

HEWLETT - PACKARD

# UPDATE

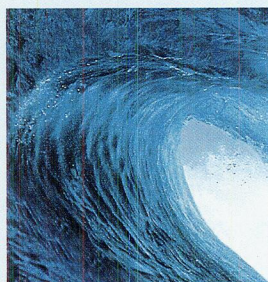
COMPUTER SYSTEMS FROM HP

OCTOBER / NOVEMBER 1989



HEWLETT  
PACKARD





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HP NewWave represents a totally new way to manage information more effectively. As an easy-to-use environment based on Microsoft DOS and Microsoft Windows, HP NewWave extends the value and capabilities of your PC running Microsoft Windows by providing a more natural and consistent way of working with information.

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**10 new networking capabilities on MPE XL systems**

Ten new networking capabilities have been added to 900 Series HP 3000 systems, demonstrating the HP AdvanceNet commitment to multivendor networks, PC-mini integration and high-performance networks.

**Multivendor communication**

The new IBM communication products (BSC Remote Job Entry/XL, BSC Link/XL, SNA LU 6.2 API/XL and SNA DHCF/XL) and the X.25 Link provided by the DTC emphasize HP's commitment to multivendor communication through industry standards. HP X.400 offers standards-based multivendor connectivity for HP's leading electronic mail product, HP DeskManager. With X.400 and HP DeskManager, you can exchange messages transparently throughout a multivendor network or link up with public messaging services.

**Performance**

The new DTC increases system performance by offloading the networking to an outside processor, making more CPU power available for transaction processing.

**PC-mini integration**

HP now has a solution for providing HP 3000 to Novell PC LAN connectivity. With this capability, Novell PC users have access to HP 3000 applications and powerful Business System Plus (BSP) office-automation applications.

**Datacommunications and Terminal Controller**

The DTC continues its evolution from the existing Distributed Terminal Controller to a powerful Datacommunications and Terminal Controller. DTC now includes the X.25 connection for 900 Series HP 3000 systems.





*New networking capabilities demonstrate the HP AdvanceNet commitment to multivendor networks, PC-mini integration and high-performance networks.*

Featuring a dedicated data-communications processor card for high performance, the DTC/X.25 XL Network Link offers a modular structure for cost-effective wide-area networking. The link supports device-to-system communications with remote terminals or printers, via public or private Packet Assembler/Disassemblers (PAD). Used in conjunction with the NS3000/XL Network Services, the link also supports system-to-system communications with remote computers.

The DTC asynchronous connection capability now includes multisystem access (terminal switching). In a single system environment, the DTC provides simple, cost-effective, asynchronous connections to one 900 Series HP 3000 host. The host system downloads software to and manages one or more DTCs. In a multiple system environment, the DTC now provides access to all 900 Series HP 3000 systems on a single LAN. Through the use of the PC-based OpenView Windows workstation running OpenView DTC Manager, multiple DTCs can be managed by a single operator.

#### OpenView DTC Manager

The OpenView DTC Manager software provides centralized and integrated network management for both local terminal connectivity and X.25 networking. The OpenView DTC Manager is used to download software to, configure, monitor, diagnose and control DTCs.

#### IBM communications

The HP SNA Distributed Host Command Facility/XL (HP SNA DHCF/XL) provides the capability for up to 120 IBM 3270 display stations to have interactive access to applications operating on the 900 Series HP 3000 system that are based on either TTY line-mode or VPLUS block-mode terminal I/O.

The HP Logical Unit 6.2 Application Programming Interface/XL (LU 6.2 API/XL) enables application designers to develop programs on 900 Series HP 3000 systems that communicate with application programs that run on an IBM mainframe in an SNA network.

HP Remote Job Entry/XL (RJE/XL) and HP BSC Link/XL permit a 900 Series HP 3000 system to emulate the major functions of an IBM 2780/3780 RJE workstation.

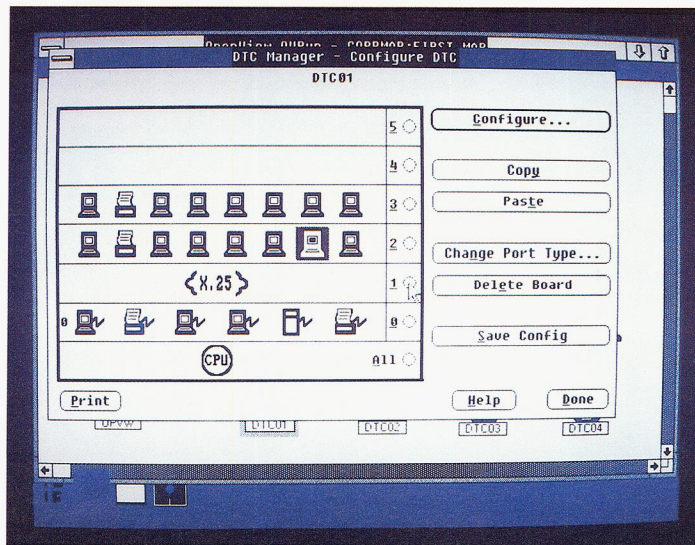
RJE/XL can be used to submit jobs to, and receive output from, a host processor that can support standard IBM 2780/3780 devices. BSC Link/XL provides the network connection to an IBM S/370 (or compatible) mainframe using the binary synchronous (BSC) protocols.

#### HP 3000-to-Novell connectivity

LAN to LAN connectivity from Novell NetWare LANs to the HP 3000 is available now with the HP NS LAN Gateway. Because the HP NS LAN Gateway is an add-on product, the investment in the existing Novell LAN is protected. The HP NS LAN Gateway provides PC-integration capability from PCs running Novell NetWare Version 2.15 LANs to LAN-based HP 3000s (MPE V and MPE XL). Product features include Virtual Terminal access, Network File Transfer and support of HP Business System Plus.

The HP NS LAN Gateway is available now. The DTC and IBM capabilities are available with MPE XL Release 2.0.

*For more information on the DTC and OpenView, check A on the HP Reply Card. For more information on MPE XL IBM products, check B.*



*The OpenView DTC Manager's graphical presentation, pull-down menus, on-line help and mouse-driven interface all greatly ease configuring DTCs.*



## Create easy-to-use applications in less time with HP ALLBASE/4GL

HP ALLBASE/4GL is an advanced fourth-generation language well suited to developing applications for transaction processing and decision support. It lets you simply describe the solution using its screen painter, central dictionary and powerful logic facilities. Now, enhancements to HP ALLBASE/4GL—available on both HP-UX and MPE XL systems—save you even more time.

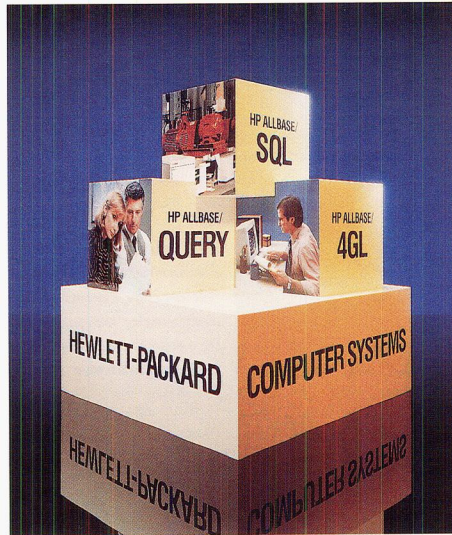
### Increased productivity with RDA, Module Builder and direct access to HP ALLBASE/QUERY

The combination of remote-data access (RDA) and the portability of HP ALLBASE/4GL applications across operating systems means that, for all HP ALLBASE/SQL networks, an application need be developed only once.

This new release of HP ALLBASE/4GL fully utilizes the facilities of HP ALLBASE/NET to access and update data stored on other computers in the network. HP ALLBASE/NET creates and maintains a database server within a network of computers.

### Faster prototyping and development

With the new Module Builder feature, you can generate modules automatically from file or SQL table definitions. Modules, which contain the logic and screens necessary to add, delete, modify and view records in a file or SQL database, now can be created in minutes. They can be used as fully operational prototypes to enable you to clarify requirements early, and as the application's core to speed up development. Using HP ALLBASE/4GL's screen painter, logic facility and report writer, you can make these core applications as complex as necessary to satisfy a client's needs.



*End users of HP ALLBASE/4GL applications have transparent access to data stored under HP ALLBASE/SQL anywhere on the network. To satisfy an ad hoc query, simply press a function key to be placed into HP ALLBASE/QUERY.*

### Closer integration for ad hoc queries

Now, you can move freely between applications created in ALLBASE/4GL and HP ALLBASE/QUERY via a function key. With HP ALLBASE/QUERY, you can create ad hoc queries and generate reports without involving a software developer. Prior knowledge of the database structure is not required because the names of tables, columns and alternative databases are supplied as options.

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

## High-end HP 3000 performance increases by 30 to 40%

The 900 Series HP 3000 family of Precision Architecture computer systems has expanded again to include the new high-end Series 960.

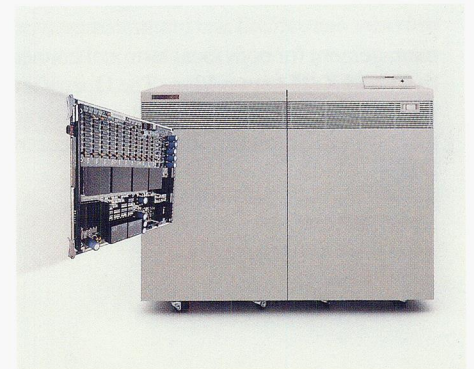
The HP 3000 Series 960 extends the high-end performance range by 30 to 40%—this is over two times the performance of the Series 950, and up to four times the performance of the Series 70. Upgrades are available from both the Series 950 and 955.

### Price/performance leadership

Based on estimates, the Series 960 has a performance advantage over the DEC VAX 6000 Model 630 and offers a significant price advantage. And, the Series 960 offers over two times the performance of IBM's high-end AS/400 Model B70. In fact, the Series 960 is in the performance class of the 3090 Model 100S.

Upgrades beyond the Series 960 are planned that will extend the performance of the Series 950/955/960 platform even further.

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





# A better way to manage information



*HP NewWave represents a totally new way to manage information more effectively. As an easy-to-use environment based on Microsoft DOS and Microsoft Windows, HP NewWave extends the value and capabilities of your PC running Microsoft Windows by providing a more natural and consistent way of working with information.*

With HP NewWave, you can use an industry-standard PC to complete and automate tasks easily by integrating applications in a standard graphical environment.

## Easy to learn, easy to use

HP NewWave is a personal computer software environment that works with Microsoft® Windows/286 and MS-DOS®. A consistent and predictable graphical user interface, computer-based training and on-line help make HP NewWave easy to learn and use.

## Integration and task automation

HP NewWave allows you to link and combine information such as text, numerical data and graphics from multiple applications with its Object Management Facility. With the HP NewWave Agent, HP NewWave can record and perform any task automatically.

## Better PC-host integration

The combination of HP Business System Plus (BSP) and HP NewWave gives you the tools you need for greater productivity. BSP provides the host services and PC applications to link host systems to PCs. HP NewWave enhances BSP by providing a consistent, easy-to-use environment on the PC. You can add your choice of PC applications and host services to build a customized information system to address specific business needs.

## Thousands of existing applications and a growing list of HP New Wave applications

Today, you can work in the HP NewWave environment with thousands of existing applications. You can open, file, mail, copy or delete information with your favorite MS-DOS and Microsoft Windows applications just as you would for applications written specifically for HP NewWave. And, there is a growing list of HP NewWave applications that take full advantage of the innovative features in the NewWave environment.

These applications will be available in the "first wave": HP NewWave Write, a basic-to-intermediate-level word processor that is bundled with HP NewWave; Samna Ami, an intermediate level word processor; Samna Ami Professional, a sophisticated word processor; Da Vinci eMAIL, a LAN-based electronic mail product that is network independent and versatile; Tymlabs Session, a terminal-emulation package for the HP 2392; Future Soft DynaComm, a powerful communications application; Micrografx Graph Plus, a business-graphics application with charting and drawing capabilities; Channel Computing Forest & Trees, an intelligent database; Microsoft Excel, a sophisticated spreadsheet with database and graphics; Systems Interface TransActor, a powerful process communications integrating PCs with UNIX systems; Glockenspiel Common-View, a fast HP NewWave application generator; New Media Graphics Video, a full motion video application; and Access Softek Dragnet, a system-wide text and object retrieval system.

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

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## AdvanceLink supports multiple sessions for MS-Windows and Macintosh users

HP has extended the AdvanceLink family of terminal emulation products to allow users of IBM-compatible personal computers with Microsoft® Windows and Apple Macintosh to communicate with HP 3000, 9000 and 1000 computers.

### Multiple simultaneous sessions

You can start up to three sessions—on different hosts—using a variety of connection types. Then you can view them simultaneously and swap between windows—without having to restart sessions—simply by double-clicking the mouse. For example, you could have HP OpenMail printing out mail messages in one window, while using Information Access in a second window to retrieve information from a database, while fields are being downloaded from the host in a third window.

### New AdvanceLink family members

AdvanceLink for MS-DOS® includes emulation of a variety of HP and DEC terminals, fast and reliable file transfer and an extensive command language for automating complex tasks.

AdvanceLink for Windows includes HP 2392 alphanumeric terminal emulation plus file transfer between the Microsoft Windows environment and the host computer. It also features multiple simultaneous session capability.

AdvanceLink for Macintosh features a choice of HP 2392 alphanumeric, HP 2392 monochrome graphic or HP 2397 color graphic terminal emulation, plus file transfer between the Apple Macintosh and the host computer. It offers multiple simultaneous session capability, and the user interface is consistent with AdvanceLink for Windows.

AdvanceLink is already supported in encapsulation mode in the HP NewWave environment and will be fully integrated in the future. OS/2 Presentation Manager also will be supported.

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

## 4-page-per-minute printer at a breakthrough price

The latest member of the HP LaserJet printer family is an affordable personal laser printer that can print four pages per minute.

### Family compatibility and quality

The HP LaserJet IIP printer's 300-dpi laser-print quality lets you create professional-looking documents. It is compatible with the HP LaserJet Series II printer and most PC software programs. All HP LaserJet printer drivers support the HP LaserJet IIP printer.\*

### Modular features

You can increase the printer's paper-handling capabilities with an optional lower cassette, and add more memory for full-page 300 dpi graphics and downloaded fonts. And, the HP MasterType Library offers more choices for creating better looking documents.

### 14 internal fonts and the new Great Start cartridge

Fourteen standard fonts are internal to the HP LaserJet IIP printer: portrait and landscape Courier fonts in 10- and 12-point families, and compressed line printer.

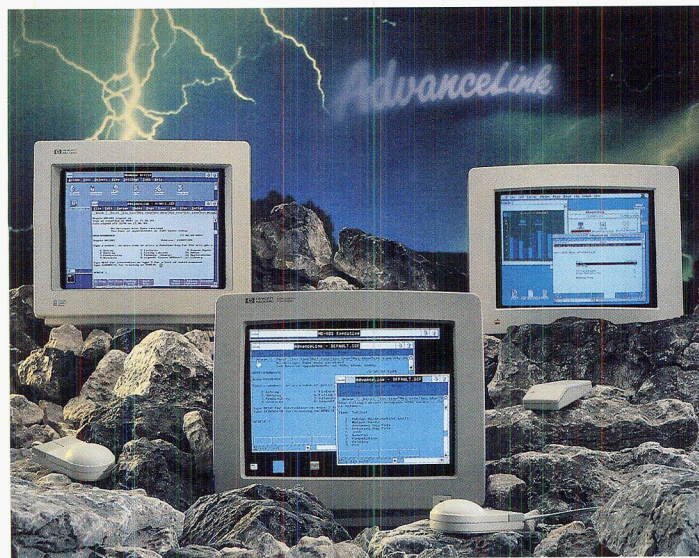
For the first-time user, HP offers the new Great Start font cartridge, which is ideal for spreadsheets and general word processing. The Great Start cartridge also works with HP LaserJet Series II, IID and 2000 printers.

### Emulation support

You can switch from dot-matrix printers to the HP LaserJet IIP printer and still protect your software investment with the optional Epson FX/IBM Proprinter emulation cartridge.

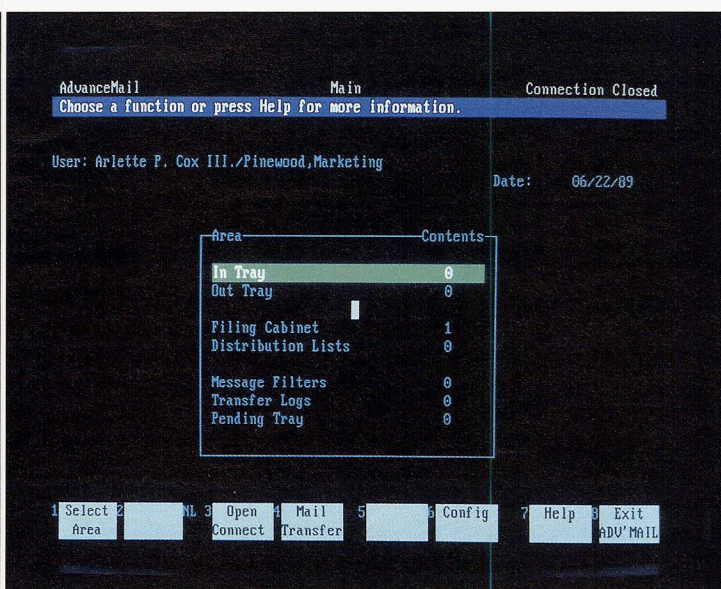
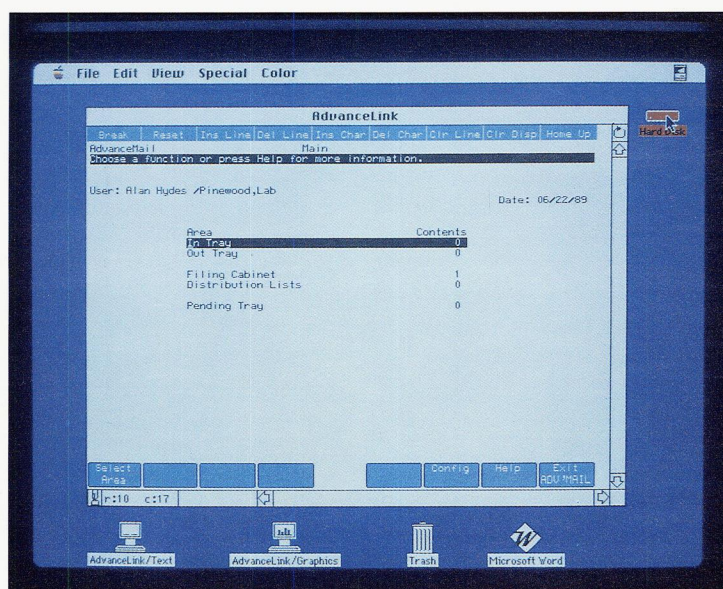
*For more information, check **G** on the HP Reply Card.*

\*The HP LaserJet IIP printer is not supported on the HP 3000.



*With the new AdvanceLink products, you can take advantage of the convenience and increased productivity offered by a windowing environment. Intuitive, well organized menus and dialog boxes, cut and paste of data between applications and multitasking are among the many capabilities.*





*HP OpenMail brings the power of communication—whatever the workstation or media type, to almost any user anywhere in the world.*

## New electronic-mail server for the UNIX operating system

HP OpenMail, a standards-based electronic-mail server for the UNIX operating system, allows users of terminals, MS-DOS® PCs, Macintosh PCs, OS/2 PCs, and UNIX-systems workstations to communicate with other users on both proprietary and public mailing systems. It enables the transmission of multiple media types—text, data, graphics, voice, image, video and binary objects, which could be in discrete or compound documents.

### Multiple workstation and media types

Through a consistent interface, every user on the network has access to HP OpenMail—whether they are a PC, terminal or workstation user. Different document formats—word processing, graphics, spreadsheet—are maintained during transmission with HP OpenMail.

### Connectivity

HP OpenMail can deliver your message to almost any other user in the world. It provides gateways to X.400, HP DeskManager and the UNIX Mail network. These gateways give users access to a wide variety of private and public mailing services such as Geisco, MCI, HP Desk, Fax, Telex, IBM's PROFS, DISOSS and many more.

### Portability and standards

HP OpenMail was designed and written to X/OPEN portability specifications and uses standard datacommunication products.

### Carefree administration

HP OpenMail can be implemented in an enterprisewide environment—on the smallest workgroup server to the largest corporate machine. It can be configured and maintained from a local or remote location through a screen-based interface that has help at both the screen and individual field level. You can test the links between HP OpenMail nodes to facilitate trouble shooting during network setup and maintenance.

HP OpenMail runs on HP 9000 computer systems. American English, French and German language options are available now. Additional language products will be available at a later date.

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



## Additional features and industry-standard compatibility with MS-DOS 4.01

Hewlett-Packard now offers Microsoft® MS-DOS® 4.01, the newest version of the standard PC operating system. HP has added significant enhancements, while maintaining industry-standard compatibility.

### MS-DOS 4.01 new features

New features of MS-DOS 4.01 include: support for files and hard disk volumes larger than 32 Mbytes; the DOS Shell, a program starter and file maintenance utility; and an enhanced, automated installation process.

### HP-specific enhancements

HP enhancements include: HP Vectra PC disk cache; the Personal Applications Manager (PAM) for ease of use and interface compatibility with the HP Touchscreen PC (HP 150) and HP Portable PLUS; Touchscreen PC and Portable PLUS 3½-inch disk support; printer utilities, such as HP's Multiple Character Set (MCS) Utilities; and support for graphic screen dumps for the HP printer family.

If you use MS-DOS 3.3, you are not required to upgrade to 4.01 to maintain file and applications compatibility with new system purchases. New systems should be purchased with MS-DOS 4.01. HP's MS-DOS 4.01 is supported on all models of the HP Vectra family of PCs.

*For more information, check I.*

## Reduce connectivity effort with the HP Device Interface System

With the HP Device Interface System (HP DIS), solution creators can reduce the time it takes to develop RS-232-C interfaces to factory floor devices by at least 50%.

Operating on the HP 9000 Series 800 computer, HP DIS is aimed at automation applications that run at the work-cell or area-manager level. It allows a designer to specify the communication requirements of the equipment involved using the Protocol Specification Language instead of having to develop customized programs in C or FORTRAN. The system also supplies a comprehensive library of reusable and pretested communications functions.

### Powerful testing environment

HP DIS provides a powerful testing environment with which to validate the design, including facilities for simulating line noise, tracing the testing and simulating the physical device. The system automatically generates a set of test suites that exercise the design.

Although the developer is still required to understand the communications needs of the device (PLC, material handling equipment, inspection system, robot, insertion machine), the processes of developing, testing and maintenance are simplified and accelerated. For custom needs, the open architecture of the product allows users to add their own communications routines to the standard library or write their own testing routines.

*For more information, check J on the HP reply card.*

## Notables

### New HP MasterType Library for the HP LaserJet printer

- HP has introduced a new line of font cartridges for the HP LaserJet Series II, LaserJet IID and LaserJet 2000 printers—the HP MasterType Library. These products are designed for specific applications and will replace the existing line of HP 92286A through 92286Z font cartridges. The HP MasterType Library makes it easy for you to choose the font cartridge you need, offers more value/more fonts per cartridge, a new streamlined cartridge design and new user-friendly documentation. Check K.

### Dynamic mapping of Ethernet LANs

- With the HP 4992A NodeLocator, you can document automatically—in real time—the physical location of nodes on Ethernet LANs using coaxial cabling. HP NodeLocator is an add-on device for the HP 4990S LanProbe distributed analysis system. It enables HP 4990A ProbeView software to create an accurate physical map of all nodes residing within a monitored segment of the network. The system can identify the location of newly attached, aged or inactive nodes. Together with the HP LanProbe segment monitor, the NodeLocator also detects devices that are moved within, or disconnected from, the network. Check L.

### XNS protocol interpreters

- Examining traffic on Ethernet/IEEE 802.3 networks is easy with HP's new 18223A XNS protocol interpreter. The XNS protocol interpreter runs on the HP 4972A LAN protocol analyzer and decodes and displays the Xerox Networking suite. HP 18223A features a network address list that allows you to define names intended for the display of information. Addresses that don't have a user-defined name are displayed in the appropriate numeric format. The interpreter also flags checksum errors and illegal frame lengths. Program utilities allow you to do conversational capture and trigger on events to allow further analysis. Check M.