eNetwork Personal Communications Version 4.3
for Windows® 95, Windows 98, and Windows NT® 4.0

IBM

CD-ROM Guide to Installation

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> **Note**
>
> Before using this information and the product it supports, read the information in "Appendix C. Notices" on page 55.

Contents

Chapter 1. About the Personal Communications CD-ROM

This CD-ROM contains eNetwork Personal Communications and companion products for the following operating systems:

- Windows® 95, Windows 98, and Windows NT® 4.0
- OS/2®
- Windows 3.x

The products available on this CD-ROM vary depending on the language and country. This book describes the products and support level versions of the products available on Personal Communications CD-ROMs for single-byte character set (SBCS) languages. The Personal Communications CD-ROMs for double-byte character set (DBCS) languages contain the same products and support, with the following exceptions:

- There are no corrective service updates available for any of the products.
- There are no printable documentation (PostScript) files.
- There are no CM Mouse utility programs.
- There is no viewable documentation for Personal Communications V4.2 for OS/2.

You can access the products and functions of this CD-ROM in two ways:

- Through the CD-ROM graphical user interface
- By following the instructions in this book

If you have a Web browser installed, you can link directly to the eNetwork Personal Communications Web site, **http://www.software.ibm.com/enetwork/pcomm**.

Using the CD-ROM Graphical User Interface

The Personal Communications CD-ROM contains utilities that allow you to perform the functions described in this book through graphical user interfaces. You can install products, print product documentation, explore the CD, and visit our website through these graphical user interfaces. The CD-ROM interface program enables you to select multiple products for installation and then ensures that they are installed in the proper order.

To invoke the CD-ROM interface program on Windows 95, Windows 98, and Windows NT systems:

Insert the CD-ROM into your CD-ROM drive. If Autorun is on, inserting the CD-ROM will automatically invoke the CD-ROM interface program.

Note: If Autorun is off, do the following:
1. Select **Run...** from either the File pulldown or the Taskbar.
2. Enter

   ```
   E:\setup
   ```

   in the Command Line box (where *E:* is your CD-ROM drive).

Figure 1 shows a panel from the CD-ROM interface program.
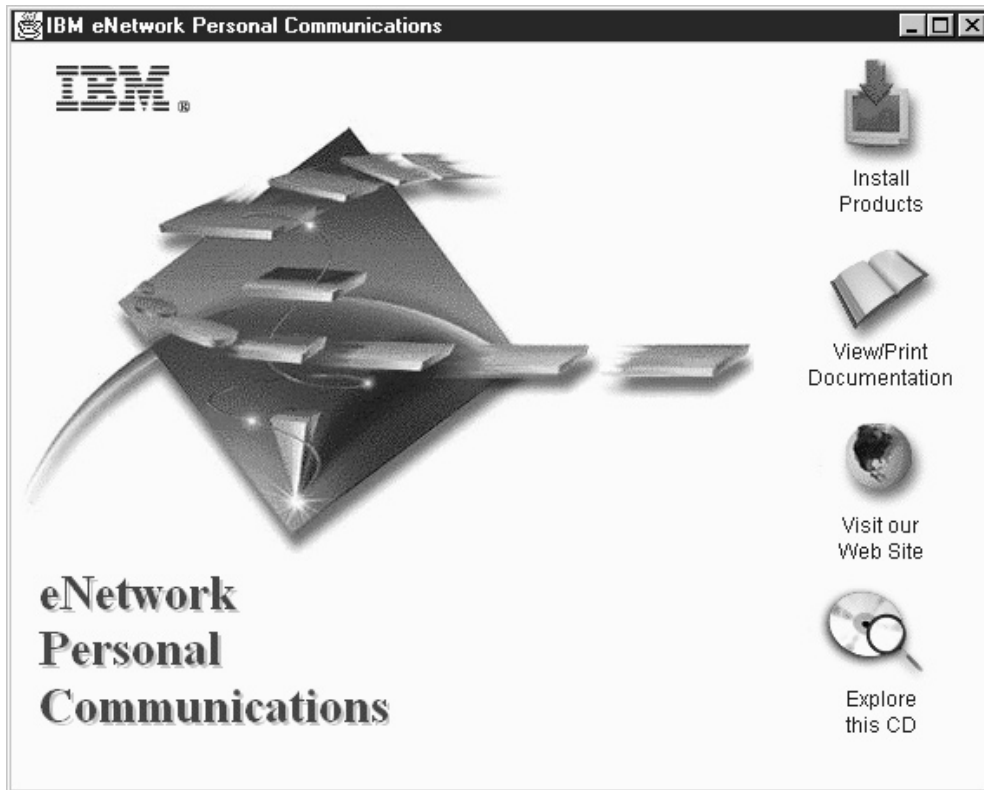
Figure 1. CD-ROM Interface Program for Installing Personal Communications for Windows 95, Windows 98, and Windows NT

On OS/2 systems
1. Insert the CD-ROM into your CD-ROM drive.
2. Enter

   ```
   E:\install
   ```

at the command prompt (where *E:* is your CD-ROM drive).

On Windows 3.x systems

1. Insert the CD-ROM into your CD-ROM drive.
2. Select **Run...** from the File pulldown.
3. Enter

   ```
   E:\setup
   ```

   in the Command Line box (where *E:* is your CD-ROM drive).

This interface is supported for SBCS languages on Windows 3.x, Windows 95, Windows 98, and Windows NT 4.0 systems. On OS/2, this interface is supported for all SBCS languages except Russian and Turkish. It is supported for DBCS languages on Windows 95, Windows 98, and Windows NT 4.0.

Using This Book

This book describes the four Personal Communications platforms and companion products.

Each platform section contains:
- The CD-ROM directory structure for the associated operating system
- Installation instructions
- PostScript file printing instructions (not for Windows 95, Windows 98, or Windows NT)
- Diskette creation instructions (not for Windows 95, Windows 98, or Windows NT)
- Documentation information

The main platform directories are:

\WIN32 (for Windows 95, Windows 98, and Windows NT 4.0 operating systems)

\OS2 (for the OS/2 operating system)

\WIN (for the Windows 3.x operating system)

See "Chapter 2. Personal Communications V4.3 for Windows 95, Windows 98, and Windows NT 4.0" on page 5 for more information on the Windows 95, Windows 98, and NT platforms.

See "Chapter 3. Personal Communications AS/400 and 3270 V4.2 for OS/2 Warp" on page 29 for more information on the OS/2 Warp platform.

See "Chapter 4. Personal Communications V4.1 for Windows" on page 37 for more information on the Windows platform.

The README.TXT and READOS2.TXT files in the CD-ROM root directory contain supplemental information.

Chapter 2. Personal Communications V4.3 for Windows 95, Windows 98, and Windows NT 4.0

This CD-ROM contains a graphical user interface that will allow you to perform all the functions described in this section. See "Using the CD-ROM Graphical User Interface" on page 1 for more information.

Personal Communications V4.3 for Windows 95, Windows 98, and Windows NT 4.0 provides 3270, 5250, and VT emulation and connections to S/390, AS/400, and ASCII systems.

Personal Communications brings the power of personal networking to your workstation by exploiting the networking capabilities of Windows 95, 98, or NT to provide a variety of connectivity options supporting LAN and WAN environments.

Personal Communications is a full-function emulator package with an easy-to-use graphical interface. It includes many useful features and utilities, including a new Communications Manager migration utility and Internet Service support. Personal Communications features a wide range of programming interfaces such as the industry standard EHLLAPI, WinHLLAPI and the new standard HACL. Personal Communications also provides support for data transfer and AS/400 Network Drives (Shared Folders).

Personal Communications supports many TCP/IP and SNA features, including remote dial-up mobile access, which allows you to access a variety of hosts from a wide range of network configurations.

Personal Communications also supports a variety of SNA-based client APIs. You can create applications that use the peer-to-peer client APIs, which are based on LU 6.2 and provided by Personal Communications. These APIs let you simultaneously access and process information on peer workstations.

For more information on the new features in Personal Communicatons V4.3, refer to *Quick Beginnings*.

Companion Products

The following companion products are included with Personal Communications V4.3 for Windows 95, Windows 98, and Windows NT 4.0.

Adobe Acrobat Reader

You can access documentation for Personal Communications directly from the CD-ROM with the Adobe Acrobat Reader program. Acrobat Reader allows you to view, navigate, and print the online books in the Personal Communications library. If you install the documentation, also install the Acrobat Reader.

See "Documentation" on page 26 for instructions on how to view the documentation using Acrobat Reader.

API Client for NetWare for SAA or IBM Communications Server for Windows NT

Install this API client for IBM Personal Communications to connect NetWare for SAA and IBM Communications Server for Windows NT gateways using API client connectivities. This client can be used to configure RUI/3270, APPC/3270, and APPC/5250 sessions through NetWare for SAA and IBM Personal Communications Server for Windows NT gateways.

Do not install this client if IBM Personal Communications SNA connectivity (IEEE 802.2 and SNA full stack) is to be used. IBM Personal Communications SNA full stack is not installed when API Client for NetWare for SAA and IBM Communications Server for Windows NT are to be installed.

Note: API client for Netware for SAA and IBM Communications Server for Windows NT is included on this CD. This client works for Windows 95, Windows 98, and for the Windows NT platform.

DB2 Connect for Personal Communications

IBM's DB2 Connect for Personal Communications enables applications on your workstation to directly access host databases stored on:
- DB2 for MVS/ESA
- DB2 for AS/400

DB2 Connect for Personal Communications provides access to those databases in a cost-effective way by implementing a standard architecture for managing distributed data, known as Distributed Relational Database Architecture (DRDA). Use of DRDA allows your applications to establish a fast connection to host and AS/400 databases without expensive host components or proprietary gateways. DB2 Connect for Personal Communications is a member of the DB2 family of products, which includes relational database systems, middleware, and application development tools.

Considerations Before Installing

If you plan to install the Communications Server, Client Access, API client for NetWare for SAA or IBM Communications Server for Windows NT, or Microsoft SNA clients, install them prior to installing Personal Communications. If you already have Personal Communications installed on your machine, and decide you want to install these products, you must first remove Personal Communications and then install these other products.

If you first install the Communications Server, Client Access, API client for NetWare for SAA or IBM Communications Server for Windows NT, or Microsoft SNA clients, and then choose to uninstall any of them, Personal Communications will not work. To get Personal Communications to work again, it must be uninstalled and reinstalled.

By default, installation uses the C drive of your computer. If you have 3 MB or less storage available for temporary files on your C drive, you can redirect the temporary files to another drive by changing the TMP environment variable in the AUTOEXEC file. For Windows NT, you set the `tmp` environment variable through the Control Panel System Object. For example:

Before: `SET TMP=C:\temp`

After: `SET TMP=D:\temp`

Before you begin installation, make sure all other applications are stopped. If any version of Personal Communications is already running, stop it before starting Setup.

For Windows NT: To install Personal Communications on your workstation you must be logged onto your workstation as a member of the Administrator group.

For Windows 95 and Windows 98: When using an IBM PC350, the install may terminate unexpectedly during file copying. This may be prevented by removing the `device=*vpowerd` statement from the 386Enh section of the **system.ini** file in your windows directory (add a ';' at the start of the line). This limitation may be removed by a future BIOS update.

National Language Support (NLS) Considerations

Personal Communications 4.3 provides special language font files for some languages (Arabic, Belorussian, Cyrillic languages, Estonian, Greek, Hebrew, Laotian, Latin-2 languages, Latvian, Lithuanian, Thai, Turkish, Ukrainian, and Vietnamese). To install one of these font files, choose **Language Choice** during **Custom Installation**. Arabic and Hebrew font files are installed automatically during Full Installation under Arabic and Hebrew operating systems.

DB2 Connect for Personal Communications

If ODBC support is required, select DB2 Connect for Personal Communications on the initial panel of the Installation Manager, or go to the \WIN32\INSTALL\DB2CONNECT subdirectory and run the DB2INST.EXE.

Microsoft SNA Client, API Client for NetWare for SAA or IBM Communications Server for Windows NT Installation Considerations

If you are going to use API client for NetWare for SAA, Communication Server, API client for IBM Communications Server for Windows NT, or a Microsoft SNA client, you have to install it before you install Personal Communications.

If you want to run Personal Communications as a client to a server machine and you want to use the Microsoft SNA Client, API client for NetWare for SAA, and API client for IBM Communications Server for Windows NT, or Communication Server, then Personal Communications must have been installed for use with each of these respectively on the server.

If a session using the Microsoft SNA LUA Client displays communication check 680 on the OIA line, closing or disconnecting the session will cause a hang.

Starting multiple emulator sessions that use different Microsoft SNA Client attachment types (FMI, LUA, APPC) simultaneously can provoke session hangs. Microsoft has stated this as a limitation of the Microsoft SNA Client.

The Microsoft SNA Server response time monitor (RTM) feature is not supported.

Considerations for Coexistence with NetWare for SAA

A LAN via NetWare for SAA connection requires the Microsoft or Novell IPX protocol and Windows Socket Version 1.11 (or later) support. For NetWare for SAA API client support, install the Novell Netware client for Windows NT and then install the API client NetWare for SAA from this CD.

For NetWare for SAA API client support, install the Novell Netware client for Windows NT and then install the NetWare for SAA client for Windows NT.

For Windows 95 and Windows 98, a LAN via NetWare for SAA connection requires the Microsoft or Novell IPX program.

For Windows 95 and Windows 98, install:
- Novell Netware client for Windows 95 and Windows 98

- NetWare for SAA client for Windows 95 and Windows 98

Server Installation Considerations

Personal Communications allows you to choose which set of SNA files to install to a server. The choices are:

- Personal Communications SNA
- API Client (includes NWSAA and Communication Server for Windows NT Client)
- Communications Server for NT
- Microsoft SNA Client

Check the **serverv.ini** file after installing to a server to verify which set of SNA files were selected during the server installation.

Note: Personal Communications SNA is the default.

Using a Workstation with Multiple Operating Systems

There are some special considerations if you want to use machines that share hard disk space among multiple operating systems. If you want to put Personal Communications into a Personal Communications subdirectory that was originally installed under another operating system, you must remove the previous version first. Failure to do this may cause unpredictable results, including not being able to run Personal Communications from either operating system.

Installing Personal Communications and Companion Products from Your CD-ROM

You can install the products located on the CD-ROM in one of two ways:

- By using the CD-ROM interface program. For general information about the CD-ROM interface program, read "Using the CD-ROM Graphical User Interface" on page 1.

- By manually installing the products from the appropriate directory on the CD-ROM. See "Manual Installation" on page 11 for manual installation instructions.

CD-ROM Interface Installation

To invoke the CD-ROM Interface program on Windows 95, Windows 98, and Windows NT systems:

Insert the CD-ROM into your CD-ROM drive. If Autorun is on, inserting the CD-ROM will automatically invoke the CD-ROM interface program.

Note: If Autorun is off, do the following:

- Select **Run...** from either the File pulldown or the Taskbar.
- Enter

   ```
   E:\setup
   ```

   in the Command Line box (where *E:* is your CD-ROM drive).

1. The CD-ROM interface program main panel is displayed. Click **Install Products** to continue. Figure 2 shows an example of the CD-ROM interface program.
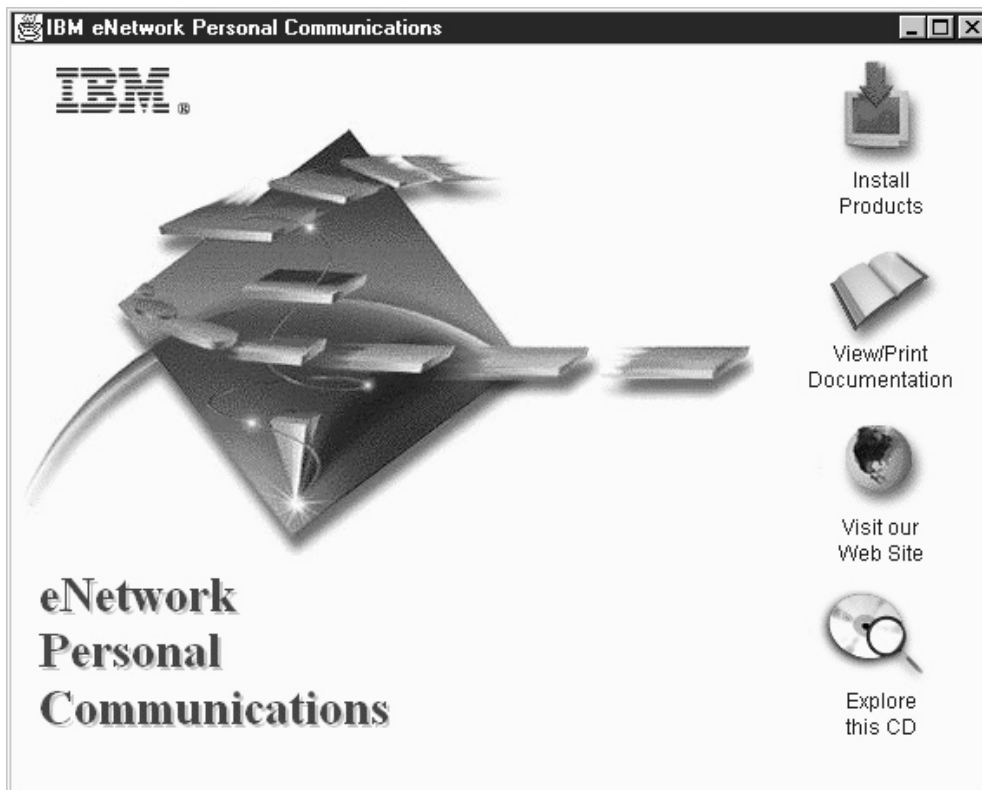
Figure 2. CD-ROM Interface Program for Installing Personal Communications for Windows 95, Windows 98, and Windows NT

2. The Personal Communications welcome window appears. Click **Next** to continue.

3. A panel listing the products you can install is displayed. Click **Details** for an overview of each product, then select the check boxes for the products you want to install. Click **Next** to continue.
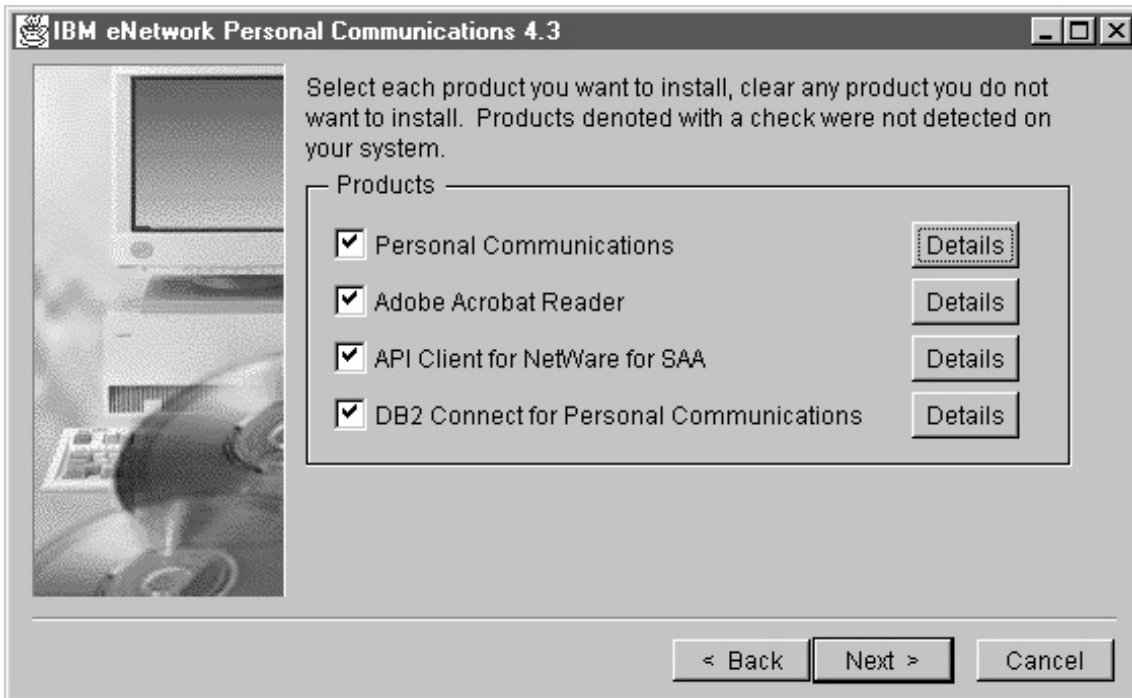
Figure 3. Selecting Products for Installation of Personal Communications for Windows 95, Windows 98, and Windows NT

4. Follow the installation instructions for each product selected. For details on the Personal Communications installation, see "Personal Communications Installation Details" on page 13.

Note: The API client for NetWare for SAA 2.0, API client for NetWare for SAA 2.2 or later, and the API client for IBM Communications Server for Windows NT are included on this CD.

Manual Installation

If you plan to manually install any of the products on the CD-ROM, install them in this order:
1. Adobe Acrobat Reader
2. API Client for Netware for SAA

> **Note:** when this selected, a menu is presented to select the appropriate server environment.

3. Personal Communications
4. DB2 Connect for Personal Communications

Adobe Acrobat Reader Installation

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. Select **Run...** from the File pulldown or Taskbar.
3. Type:

   ```
   E:\win32\install\acrobat\setup
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.
4. Follow the installation instructions in each window.

API Client for NetWare for SAA and IBM Communications Server for Windows NT Installation

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. Select **Run...** from the File pulldown or Taskbar.
3. Type:

   ```
   E:\win32\install\nwsaa\setup
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.
4. Follow the installation instructions in each window.

Personal Communications V4.3 for Windows 95, Windows 98, and Windows NT 4.0 Installation

To install Personal Communications V4.3

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. Select **Run...** from the File pulldown or Taskbar.
3. Type

   ```
   E:\win32\install\all\setup
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.
4. Follow the installation instructions in each window.

Personal Communications DB2 Connect Installation

To install DB2 Connect for Personal Communications:

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.

2. Select **Run...** from the File pulldown or Taskbar.
3. Type

   ```
   E:\win32\install\db2connect\db2inst
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click
   OK.
4. Follow the installation instructions in each window.

Personal Communications Installation Details

Personal Communications allows you many installation options:
- Install from CD-ROM or from a network server.
- Use the silent installation approach.
- Migrate from a different version (for example, Personal Communications for Windows 3.x).
- Upgrade from a previous version.
- Choose if you want to install:
    - 3270, 5250, VT or all of these emulations
    - IBM SNA protocols, which include the APPC and CPI-C programming interfaces, and the protocols that let you use SNA communications such as IEEE 802.2, SDLC, SNA-over-Async, and AnyNet SNA over TCP/IP
    - Publications
    - Various utilities
    - Printer-definition files and tables, which allow more control over printer output
    - Sample programs for many of the application programming interfaces (APIs)
    - Character-support for many languages

Note: If you have a different version of Personal Communications already installed, see "Migrating from Personal Communications for Windows 3.x" on page 20 for more information.

If you are reinstalling Personal Communications or are upgrading Personal Communications, make sure that Personal Communications is not running before you start setup.

Types of Installation

After starting the Personal Communications setup program you can choose a type of installation.
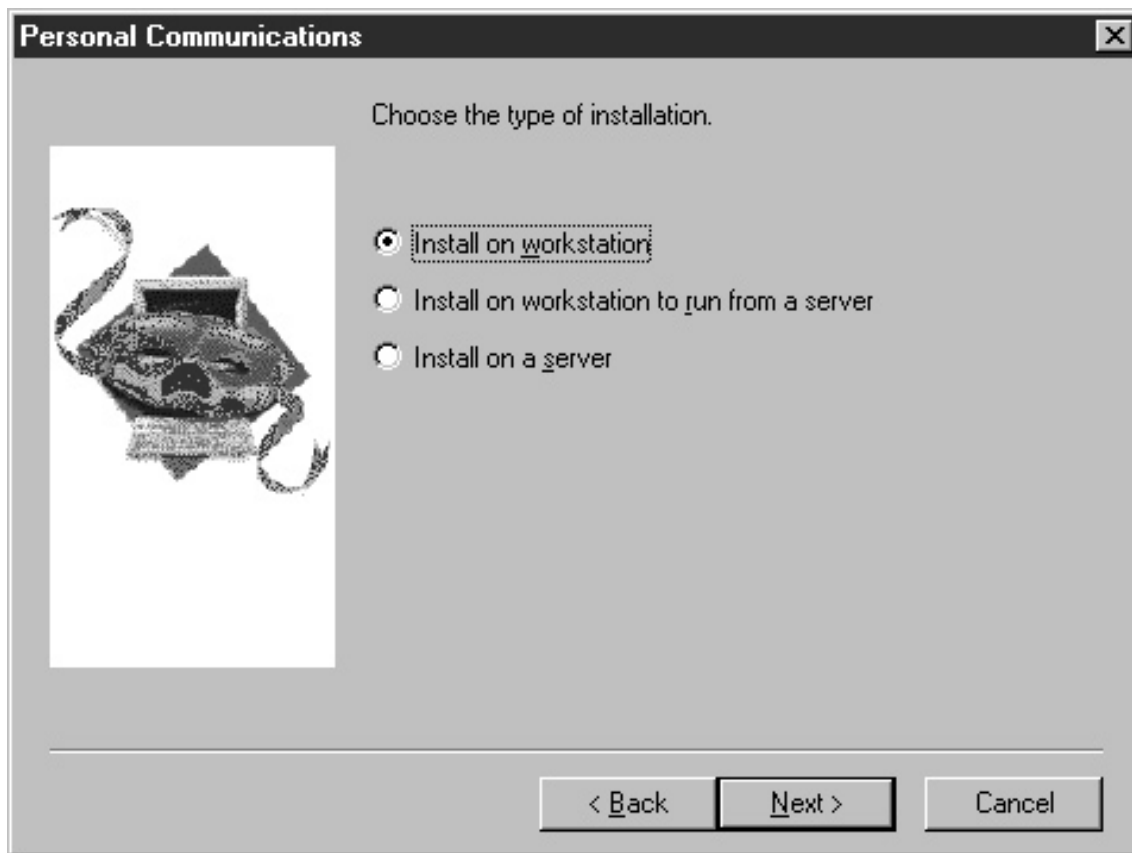
- **Install on workstation** installs Personal Communications on your local hard drive.
- **Install on workstation to run from a server** stores your workstation profiles and other private files on your workstation in the PRIVATE subdirectory, creating the Start Menu entries necessary to run Personal Communications. When you start Personal Communications, the program files are loaded from the server. Personal Communications must already be installed on the server.
- **Install on a server** allows the network administrator to copy most of the Personal Communications program files to a specific network drive. These files must be installed prior to selecting **Install on workstation to run from a server**.

Install on Workstation

To install Personal Communication so that it can be run from your
workstation, do as follows after the Personal Communications welcome
window appears:

1. If you have a different version of Personal Communications on your
   workstation, see "Migrating from Personal Communications for Windows
   3.x" on page 20 for more information about upgrading and migration.

2. Select **Install on workstation** and then click **Next**.

3. Select one or more components you would like to install and then click
   Next.

   - **3270 Emulation and Services** Your workstation can emulate a S/390
     terminal (display and/or printer). The emulator APIs (such as
     EHLAPPI, PSCAPI, DDE and SRPI) and utilities (such as Multiple
     Sessions, Menu Bar, CM Mouse and ZipPrint) are installed.

   - **5250 Emulation and Services** Your workstation can emulate an AS/400
     terminal (display and/or printer). The emulator APIs and utilities
     (Multiple Sessions, Menu Bar, CM Mouse, Data Transfer and Network
     Drives) are installed.

   - **VT Emulation** Your workstation can emulate an ASCII terminal. The
     emulator APIs are installed.

   - **IBM SNA Protocols** This component includes not only the APPC and
     CPI-C programming interfaces, but also the device drivers that let you
     use SNA communications; if you want to make any of the attachments
     listed below, you must install this component.

     - LAN via IEEE 802.2
     - APPC 3270
     - 3270 via AS/400 (3270 Passthru)
     - 3270 NWSAA or CommServer for Windows NT
     - Telnet3270
     - Microsoft SNA client over FMI
     - VT-over-Telnet (TCP/IP)
     - Telnet 5250 over TCP/IP
     - Telnet 5250 over IPX/SPX
     - SDLC
     - SNA over Async
     - IBM Global Network SNA-over-Async
     - Hayes AutoSync
     - AnyNet SNA over TCP/IP
     - Dependent Logical Unit Requester (DLUR)

- Twinaxial Data Link Control (APPC)
- Twinaxial Data Link Control (Console)
- 3174 Peer Communication (LAN overCoax)

4. Type the drive and directory where you want to install Personal Communications, or accept the default drive and directory, which is:

   `\PERSONAL COMMUNICATIONS`

5. Select a **Full, Custom,** or **Minimal** installation option and then click **Next**. To install font files for certain languages, choose a **Custom** installation. See the "National Language Support (NLS) Considerations" on page 7 for more information.

   - **Full** installation installs all the functions of the emulator(s) you chose, including the optional utilities, the help files and publications, all the printer-definition files and tables, and the sample programs.
   - **Custom** installation allows you to choose which components and subcomponents to install when the Custom Installation panel appears.
   - **Minimal** installation installs only the main functions of the emulators you chose, including the help files but not the publications. If you chose the IBM SNA Protocols, they will be installed, but not the associated help files or publications.

6. If you select **Custom Installation**, the Select Components window appears. The amount of disk space required for each option and the amount available on the destination disk are displayed. Check the components you want to install from the list and then click **OK**.

   The component is not selected unless a check mark appears next to the component name. To select a component, click the Check column next to the component name or click the component name and then press the spacebar.

7. Accept "IBM Personal Communications" as the name of the program folder, type another folder, or select another folder from the list and then click **Next**.

8. Accept "c:\Program Files\Personal Communications" as the name of the destination directory or, to select another directory, click **Browse** and then select a different directory from the Directories list and click **OK**. The Ready to Install panel is displayed.

9. Verify the current settings and click **Next** if you are ready to install Personal Communications. If you want to change any installation options, click **Back** to make any changes and then click **Next**. A progress bar will show the progress of the installation.

10. If you have installed the IBM SNA protocols, you will be asked whether you want to install the IEEE 802.2 interface provided with Personal Communications. (The IEEE 802.2 interface is also known as the LLC2

protocol.) If you choose **Yes** (the default), the IEEE 802.2 LLC2 protocol driver will install automatically. If you deselect the **Yes** box, it will not be installed.

The same window asks whether you want automatic restart of your machine. **Yes** (the default) will result in automatic rebooting after installation is complete. Restarting is a necessary part of this installation procedure, but if you are installing several products, you may prefer to postpone restarting until all your installation activities are complete. Simply deselect the **Yes** box, but remember to reboot later, because you will not have another reminder.

11. If you did not choose to install the IBM SNA protocols, you will see a window that asks you to choose **Yes** for automatic restarting or **No** to postpone restarting. You may prefer to postpone restarting if you are installing several products, but you must remember to reboot later.

This completes the installation of Personal Communications.

Note: An additional directory is created as follows:

```
x:\Program Files\IBM\GSK
```

where **x:** is the drive letter chosen to install Personal Communications.

Install on Workstation to Run from a Server

When you run Personal Communications as a client from a server, your workstation profiles and other private files are stored on your workstation in a subdirectory named PRIVATE. When you start Personal Communications, the program files are loaded from the server, and your private files are used to define your host sessions.

Personal Communications needs 3 MB of space on the boot drive to store files.

To set up a client workstation, do as follows after the Personal Communications welcome window appears:

1. Select **Install on workstation to run from a server** and then click **Next**.
2. In the **Server** field, type the network drive and directory where Personal Communications is installed.

   Note:
   - Make sure the network drive location is always the same drive when you use your workstation. You can use the Windows Explorer for Windows NT, Windows 95, or Windows 98 to map a network drive that always accesses the same network drive when you start your workstation.

- Personal Communications will verify that the version you are installing matches the version installed on the server. When there is a mismatch, you will be prompted to enter another path or quit.

3. In the PRIVATE field, type the drive and directory where you want Personal Communications to store your private files and other configuration information; then click **Next**.

   Your personal files will be stored in the PRIVATE subdirectory of the directory that you specify.

4. Accept "IBM Personal Communications" as the name of the program folder, type another folder, or select another folder from the list and then click **Next**.

5. Accept "Program Files\Personal Communications" as the name of the PRIVATE directory or, to select another directory, click and then select a different directory from the Directories list and click **OK**. The Verify Destination Directory panel is displayed.

6. Verify the current settings and click **Next** if you are ready to install Personal Communications. If you want to change any installation options, click **Back** to make any changes and then click **Next**. A progress bar will show the progress of the installation.

7. If you have installed the IBM SNA protocols, you will be asked whether you want to install the IEEE 802.2 interface provided with Personal Communications. (The IEEE 802.2 interface is also known as the LLC2 protocol.) If you choose **Yes** (the default), IEEE 802.2 will install automatically. If you deselect the **Yes** box, it will not be installed.

   The same window asks whether you want automatic restart of your machine. **Yes** (the default) will result in automatic rebooting after installation is complete. Restarting is a necessary part of this installation procedure, but if you are installing several products, you may prefer to postpone restarting until all your installation activities are complete. Simply deselect the **Yes** box, but remember to reboot later, because you will not have another reminder.

8. If you did not choose to install the IBM SNA protocols, you will see a window that asks you to choose **Yes** for automatic restarting or **No** to postpone restarting. You may prefer to postpone restarting if you are installing several products, but you must remember to reboot later.

This completes the installation of Personal Communications.

Note: An additional directory is created as follows:

```
x:\Program Files\IBM\GSK
```

where **x:** is the drive letter chosen to install Personal Communications.

Install on a Server

If you install Personal Communications on a network server, workstations connected to it can share the program files. There is no need to install the program files on the client workstations. The server needs to be running an operating system such as OS/2, Windows NT, Windows 95, or Windows 98, that supports long file names.

When you run Personal Communications as a client from a server, your workstation profiles and other private files are stored on your workstation (or in your private directory on the server) in a subdirectory named PRIVATE. When you start Personal Communications, the program files are loaded from the server, and your private files are used to define your host sessions.

Installing Personal Communications on a Network Server for Use by Clients: You can install Personal Communications on your network server so that client workstations can share the server's program files. Do the following steps after the Personal Communications welcome window appears:

1. Click **Install on a server** and then click **Next**.
2. Type the network drive and directory where you want to install Personal Communications and then click **Next**. If it is an OS/2 server, remember to use only eight characters for directory names. The network drive must be remote and not local.
3. Accept the destination directory you chose above, or to select another name, click **Browse** and then select a different directory from the Directories list and click **OK**. The Verify Destination Directory panel is displayed.
4. Verify the current settings and click **Next** if you are ready to install Personal Communications. If you want to change any installation options, click **Back** to make any changes and then click **Next**. A progress bar will show the progress of the installation.

This completes the installation of Personal Communications on the network server.

Copy Install Image onto a Network Server for Remote Installation: You can copy Personal Communications install images to a network server so that any workstations attached to the network can install the product from the server.

> **Copying Installable Image to a Network Server**
>
> The following XCOPY command will copy the Personal Communications install image to a network server:
>
> ```
> XCOPY x:\WIN32\INSTALL\All\*.* <destination> /S
> ```
>
> where *x* is the CD-ROM drive that you are using.

Migrating from Personal Communications for Windows 3.x

If you have been using the Windows 3.x version of Personal Communications, you can migrate your session profiles, batch files, and other configuration information so you can use them with the new version. An icon is created in the new folder for each migrated session and batch file. Toolbar customizations are not preserved as part of this migration. Migration occurs automatically when Personal Communications for Windows 95, Windows 98, and Windows NT is installed on top of Personal Communications for Windows 3.x.

If you have a User Profile created by a previous version of Personal Communications, Auto Logon may not work. In this case, please create your User Profile again by selecting **Configure User Profile** in the Customize Communication - 5250 Host Window.

Note: Use of both Personal Communications for Windows (3.x) and this version of Personal Communications on the same workstation can lead to unexpected behavior and is not recommended.

Modem definition files are not migrated

The migration utility provided with Personal Communications for NT will not migrate modem definition information stored in the .ADU files. Customers must reconfigure the modem after migration of sessions which use the modem.

Migration Considerations

Personal Communications provides a comprehensive set of SNA communications capabilities, collectively called the IBM SNA protocols. These APIs allow your workstation to participate fully in a modern communications network that incorporates APPN, which provides many advantages to both users and administrators.

Before you can participate in such a network, your workstation must be uniquely identified. In Personal Communications, you do this by providing the **fully-qualified CP name**, which consists of the name of the SNA network (**NetID**) and the name of your workstation (**CP name**). If you are migrating an existing workstation profile, you will be asked to supply a fully-qualified CP name during the migration process. If you do not already have a fully-qualified CP name, you should obtain one from your network administrator. You may also create a unique name using APPN as the NetID and NPxxxxxl as the CP name where xxxxx is the PU ID for the workstation. Otherwise, the default value may work for you.

If you use only the TN3270, TN5250, HPO, Home3270, and Coax attachments, then you should simply accept the default value.

Refer to the *Personal Communications V4.3 Reference Volume II* and to the online help for more information about migrating specific information from other versions of Personal Communications.

Removing a Previous Version of Personal Communications for the Windows 3.x Environment

If a version of Personal Communications for Windows is detected on your workstation during setup, you will be prompted to choose whether you want to remove or keep the other version.

AnyNet for Windows V3.x will not run on the Windows NT, Windows 95, or Windows 98 operating system. If you have this software installed, Personal Communications will inform you and ask you if you want instructions on how to uninstall it.

If you choose to remove the Windows version of Personal Communications, Setup will delete the existing files and then install Personal Communications. Your existing workstation profile and other user files in the PRIVATE subdirectory are not deleted. They are migrated for you during installation.

WIN.INI and SYSTEM.INI

On Windows 95 and Windows 98, Personal Communications will remove various entries in the WIN.INI and SYSTEM.INI files, including references to the Personal Communications directory.

CONFIG.SYS

On Windows 95 and Windows 98, you must manually remove some entries in your CONFIG.SYS file. For example, if you were using the IBM LAN Support Program (LSP), you must delete or remark its device statements. Some examples of those statements are:

```
DEVICE=\LSP\DXMA0MOD.SYS 001
DEVICE=\LSP\DXMC0MOD.SYS N ,d800,0,0,0
DEVICE=\LSP\DXMT0MOD.SYS es=5 est=20 s=16 st=16
```

MSDLC Protocol

If you have been using the 16-bit version of MSDLC to provide IEEE 802.2 LAN support, you must remove it from your Windows NT, Windows 95 or Windows 98 network configuration. The 16-bit version of MSDLC cannot be used concurrently with the IBM IEEE 802.2 LAN support.

Keeping a Windows V3.x Version of Personal Communications

If you choose to keep a Windows V3.x version of Personal Communications, Setup will install Personal Communications so the two versions can coexist. During installation, Setup automatically migrates copies of your existing workstation profile and other user files to the PRIVATE subdirectory in the Personal Communications directory.

Note: If you are keeping other versions of Personal Communications, you must keep them in a different directory from the directory (or drive) where you plan to install Personal Communications.

Running the Personal Communications Migration Utility

The Personal Communications Migration Utility is used to create configuration files for Personal Communications 4.3 by reading the information stored in configuration files for other products or versions. This process allows you to avoid re-entering all of your configuration data when you upgrade to Personal Communications 4.3.

The Migration Utility will assist you when:
- Migrating Communications Manager/2 Version 1.x to Personal Communications
- Migrating from previous versions of Personal Communications

Migrating Communications Manager/2 Version 1.x to Personal Communications

The Migration Utility migrates one or more CM/2 configuration response files (*.RSP), to produce two types of Personal Communications configuration files: SNA node configuration files (*.ACG) and workstation profiles (*.WS).

One .ACG files is created per migrated .RSP file. One .WS file is created for each 3270 or 5250 session defined in the .RSP file. Both the .ACG file and .WS

files are text files in ASCII format and can be viewed by any text editor. In addition, a log file (MIGRATE .LOG) is generated which contains error and status information.

To migrate Communications Manager/2 to Personal Communications, do the following:

1. From the Start menu, select **Administrative and PD Aids** and then select **Migration Utility**.
2. Click the button labeled **Migrate from Communications Manager/2**.
3. Click the **1** button to choose a response file.
4. Select a file to migrate and click the **Migrate File** button.

   If you want to migrate all of the response files in a particular directory, open the appropriate folder and click **Migrate Folder** instead.
5. Click the **3** button to begin the migration of the file(s).

Migrating from Previous Versions of Personal Communications

Migration from previous versions of Personal Communications is a process that involves updating the parameters in .ACG and .WS files for compatibility with the new version. To use the Migration Utility to migrate previous versions of Personal Communications to Personal Communications 4.3, you must select the directory that contains the workstation profiles that you would like to migrate.

Migration begins automatically when you reboot after installing Personal Communications if back-level configuration files exist. A backup of these files is created, therefore they are not deleted or overwritten. In addition, a log file (MIGRATE.LOG) is generated which contains error and status information.

To migrate from previous versions of Personal Communications, do the following:

1. From the Start menu, select **Administrative and PD Aids** and then select **Migration Utility**.
2. Click the button labeled **Migrate from a previous version of Personal Communications**.
3. Click the **1** button to choose a directory of workstation profiles to migrate.
4. To migrate all of the response files in a particular directory, open the appropriate folder and click the **Migrate Folder** button.
5. Click the **2** button to begin the migration of the file(s).

Removing Personal Communications

You can remove the Personal Communications program files, folder items, subdirectories, and registry entries. However, the configuration and other user files in your PRIVATE subdirectory, as well as any corresponding entries in the Startup folder, are not removed.

Removing Personal Communications from a Workstation

To remove Personal Communications from your Windows NT workstation, you must be logged on as a member of the Administrator group.

1. Make sure that Personal Communications is not running before you begin your uninstallation.
2. From the Start menu, select:

   Settings
       Control Panel

3. From the Control Panel window, double-click **Add/Remove Programs**.
4. Select **IBM Personal Communications** and then click **Add/Remove**.
5. Click **Yes** to confirm that you want to delete Personal Communications.
6. Click **OK** until you return to the Control Panel window.

Note: If you plan to reinstall Personal Communications, restart your workstation first.

Removing Personal Communications for Windows NT, Windows 95, and Windows 98 from a Network Server

To remove Personal Communications from a network server:

1. Make sure no client workstations are using Personal Communications from the server.
2. Shut down and then restart the server to make sure that none of the Personal Communications files are in use.
3. Select **Run** from the Start menu.
4. In the Run window, type *path*\UNINST, where *path* refers to the path to Personal Communications files on the server, and then click **OK**.

Installing Personal Communications Using the Silent Installation Option

Personal Communications (utilizing the InstallShield Silent program) provides a method of installation that can allow for the automated electronic distribution of software. This type of installation (called silent installation) does not require a user to provide installation input via dialog boxes, but utilizes a response file to provide required input.

Personal Communications provides sample response files for silent installation. These files can be found on the Personal Communications CD-ROM and they pertain to the following packages:

IBM eNetwork Personal Communications

> **setup.iss**
>> Applies to the full installation for 3270, 5250, and VT emulation

> **min35.iss**
>> Applies to a minimal installation for 3270, 5250, and VT emulation without books, samples, and various utilities

IBM eNetwork Personal Communications AS/400

> **setup.iss**
>> Applies to a full installation for 5250 emulation AS/400 package

> **min5.iss**
>> Applies to a minimal 5250 emulation AS/400 package without books, samples, and various utilities

Note: The sample response files may be used only to install the English versions of Personal Communications.

The sample response files can be used during your installation if your workstation configuration matches the definitions in the sample. The samples are defined for a first-time installation of Personal Communications. If you already have Personal Communications, AnyNet, Microsoft SNA Server, Communications Server for Windows NT, or NetWare for SAA previously installed, the samples will not work as shipped. You need to create a unique response file to match your workstation. The samples may be minimally edited.

Recording and Using Your Own Response File

Another option available with a silent installation is to record your own response file during an installation of Personal Communications; you can then use the recorded response file during all other future identical installations of Personal Communications.

Checking the Logs

When you are running a silent installation, no messages appear, but a log file named **SETUP.LOG** captures the relevant installation process information. Check the log to see that the silent installation completed successfully. Failure is indicated by a ResultCode value that is less than zero.

An option is available to allow you to set up your own log file, if desired.

More Information

Refer to the appendix on 'Using InstallShield Silent' in the *Personal Communications V4.3 Reference Volume II* manual for detailed information and usage examples.

Documentation

The Personal Communications library for Windows 95, Windows 98, and Windows NT 4.0 includes the following publications:

PCCDC.PDF	*Personal Communications Version 4.3 CD-ROM Guide to Installation*
PCCSP.PDF	*Client/Server Communications Programming*
PCMOUSE.PDF	*CM Mouse Support User's Guide and Reference* (English only)
PCCFR.PDF	*Configuration File Reference*
PCEP.PDF	*Emulator Programming*
PCECL.PDF	*Host Access Class Library*
PCQB.PDF	*Quick Beginnings*
PCRF1.PDF	*Reference Volume 1*
PCRF2.PDF	*Reference Volume 2*
PCSMP.PDF	*System Management Programming*
ECLReference.html	*Host Access Class Library Reference for Java™ (html format only)*
beanReference.html	*Host Access Beans for Java (html format only)*

The Personal Communications books are included on the CD-ROM in Portable Document Format (PDF), except where noted above, and are optionally installed.

To view the Personal Communications documentation before installation, select **View/Print Documentation** on the CD-ROM Interface main panel.

To view the Personal Communications documentation after Personal Communications is installed:

From Windows 95, Windows 98, and Windows NT 4.0

1. Click **Start** on the Windows Taskbar.
2. Select **Programs** from the Start menu.
3. Select **IBM Personal Communications**.
4. Select **Product Information**.
5. Select the book you want to see.

A glossary of technical terms relating to IBM products is available on the Web at **http://www.networking.ibm.com/nsg/nsgmain.htm**.

Directory Structure

The complete CD-ROM directory structure for the Windows 95, Windows 98, and Windows NT 4.0 platform is:

```
\WIN32
    \DOCPRINT
        \ALL
    \INSTALL
        \ACROBAT
        \ADMIN
            \DISTRIB
            \PLUS
                \IMAGES
                    \IBMPCOMM.IMAGE
                        \CFG
        \ALL
            \SSL
        \DB2CONNECT
        \NWSAA
```

Chapter 3. Personal Communications AS/400 and 3270 V4.2 for OS/2 Warp

This CD-ROM contains a graphical user interface that will allow you to perform all the functions described in this section. See "Using the CD-ROM Graphical User Interface" on page 1for more information.

Personal Communications AS/400 and 3270 V4.2 for OS/2 Warp provides 3270 and 5250 emulation and connections to S/390, AS/400, and S/3X systems. The components of this combined package are referred to as PC400 and PC/3270.

Personal Communications AS/400 and 3270 for OS/2 Warp emulates 5250 and 3270 terminals. It has an easy-to-use graphical interface and includes many useful features, such as file transfer, dynamic configuration, and drag-and-drop customization, all in the OS/2 environment. PC400 also provides support for Shared Folders and Data Transfer.

Personal Communications includes an integrated OS/2 Access Feature which supports a variety of SNA-based APIs. You can create applications that use the peer-to-peer client APIs, which are based on LU 6.2 and provided by Personal Communications. These APIs let you simultaneously access and process information on peer workstations.

Companion Products

The following companion products are included with Personal Communications V4.2 for OS/2 Warp.

Multi-Protocol Transport Services (MPTS)

MPTS contains the LAN adapter and protocol support (LAPS) required for connections across LANs, including:
- NDIS-compliant protocol and network adapter drivers and support for the LAPS application programming interfaces (APIs) NetBIOS and IEEE 802.2
- LAN over coaxial cable support for 3174 Peer Communications
- LAPS support required for connection across LANs and WANs for switched and leased (nonswitched) lines
- The support required to configure ISDN and newer WAN adapters
- TCP/IP support required for multiprotocol networking functions

CM Mouse

CM Mouse allows you to define mouse buttons to perform any sequence of host keystrokes, including PF keys and special emulator control keys. You can also build pop-up menus to control host applications without any changes to those host programs.

CMRTM

CMRTM monitors response time for 3270 sessions that use the Access Feature connection.

Installation Instructions

If you plan to use MPTS, OS/2 Access Feature, CM Mouse, or CMRTM, install the products in this order:

1. MPTS
2. Personal Communications for OS/2
3. Utilities (CM Mouse and CMRTM)

Note: OS/2 Access Feature is installed by the Personal Communications installation program.

MPTS Installation

To install Multi-Protocol Transport Services:

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.
2. At an OS/2 command prompt, type the following commands to change to the CD-ROM drive and correct path:

```
E:
cd \os2\install\mpts
mpts
```

(where *E:* is your CD-ROM drive).
3. Follow the installation instructions in each window.

Personal Communications V4.2 for OS/2 Installation

To install Personal Communications AS/400 and 3270 for OS/2:

Note: OS/2 Access Feature is installed by the Personal Communications installation program.

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. At an OS/2 command prompt, type the following commands to change to the CD-ROM drive and correct path:

```
E:
cd \os2\install\emulator
install
```

(where *E:* is your CD-ROM drive).

3. Follow the installation instructions in each window.

CM Mouse Installation

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. At an OS/2 command prompt, type the following commands to change to the CD-ROM drive and correct path:

```
E:
cd \os2\install\cmmouse\cmmouse
os2inst
```

(where *E:* is your CD-ROM drive).

3. Follow the installation instructions in each window.

CMRTM Installation

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. At an OS/2 command prompt, type the following commands to change to the CD-ROM drive and correct path:

```
C:
mkdir \cmrtm
cd \cmrtm
unpack E:\os2\install\cmmouse\cmrtm\cmrtm.pak
rtminst
```

(where *C:* is your target drive and *E:* is your CD-ROM drive).

Online help is available in the installation program.

Diskette Creation

This CD-ROM contains Personal Communications V4.2 for OS/2. You can create diskettes from this CD to install the products on machines that do not have CD-ROM drives. To create diskettes, you must use a machine that has a CD-ROM drive and a diskette drive.

Note: The number of diskettes required for each product may vary slightly depending on the language. The numbers specified in this book are for US English diskettes.

MPTS Diskette Creation

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.

2. At an OS/2 command prompt, type the following commands to change to the CD-ROM drive and correct path:

```
E:
cd \os2\disks\mpts
```

(where *E:* is your CD-ROM drive).

3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).

4. For each diskette, type

```
xcopy DISKn\*.* A: /S
```

(where *DISKn* is the appropriate disk number), and press Enter.

5. Label the diskettes. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

OS/2 Access Feature Diskette Creation

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.

2. At an OS/2 command prompt, type the following commands to change to the CD-ROM drive and correct path:

```
E:
cd \os2\disks\os2accs
```

(where *E:* is your CD-ROM drive).

3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).

4. For each diskette, type

```
xcopy DISKn\*.* A: /S
```

(where *DISKn* is the appropriate disk number), and press Enter.

5. Label the diskettes. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

Personal Communications for OS/2 Diskette Creation

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.

2. At an OS/2 command prompt, type the following commands to change to the CD-ROM drive and correct path:

```
E:
cd \os2\disks\emulator
```

(where *E:* is your CD-ROM drive).

3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).

4. For each diskette, type

```
xcopy DISKn\*.* A: /S
```

(where *DISKn* is the appropriate disk number), and press Enter.

5. Label the diskettes. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

CM Mouse (Utility) Diskette Creation

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.

2. At an OS/2 command prompt, type the following commands to change to the CD-ROM drive and correct path:

```
E:
cd \os2\disks\cmmouse
```

(where *E:* is your CD-ROM drive).

3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).

4. Type

```
xcopy disk1\*.* A: /S
```

and press Enter.

5. Label the diskette. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

Alternate Font Support for Arabic and Hebrew

Alternate fonts for Arabic and Hebrew are now provided. If you want to use either of these alternate fonts, you must copy the related font file into the Personal Communications main directory, and rename it as indicated below. The default drive and directory for Personal Communications is C:\PCOMOS2.

The files are in the \OS2\FONTS directory and are named:

ALTANSIA.FON   Arabic (rename to **PCSANSIA.FON**)
ALTANSIH.FON   Hebrew (rename to **PCSANSIH.FON**)

Printing PostScript Files

To print a PostScript file from the CD-ROM, first make sure your workstation is connected to a PostScript printer.

The .PS files are located in the \OS2\DOCPRINT\EMULATOR and the OS2\DOCPRINT\OS2ACCES directories.

From the OS/2 prompt, copy the .PS file you want to print to the printer. For example, if you assigned the printer port LPT2 to your printer, type:

```
copy E:
filename.ps /b lpt2
```

where *E:* is your CD-ROM drive, and then press Enter.

Documentation

The Personal Communications library for OS/2 includes the following publications:

- *Quick Beginnings*
- *Reference*
- *Emulator Programming*

The Personal Communications books are included on the CD-ROM in PostScript format.

The books listed in the OS/2 directory structure are named as follows:

PCOPRGUS *Emulator Programming*
PCOREFUS *Reference*
PCOUARUS *Quick Beginnings*
MPTSCFG *MPTS Configuration Guide*

Note: The book names listed above are for United States English, as indicated by the last two letters (US). The country designations for other languages are as follows:

BR	Brazil
CS	China (Simplified Chinese)
DA	Denmark
FR	France
GE	Germany
IT	Italy
JA	Japan
KO	Korea
NL	Netherlands
RU	Russia
SP	Spain

TA   Taiwan (Traditional Chinese)

US   United States

The Communications Server for OS/2 Warp library of books is also available in PostScript format on the CD-ROM. These books are available in the OS2\DOCPRINT\OS2ACCES directory and are named as follows:

ACDIREF   *32-Bit ACDI Programming Reference*
ACDIRF16 *16-Bit ACDI Programming Reference*
ANDISTKT *Developer's Toolkit for ANDIS*
ANYLTEG   *Guide to AnyNet® SNA over TCP/IP*
ANYSSEG   *Guide to AnyNet Sockets over SNA*
APPC   *Lists of APPC Return Codes*
APPCREF   *32-Bit APPC Programming Guide and Reference*
APPCRF16 *16-Bit APPC Programming Guide and Reference*
APPLPG16 *16-Bit Application Programming Guide*
APPLPROG *32-Bit Application Programming Guide*
CMCMDREF *Command Reference*
CMMSGREF *Message Reference*
CMUANDR   *Quick Beginnings*
CPICREF   *CPI Communications Reference Supplement*
INTADTKT *Developer's Toolkit for Intelligent Adapters*
ISDNCMI   *Connection Manager Interface Programming Reference*
ISDNCM16 *16-Bit ISDN Programming Reference*
ISDNPCM   *Port Connection Manager Development Guide*
LUAREF   *32-Bit Conventional LU Application Programming Guide*
LUAREF16 *16-Bit Conventional LU Application Programming Guide*
NETADMIN *Network Administration and Subsystem Management Guide*
PDGUIDE   *Problem Determination Guide*
RESPONSE *Response File Reference*
REXXSNA   *REXX SNA Programming Reference*
RTICREF   *Realtime Interface Co-Processor Device Driver Programming Reference*
RTICRF16 *16-Bit Realtime Interface Co-Processor Device Driver Programming Reference*
SPARROPS *Service Point Application Router and Remote Operations Service Guide*
SVUANDR   *SystemView Up and Running*
SYSMGREF *32-Bit System Management Programming Reference*
SYSMGR16 *16-Bit System Management Programming Reference*
WHATSNEW *What's New*
X25REF   *32-Bit X.25 Programming Reference*
X25REF16 *16-Bit X.25 Programming Reference*

To view the Personal Communications V4.2 OS/2 documentation, open the Personal Communications folder and select the Information Notebook icon.

To view the MPTS documentation:

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. At an OS/2 prompt change to the \OS2\DOCPRINT\MPTS directory.
3. Type `view mptscfg` and press Enter.

Directory Structure

The complete CD-ROM directory structure for the OS/2 Warp platform is:

```
\OS2
    \INSTALL
        \EMULATOR
        \OS2ACCES
        \MPTS
        \CMMOUSE
    \DISKS
        \EMULATOR
            \DISK
        \OS2ACCES
            \DISK
        \MPTS
            \DISK
        \CMMOUSE
            \DISK
    \FONTS
        \ALTANSIA.FON
        \ALTANSIH.FON
    \DOCPRINT
        \EMULATOR
            \PCOPRGUS.PS
            \PCOREFUS.PS
            \PCOUARUS.PS
        \OS2ACCES
        \MPTS
            \MPTSCFG.INF
```

Chapter 4. Personal Communications V4.1 for Windows

This CD-ROM contains a graphical user interface that will allow you to perform all the functions described in this section. See "Using the CD-ROM Graphical User Interface" on page 1for more information.

Personal Communications AS/400 and 3270 V4.1 for Windows provides 3270 and 5250 emulation and connections to S/390, AS/400, and S/3X systems. The components of this combined package are referred to as PC400 and PC/3270. Personal Communications for Windows runs on Microsoft Windows 3.1 Enhanced mode and Windows for Workgroups 3.1X. It has an easy-to-use graphical interface that allows drag-and-drop and includes many useful features, such as file transfer and dynamic configuration, all in the Windows environment. PC400 also provides support for shared folders, data transfer, virtual printers, and Open DataBase Connectivity (ODBC).

Personal Communications is a full-function Windows 3270 and 5250 emulator package that supports a variety of connection types, such as token ring, Ethernet, TCP/IP, advanced program-to-program communication (APPC), and asynchronous, including Hayes AutoSync and wireless communications.

Companion Products

The following companion products are included with Personal Communications V4.1 for Windows.

LAN Support Program (LSP)

The IBM LAN Support Program provides program interfaces to support network application programs on IBM PC Network Adapters, IBM Token-Ring Network Adapters, certain Ethernet Adapters, and IBM Fiber Distributed Data Interface (FDDI) Adapters. It can also support the IBM 3278/3279 Emulation Adapter and the IBM 3270 Connection Card with 3174 Peer Communication. LSP can be configured to interface with the 3270 Workstation Program for IBM PC Network Adapters and for non-NDIS IBM Token-Ring Network Adapters.

Networking Services for Windows

IBM APPC Networking Services for Windows supports APPC for Microsoft Windows or Microsoft Windows for Workgroups 3.1 environments. Networking Services enables applications on your workstation to

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communicate with partner applications on the wide range of IBM systems that support APPC, as well as many systems of other companies.

Networking Services supports CPI-C APIs.

AnyNet

The AnyNet family of products enables application programs to communicate over different types of networks and across interconnected networks. You can, therefore, often reduce the number of networks and make network management less complex. It is not necessary to alter your existing application programs or hardware.

Personal Communications provides the following functions:

- SNA over TCP/IP

  This function is available in the AIX, MVS, OS/2, OS/400, and Windows environments. It enables SNA application programs to communicate over an IP network. In addition to supporting independent LU 6.2 communication, SNA over TCP/IP on MVS, OS/2 and Windows provides support for dependent logical unit communications, such as display and printer sessions.

- Personal Communications/3270 using SNA over TCP/IP

  To use AnyNet SNA over TCP/IP, Personal Communications/3270 must communicate with the host through an OS/2 SNA over TCP/IP gateway. This gateway supports LU types 1, 2, 3, and 6.2 downstream and provides the necessary SNA connectivity to the host upstream.

- Personal Communications/5250 using SNA over TCP/IP

  To use AnyNet SNA over TCP/IP, Personal Communications/5250 can communicate in one of two ways:

  – Directly over an IP network to an AS/400 host that also has AnyNet enabled

  – Through an OS/2 SNA over TCP/IP gateway that provides SNA connectivity to the AS/400 host.

IBM Library Reader™

You can use the IBM Library Reader to set up your own IBM Online Book Library on your Microsoft Windows, Windows 95, or Windows NT 4.0 workstation. The IBM Library Reader programs allow you to view and search online books contained on your CD-ROM. The installation programs also update your system configuration files to point to devices, such as hard drives, on your workstation that contain the online books.

See "Documentation" on page 47 for instructions on how to view the documentation using the IBM Library Reader.

CM Mouse

CM Mouse allows you to define mouse buttons to perform any sequence of host keystrokes, including PF keys and special emulator control keys. You can also build pop-up menus to control host applications without any changes to those host programs.

Installation Instructions

If you plan to use LAN Support Program, Networking Services for Windows, AnyNet, the IBM Library Reader, or CM Mouse, install the products in this order:

1. LSP
2. Networking Services for Windows
3. AnyNet
4. IBM Library Reader
5. Personal Communications for Windows
6. CM Mouse

LSP Installation

To install LAN Support Program:

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. From the Windows Program Manager, select **Run...** from the File list.
3. Type

   ```
   E:\win\install\lsp\dxmaid
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click *OK*.
4. Follow the installation instructions in each window.

Networking Services Installation

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. From the Windows Program Manager, select **Run...** from the File list.
3. Type:

   For the Updated version:

   ```
   E:\win\service\install\nswin\install
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.

   For the Release version:

   ```
   E:\win\install\nswin\install
   ```

in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.

4. Follow the installation instructions in each window.

AnyNet Installation

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. From the Windows Program Manager, select **Run...** from the File list.
3. Type

   ```
   E:\win\install\anynet\install
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.
4. Follow the installation instructions in each window.

IBM Library Reader Installation

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.
2. From the Windows Program Manager, select **Run...** from the File list.
3. Type:

   For the Updated version:

   ```
   E:\win\service\install\ilrwin\install
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.

   For the Release version:

   ```
   E:\win\install\ilrwin\install
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.
4. Follow the installation instructions in each window.

IBM Library Reader Uninstallation

To uninstall IBM Library Reader, perform the following steps.

1. At a DOS prompt type the following commands to change to the drive and directory that contain the Library Reader.

   ```
   C:
   cd \readibmw
   ```

   (where *C:* is the drive that contains the Library Reader directory, and **\readibmw** is the name of the directory).

2. Type

   ```
   del *.*
   ```

to delete all the files in the C:\READIBMW directory.

3. Change to the \WINDOWS directory and type the following commands:

```
del mfc250.dll
del readibmw.ini
```

4. Rename all the files in the \WINDOWS directory that start with **EPF**. Type:

```
rename C:\windows\EPF*.* XXX*.*
```

5. Remove the BookManager Library Reader:

   a. From the Windows Program Manager, click once on the Library Reader for Windows icon to place focus.

   b. Select File, then Delete from the menu bar.

6. Edit the AUTOEXEC.BAT file and remove READIBMW from the path statement.

Personal Communications V4.1 for Windows Installation

To install Personal Communications AS/400 and 3270:

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.

2. From the Windows Program Manager, select **Run...** from the File list.

3. Type:

   For the Updated version:

   ```
   E:\win\service\install\emulator\install
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.

   For the Release version:

   ```
   E:\win\install\emulator\install
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.

4. Follow the installation instructions in each window.

CM Mouse Installation

1. Insert the Personal Communications CD-ROM into the CD-ROM drive.

2. From the Windows Program Manager, select **Run...** from the File list.

3. Type:

   ```
   E:\win\install\cmmouse\wininst
   ```

   in the Command Line box (where *E:* is your CD-ROM drive), then click **OK**.

4. Follow the installation instructions in each window.

Diockette Creation

You can create diskettes to install products on machines that do not have CD-ROM drives.

Service updates have been made to Personal Communications V4.1 for OS/2 and some corequisite products since the original release of Personal Communications V4.1 for OS/2. This CD-ROM contains both the updated versions of these products and the versions that were included in the original release of Personal Communications V4.1 for OS/2. You can choose to create diskettes for either the **Updated** version, or the **Release** version of these products.

Note: The number of diskettes required for each product may vary slightly depending on the language. The numbers specified in this book are for US English diskettes.

LSP Diskette Creation

You need 2 formatted, blank diskettes for this procedure.

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.
2. At a DOS command prompt, type the following commands to change to the CD-ROM drive and correct path:

   ```
   E:
   cd \win\disks\lsp
   ```

   (where *E:* is your CD-ROM drive).
3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).
4. For each diskette, type

   ```
   xcopy DISKn\*.* A: /S
   ```

   (where *DISKn* is the appropriate disk number), and press Enter.
5. Label the diskettes. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

Networking Services Diskette Creation

You need 3 formatted, blank diskettes for this procedure.

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.
2. At a DOS command prompt, type the following commands to change to the CD-ROM drive and correct path:

   For the Updated version:

```
E:
cd \win\service\disks\nswin
```

(where *E:* is your CD-ROM drive)

For the Release version:

```
E:
cd \win\disks\nswin
```

(where *E:* is your CD-ROM drive)

3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).

4. For each diskette, type

    ```
    MAKEn
    ```

    (where *MAKEn* is the appropriate disk number), and press Enter.

5. Label the diskettes. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

AnyNet Diskette Creation

You need 3 formatted, blank diskettes for this procedure.

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.

2. At a DOS command prompt, type the following commands to change to the CD-ROM drive and correct path:

    ```
    E:
    cd \win\disks\anynet
    ```

    (where *E:* is your CD-ROM drive).

3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).

4. For each diskette, type

    ```
    MAKEn
    ```

    (where *MAKEn* is the appropriate disk number), and press Enter.

5. Label the diskettes. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

IBM Library Reader Diskette Creation

You need 3 formatted, blank diskettes for this procedure.

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.

2. At a DOS command prompt, type the following commands to change to the CD-ROM drive and correct path:

    For the Updated version:

```
E:
cd \win\service\disks\ilrwin
```

(where *E:* is your CD-ROM drive).

For the Release version:

```
E:
cd \win\disks\ilrwin
```

(where *E:* is your CD-ROM drive).

3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).

4. For each diskette, type

```
MAKEn
```

(where *MAKEn* is the appropriate disk number), and press Enter.

5. Label the diskettes. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

Personal Communications V4.1 Diskette Creation

You need 6 formatted, blank diskettes for the Updated version, or 5 formatted, blank diskettes for the Release version.

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.

2. At a DOS command prompt, type the following commands to change to the CD-ROM drive and correct path:

For the Updated version:

```
E:
cd \win\service\disks\emulator
```

(where *E:* is your CD-ROM drive).

For the Release version:

```
E:
cd \win\disks\emulator
```

(where *E:* is your CD-ROM drive).

3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).

4. For each diskette, type

```
xcopy DISKn\*.* A: /S
```

(where *DISKn* is the appropriate disk number), and press Enter.

5. Label the diskettes. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

CM Mouse Diskette Creation

You need one formatted, blank diskette for this procedure.

1. Insert the Personal Communications CD-ROM in the CD-ROM drive.
2. At a DOS command prompt, type the following commands to change to the CD-ROM drive and correct path:

   ```
   E:
   cd \win\disks\cmmouse
   ```

   (where *E:* is your CD-ROM drive).
3. Insert a formatted, blank diskette into drive A: (where *A:* is your target drive).
4. Type

   ```
   xcopy DISK1\*.* A: /S
   ```

   and press Enter.
5. Label the diskette. Be sure to include the IBM copyright statement, the name of the product, and the diskette number.

Support for Latin2, Cyrillic, Turkish, Greek, Arabic, and Hebrew

Latin2, Cyrillic, Turkish, and Greek code pages are now supported.

Before installing, make sure that the CONFIG.SYS file contains the following:

For Arabic:

COUNTRY=785, 864 <DOS path>COUNTRY.SYS

For Hebrew:

COUNTRY=972, 862 <DOS path>COUNTRY.SYS

If the relevant above lines are not present in the CONFIG.SYS, add them, and then reboot the PC. This step should be done before starting the installation of Personal Communications.

If the above lines were not added to the CONFIG.SYS prior to your installation of Personal Communications, please follow these steps to install the Arabic or Hebrew font files.

If you install from a CD-ROM:

1. Change your directory to your Personal Communications installation directory.
2. Make sure that the **pcsansia.fon** and **pcsansih.fon** files exist at \WIN\INSTALL\DISKS\EMULATOR\DISK5.
3. Invoke the BIDIFONT.BAT file as follows:
   - BIDIFONT ARABIC Drive:\Directory (for Arabic)
   - BIDIFONT HEBREW Drive:\Directory (for Hebrew)

   where ″Drive″ is the letter of your CD-ROM drive and ″\Directory″ is the path to the CD-ROM directory — for example, ″\WIN\INSTALL\DISKS\EMULATOR\DISK5″, from which **pcsansia.fon** or **pcansih.fon** will be installed.

If you install from a server:
1. Change your directory to your LOCAL Personal Communications installation directory.
2. Make sure that the **pcsansia.fon** and **pcsansih.fon** files exist at \WIN\INSTALL\DISKS\EMULATOR\DISK5.
3. Invoke the BIDIFONT.BAT file as follows:
   - BIDIFONT ARABIC Drive:\Directory (for Arabic)
   - BIDIFONT HEBREW Drive:\Directory (for Hebrew)

   where ″Drive″ is the letter of your CD-ROM drive and ″\Directory″ is the path to the server directory from which **pcsansia.fon** or **pcsansih.fon** will be installed. Follow all directions given by the BIDIFONT.BAT file.

If you run a session for one of these languages, you must copy the related PCS125x.FON file into the Personal Communications main directory. The default drive and directory for Personal Communications is C:\PCOMWIN.

The files are in the \WIN\FONTS directory and are named:

PCS1250.FON	Latin2
PCS1251.FON	Cyrillic
PCS1253.FON	Greek
PCS1254.FON	Turkish

Alternate fonts for Arabic and Hebrew are also provided in the \WIN\FONTS directory. If you want to use either of these alternate fonts, they must be renamed as indicated when copying them into the Personal Communications main directory:

ALTANSIA.FON	Arabic (rename to **PCSANSIA.FON**)
ALTANSIH.FON	Hebrew (rename to **PCSANSIH.FON**)

Note: All of these Windows fonts can also be used on Windows 95 and Windows NT systems.

If you use any of these languages, perform the following steps to make sure **Show only True Type fonts in applications** is *not* selected.

1. From Windows Program Manager, double-click the **Control Panel** icon.
2. Double-click the **Fonts** icon in the Control Panel folder.
3. Double click **True Type**.

Printing PostScript Files

To print a PostScript file from the CD-ROM, first make sure your workstation is connected to a PostScript printer.

The .PS files are located in the following directories:

Emulator   \WIN\DOCPRINT\EMULATOR
Networking Services \WIN\DOCPRINT\NSWIN
AnyNet   \WIN\DOCPRINT\ANYNET

To print PostScript files from Windows:

- From the DOS prompt, copy the .PS file you want to print to the printer. For example, if you assigned the printer port LPT2 to your printer, type:

```
copy E:
filename.ps /b lpt2
```

(where *E:* is your CD-ROM drive), and then press Enter.

Documentation

The Personal Communications library for Windows includes the following publications:

- *Up and Running*
- *Reference*
- *Programmer's Guide*

The Personal Communications books are included on the CD-ROM in BookManager format and are optionally installed.

To view the Windows documentation:

1. From the Windows Program manager, select the Library Reader for Windows icon.
2. Click the book you want to open.

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See "IBM Library Reader™" on page 38 and "IBM Library Reader Installation" on page 40 for more information on installing and using the IBM Library Reader.

The books listed in the Personal Communications for Windows directory structure are named as follows:

PCWUARUS *Up and Running*
PCWREFUS *Reference*
PCWPRGUS *Programmer's Guide*
PCWNAGUS *IBM APPC Networking Services for Windows Administrator's Guide*
PCWNAPUS *IBM APPC Networking Services for Windows Application Programmer's Reference*
PCWNCPUS *IBM APPC Networking Services for Windows Configuration Parameters Reference*
PCWNGSUS *IBM APPC Networking Services for Windows Getting Started*
PCWANYUS *IBM AnyNet Guide to SNA over TCP/IP for Windows*

Note: The book names listed above are for United States English, as indicated by the last two letters (US). The country designations for other languages are as follows:

BR Brazil

CS China (Simplified Chinese)

FR France

GE Germany

IT Italy

JA Japan

KO Korea

SP Spain

TA Taiwan (Traditional Chinese)

US United States

Directory Structure

The complete CD-ROM directory structure for the Windows (16-bit) platform is:

```
\WIN
    \INSTALL
```

```
      \EMULATOR
      \NSWIN
      \ANYNET
      \LSP
      \ILRWIN
      \CMMOUSE
  \DISKS
    \EMULATOR
       \DISK1-5
    \NSWIN
       \DISK1-3
    \ANYNET
       \DISK1-3
    \LSP
       \DISK1-2
    \ILRWIN
       \DISK1-3
    \CMMOUSE
       \DISK1
\SERVICE
  \INSTALL
    \EMULATOR
    \NSWIN
    \ILRWIN
  \DISKS
    \EMULATOR
       \DISK1-6
    \NSWIN
       \DISK1-3
    \ILRWIN
       \DISK1-3
\DOCPRINT
  \EMULATOR
    \PCWPRGUS.BOO
    \PCWPRGUS.PS
    \PCWREFUS.BOO
    \PCWREFUS.PS
```

```
               \PCWUARUS.BOO
               \PCWUARUS.PS
         \NSWIN
               \PCWNAGUS.BOO
               \PCWNAGUS.PS
               \PCWNAPUS.BOO
               \PCWNAPUS.PS
               \PCWNCPUS.BOO
               \PCWNCPUS.PS
               \PCWNGSUS.BOO
               \PCWNGSUS.PS
         \ANYNET
               \PCWANYUS.BOO
               \PCWANYUS.PS
      \FONTS
         \PCS1250.FON
         \PCS1251.FON
         \PCS1253.FON
         \PCS1254.FON
         \ALTANSIA.FON
         \ALTANSIH.FON
```

Appendix A. Abbreviations Used in This Book

AEA	Asynchronous Emulator Adapter
API	Application Programming Interface
APPC	Advanced-Program-to-Program Communications
APPN	Advanced Peer-to-Peer Networking
ATM	Asynchronous Transfer Mode
CM/2	Communications Manager/2
CPI-C	Common Programming Interface for Communications
CUT	Control Unit Terminal
DBCS	Double Byte Character Set
EHLLAPI	Emulator High Level Language Application Programming Interface
FDDI	Fiber Distributed Data Interface
IEEE	Institute of Electrical and Electronics Engineers
ILR	IBM Library Reader
IP	Internet Protocol
ISDN	Integrated-Services Digital Network
LAN	Local Area Network
LAPS	LAN Adapter and Protocol Support
LSP	LAN Support Program
MPTS	Multi-Protocol Transport Services
MPTN	Multi-Protocol Transport Networking
NetBIOS	Local Area Network Basic Input/Output System
NDIS**	Network Driver Interface Specification
SBCS	Single Byte Character Set
SNA	Systems Network Architecture
SRPI	Server-Requester Programming Interface
SSCP	System Services Control Program
TCP/IP	Transmission Control Protocol/Internet Protocol
WAN	Wide Area Network

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S/390

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eNetwork Personal Communications Version 4.3
for Windows® 95, Windows 98, and Windows NT® 4.0
CD-ROM Guide to Installation

Publication No. GC31-8079-04

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Complete	☐	☐	☐	☐	☐
Easy to find	☐	☐	☐	☐	☐
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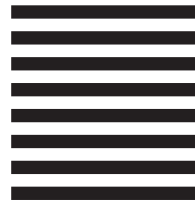Fold and Tape   **Please do not staple**   Fold and Tape

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