

HP AdvanceLink

Data Sheet

HP AdvanceLink is a comprehensive data communications product which enables you to integrate host/terminal applications with your client/server and personal computer applications. It provides emulation of HP and DEC terminals, allowing you to access and execute host software from your PC. Fast, reliable file transfer simplifies exchange of data between your PC and the host. Task automation minimizes the work required to complete complex or frequent activities, improving productivity and reducing training needs. AdvanceLink is supported on a variety of personal computers and

supports serial and LAN connections to the host computer.

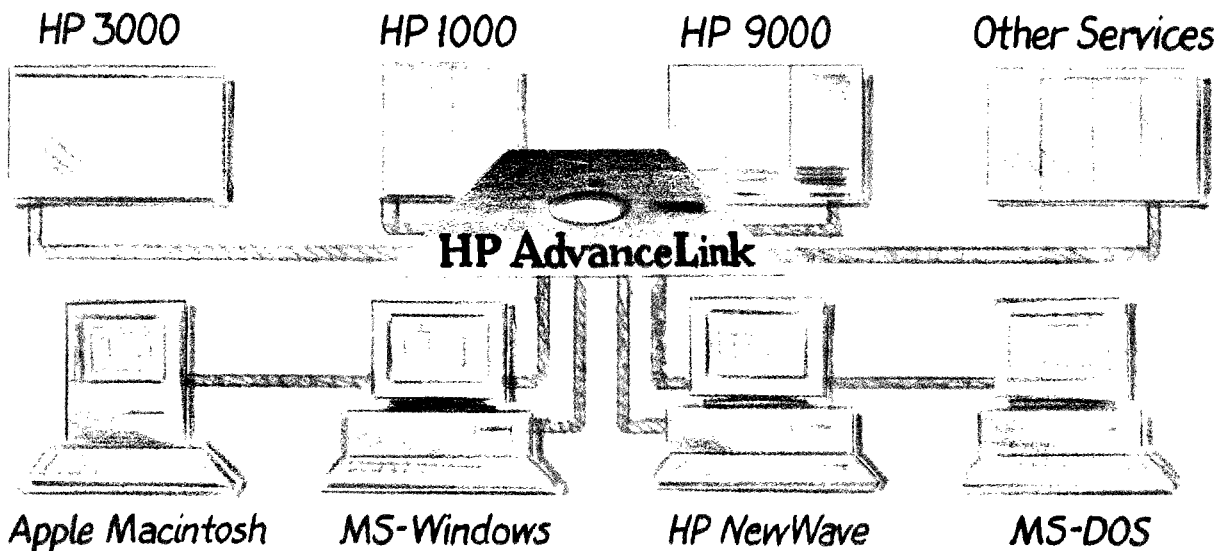
The AdvanceLink family consists of three products which support four of today's popular personal computer environments:

MS-Windows®

The multitasking capability of MS-Windows permits you to establish multiple simultaneous host connections over serial or LAN links. Microsoft's DDE protocol, combined with AdvanceLink's powerful "TermTalk" command language, enables you to integrate host applications with your PC even more closely.

HP NewWave

HP NewWave offers further benefits beyond MS-Windows and HP offers you the choice of installing AdvanceLink either as an MS-Windows or a native HP NewWave application, from a single set of disks. When you install it in the HP NewWave environment, additional user interface and task automation functions are enabled. AdvanceLink can then recognise and handle HP NewWave data objects, simplifying data transfer. The TermTalk command language has features in common with the HP NewWave Agent language, and is better suited to data



communications tasks. TermTalk can also invoke HP NewWave Agents. When you use AdvanceLink within the HP NewWave environment, you have the benefits of this sophisticated user interface and the powerful task automation capabilities, enabling you to achieve a level of integration which is impossible in other environments.

Apple® Macintosh®

Many users need to connect Apple Macintosh computers to their host system, in addition to IBM compatible PCs. AdvanceLink's graphical user interface is common to all of the windowing environments (HP NewWave, MS-Windows and Apple Macintosh), so you can use the same basic menus, keystrokes and Termtalk command language. In addition, AdvanceLink provides support for LocalTalk to Ethernet gateways, enabling you to access host applications from the Apple networking environment.

MS-DOS®

The original and best known member of the AdvanceLink family provides monochrome and colour graphics terminal emulation in addition to block mode alphanumeric emulation, file transfer and task automation.

Future Directions

Further development of the TermTalk language will enable even tighter integration of the PC and host applications. Support for other terminal types will allow you to access information on a variety of hosts from a single workstation. Additional networking support will also help you to achieve this. Finally, as other personal computer environments gain popularity, AdvanceLink will be ported to them. AdvanceLink will enable you to protect your investment in host based applications, while allowing you to take advantage of newer client/server software, seamlessly integrating the PC and the host to provide maximum productivity.

AdvanceLink for MS-Windows

Features

Full block/line mode emulation of HP 2392, including ANSI mode, plus DEC VT100 and the main features of HP 700/94.

MS-Windows 3.0 support and user interface style

- Real, standard or enhanced modes of MS-Windows 3.0 are supported depending upon host connection method.

Display Features

- 26 line by 80 column display
- Vertical and horizontal scrolling
- Support for all alternate character sets
- Display enhancements: Inverse, Underline, Half-bright, Blink, Bold, Box and Security (non display)
- Display functions for visible control characters
- Support for function keys F1-F12
- Support for shifted function keys
- Multiple simultaneous sessions via serial or LAN connection
- Indicator icons for connection state, logging, keyboard lock, stop/go
- Support for 132 and 160 columns (directly displayed or scrolled, depending on monitor resolution)
- Virtual memory support
- Configurable display memory, up to 7200 lines
- Intelligent type ahead
- Log to directly connected or networked printer, clipboard or disk file

HP 700/94 terminal features

- Modified data tags
- Transmit only fields
- Forms cache

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

Network capability

- Direct RS-232-C or RS-422 connection (COM1, COM2, COM3, COM4)
- Hayes compatible modem support
- Baud rates from 300 to 19200
- HP LAN Manager via HP DOS Network Services 2.1 (HP 3000)
- HP LAN Manager via HP DOS ARPA Services 2.1 (HP 9000)
- 3Com LAN Manager for connection to other hosts
- Novell Netware to HP 3000 via HP Netware/XL or HP NS LAN gateway
- X.25 network via PAD
- Eicon Technology X.25 network adapter card (with Eicon driver software) support for stand alone and NetBIOS compatible LANs

File transfer

- File transfer to HP 3000 or HP 9000
- Automatic calculation of blocksize for optimum performance
- Blocksize adjustable via TermTalk
- Data compression for faster transfer
- XMODEM for file transfer to non HP hosts
- Support for 7 bit and sensitive networks
- Automatic character conversion for HP Roman8 for ANSI international characters

TermTalk Command Language

- English based, easy to use for non programmers
- Language compiler and interpreter
- Core language includes: user procedures, subscripts, unlimited variables, variable strings up to 32000 characters, arithmetic expression handling, string manipulation, logical

operators, if/then/else instructions, looping, comments

- Language editor – files can be written, debugged and run within AdvanceLink
- Host control facility – any TermTalk command can be issued from a host application through an escape sequence
- Scripts may be attached to function keys or script menu for quick access
- Script recording – user can perform a task within AdvanceLink and a command file will be automatically created.
- Support for Microsoft DDE in both client and server modes.
- Conversion utility – This simplifies the translation of AdvanceLink for MS-DOS command files for use with TermTalk.

HP NewWave Integration

The three disks contain the required files for installation either as an MS-Windows, or full HP NewWave application. See AdvanceLink for HP NewWave for further information.

Hardware Requirements

Host system:

HP 3000, HP 9000, HP 1000

Computer:

HP Vectra, any 100% IBM compatible personal computer.

Disk drive:

One high density (at least 720KB) and one low density flexible disk drive, or one flexible disk drive and one hard disk drive.

Memory:

Microsoft Windows 3.0 manages the memory usage of applications. AdvanceLink for Windows will run in any memory configuration supported by MS-Windows 3.0.

Software requirements

Operating system:

MS-DOS 3.1 or later plus MS-Windows 3.0

Networking:

Single LAN session to HP 3000 via HP OfficeShare III.

Single LAN session to HP 9000 via HP OfficeShare III.

Multiple LAN session to HP 3000 via HP OfficeShare and HP DOS Network Services 2.1.

Multiple LAN session to HP 9000 via HP OfficeShare and HP DOS ARPA Services 2.1.

Note: In an HP OfficeShare LAN, AdvanceLink requires the presence of a PROBE server (ie at least one HP 3000 or HP 9000 running Network Services). If no PROBE server is present, ARPA Services 2.1 MUST be installed on the PC.

AdvanceLink for HP NewWave

AdvanceLink for Windows can be installed in the HP NewWave environment. In this case, the following additional features are enabled:

HP NewWave Agent Task Integration

Agent can invoke a single TermTalk command.
Agent can call a TermTalk file.
TermTalk can invoke an Agent task.

Object Handling

AdvanceLink can recognise and manipulate NewWave Objects.
TermTalk contains Object Import and Export commands.

Drag and Drop

You can "drag" an Object across the desktop and "drop" it onto the AdvanceLink Connection Object to initiate file transfer.
You can use TermTalk to produce "drag and drop" command files to automate file transfer or other operations.

HP NewWave Help Integration

You can invoke HP NewWave help from within AdvanceLink.

AdvanceLink for the Macintosh

HP 2392 Emulation

The features are similar to those of AdvanceLink for Windows. However, the following features are NOT included:

- HP OfficeShare connection to HP 9000
- Command script facility
- Support for Eicon card
- NewWave encapsulation
- Multiple session capability

In addition, the following features are included:

- HP screen display

-18-, 132- and 160-column

- HP function key emulation
 - Press function keys by: clicking on screen label, pressing F1-F8 (F1-F10 on an extended Macintosh keyboard), selecting keys menu item
- HP keyboard features
 - Enter, control, clear line/display
 - Control, Esc, F1-F10, Home, End, Page Up, Page Down, Ins, Delete and Pause on extended keyboards
 - Supports numeric keypad and arrow keys
 - Supports all HP/Macintosh international keyboards
 - Supports 8-bit characters (HP Roman8)
 - Automatic keyboard lock for X.25 communications
- Fast and reliable background file transfer
 - Supports MacBinary for transfer with online services
- Network compatibility
 - Kinetics Etherport II card
 - Apple Ethertalk Interface card
 - Baud rates from 300 to 57600
 - Supports ImageWriter, LaserWriter and AppleTalk Image Writer from Apple
 - Supports PaintWriter, DeskJet, DeskWriter and LaserJet from HP

HP 2393 Emulation

In this mode, the following functions are added:

- Multiple windowing modes
 - Text/Graphics displayed in a single window
 - Text/Graphics displayed in separate windows
 - Graphics window can be opened, moved, closed
 - Resize graphics window from 200x100 pixels to size of monitor

- Graphics scaling
 - Scale graphic to fit in window, match text, or fit in largest area of window which is proportional to area of HP terminal screen
 - Display graphic unscaled for full-size viewing
 - Scroll unscaled images
- HP graphics resolution support
 - HP 2392 low res. 512x390 pixels
 - HP 2393 high res. 640x400 pixels
 - HP 2623 res. 512x390 pixels
 - HP 264X 720x360 pixels
- Enhanced graphics input capabilities
 - Mouse support
 - HP-like graphics cursor
 - Shift + arrow key for 5x faster cursor movement
 - Pixel counters on screen
 - HP drawing mode support
 - Emulates Move, Draw and Clear functions of HP graphics keypad
 - HP line type/area fill emulation
 - 38 additional Macintosh area fill patterns
- Graphics output options
 - Connection of HP plotter in eavesdrop mode
 - PrintScreen to Apple Talk

HP 2397 Emulation

In this mode, the following functions are added:

- Full color display
 - Color text
 - Color graphics
 - Color display enhancements
 - Color function key labels
 - Runs on all Macintosh monitors (monochrome and color)
- Color graphics capabilities
 - Up to 16 color palettes (1 system, 15 user defined)



- Dithered area fill patterns for more colors
- Supports all HP color pens
- Program defined color palettes and color pairs using escape sequences
- Dialog box for color pairs and system color selection

Hardware Requirements

Host Computer:

HP 3000, HP 9000, HP 1000

Computer:

512k Mac, Mac Plus, MacXL, MacSE range and MacII range.

Memory:

minimum memory requirements – 750k.

Monitor:

any monitor which can connect to the Apple Macintosh computers listed (see "Computer" above).

Software Requirements

System 6.0, Finder 6.1 and MultiFinder (optional).

AdvanceLink for MS-DOS

Features

Full block/line mode emulation of HP 2392A, HP 2393A, HP 2627A, including ANSI mode.

Display Features

- 26 line by 80 column display
- Horizontal scroll up to 160 columns plus vertical scrolling
- Support for all alternate character sets
- HP terminal display enhancements
- Display functions for visible control characters
- Programmable function keys
- Intelligent type ahead
- Forms cache
- Copy to disk – to copy the screen contents to any MS-DOS file
- Read disk – to display the contents of an MS-DOS file
- Color text (EGA/VGA screens)
- Logging to directly connected printer or disk file

Network Compatibility

- Direct RS-232-C or RS-422 connection via COM1, COM2, COM3 and COM4. (COM3/COM4 only supported using HP dual serial card.)
- Remote modem connection via internal or external modem
- HP OfficeShare via HP OfficeShare III
- HP OfficeShare via HP DOS Network Services 2.0 (HP 3000)
- HP Lan Manager via HP DOS ARPA Services 2.0 (HP 9000)
- Novell Netware to HP 3000 via HP Netware/XL or HP NS LAN gateway
- X.25 network via PAD
- PBX switches and dial back security systems
- Eicon Technology X.25 network adapter card support for stand alone or NetBIOS compatible LANs (including Novell and HP)

File Transfer

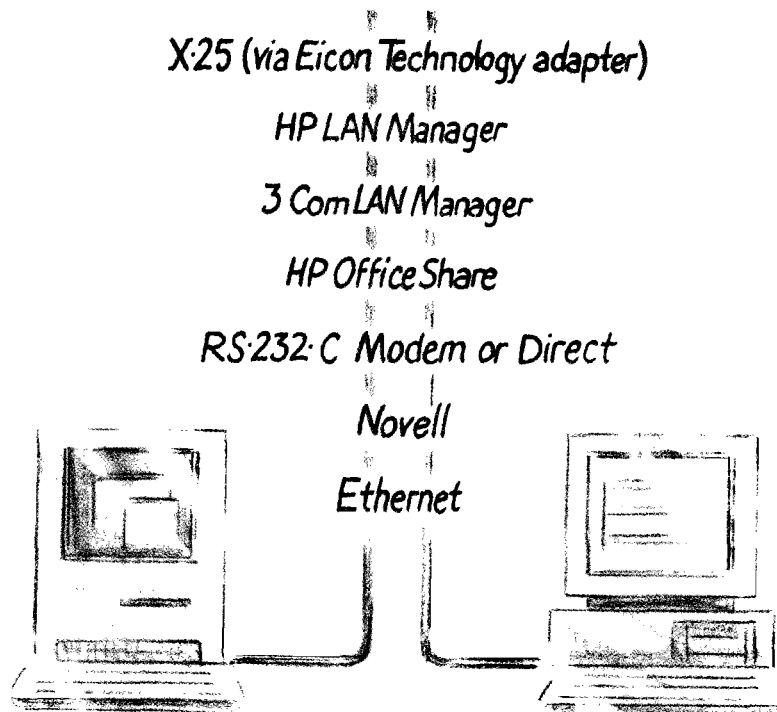
- PC to PC or host
- HP 3000 data compression
- Labelled file transfer (up to 2000 bytes) with HP 3000
- Comprehensive PC backup with HP 3000 data compression
- File transfer to HP 9000 (with HP/UX 8.0 or later)
- Network transparency mode for efficient X.25 file transfers
- XMODEM for file transfer to non HP hosts (eg DEC VAX)

Extensive Command Language

- Over 80 commands
- Command file encryption
- Remote computer control of AdvanceLink
- Program execution control
- Access to MS-DOS applications via "hot key"

Integration with HP NewWave

- Encapsulation provides iconic representation of AdvanceLink and its command files



Hardware Requirements

Host system:

HP 3000, HP 9000, HP 1000RTE or HP 260

Computer:

HP Vectra, any 100% IBM compatible personal computer.

Disk drive:

One high density (at least 720KB) and one low density flexible disk drive, or one flexible disk drive and one hard disk drive.

Memory:

Minimum requirement (including MS-DOS 3.3) in alphanumeric mode is 270KB and, in graphics mode, is 430KB

Monitor:

An EGA or VGA video adapter (with a minimum of 128KB RAM) with colour monitor is required for colour graphics and text.

Software Requirements

Operating system:

MS-DOS 2.1 or later, MS-DOS 3.3 or later is required for MS-DOS program execution from AdvanceLink.

Networking:

HP LAN Manager via HP DOS Network Services 2.0 provides terminal access to HP 3000.

HP LAN Manager via HP DOS ARPA Services 2.0 provides terminal access to HP 9000, HP 1000RTE and DEC VAX.

HP OfficeShare via HP OfficeShare III provides terminal access to HP 3000 or HP 9000.

Ordering Instructions

To order the following products, contact your HP Sales Office or your local HP dealer.

Product Number	Description
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MS-Windows/HP NewWave Environment

D2104B	IBM format 5.25" and 3.5" disks, plus one set of documentation and license for a single user.
D2114B	Single user license certificate only.
D2104-60006	Upgrade from any previous version of AdvanceLink for Windows (D2104A) or AdvanceLink for MS-DOS (68333F, 68333B) to the current version of AdvanceLink for Windows (D2104B). IBM format 5.25" and 3.5" disks.
D2434B	User license upgrade from any previous version of AdvanceLink for Windows (D2114A) or AdvanceLink for MS-DOS (68333L, 68333Q, 68333S, 68333J) to the current version of AdvanceLink for Windows (D2114B). Single user license certificate only.

Apple Macintosh Environment

D2107A	AdvanceLink/Color Graphics, single copy Apple Macintosh format
D2117A	AdvanceLink/Color Graphics, user license certificate

MS-DOS Environment

- 68333B AdvanceLink, single copy IBM PC format, 5.25" and 3.5" disks.
- 68333J AdvanceLink ten user site license certificate.
- D2432B User license upgrade from any previous version of AdvanceLink for MS-DOS (68333L, 68333Q, 68333S) to the current version (68333J). Single user license certificate only.

Contractual support options

- H2015A+H00 HP ResponseLine for commercial PC software. Telephone assistance for resolving problems with HP PC software and several popular third party software products, answering product usage questions and reporting software problems.
- H2001+H00
Option #OF8 HP ResponseLine for Commercial Systems Software. Integrated PC office option (#OF8) includes ResponseLine coverage for your HP PC operating system and software products.
- H2011+H00
Option #OF8 HP ResponseLine for HP 9000 systems software. Integrated PC office option (#OF8) includes HP ResponseLine coverage for your HP PC operating system and software products.

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