Software Product Description

PRODUCT NAME: **PATHWORKS Remote V5.1A** **SPD 45.68.05**
                              for DOS and Windows

DESCRIPTION

PATHWORKS Remote V5.1A for DOS and Windows™ software is one member of the PATHWORKS family of software products, that provides PC networking and Networking Operating Systems (NOS) integration, in local area networks (LANs) and wide area networks (WANs). PATHWORKS integrates the broadest set of PCs, servers, NOSs, and network transports and protocols and provides the foundation for client-server applications and corporate information exchanges. PATHWORKS provides a framework for integrating personal computers into an organisation´s total information system, so different types of users can share information, large system resources, and network services across the entire organisation.

This Software Product Description describes the features and hardware and software requirements of the PATHWORKS Remote V5.1A for DOS and Windows software.

PATHWORKS Remote V5.1A for DOS and Windows General Features

PATHWORKS Remote V5.1A for DOS and Windows connects remote and mobile users, teleworkers, and small remote office workers having DOS and Windows Desktop PCs or Notebook PCs, to the enterprise network through various available WANs.

PATHWORKS Remote V5.1A for DOS and Windows is an add-on product to the PATHWORKS V5.1 for DOS and Windows client software product.

Note

For more information on PATHWORKS V5.1 for DOS and Windows software refer to the Software Product Description SPD 55.07.xx.

Remote and Mobile computing

PATHWORKS with the remote functionality is a complete solution for users on a LAN as well as for remote and mobile users accessing the enterprise network through the WAN. It also address the ease of use for users who want to have one integrated solution for LAN and WAN connections. PATHWORKS Remote users will use the same environment to start the network, the same tools and applications on their PC, either in their enterprise office, at home, in a hotel room or when visiting a customer. Remote and mobile users with notebook PCs can

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access either the telephone network using a PCMCIA asynchronous modem or indirectly the PSDN network using a PCMCIA autosynchronous modem and the X.32 service offered in many countries. The X.32 service is an extension of the PSDN that allows access via normal dial-up telephone lines.

Teleworkers and Small Remote Offices

Isolated users or small remote site users can run client/server applications and benefit from PATHWORKS V5.1 for DOS and Windows functionality using this cost-effective and simple solution over different possible WAN links. They have the choice of four different WAN connections, through either the 64 kbit/s ISDN (Integrated Services Digital Networks), the PSDN (public or private X.25 Packet Switched Data Networks), the telephone network using 28.8 kbit/s modems, known as POTS (Plain Old Telephone Service) or PSTN (Public Switched Telephone Network), or dial-in access to the PSDN from the telephone network at 14.4 kbit/s (known as X.32 service).

INTERNET Access

PATHWORKS Remote fully supports the Internet access tools included in PATHWORKS V5.1 for DOS and Windows, using the PATHWORKS TCP/IP protocol stack and PATHWORKS Mosaic, to browse the World Wide Web. By adding support for PPP and SLIP over asynchronous modem and PPP over ISDN datalinks, the Internet network can be accessed now from home or also while on the road.

WAN Connectivity Solutions

PATHWORKS Remote offers the following WAN connectivity solutions:

Table 1   WAN Connectivity Solutions

Connection Type	Physical link	Datalink	Transport Protocol
Asynchronous	Phone dial-up	PPP	TCP/IP
	or direct connect	SLIP	TCP/IP
		DDCMP	DECnet
ISDN	ISDN line	PPP	TCP/IP, DECnet
		X.25	TCP/IP, DECnet
X.25	X.25 line	X.25	TCP/IP, DECnet
X.32	Phone dial-up	X.25	TCP/IP, DECnet

WAN Access capability for Remote Offices

PATHWORKS Remote V5.1A for DOS and Windows is expandable with the WAN Access capability to a multi-PC connectivity solution for small LANs with up to 5 PCs. It will connect your LAN located in the remote office to the enterprise network using one single ISDN link (running X.25 over ISDN), or single X.25, X.32 link. PATHWORKS WAN Access functionality for ISDN and X.25 is delivered in the PATHWORKS Remote V5.1A for DOS and Windows software.

PATHWORKS Applications

All PATHWORKS for DOS and Windows applications and services that can be accessed by a PATHWORKS V5.1 for DOS and Windows PC client using TCP/IP or DECnet phase IV (such as file and print services, terminal emulation, mail, etc...), which do not require broadcasting, are supported.

Installation and Configuration

PATHWORKS Remote V5.1A for DOS and Windows installation and configuration is performed from the PATHWORKS V5.1 for DOS and Windows installation and configuration utilities as additional options. The software includes the ISDN, X.25, X.32 drivers and necessary communication layers for the supported ISDN, X.25 PC cards, and X.32 PCMCIA or external pocket modems.

Connections Features and Connection Management

PATHWORKS Remote V5.1A for DOS and Windows contains a Windows-based Connection Manager application that stores the Asynchronous, ISDN, X.25 or X.32 connection information in a database. It provides the user a simple Windows user interface for managing, adding or reconfiguring connections, connecting and disconnecting.

PATHWORKS Remote V5.1A for DOS and Windows offers the choice of outgoing and incoming (ISDN, and X.25) calls which allow applications either on the central or on the isolated site to establish the connection. It supports also automatic disconnect feature (time cutting) to save on communication charges.

Asynchronous Connectivity

When selecting asynchronous connectivity, PATHWORKS Remote V5.1A for DOS and Windows enables a user to connect a single PATHWORKS PC client to the telephone network. It provides a TCP/IP or DECnet link to the enterprise network by running either:

- SLIP (TCP/IP using the Serial Line Internet Protocol)

- PPP (TCP/IP only, refer to the table below for supported RFC´s)

- DDCMP (DECnet using the Digital Data Communications Message Protocol, Version 4.1).

Table 2   PPP supported RFC

Description	RFC
PPP	1548
PPP in HDLC framing	1549
IPCP	1332
DECnet CP	1376

The PPP implementation supports the following configuration options:

- For LCP:

    - MRU size

    - Asynchronous control character map

    - Protocol field compression

    - Address and control field compression

- For IPCP:

    - IP Address negotiation

    - TCP/IP header compression (Van Jacobson, RFC 1144)

PATHWORKS Remote V5.1A for DOS and Windows supports compatible Hayes modems and additional modem types connected to the COM port. It also supports PCMCIA asynchronous modems using PCMCIA drivers that can be seen by the ˆMSD˜ Microsoft program.

Asynchronous network connections are supported through the system's asynchronous serial port. 9.6, 14.4 and 28.8 kb/s modem speeds are supported. Character lost may occur during the dialing, and access device login and configuration process, specially with the 8250 comunication port UART which may require redialing. After being connected recoverable data errors may occur at high line speeds.

Asynchronous Access Device Support

The PATHWORKS Remote PC connected to the telephone network via an asynchronous modem can access the enterprise network through one of the following solution:

- a DECserver running SLIP or PPP

- a DECnet node running DDCMP, configured as DECnet router

- an asynchronous access device which conforms to the same standards

ISDN Connectivity

When selecting ISDN connectivity, PATHWORKS Remote enables a user to connect a single PATHWORKS PC client to the ISDN Basic Rate Access and provides a TCP/IP or DECnet link by running either PPP or X.25 over one B-channel.

The PATHWORKS Remote PC connected to the ISDN network (Basic Rate Access — one B-channel) conforms to CCITT recommendations I430, I440, I450, I451. The PC behaves as a TE (Terminal Equipment) on the S-ISDN interface.

PATHWORKS Remote ISDN feature, when using the X.25 protocol conforms to the CCITT recommendations X.25 (1984)) and acts from an X.25 standpoint as Data Terminal Equipment (DTE) (default) or as Data Circuit-terminating Equipment (DCE).
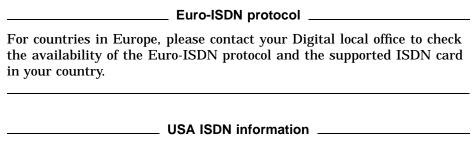
ISDN Profiles

PATHWORKS Remote V5.1A for DOS and Windows offers 5 different ISDN profiles selectable during the installation, which cover most of the ISDN equipped countries. The following table lists the ISDN network information that are supported :

Table 3   ISDN Countries and Profiles

Country	Service Provider	Service Name	PC Profile
United States	ATT	switch 5ESS (5E6,5E8,5E9.1)	ATT
United States	Northern Telecom	switch DMS-100 (BCS34,BCS35)	Northern Telecom
United States	any switch	National ISDN1 (NI-1)	
European Countries		EuroISDN	EuroISDN
United Kingdom	British Telecom	ISDN-2	UK-ISDN2
France	France Telecom	Numeris	France-VN3

_____ **Euro-ISDN protocol** _____

For countries in Europe, please contact your Digital local office to check the availability of the Euro-ISDN protocol and the supported ISDN card in your country.

_____ **USA ISDN information** _____

PATHWORKS Remote V5.1A uses an ISA bus card which supports the ISDN S/T interface with a standard 8-wire RJ45 cable. Either the telephone company or the customer must supply the NT-1 terminator with power supply. The ISDN line may be ordered with only 1 B-channel. The line should be configured for switched-data, no special services, no keyed phone. Do not order X.25 services, even though you will be using PATHWORKS over ISDN with the X.25 datalink protocol.

PPP Datalink over ISDN

ISDN connection, when PPP is selected, supports all options as specified in the PPP supported RFC's table.

X.25 Datalink over ISDN

ISDN connection, when X25 is selected, offers several X.25 network profiles selectable during the installation. The table below lists the X.25 profiles over ISDN that are supplied :

Country	X.25 Network
ISDN to ISDN link	ISO8208
France	TRANSPAC
Germany	DATEXP
Netherlands	DATANET
Switzerland	TELEPAC
United Kingdom	PPS
United States	Telenet®

The following CCITT X.25 facilities are supported:

Description	Paragraph No. in CCITT X.25 (1984)
Non-standard packet size	6.9
Non-standard default window size	6.10
Flow control parameter negotiation	6.12
Reverse charging	6.18

Transport Protocol Support

PATHWORKS Remote software supports the TCP/IP protocol either over PPP (RFC 1332) or over X.25 (RFC 877). The remote PC connected to ISDN must be in the same IP subnet as the WAN interface of the IP router.

PATHWORKS Remote software supports the DECnet Phase IV protocol through either over PPP (RFC 1376) or over Data Link Mapping (DLM) using X.25 following the Digital standard implementation. The remote PC connected to ISDN must be in the same DECnet network area as the DECnet router.

Time Cutting

PATHWORKS Remote offers a time cutting function over ISDN which allows the PC to disconnect the B-channel after a given period of inactivity. The PC is automatically reconnected to the server when it generates outgoing traffic.

ISDN Router Support

The PATHWORKS Remote PC directly connected to the ISDN network can access the enterprise network through one of the following router solution, conforming to the same PPP or X.25 standards, as described in section Transport Protocol Support:

- an ISDN router running either PPP or X.25 over one B-channel

- a PPP or X.25 router connected to the ISDN through a Terminal Adapter

- an X.25 router connected to the PSDN where the ISDN service provider is offering a gateway between the ISDN and X.25 networks

X.25 Connectivity

PATHWORKS Remote V5.1A for DOS and Windows connects a PATHWORKS V5.1 for DOS and Windows PC to the X.25 PSDN network conforming to CCITT recommendation X.25 (1984 & 1988) using the LAPB or LAPBE variants of the data link level and X.25 packet level protocols.

Transport Protocol Support

PATHWORKS Remote V5.1A for DOS and Windows software supports TCP/IP or DECnet Phase IV or both simultaneously as WAN transport protocols.

X.25 Profiles

PATHWORKS Remote V5.1A for DOS and Windows offers more than 90 different PSDN profiles selectable during the installation. For additional PSDN or private networks, it offers the possibility to configure your personal profile. Refer to the *X.25 NETWORK PROTOCOLS SUPPORTED* section for details on supported X.25 networks and available configurations.

PATHWORKS Remote V5.1A for DOS and Windows configures the PC as a Data Terminal Equipment (DTE). It supports one switched virtual channel (SVC) per transport protocol (TCP/IP or DECnet), and TCP/IP and DECnet transport protocols can run simultaneously.

All CCITT X.25 facilities, through an non-restrictive hexadecimal field, are supported (as such the Network User Identifier - NUI - is supported), and through a more advanced setting for the following parameters :

Description	Para. No. in CCITT X.25 (1984)
Extended packet sequence numbering	6.2
Non-standard packet size	6.9
Non-standard default window size	6.10
Flow control parameter negotiation	6.12
Reverse charging	6.18

X.25 Router Support

TCP/IP and DECnet phase IV applications and services available on the enterprise network can be reached through any X.25 routers and software providing TCP/IP (RFC 877) or DECnet Phase IV (DLM) routing capability. The following list is an non-exhaustive list of the X.25 routers and software that are supported, which reflects the routers that have been tested with PATHWORKS Remote V5.1A for DOS and Windows :

- DECnis 500/600 V2.2 with TCP/IP and DECnet phase IV

- DECwanrouter 90 with TCP/IP

- DECbrouter 90 V9.14 (3) with TCP/IP (not DECnet)

- DECwanrouter 250 V1.1 with TCP/IP

- DECwanrouter 500 V1.0 with DECnet phase IV

X.32 Connectivity

PATHWORKS Remote V5.1A for DOS and Windows provides also a reliable and cost-effective solution that connects mobile notebook or desktop PC users to the enterprise network via a standard telephone line using the X.32 service. Subscribing to this service, notebooks with a PCMCIA autosynchronous modem, or desktop PCs with a pocket modem or equiped with a supported X.25 card can access the X.25 network from the telephone network. This solution provides the benefits of the X.25 network but adds the dimension of mobility. X.32 services are available in more than 13 countries in Europe and in some other countries.

PATHWORKS Remote V5.1A for DOS and Windows integrates the necessary X.25 protocol with the appropriate drivers to run with one of the supported "autosync" X.32 modems. Its X.32 implementation meets CCITT X.25 1980 recommendations and supports V32 bis/V32 connections.

It runs either with one PCMCIA synchronous modem (autosync), compatible with PCMCIA 2.0, or with an external autosynchronous modem connected to the COM port of the PC, or with a supported X.25 card connected to a synchronous modem. These modems are available as reference sell third-party products from Digital or from PC distribution channels. Refer to the Hardware Requirements section of this document for more information.

PATHWORKS WAN Access Support

When using PATHWORKS Remote V5.1A for DOS and Windows only the WAN connection is accessible. When a local area network connection is required in addition, PATHWORKS Remote V5.1 for DOS and Windows provides the PATHWORKS WAN Access capability, for ISDN (running X.25), for X.25 and X.32 connectivity.

PATHWORKS WAN Access functionality provides simultaneous support of an ISDN, X.25 or X.32 device and a LAN card (either Ethernet or Token Ring) and allows to connect up to 5 PATHWORKS PCs at a remote location over a single ISDN, X.25 or X.32 connection.

Support of PATHWORKS Applications and Services

With PATHWORKS Remote, users can connect a remote PC over the WAN link to any PATHWORKS server (OpenVMS, OSF/1, OS/2, SCO UNIX and Windows NT) or any LAN Manager based file and print services that are accessible using TCP/IP or DECnet.

The PATHWORKS Remote V5.1A for DOS and Windows PC is capable of running the PATHWORKS V5.1 for DOS and Windows client applications and services over the WAN link that use TCP/IP or DECnet Phase IV as the transport protocol (with some restrictions, e.g. the WAN link does not support broadcast messages).

The applications or services listed below are provided:

- File and Print Services (LAN Manager)

- File Transfer

- Terminal Emulation

- INTERNET Access

- Programming Support

- Multilinguality

PATHWORKS Remote V5.1A for DOS and Windows provides the remote PC with the following services and applications over the TCP/IP and, or DECnet protocols.

File and Print Services

PATHWORKS Remote V5.1A for DOS and Windows supports all PATHWORKS V5.1 for DOS and Windows client file and print services available over TCP/IP or DECnet transport protocols. This allows users to connect, use files, and disconnect from PATHWORKS servers. Files can be printed on locally or remotely networked printers. LAN Manager Version 2.2B client file and print software is included in the PATHWORKS V5.1 for DOS and Windows capability, and is supported over the WAN link with the following limitations.

NetBIOS naming and datagram service are not supported over the WAN link.

The NetBEUI transport is not supported over the WAN link.

File Transfer

PATHWORKS Remote V5.1A for DOS and Windows supports the PATHWORKS file transfer utilities NFT, FAL, FTP, TFTP.

Terminal Emulation

PATHWORKS Remote V5.1A for DOS and Windows supports the two PATHWORKS terminal emulators VT320 and SETHOST over CTERM (DECnet) or Telnet (TCP/IP) sessions.

INTERNET Access

The PATHWORKS Windows application, called PATHWORKS Mosaic, is supported over all PATHWORKS Remote WAN links configured with TCP/IP.

Programming Support

Application Programming Interfaces (APIs) are supported with the restriction that only TCP/IP and DECnet phase IV may be used as the transport protocol. The sending of broadcast and multicast messages over the WAN link is not supported.

Multilinguality

PATHWORKS Remote V5.1A for DOS and Windows is only available in English, but supports local language versions of PATHWORKS V5.1 for DOS and Windows applications and utilities.

Other Supported Applications and Services

The following applications and services are fully supported:

- Print Screen Services

- Network File Transfer (NFT or FTP)

- Network Management (NCP or TNCP)

- File Access Listener (FAL)

- Mail Services

- Date and Time Services

- PC DECwindows Motif®

- SEDT Screen Editor

For more details of these fully supported services and applications, please refer to the PATHWORKS V5.1 for DOS and Windows Software Product Description (SPD 55.07.xx).

Restricted Support for:

- NETBIOS Interface support

- Memory Saving Techniques

- Enhanced DOS Utilities

These restricted services are described in more detail below.

NetBIOS Interface Support

Same support as PATHWORKS V5.1 for DOS and Windows, with the exception that NetBIOS naming and datagram services are not supported, as they cannot be forwarded through routers.

Memory Savings Techniques

Same support as PATHWORKS V5.1 for DOS and Windows with the following restrictions:

− Available conventional memory is affected by the fact that ISDN, X.25, X.32 or asynchronous devices and their respective communication protocols are used.

− It is recommended that the network protocol stack is loaded in EMS memory to ensure enough conventional memory is available to run Windows.

Not Supported

The following applications and services are not supported over the WAN link:

• Info Server Services (CD-ROM Services)

• Broadcast/Multicast Services

• Remote Boot Capability, Maintenance Operations Protocol (MOP)

• LAT (Local Area Transport), LAST (Local Area Systems Transport), LAD (Local Area Disks)

• NetBEUI, IPX, UDP

INSTALLATION

Digital recommends the customer's first purchase of this software product include the PATHWORKS for DOS and Windows DECstart installation and orientation service. For more information, please contact your local Digital office.

PATHWORKS Remote V5.1A for DOS and Windows installation and configuration is simple and straightforward. It is fully integrated into the PATHWORKS V5.1 for DOS and Windows client respective utilities. This allows the user to take advantage of preconfigured options (e.g. from existing PATHWORKS servers) that minimise the installation tasks.

To install and configure PATHWORKS Remote V5.1A for DOS and Windows you must have PATHWORKS V5.1 for DOS and Windows client software already installed on a server and connect to it through either a LAN connection (recommended choice), or have it installed locally on your PC, or have an already existing WAN connection to it. Software that creates an initial connection in LAN Manager X.25 network is provided on 3.5 inch high-density disks. No initial connection floppy disquette is provided for Asynchronous and ISDN connectivity.

This installation procedure will install:

• PATHWORKS V5.1 environment with either or both TCP/IP and DECnet as transport protocols

• Asynchronous, ISDN, X.25 or X.32 required drivers, tools, and WAN profiles

• Specific PATHWORKS Remote V5.1A software

• Tools that can check the hardware, software, and the WAN connection state.

SOFTWARE REQUIREMENTS

PATHWORKS V5.1 for DOS and Windows Software Requirements

PATHWORKS Remote V5.1A for DOS and Windows is an add-on product to the PATHWORKS V5.1 for DOS and Windows client software. Therefore all PATHWORKS V5.1 for DOS and Windows software requirements apply. Refer to the PATHWORKS V5.1 for DOS and Windows SPD 55.07.xx for additional information.

To install the PATHWORKS Remote V5.1 for DOS and Windows software you need to have already installed the PATHWORKS V5.1 for DOS and Windows Client software, either as a network file service, or locally on your PC disk.

Operating System and Microsoft Windows Support

PATHWORKS Remote V5.1A for DOS and Windows software supports the following PC operating systems:

- DOS V5.0 and higher

- Microsoft Windows V3.1 or V3.11. When using Windows for Workgroups the Windows network support must be turned off.

HARDWARE REQUIREMENTS

Workstation Requirements

Systems, components, and peripherals as specified below are supported except as noted for specific software components.

PATHWORKS Remote V5.1A for DOS and Windows requires:

- An 386-class PC or higher. Refer to the PC interoperability Guide for specific models and configurations that have been tested.

- The personal computer base system must have:

  - A minimum of 640 KB of conventional memory, and 3 MB additional memory

  - At least 2 MB of free hard disk to configure PATHWORKS V5.1 for DOS and Windows and PATHWORKS Remote V5.1A for DOS and Windows on the PC.

PATHWORKS Remote V5.1A for DOS and Windows add-on software supports Intel 80386-, 80486-, and Pentium®-based personal computers listed in the PC Interoperability Guide (avalaible through DSNlink, Compuserve (DECPCI), or your local Dogital representative.

At least one PC with a high-density floppy drive is required if no prior network connection has been established. Software that creates an initial connection in LAN Manager X.25 network is provided on 3.5 inch high-density disks.

Each system is supported in a native hardware configuration with its native operating system; that is, supported configurations are those in which the hardware components and operating system software are supplied by the base system vendor. If a customer problem with PATHWORKS Remote V5.1A for DOS and Windows software can be reproduced by the customer on one of these supported configurations, Digital will work the problem to resolution on these supported configurations.

If the customer problem cannot be reproduced by the customer on one of these supported configurations, it will be the responsibility of the customer to resolve the issue.

Asynchronous Connectivity Requirements

For desktop PC and notebook PC connected to the telephone network and running asynchronous communication, PATHWORKS Remote V5.1A for DOS and Windows requires:

- any Hayes compatible modem, certified in your country.

- a null modem cable (direct connection to the access device)

If the PC is connected directly to an asynchronous access device without going through any telephone network, PATHWORKS Remote V5.1A for DOS and Windows requires a null modem cable instead of modems.

ISDN Connectivity Requirements

For desktop PC connected to ISDN the following ISDN board needs to be installed in the PC:

- DT-A0114-AC (ex P/N DI205-AC) ISDN PCS0 Controller card - ISA bus - 56k-64kBps / Basic Rate Access interface

X.25 Connectivity Requirements

PATHWORKS Remote V5.1A for DOS and Windows supports the X.25 ISA and MCA bus cards from EICON Technology Corporation listed below:

For desktop PC connected to the PSDN select:

- one of the following X.25 PC boards to be installed in the PC:

    - DT-A0108-AA (ex P/N DS206-AA): EiconCard/PC / ISA bus / 68008 CPU / 1 MB memory / up to 19.2 Kbauds / V24 interface

    - DT-A0108-AC (ex P/N DS206-CA): EiconCard DPNA/PC - 2 port HSI / ISA bus /68000 CPU / 2 MB memory / up to 128 Kbauds / V24/V35/X.21 interface

    - DT-A0108-AD (ex P/N DS216-AA): EiconCard/MC / MCA bus /68008 CPU / 1 MB memory / up to 19.2 Kbauds / V24 interface

    - DT-A0108-AE (ex P/N DS216-BA): EiconCard HSI/MC / MCA bus / 68000 CPU / 1 MB memory / up to 384 Kbauds / V24/X35/V21 interface

- A Modem Cable:

  - For the DT-A0108-AA or DT-A0108-AD :

    - BC09U-10: V24\RS232-C Modem Cable

  - For the DT-A0108-AC or DT-A0108-AE :

    - BC09V-10: V24\EICON HSI V24 Modem Cable

    - BC09W-10: V35\EICON HSI V35 Modem Cable

    - BC09X-10: X.21\EICON HSI X.21 Modem Cable

- A synchronous modem for X.25 direct connection.

  For connecting to a PSDN in most countries, the modem has to be PTT approved.

X.32 Connectivity Requirements

When the PC is connected indirectly to the X.25 network, through the PSTN it requires one of the following connection solutions :

- X.32 connection through the PCMCIA or COM ports using an autosync modem :

  The autosync modems are available from Attachmate or from Newlink (c/o Quaternaire Informatique - France) an affiliate company to Attachmate. 2 different modem formats are available:

  - A PCMCIA 2.0 "autosync" V32 bis modem card (model: TOP32)

  - An external "autosync" modem connected to the PC COM port (models: Microspeedy (V32 bis) or Pocket 32 (V32) , certified only in some countries)

- X.32 connection using an X.25 card connected to a synchronous modem.

  PATHWORKS X.32 connectivity also works using one of the above X.25 EICON cards connected to a synchronous PTT certified modem.

Please contact you local Digital representative for more information.

OPTIONAL HARDWARE

Refer to PATHWORKS V5.1 for DOS and Windows Software Product Description (SPD 55.07.xx) for the following optional hardware components that are also supported by PATHWORKS Remote V5.1A for DOS and Windows:

- Expanded Memory Specification

- Digital Printer

- Digital Keyboard

- Video Adapters

DOCUMENTATION

Since PATHWORKS Remote V5.1A for DOS and Windows is an add-on to PATHWORKS V5.1 for DOS and Windows, the documentation for PATHWORKS V5.1 for DOS and windows is also needed in conjunction with its distribution kit. Installation and configuration procedure is covered by the PATHWORKS V5.1 for DOS and Windows installation and configuration Guide.

PATHWORKS Remote and Mobile User Guide is essential for proper use of this product. It provides end-users with additional instructions for running PATHWORKS Remote V5.1A for DOS and Windows, as well as configuring additional connections and their associated WAN parameters. It also provides the system manager with the instructions for creating new WAN profiles, configuration (hardware and software), troubleshooting, and other advanced user functions.

ORDERING INFORMATION

Software Licensing

The right to use PATHWORKS Remote V5.1A for DOS and Windows is granted by the PATHWORKS V5.1 for DOS and Windows client licenses.

Refer to DIGITAL LICENSE AGREEMENTS for PATHWORKS Programs section of this SPD for a description of the terms associated with the license types.

A license must be obtained in advance for each system on which this software is installed.

Software Media and Documentation Kits

*   Media and Documentation Kit:

     *   QA-0H8AA-HC (PATHWORKS Remote V5.1A DOS and Windows (floppy kit: high density, 3.5 inch diskettes))

*   Additional Documentation Kit:

     *   QA-0H8AA-GZ (PATHWORKS Remote Documentation)

PATHWORKS V5.1 for DOS and Windows Software Media and Documentation Kits (Refer to the SPD 55.07.xx for full information), order:

*   QA-0TLAA-HC (Floppy kit: high density, 3.5 inch diskettes))

*   QA-0TLAA-H8 (CD-ROM)

Hardware Components

For ISDN, X.25 PC cards or X.32 devices refer to the HARDWARE REQUIREMENTS section.

––––––––––––––––––––––––––––– **Note** –––––––––––––––––––––––––––––

The availability of these software products, options and services may vary by country. Customers should contact their local Digital office for information on availability.

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SOFTWARE PRODUCT SERVICES

A variety of service options are available. For more information please contact your local Digital office.

SOFTWARE WARRANTY

Warranty of this software product is provided by Digital with the purchase of the license for the product as defined in the attached PATHWORKS License Terms, "LIMITED WARRANTY" section.

GROWTH CONSIDERATIONS

The minimum hardware and software requirements for any future version of this product may be different from the requirements for the current version.

The above information is valid at time of release. Please contact your local Digital office for the most up-to-date information.

X.25 NETWORK PROTOCOLS SUPPORTED

The following tables list the country-specific network information for the profiles that are supported by the PATHWORKS Remote V5.1A for DOS and Windows software.

Table 4   X.25 Countries and Profiles

Country	Network	P.S.I. Profile	PC Profile
	Ammnet	Ammnet	Ammnet
Argentina	Arpac	Arpac	Arpac
Australia	Austpac	Austpac	Austpac [1]
Austria	Datex-P	Datex-P_A	DatexP-A
Belgium	DCS	DCS	DCS
Brazil	Renpac	Renpac	Renpac
Chile	Vtrnet	Vtrnet	Vtrnet
China	Cnpac	Cnpac	Cnpac
Canada	Datapac	Datapac	Datapac
	Infoswitch	Infoswitch	Infoswit
	PN_NAS	PN_NAS	PN_NAS
	FASPAC	FASPAC	FASPAC
Denmark	Datapak	Datapak_DK	DatapakD
	DATANET	Datanet	Datanet
	Datapak	Datapak	Datapak
	DATAPAK_II	DATAPAK_II	DATAPAK_II
	DATAPAK_N	DATAPAK_N	DATAPAK_N
	DCS	DCS	DCS
Eire	EIRPAC	EIRPAC	EIRPAC
	EIRPAC84	EIRPAC84	EIRPAC84
	Postgem	Postgem	Postgem
Finland	Datapak	Datapak	DatapakF [1]
France	Transpac	Transpac	Transpac [1]
Germany	DATEX-P	DATEXP	DATEXP
	DATEXP_A	DATEXP_A	DATEXP_A

Table 4 (Cont.)   X.25 Countries and Profiles

Country	Network	P.S.I. Profile	PC Profile
Great Britain	Packet Switchstream	PSS	PSS
	MDNS	MDNS	MDNS
Hong Kong	Datapak	Datapak_HK	DatapakH
	Intelpak	Intelpak	Intelpak [2]
	GDN	GDN	GDN
	GDN_E	GDN_E	GDN_E
	INET	INET	INET
	INET_E	INET_E	INET_E
	INTELPAK	INTELPAK	INTELPAK
Indonesia	SKDP	SKDP	SKDP
	SKDP_E	SKDP_E	SKDP_E
International	FIPS	FIPS	FIPS
	ISO8208	ISO8208	ISO8208
	ISO8208_E	ISO8208_E	ISO8208E
	ISO8881	ISO8881	ISO8881
	ISO8881_E	ISO8881_E	ISO8881E
	NET2	NET2	NET2
	SNA_NPSI	SNA_NPSI	SNA-NPSI
Italy	Itapac	Itapac	Itapac
Japan	ACE_TELENET	ACE_TELENET	ACE_TELENET
	CCVAN	CCVAN	CCVAN
	DDX76	DDX76	DDX76
	DDX80	DDX80	DDX80
	DDX-P84	DDX84	DDX84
	FNET	FNET	FNET
	FNET_E	FNET_E	FNET_E
	INS_P	INS_P	INS_P
	JAISNET	JAISNET	JAISNET

Table 4 (Cont.)   X.25 Countries and Profiles

Country	Network	P.S.I. Profile	PC Profile
	TYMNET_J	TYMNET_J	TYMNET_J
	Venus-P	VenusP	VenusP
	VENUSLP	VENUSLP	VENUSLP
	VENUSLP_E	VENUSLP_E	VENUSLP_E
Luxembourg	Luxpac	Luxpac	Luxpac
Malaysia	Maypac	Maypac	Maypac [2]
Mexico	Telepac Mex.	Telepac_Mex	TelepacM
Netherlands	Datanet-1	Datanet	Datanet [1]
New Zealand	Pacnet_NZ	Pacnet_NZ	PacnetNZ [1]
Norway	Datapak	Datapak_N	DatapakN
Pakistan	PAKNET	PAKNET	PAKNET
Philippines	DATANET_PH	DATANET_PH	DATANET_PH
	DATANET_PH_E	DATANET_PH_E	DATANET_PH_E
Portugal	Telepac Port.	Telepac_P	TelepacP
Singapore	Telepac_SGP	Telepac_SGP	Telepac_sgp
South Korea	Dacomnet	Dacomnet	Dacomnet [1]
Spain	Iberpac	Iberpac	Iberpac [2]
Sweden	Datapak_II	Datapak_II	DatapakI [2]
Switzerland	Telepac	Telepac	Telepac
Taiwan	Pacnet	Pacnet	Pacnet [1]
Thailand	Samart	Samart	Samart
	Samart_E	Samart_E	Samart_E
	THAIPAK	THAIPAK	THAIPAK
	THAIPAK_E	THAIPAK_E	THAIPAK_E
Turkey	Turpak	Turpak	Turpak
United States	Accunet®	Accunet	Accunet
	Autonet®	Autonet	Autonet
	Bellatlantic	Bellatlantic	Bellatl

Table 4 (Cont.)   X.25 Countries and Profiles

Country	Network	P.S.I. Profile	PC Profile
	Bellatlantic extended sequence numbering	Bellatlantic_E	BellatlE
	CompuServe®	CompuServe	Compuser
	ConnNet	ConnNet	ConnNet
	Digipac	Digipac	Digipac
	FEDEXITC	FEDEXITC	FEDEXITC
	FEDEXITC_E	FEDEXITC_E	FEDEXITC_E
	GRAPHNET	GRAPHNET	GRAPHNET
	GRAPHNET_E	GRAPHNET_E	GRAPHNET_E
	IMPACS	IMPACS	IMPACS
	IMPACS_E	IMPACS_E	IMPACS_E
	Infonet	Infonet	Infonet
	Marknet	Marknet	Marknet [2]
	Marknet extended sequence numbering	Marknet_E	MarknetE [2]
	PPSnet	PPSnet	PPSnet
	Pulselink	Pulselink	Pulselin
	SINET	SINET	SINET
	TELENET	TELENET	TELENET
	TYMNET®	TYMNET	TYMNET
	TYMNET_E	TYMNET_E	TYMNET_E
	Worldnet	Worldnet	Worldnet [2]
	Wutconet	Wutconet	Wutconet
	WUTCONET_E	WUTCONET_E	WUTCONET_E

Notes

[1] These networks do not support the local DTE address in the call request

[2] These networks must have the local DTE address in the call request

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