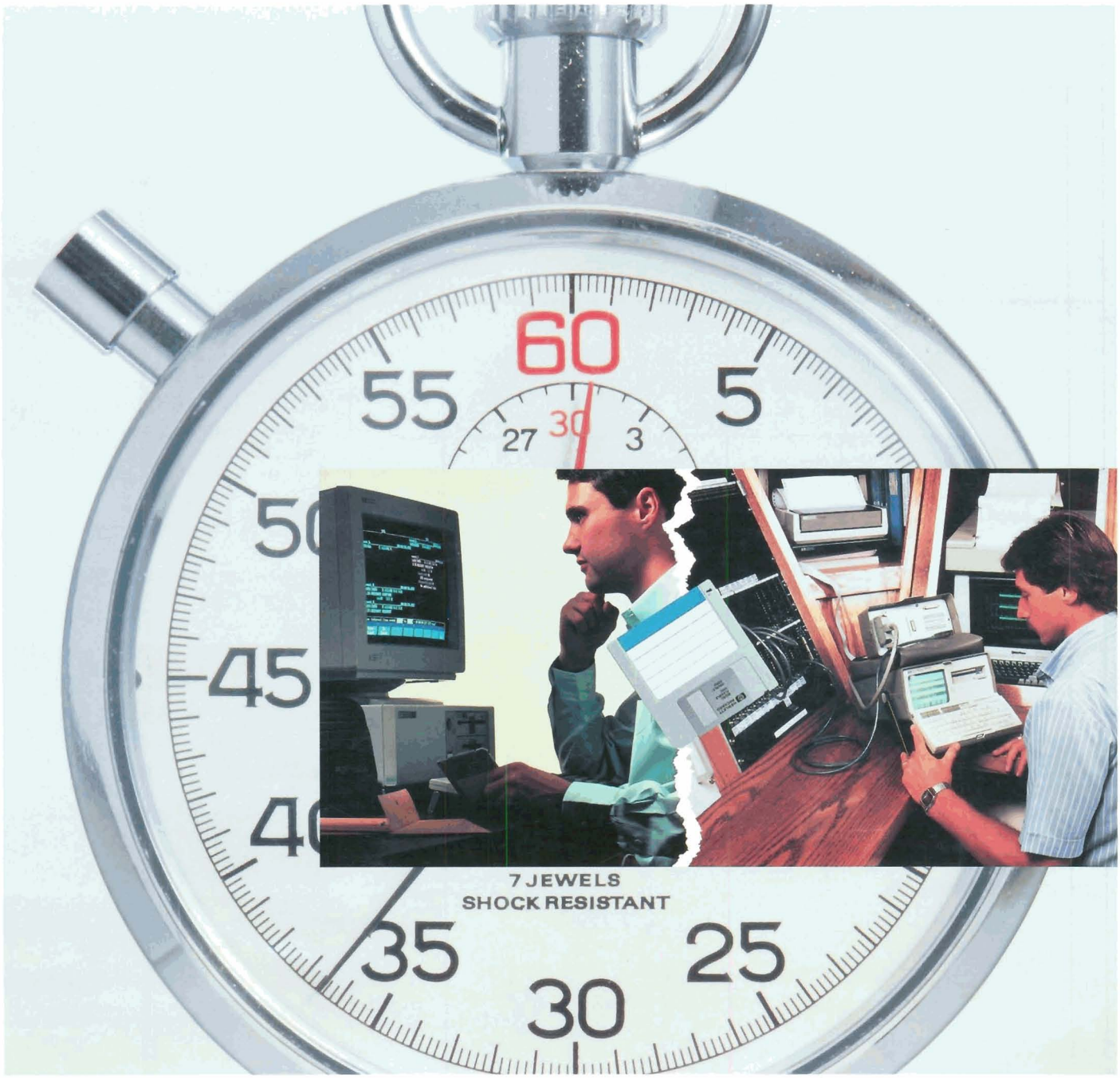
HEWLETT – PACKARD

UPDATE

COMPUTER SYSTEMS FROM HP

JANUARY/FEBRUARY 1991



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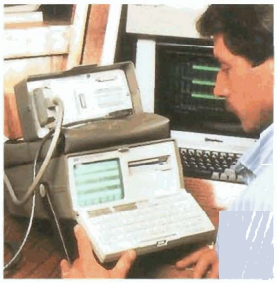

COVER STORY ON PAGE 4:

HP PC utilities applications for the HP 495X family of WAN protocol analyzers are an innovative technological advancement for wide area networks. Providing quick problem isolation techniques, these utilities allow PCs to remotely control and analyze data captured by a protocol analyzer.

Rewritable optical disk library system provides inexpensive, direct-access storage

HP's optical products now include a rackmount library system, the HP C1700A Option 1AC. The rackmount configuration offers 20.8 Gbytes of direct-access storage. With a second library system in the same cabinet, you can expand storage capacity to 41.6 Gbytes. Average disk access time is 100 ms, and average media exchange time is 10 s.

The C1700A optical disk library systems are now supported on 900 Series HP 3000 systems in conjunction with TurboSTORE/XL II backup software. Store up to 40 Gbytes of data at up to 2.8 Gbytes/hour, and with a second autochanger in the same rack, this can be almost doubled.

For HP 9000 Series 800 HP-UX 8.0 systems, optical technology is ideal for online archiving, unattended backup, and electronic image management. HP optical products can be accessed as standard Winchester devices, and each media surface can be configured as a 325-Mbyte mountable file system. The autochanger ldriver automatically loads the appropriate media cartridge.

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

HP rewritable optical disk library and rackmount cabinets provide inexpensive, high-capacity, low-maintenance, direct-access storage.

HP Computer Museum
www.hpmuseum.net

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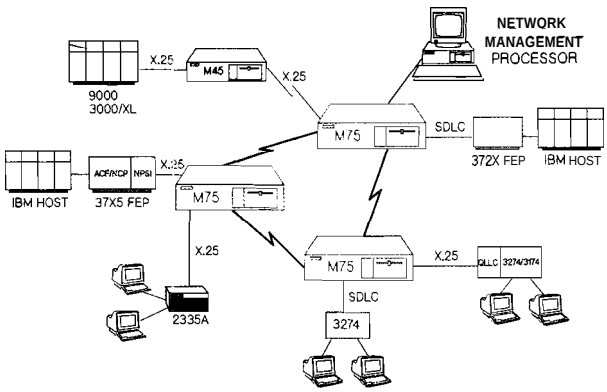


The multiprotocol capabilities of the HP PPN Model 75 make it ideal for building a wide area network with dispersed geographic sites and/or multivendor environments.

Low-cost, high-performance switch has multiprotocol capability

The HP Private Packet Network (PPN) Model 75 and its Network Management Processor (NMP) are the newest members of HP's Private Packet Network switching equipment. The Model 75, a low-cost, high-performance, backbone-class switch, supports 4 to 20 ports that can be configured on a per-port basis to handle X.25, SNA/SDLC, and asynchronous traffic. Based on a multiprocessor architecture, the Model 75 can switch up to 700 packets per second.

The graphics-based Network Management Processor uses real-time displays of network and subnetwork maps that change color to alert the network operator of faults as they occur in the network. Menu-driven screens facilitate quick diagnosis and troubleshooting. Multiple network management processors provide for enhanced call set-up performance and network operation redundancy. In addition to managing the Model 75, the NMP can also configure and control the Model 45 and the HP 2335A PADs.

The flexible, cost-effective, and multiprotocol standard-based nature of the Model 75 makes it perfect for building a global or application-oriented wide area network with dispersed geographical sites and/or multivendor environments. Based on the X.25 standard, the HPPPN Model 75 adds to any networking solution the inherent features of packet-switching equipment: security, reliability, network management, and proven technology.

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

HP NewWave Access software brings remote data to the desktop

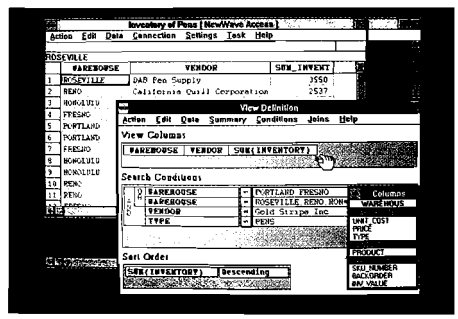
HP NewWave Access is a simple yet powerful graphical interface for integrating PC, minicomputer, or mainframe data into your existing desktop applications. An addition to HP's Information Access product family, NewWave Access simplifies the process of incorporating database information into decision-support applications, documents, and communications.

In contrast to traditional query tools, HP NewWave Access adopts the object metaphor of HP NewWave to simplify data retrieval and manipulation. By combining your data with its associated definition, NewWave Access creates local views or "snapshots" of database information residing elsewhere on the network. You can view or refresh data without any knowledge of database syntax. Integrating this data into spreadsheets, graphics, or documents is as simple as dropping the icon into your application using a mouse.

HP NewWave Access also provides powerful and flexible tools for integrating data into enterprisewide solutions. With its SQL Window and extensive task language support, you can customize and manipulate data to meet the needs of your applications.

For remote data access, HP NewWave Access requires HP Information Access server software.

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



With the simple data manipulation approach of HP NewWaw Access, you can use database information without knowledge of programming or database syntax.

PC utilities applications meet centralized testing needs

The HP 495X PC Utilities is a set of application programs that run on IBM-compatible MS-DOS[B] computers. These programs help solve data communications problems quickly by enabling you to control and analyze test dataremotely, at a central site.

Speeds problem isolation process

This testing method cost-effectively optimizes the use of the HP 4951C, HP 4952A, and HP 4954A/I/AX protocol analyzers and PC resources. It also speeds the problem isolation process by allowing data captured at one site to be remotely transferred to a central site for quick problem analysis by a specialist. This eliminates the need for the specialist to visit the problem site.

Technicians can use the dedicated protocol analyzers to run tests and capture problems. The captured data can then be forwarded to a central site where detailed and time-consuming analysis can be performed in a post-processing mode. In addition to post-processing data on a PC, the decoded displays can be stored to a text file and then easily integrated into documentation complete with the appropriate annotations.

Control and perform analysis at your PC

PC remote-control software allows you to control HP WAN protocol analyzers from a PC, eliminating the need for a dedicated protocol analyzer at both the central and remote site. This is more efficient and more cost effective.

PC file-compatibility software allows you to move disk files between HP WAN protocol analyzers and MS-DOS PCs. Once files are in the MS-DOS environment, they can be analyzed with PC protocol analysis software or other user-developed analysis tools.

PC protocol analysis (decode) software allows you to perform analysis of data captured on HP protocol analyzers. Decodes include: BOPs (HDLC, SDLC, LAP, LAPB), COPs (Async, BSC, Poll-select, IPARS), X.25 (including facility fields), and SNA (systems network architecture) including BIND parameters.

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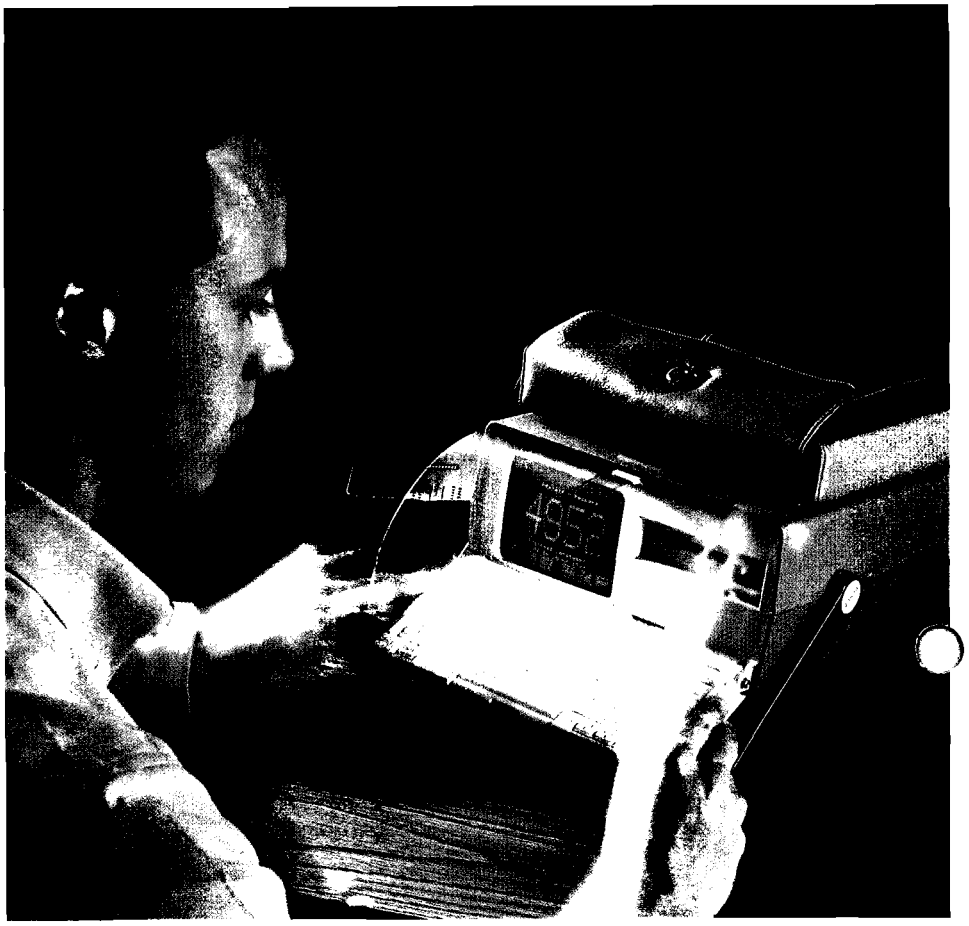


The new HP PC Utilities application programs allow you to capture data and forward it to a central site for farther analysis.

Protocol analyzers designed to meet your needs

Designed for installation and maintenance testing and R&D bench-test applications, the portable HP 4951C and 4952A WAN protocol analyzers provide a wide range of solutions for quickly identifying and solving data communications problems.

For high-end R&D applications, the HP 4954A/I/AX WAN protocol analyzer is a testing tool that meets the technical requirements of communications equipment developers, and increases productivity throughout a wide range of applications. Applications include: ISDN, X.25 certification, emulation, and network performance analysis, SNA network performance analysis and emulation language, Signaling System No. 7, and X.21 state simulation.

The PC Utilities disk is shipped standard with all HP 4951C, HP 4952A, and HP 4954A/I/AX protocol analyzers. If you already own an HP protocol analyzer, the new PC Utilities software can be ordered as a standalone product (HP part number 5062-2183).

For more information, check D on the HP Reply Card.

Two new HP 3000 systems expand midrange performance

Using the same advanced implementation of CMOS VLSI technology found in high-end HP 3000 Series 980 systems, the new HP 3000 Series 948 and 958 systems provide significant increases in midrange performance, and are available as on-site upgrades to existing systems.

High-end performance in midrange packaging

Series 948 and 958 systems deliver new levels of midrange performance in the same compact package as the Series 920, 922, and 932. The Series 948 has over twice the performance of the Series 932 and three times the performance of the Series 922. The Series 958 delivers a 60% performance improvement over the Series 948. Series 932 and 922 systems can easily be upgraded to either the Series 948 or 958 with a convenient on-site board replacement.

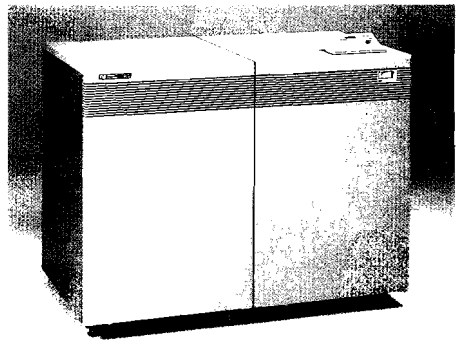
Integrated systems fit into the office environment

The Series 948 and 958 systems are integrated with peripherals inside a package the size of a two-drawer filing cabinet. Digital Data Storage (DDS) cartridges hold 1.3 Gbytes of data and, when combined with the data compression capabilities of HP's TurboSTORE/XL II, can support up to 4.7 Gbytes of data on a single cartridge, allowing many system configurations to be backed up without operator intervention. With up to 2.6 Gbytes of disk storage in the main cabinet, the compact systems fit into an office environment, and plug into a standard power outlet.

For more information, check E on the HP Reply Card.

New HP 3000 Series 948 and 958 systems deliver the performance for large-scale OLTP and batch applications in a compact package.

New HP 9000 Model 860S offers a 30% increase in OLTP



For environments with growing OLTP requirements, the Model 860S provides high performance and upgradability.

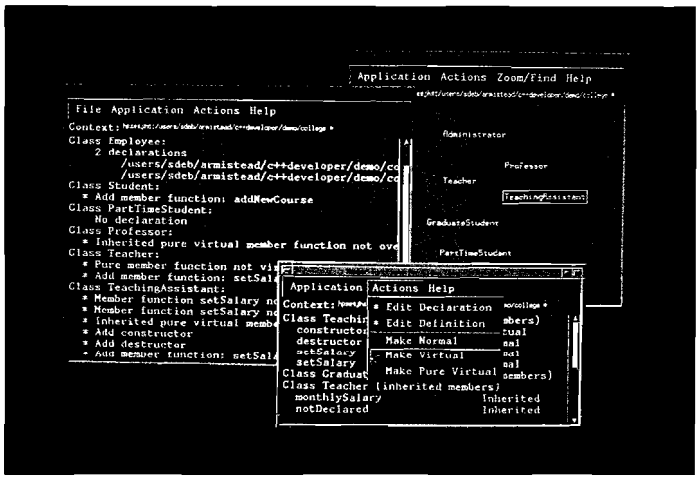
The HP 9000 Model 860S system offers an increase of up to 30% OLTP (on-line transaction processing) performance over the Model 855S, providing an additional performance level within the high-end HP 9000 family. The Model 860S includes one processor, 48 Mbytes of ECC (error checking and correcting) RAM, and an 8-user HP-UX license, and is upgradable to the Models 865S and 870S/100.

Increased memory allows optimal performance

You have the ability to configure increased amounts of memory into your system to achieve optimal performance. Up to 256 Mbytes of ECC RAM can be supported with a 16-Mbyte memorycard and HP-UX 7.06, which is required by the Model 860S.

The Model 860S uses the same system cabinet, memory, I/O subsystems, and power supplies as the existing Models 850S and 855S. And with on-site board upgrades, you have a smooth growth path within the high end of the HP 9000 product family.

For more information, check F on the HP Reply Card.



Engineers and programmers run use HP's integrated C++ tool set to develop applications for many different application areas.

C++ programming advancements improve productivity

Three object-oriented programming advancements for HP 9000 and HP Apollo computer platforms have been introduced. These programming advancements add improved compile-time performance, simplified class construction, improved code modification, and support for the latest C++ Version 2.1 from AT&T. Engineers and programmers can use HP's integrated C++ tool set to develop applications for telecommunications, computer-aided design, CAD/CAE engineering, user-interface development, software development, graphics design, and text management.

HP C++ compiler on HP-UX

The new release of the HP C++ compiler increases compile-time performance up to 75%, offering a real productivity boost. A true C++ compiler, the HP C++ compiler generates object code directly from C++ source code.

X Window System is a trademark of Massachusetts Institute of Technology

UNIX is a registered trademark of AT&T in the U.S.A. and in other countries

HP C++ Developer on Domain/OS

HP C++ Developer is a class construction and browsing tool. A standalone X Window System Version 11 application, it provides a graphical representation of the C++ class inheritance hierarchy. It allows you to browse class definition and member-function source code graphically, add and modify classes and inheritance hierarchies, generate source-code templates, and diagnose and correct errors automatically. HP C++ Developer is now available on Domain/OS as well as HP-UX.

HP C++ and Domain/C++

HP C++ and Domain/C++ Version 2.1 language systems offer advanced programming features such as multiple inheritance, class libraries, and source-code debugging. Because HP C++ and Domain/C++ V.2.1 are object-oriented programming languages, programmers can reuse code, reduce the complexity of application development, and reduce code maintenance costs.

The integrated tool set includes source-code debugging (DDE on Domain/OS and XDB on HP-UX), class library support, a class construction and browsing tool (HP C++ Developer), and a development environment (HP C++/SoftBench).

For more information, check G on the HP Reply Card.

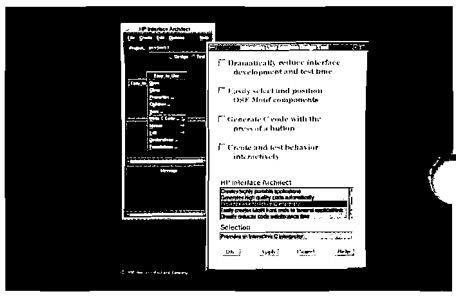
HP Interface Architect shortens interface development time

HP Interface Architect is a software tool designed to facilitate the development and testing of user interfaces. It allows programmers to design and test the behavior of an application interface. Based on the X Window System and Motif, HP Interface Architect runs on HP 9000 Series 300, 400, and 800 workstations under the HP-UX (7.0 and greater) operating system.

Programmers using HP Interface Architect can work on the development of a user interface, while interactively concentrating on programming. You can draw the interface on the screen (rather than by writing code) by selecting the interface components from menus and positioning them on screen. You can interactively reposition, resize, and add or delete components with the touch of a button.

A built-in C interpreter allows you to toggle between creating the user interface, and interacting with the code. All this is done without the delays usually caused by editing, compiling, and debugging. After the interface has been designed and tested interactively, you can use HP Interface Architect to generate the C code associated with the interface. The code, equivalent to handwritten code, can be ported easily to non-HP platforms.

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



HP Interface Architect, an interface development tool, allows you to develop and test the complete behaviour of an application interface.

Notables

HP OpenSpool/UX

● HP OpenSpool/UX is a new spooling solution for HP 9000 Series 300,600, and 800 computers in networked or stand-alone HP-UX environments. The distributed spooling concept of HP OpenSpool/UX provides you with effective networkwide utilization of printers and plotters, and you do not have to deal with network complexities. HP OpenSpool/UX offers outstanding functionality, tailored user interface, advanced system management characteristics, flexible integration, and a built-in future. Check I.

New SCO UNIX System V/386 release

● SCO UNIX System V/386 Release 3.2.2 is the latest release of SCO's multiuser, multitasking, run-time operating system for HP Vectra 386 and 486 PCs. New features of this release include support for up to 256 Mbytes of memory, enhanced and additional ISA SCSI drivers, optical media support for CD-ROM, and performance and system administration improvements.

New release of OS/2 operating system

● OS/2 1.2 is the latest release of this Microsoft® next-generation, single-user, multitasking operating system for HP Vectra PCs based on Intel's 80286,80386, and 80486 microprocessors. OS/2 features include Presentation Manager, a consistent, graphical windowing environment; access to 16 Mbytes of RAM; interprocess communication that allows applications to communicate with each other; full compatibiltiy with Microsoft LAN Manager 2.0; improved printer driver installation; and an improved print spooler.

HP Materials Management/Advanced Version

● Release A.09.10 of HP Materials Management/Advanced Version is now shipping. This release includes the new orderless scheduling and tracking feature set called Detailed Scheduling. On-line review and printed reports can show you how production is going. New transactions provide for scheduling of individual products to one or more production lines, and multiple products across a single line. Check **J.**

HP PaintJet XL printer and 7550 Plus plotters fully networkable

● Use your HP PaintJet XL color graphics printer and HP 7550 Plus color desktop plotter on your Novell network. Joining the HP LaserJet III and IIID printers, both the HP PaintJet printer and the HP 7550 Plus A/B-size plotter have been Novell Labs tested and approved for use with the NetWare 386 and Advanced NetWare network operating systems in both parallel and serial mode. No driver modification is needed to take advantage of networked printing or plotting.

HP DeskJet printers and Microsoft Windows 3.0

● Hewlett-Packard offers HP DeskJet Plus printer owners an HP DeskJet scalable driver for Microsoft Windows 3.0. For a small fee you can order the new driver and print even higher quality text and graphics on your printer. This is the same driver that will be shipped with the HP DeskJet 500 printer. Contact your local sales office.

Configuration option for HP LaserJet IIP printer for Apple Macintosh

● All the components necessary to configure an HP LaserJet IIP printer for the Macintosh are now available. Option 001 includes the printer, a Postscript cartridge, AppleTalk interface, and I-Mbyte memory board. Option 002 includes the same components, but with a 2-Mbyte memory board

ISDN testing techniques

● Learn how to enhance your ISDN testing productivity with a new application note on ISDN testing techniques. Specific troubleshooting scenarios and testing methodologies show you how the HP 4951C, 4952A, and 49541 protocol analyzers save testing time during development, as well as during installation and maintenance of ISDN line and equipment. Check **K.**

HP and Ford Motor Company are driving up quality

When U.S. auto makers harnessed the computer to the internal combustion engine in 1976, they promised the world automobiles with cleaner burning engines, better gas mileage, and smoother performance. They predicted that microprocessors could even help mechanics isolate problems. It sounded too good to be true. And it was, until 40 Ford and Lincoln-Mercury dealerships received the early release of a system designed, built, and supported by the Ford Motor Company and Hewlett-Packard's Advanced Manufacturing Systems Operation (AMSO).

Using an HP Vectra 386 PC, the Service Bay Diagnostic System (SBDS) combines computer-driven service tools and diagnostic strategies with on-line service information, to guide a service technician to the source of trouble, and suggest a repair. Ford Motor Company and AMSO designed and built the Service Bay Diagnostic cart, a tool box on casters, with drawers for storing a keyboard, adapter, transducers, a printer, and a Portable Vehicle Analyzer (PVA). The PVA was specifically designed for on-the-road diagnosis of intermittent, hard-to-find problems that only show up on the road.

The Service Bay Diagnostic System helpe to guide the terhnirian to the source of trouble and suggests a repair.

Diagnosing problems such as a misfiring spark plug, and hard-to-find electrical faults such as a malfunctioning sensor, are among the challenges facing service departments. To help isolate these problems, SBDS has a Customer Flight Recorder (CFR). Technicians plug the CFR into the automobile's data communications link to send home with the customer. When trouble occurs, the driver presses a button and the CFR gathers diagnostic information that can later be entered into the SBDS computer.

SBDS meters and testers can help find answers to complex electronic problems that technicians with standard tools often miss. Engineers at Ford Parts and Service estimate that SBDS diagnostic equipment will substantially reduce repeat repairs for hard-to-find and intermittent problems by 50%.

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