



Software Product Description

PRODUCT NAME: DIGITAL PATHWORKS 32 V7.1A

SPD 56.33.04

DESCRIPTION

DIGITAL™ PATHWORKS™ 32 is a member of the PATHWORKS family of software products that provides PC connectivity in local and wide area networks. Windows 95®, Windows 98®, and Windows NT™ 4.0 PCs can be connected to DIGITAL OpenVMS™ systems, DIGITAL UNIX® systems, and other Windows NT systems, and can use selected resources of those systems.

PATHWORKS 32 software layers on top of valid retail configurations of Windows 95, Windows 98, and Windows NT 4.0 and complements Microsoft® networking software, so that different types of users can share information across the entire organization.

PATHWORKS 32 software ships on one software CD-ROM, which contains:

- PATHWORKS 32 networking components
- eXcursion™ X Server
- PowerTerm® 525 terminal emulator
- Online help in French, German, and Czech for selected PATHWORKS 32 applications
- Localized user interfaces in French, German, and Czech for selected PATHWORKS 32 applications

This Software Product Description (SPD) describes:

- The components of the product. Unless stated otherwise, all functions are available on Windows 95, Windows 98, and Windows NT 4.0.
- Hardware and software requirements.
- Ordering information.

- Software product services.
- Software warranty.

PATHWORKS 32 COMPONENTS

DIGITAL Transport Support

PATHWORKS 32 software includes networking transports developed by DIGITAL for the PC. They are implemented as 32-bit, protected-mode drivers. The following transports provide connectivity to other systems supporting the same transports:

- DECnet™ Phase IV, a local area and wide area transport — including Phase IV-Prime Arbitrary MAC Addressing support when required for Token Ring networks, support for DECnet over TCP/IP, and support for WinSock 2.
- LAT™, Telnet, and CTERM communications transports for use with terminal emulators.
- LAST protocol transport for use with InfoServer™ on Windows NT 4.0.

DECnet Phase IV Support

DECnet Management

PATHWORKS 32 software supports the Network Control Program (NCP) — a utility that manages DECnet and displays information about network conditions, characteristics, and performance.

PATHWORKS 32 software provides property pages that support the management of the DECnet transport through the Windows® interface.

File and Print Services Over DECnet

PATHWORKS 32 software provides the ability to browse, connect to, and disconnect from PATHWORKS servers over the DECnet transport. Users access file and print services through the Windows 95, Windows 98, and Windows NT 4.0 interface. Users can also connect to and disconnect from their services from the DOS prompt.

DECnet Utilities

PATHWORKS 32 software includes the following DECnet utilities:

- File Access Listener (FAL) and Windows-based Network File Transfer (NFT) utilities for transferring files over the DECnet transport
- Job Spawner
- Network Management Listener (NML)

Token Ring Source Routing and Arbitrary MAC Addressing Support

PATHWORKS 32 DECnet software contains a Token Ring specific feature that allows the use of protocols that might require the local area network (LAN) MAC address to be modified. This feature, Phase IV-Prime Arbitrary MAC Addressing support, allows applications such as IBM® 3270 terminal emulation to adhere to IBM addressing policies.

To use the Token Ring source routing or Arbitrary MAC Address features, all DECnet end nodes and routers connected to the Token Ring LAN must be running a version of DECnet that supports Token Ring source routing and Arbitrary MAC Addressing features.

Remote Access Using DECnet

See the Remote Computing section later in this SPD for information about remote access using DECnet.

DECnet Over TCP/IP

DECnet over TCP/IP functionality, available in DECnet-Plus on OpenVMS and DIGITAL UNIX, enables DECnet applications to use TCP/IP as a network service rather than (or in addition to) traditional DECnet network services. For example, DECnet over TCP/IP allows DECnet-based applications to run over TCP/IP backbone networks. This functionality on PC platforms provides a consistent, cross-platform approach to the problem of DECnet-to-TCP/IP migration.

WinSock 2 Service Provider

PATHWORKS 32 software contains a service provider for the DECnet transport. This feature allows application developers to write WinSock 2 compliant applications that can use the DECnet transport.

WinSock 2 support is part of the Windows 98 and Windows NT 4.0 operating systems. PATHWORKS 32 automatically registers DECnet as a WinSock 2 service provider on these systems.

WinSock 2 support on Windows 95 requires run-time components provided by Microsoft. These components are included as part of the PATHWORKS 32 V7.1A kit. See the PATHWORKS 32 User's Guide for information on how to install WinSock 2 support on Windows 95.

To use eXcursion or CTERM on Windows 95 over DECnet, you must install WinSock 2 support.

Remote Procedure Call (RPC)

PATHWORKS 32 software supports the Windows NT 4.0 RPC mechanism over the DECnet transport.

Terminal Emulation

PATHWORKS 32 software includes the PowerTerm 525 terminal emulator. The PowerTerm 525 terminal emulator lets users establish terminal sessions with a remote host computer.

The PowerTerm 525 terminal emulator supports a wide range of text terminals (up to VT525). PowerTerm 525 is rich in features, including an enhanced cut-and-paste capability, automatic change in font size after a change in screen size, graphical keyboard mapping, and file transfer options.

The PowerTerm 525 terminal emulator:

- Works with the 32-bit implementations of Telnet, LAT, and CTERM supplied within PATHWORKS 32 and also supports direct connections to COM ports.
- Supports the storage and retrieval of passwords from a secure local location to log on to the host. The user enters the log-on information once. The Password Assistant facility in PATHWORKS 32 software provides this single-logon support.
- Includes scripting facilities that enable the automation of frequently executed functions. The PowerTerm 525 software provides backward compatibility with scripting commands from the VT320 in addition to supplying a more powerful scripting language.
- Uses standard Windows features (pull-down menus, dialog boxes, scroll bars).

eXcursion

eXcursion is a PC X server that allows desktop users to run X Window System™ applications on remote OpenVMS or UNIX systems.

For example, users can simultaneously run an X terminal session (such as DECterm™), an X mail program (such as Mailtool from Sun®), and a Windows application (such as Microsoft Word for Windows) on their PCs. They can cut and paste information from one type of application to another.

eXcursion is based on Release 6.3 of the X Window System Version 11 protocol (X11R6.3) from The Open Group™. However, the new extensions introduced with X11R6.3 are not supported: Remote Execution, Web Browser Plug-In, Security, Application Group, Print, and LBX.

eXcursion provides the following features:

- Support for TCP/IP from Microsoft and DECnet from PATHWORKS 32.
- A “Windows 95 look and feel” user interface.
- Support for BackingStore and SaveUnders in multiwindow as well as single-window mode.
- Context-sensitive Help on the eXcursion Control Panel.
- The ability to attach sounds to events.
- An enhanced logging window with scroll bars and the ability to save and print log messages.

- Font failover capability that lets the server select an alternate font path, if a remote font path element is not available.
- Availability of LK411 keysyms.
- Enhanced line drawing performance using Windows graphics device interface (GDI).

Password Assistant

The PATHWORKS 32 Password Assistant provides single-logon capabilities. Enabled applications in PATHWORKS 32 software that require a user name and password store the log-on data in a central location.

PowerTerm 525 uses Password Assistant to store multiple passwords in an encrypted form on local PCs. Once passwords are defined, PowerTerm 525 can retrieve log-on information from the encrypted file—reducing the number of times users must type a password.

Password Assistant is independent of the server environment, so it can store LAN Manager, NetWare®, and application passwords.

Access to InfoServer CD-ROMs and Hard Disk Drives

DIGITAL InfoServers allow sharing of CD-ROM drives and hard disk drives within a local area network. PATHWORKS 32 allows any desktop to access InfoServer devices; a Windows NT 4.0 system acts as a gateway. In this implementation, no additional software is required on the desktop. Software is installed only on the Windows NT 4.0 system acting as the gateway. The Windows NT 4.0 gateway system offers the InfoServer devices as a Windows NT 4.0 file share for other desktop users.

Access to InfoServer CD-ROMs and hard disk drives in PATHWORKS 32 is provided by DIGITAL InfoServer Client for Windows NT V1.1. For further information, refer to the InfoServer Client for Windows NT Software Product Description (SPD 56.46).

Sharing Printers Using PATHWORKS 32 Print Services

PATHWORKS 32 Print Services let users print from an OpenVMS or DIGITAL UNIX system to printers connected to Windows 95, Windows 98, or Windows NT 4.0 systems, using DECnet or TCP/IP network protocols. The printing can be performed within a local area network (LAN) or over a wide area network (WAN).

PATHWORKS 32 software includes a print client component, which must be installed on OpenVMS or DIGITAL UNIX to access printers connected to your PATHWORKS 32 desktop system.

Remote Computing

PATHWORKS 32 software provides support for remote DECnet users by providing the following features:

- Support for any application and access to any network service (file and print services, terminal emulation, and file transfer) that uses DECnet Phase IV transports and does not require broadcast
- DDCMP datalink protocol
- Ability to establish connections through a Windows application (Connection Manager)
 - On Windows NT, Connection Manager acts as a dialer application.
 - On Windows 95 and Windows 98, Connection Manager is only a dialing configuration application.

Asynchronous Connectivity

PATHWORKS 32 software provides connectivity through a PC's asynchronous communications port for DECnet using the DDCMP protocol.

Connection Manager

Connection Manager is the graphical user interface for PATHWORKS 32 Remote Access capabilities. It provides a connection diary for configuring different connections, connecting and disconnecting on Windows NT, and managing a database of available connection choices.

Application Programming Interfaces for Application Developers

PATHWORKS 32 provides application programming interfaces (APIs) that provide a consistent interface across multiple transports and transport protocols. PATHWORKS 32 also provides dynamic link libraries (DLLs) for Microsoft Windows programming. Refer to the PATHWORKS 32 online Help and the PATHWORKS 32 Application Programming Interfaces manual for details.

Multilinguality

All PATHWORKS 32 components are available in American English.

Many PATHWORKS 32 components are translated into three additional languages: French, German, and Czech — with separate executable variants for each language.

Some applications were implemented using the Multilingual Application model, in which one executable version of the application allows dynamic switching of the user interface language and character set. The user selects the language from a menu, and the interface changes immediately.

The following applications provide dynamic switching of languages:

- Connection Manager (Remote Access)

- eXcursion¹
- Password Assistant
- PowerTerm 525²

Though not dynamically switchable, translated versions of online Help are provided for most other PATHWORKS 32 components. You can install these translated files by running PATHWORKS 32 SETUP with a command line switch. For more information, see the Installing Local Language Versions section of the PWREADME.TXT file on the PATHWORKS 32 CD-ROM's top-level directory.

In addition, the *DIGITAL PATHWORKS 32 User's Guide* and Quick Start Card and the PowerTerm Quick Start Card can be ordered in American English, Czech, French, and German. The *eXcursion User's Guide* and Quick Start Card can be ordered in American English, French, and German.

Online Documentation

Context-sensitive online documentation for individual components is available from Help buttons and Help topics in the component's user interface.

In addition, the PATHWORKS 32 Information Shelf provides access to the online Help of all components. The Information Shelf includes:

- A master contents, index, and search capability
- Introductory information
- Comprehensive list and description of client messages
- Additional Help topics such as Application Programming Interfaces and Managing DECnet Nodes.

The release notes for the PATHWORKS 32 components are translated and available on line as follows:

- PWREADME.TXT, in the PATHWORKS 32 CD-ROM's top-level directory, contains the Network Connectivity component release notes.
- NOTES_xx.TXT, in the PATHWORKS 32 CD-ROM's \Xcursion\Xcursion\Common\ directory, contains the eXcursion Release Notes.
- PTREADME.TXT, in the PATHWORKS 32 CD-ROM's \PTW\INTEL or \PTW\ALPHA directory (same file), contains the PowerTerm 525 Release Notes.

A summary of new PATHWORKS 32 features is available on line (WHATSNEW.TXT file) in the PATHWORKS 32 CD-ROM's top-level directory.

¹ Translated into French and German only. The eXcursion Release Notes are also translated into French and German.

² PowerTerm Release Notes are also translated into French, German, and Czech.

Restrictions and Limitations

The following restrictions apply to PATHWORKS 32:

Floppy Boots

PATHWORKS 32 software does not support PCs that boot from a floppy disk.

Shared Operating System Configurations

PATHWORKS 32 software does not support configurations that run Windows 95, Windows 98, or Windows NT 4.0 from a network applications server.

Network Adapter Card Support

Ethernet and FDDI adapters must also support a software-configurable network address using the Network Address keyword.

HARDWARE AND SOFTWARE REQUIREMENTS FOR PATHWORKS 32

The following sections list hardware and software requirements for Windows 95 and Windows 98 PCs and Windows NT 4.0 workstations.

Windows 95 PC Requirements

PATHWORKS 32 software running on Windows 95 systems requires the following minimum hardware and software configuration:

- An Intel® compatible system referenced in Microsoft's Hardware Compatibility List (HCL) for Windows 95.
- The minimum memory required for Windows 95 as specified in Microsoft's HCL, or at least 12 MB of RAM, with additional memory and disk resources for PATHWORKS 32. See the Disk Space Requirements section for more information.
- Windows 95 software.

Windows 98 PC Requirements

PATHWORKS 32 software running on Windows 98 systems requires the following minimum hardware and software configuration:

- An Intel® compatible system: 486 DX/66 MHz or higher processor.
- The minimum memory required for Windows 98 is 16 MB of RAM. See the Disk Space Requirements section for more information.
- Windows 98 software

Windows NT 4.0 System Requirements

PATHWORKS 32 software running on Windows NT 4.0 systems requires the following minimum hardware and software configuration:

- Alpha or Intel multiprocessor or single processor systems referenced in Microsoft's Hardware Compatibility List (HCL) for Windows NT 4.0
- Windows NT 4.0 operating system, with NetBEUI installed
- Minimum Microsoft operating system hardware requirements, with additional memory and disk resources for PATHWORKS 32. See the Disk Space Requirements section for more information.

PATHWORKS 32 Print Services System Requirements

To install PATHWORKS 32 Print Services, one or more of the following operating systems are required for the client component:

- OpenVMS Alpha operating system V7.0 or V7.1
Supported transports: DECnet, DECnet-Plus (formerly named DECnet/OSI), or DIGITAL TCP/IP Services for OpenVMS (UCX)
- OpenVMS VAX™ operating system V7.0 or V7.1
Supported transports: DECnet, DECnet-Plus (formerly named DECnet/OSI), or DIGITAL TCP/IP Services for OpenVMS (UCX)
- DIGITAL UNIX operating system V3.2 or V4.0
Supported transports: DECnet or TCP/IP

DECnet Over TCP/IP Requirements

- OpenVMS Alpha operating system V7.0 or V7.1
DECnet-Plus V7.0 or V7.1
- OpenVMS VAX operating system V7.0 or V7.1
DECnet-Plus V7.0 or V7.1
- DIGITAL UNIX operating system V3.2 or V4.0
DECnet/OSI V3.2 or DECnet-Plus V4.0

PATHWORKS 32 Disk Space Requirements

PATHWORKS 32 software is stored on the PC's local storage device.

A CD-ROM reader or DIGITAL InfoServer is required on at least one system in the network to load the software. Installation can be performed from the local drive or from the server system.

The minimum disk space required for the installation of PATHWORKS 32 software is as follows:

Network Connectivity components (Typical Install)	6 MB ¹
eXcursion (Express Installation)	20 MB ²
PowerTerm 525	8 MB

¹Disk space requirements for individual PCs vary, depending on the configuration. Local language variants require approximately 350 KB per language.

²This number is for the installation of eXcursion and its default fonts. More disk space is required to install additional fonts.

PATHWORKS 32 Network Connections Support

PATHWORKS 32 software supports any of the following connections:

Table 1 LAN Connections

Datalink	Transport
Ethernet	DECnet, LAT, LAST ¹
Token Ring	DECnet
FDDI	DECnet, LAT, LAST ¹

¹LAST is supported for InfoServer on Windows NT 4.0 only.

Table 2 WAN Connections

Physical Link	Datalink	Transport
Asynchronous serial link	DDCMP	DECnet

Network Adapter Card Support

PATHWORKS 32 software was written to adhere to the following standards:

- Windows 95 — NDIS V3.1
- Windows 98 — NDIS V3.1
- Windows NT 4.0 — NDIS V3.0

Every effort has been made to ensure that the software adheres to the interfaces documented in these standards; however, because individual vendors' interpretations of these specifications can vary, some applications might not function in the PATHWORKS 32 network environment.

PATHWORKS 32 software requires a Windows 95, Windows 98, or Windows NT 4.0 supported Ethernet, Token Ring, or FDDI adapter and driver.

FDDI drivers must be configured to emulate Ethernet. The FDDI MaxFrameSize parameter must be set to a value of 1498 or less.

Asynchronous Connection Requirements

Connection to the Public Switched Telephone Network (PSTN) requires a modem supported by the base operating system. PTT (Postal, Telephone, and Telegraph) certification is required in most countries.

ORDERING INFORMATION

Software Licensing

You must have a PATHWORKS 32 system license for each PC using any portion of the PATHWORKS 32 software package. You can get these licenses in one of the following ways:

- For new users who do not need a license to access PATHWORKS servers, order *DIGITAL PATHWORKS 32 System* license(s) as follows:
 - QM-5LKAA-AB — 1 license
 - QM-5LKAA-AC — 10 licenses (1 PAK)
 - QM-5LKAA-AD — 25 licenses (1 PAK)
 - QM-5LKAA-AE — 50 licenses (1 PAK)
 - QM-5LKAA-AF — 100 licenses (1 PAK)
 - QM-5LKAA-AG — 250 licenses (1 PAK)
 - QM-5LKAA-AH — 500 licenses (1 PAK)
 - QM-5LKAA-AJ — 1000 licenses (1 PAK)
- For new users who also need PATHWORKS *Client Access* license(s) to access PATHWORKS V5.0 for OpenVMS (LAN Manager) and/or PATHWORKS V6.0 for OpenVMS (Advanced Server) servers, order one of the *DIGITAL Enterprise Integration Client for Microsoft Windows* license package(s). Each package includes one or more of the following licenses:
 - DIGITAL PATHWORKS 32 V7.1 System license (QM-5LKAA-A*)
 - DIGITAL PATHWORKS V6.0 for OpenVMS (Advanced Server) Client Access license (QM-5SUAA-A*)
 - DIGITAL Office Server Client Access license (QM-5TD9A-A*)

To order these packages, use the following part numbers:

- QP-5LWAA-AB — 1 license package
- QP-5LWAA-AC — 10 license packages

QP-5LWAA-AD — 25 license packages
QP-5LWAA-AE — 50 license packages
QP-5LWAA-AF — 100 license packages
QP-5LWAA-AG — 250 license packages
QP-5LWAA-AH — 500 license packages
QP-5LWAA-AJ — 1000 license packages

- If you have proof-of-license for any prior version of PATHWORKS 32 or for any version of any one of the following licenses, you can purchase an *Upgrade* license to DIGITAL PATHWORKS 32 V7.1:
 - PATHWORKS for DOS and Windows (LAN Manager) CCS
 - PATHWORKS for DOS and Windows (NetWare) CCS
 - PATHWORKS for DOS and Windows CNS
 - PATHWORKS for Windows NT (LAN Manager) CCS
 - PATHWORKS for Windows NT CNS
 - PATHWORKS for OS/2® (LAN Manager) CCS
 - PATHWORKS for OS/2 (NetWare) CCS
 - PATHWORKS for OS/2 CNS
 - eXcursion

To order an *Upgrade* license to PATHWORKS 32 V7.1, use the following part numbers:

QM-5LKAA-CA — 1 license, multiple licenses per PAK
QM-5LKAA-CB — 1 license, 1 license per PAK
QM-5LKAA-CC — 10 licenses (1 PAK)
QM-5LKAA-CD — 25 licenses (1 PAK)
QM-5LKAA-CE — 50 licenses (1 PAK)
QM-5LKAA-CF — 100 licenses (1 PAK)
QM-5LKAA-CG — 250 licenses (1 PAK)
QM-5LKAA-CH — 500 licenses (1 PAK)
QM-5LKAA-CJ — 1000 licenses (1 PAK)

Note

If you currently own a PATHWORKS CCS license, your new PATHWORKS 32 license applies only to the PATHWORKS 32 software. It does not provide you with rights to use PATHWORKS servers, as your current CCS license does.

You can and should continue to use your current CCS license with your PATHWORKS 32 software to access your PATHWORKS V5.0 servers. You can also choose to license manage your new PATHWORKS 32 licenses; however, this is not required.

Software Media and Documentation Kits

- PATHWORKS 32 Media and Documentation Kit (QA-5LKAA-H8) includes:
 - CD-ROM
 - DIGITAL PATHWORKS 32 Cover Letter
 - DIGITAL PATHWORKS 32 Software Product Description
 - *DIGITAL PATHWORKS 32 User's Guide*
 - *DIGITAL PATHWORKS 32 Application Programming Interfaces*
 - *eXcursion User's Guide*
 - Quick Start cards for PATHWORKS 32, PowerTerm 525, and eXcursion
- PATHWORKS 32 Optional Documentation kit (QA-5LKAA-GZ — American English) includes:
 - *DIGITAL PATHWORKS 32 User's Guide*
 - *DIGITAL PATHWORKS 32 Application Programming Interfaces*
 - *eXcursion User's Guide*
 - Quick Start cards for PATHWORKS 32, PowerTerm 525, and eXcursion
- PATHWORKS 32 Translated Documentation:
 - The following kits contain translated versions of the *DIGITAL PATHWORKS 32 User's Guide* and Quick Start card, the *eXcursion User's Guide* and Quick Start card, and the PowerTerm 525 Quick Start card.
 - QA-5LKPA-GZ — French
 - QA-5LKGA-GZ — German
 - The following kit contains translated versions of the *DIGITAL PATHWORKS 32 User's Guide* and Quick Start card and the PowerTerm 525 Quick Start card.
 - QA-5PBVA-GZ — Czech

Note: The availability of these software product options and services can vary by country. Customers should contact their local DIGITAL office for information on availability.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from DIGITAL. For more information, contact your local DIGITAL office.

SOFTWARE WARRANTY

This software is provided by DIGITAL with a 90-day conformance warranty in accordance with the DIGITAL warranty terms applicable to the license purchase.

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