

AficioTM AP3800C

Operating Instructions Printer Client Reference 1



For safety, please read this manual carefully before you use this product and keep it handy for future reference.

Introduction

To get maximum versatility from this machine all operators should carefully read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.

Please read the Safety Information in the "Setup Guide" before using this machine. It contains important information related.

Important

Contents of this manual are subject to change without prior notice. In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

Software Version Conventions Used in This Manual

- NetWare 3.x means NetWare 3.12 and 3.2.
- NetWare 4.x means NetWare 4.1, 4.11, 4.12 and IntranetWare.

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Note

The proper names of the Windows operating systems are as follows:

- Microsoft® Windows® 95 operating system
- Microsoft® Windows® 98 operating system
- Microsoft® Windows® Millennium Edition (Windows Me)
- Microsoft® Windows® 2000 Professional
- Microsoft® Windows® 2000 Server
- Microsoft® Windows® XP Professional
- Microsoft® Windows® XP Home Edition
- Microsoft® Windows NT® Server operating system Version 4.0
- Microsoft® Windows NT® Workstation operating system Version 4.0

How to Read This Manual

Symbols

In this manual, the following symbols are used:

 **WARNING:**

This symbol indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

 **CAUTION:**

This symbol indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

* The statements above are notes for your safety.

 **Important**

If this instruction is not followed, paper might be misfed, or data might be lost. Be sure to read this.

 **Preparation**

This symbol indicates the prior knowledge or preparations required before operating.

 **Note**

This symbol indicates precautions for operation, or actions to take after misoperation.

 **Limitation**

This symbol indicates numerical limits, functions that cannot be used together, or conditions in which a particular function cannot be used.

 **Reference**

This symbol indicates a reference.

[]

Keys and buttons that appear on the computer's display.

Keys that appear on the machine's display panel.

[]

Keys built into the machine's control panel.

Keys on the computer's keyboard.

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5. Windows NT 4.0 Configuration

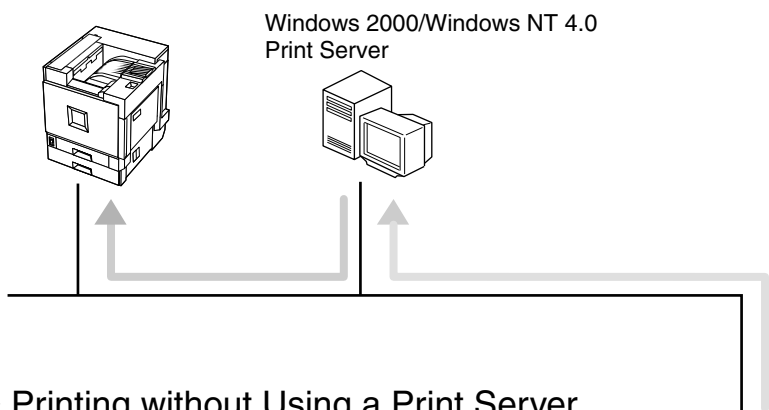
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1. Confirming a Network Environment

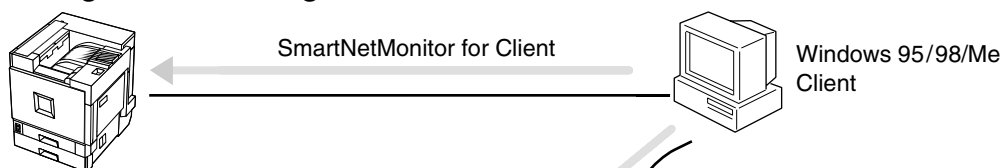
Windows 95/98/Me Client

For details about how to set up the printer as a network printer in a Windows 95/98/Me environment, see p.9 “Windows 95/98/Me Configuration”. There are three methods for using the printer as a network printer.

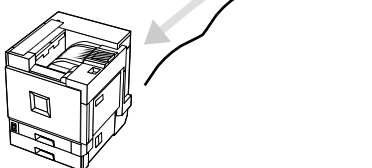
❖ Printing with a Print Server



❖ Printing without Using a Print Server



❖ Printing with a Parallel Connection

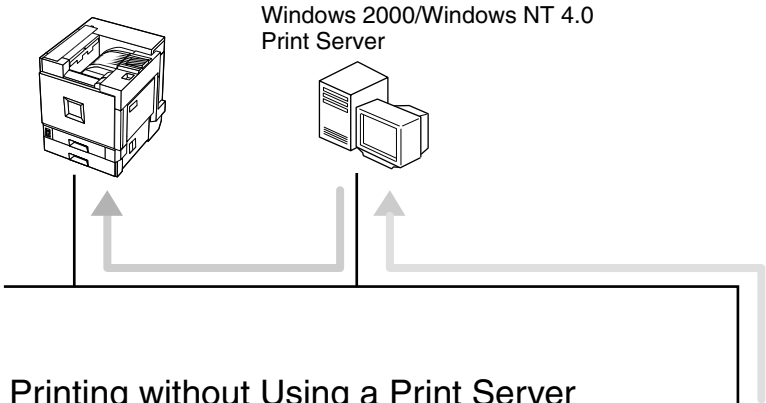


Windows 2000 Client

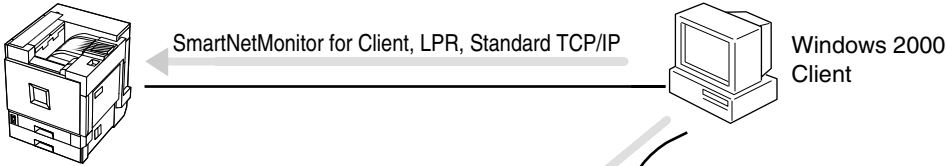
1

For details about how to set up the printer as a network printer in a Windows 2000 environment, see p.25 “Windows 2000 Configuration”. There are three methods for using the printer as a network printer.

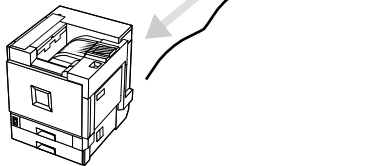
❖ **Printing with a Print Server**



❖ **Printing without Using a Print Server**



❖ **Printing with a Parallel Connection**

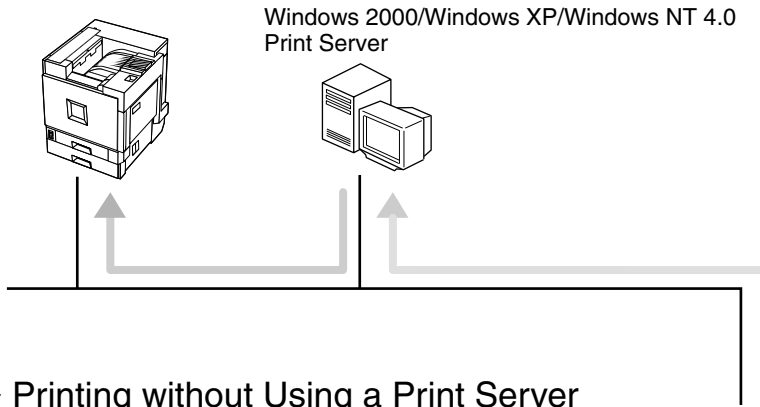


Windows XP Client

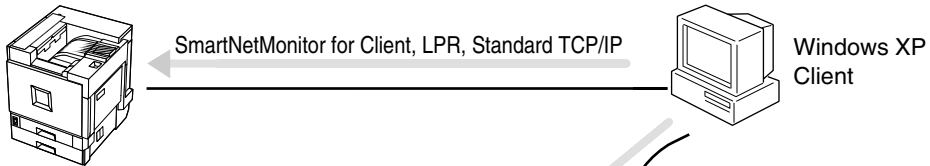
For details about how to set up the printer as a network printer in a Windows XP environment, see p.41 “Windows XP Configuration”. There are three methods for using the printer as a network printer.

1

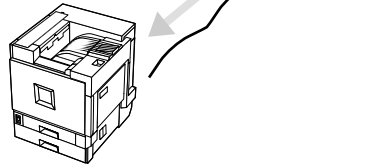
❖ Printing with a Print Server



❖ Printing without Using a Print Server



❖ Printing with a Parallel Connection

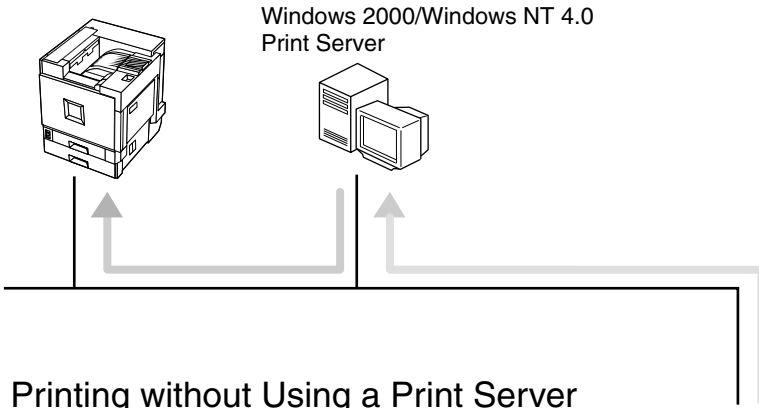


Windows NT 4.0 Client

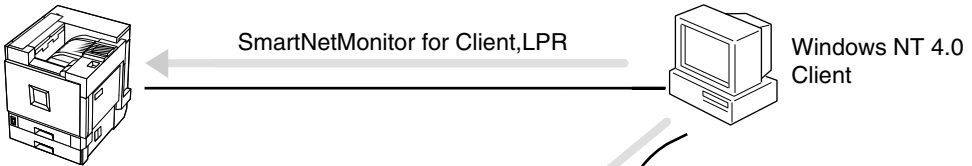
1

For details about how to set up the printer as a network printer in a Windows NT 4.0 environment, see p.55 “Windows NT 4.0 Configuration”. There are three methods for using the printer as a network printer.

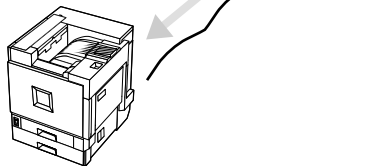
❖ Printing with a Print Server



❖ Printing without Using a Print Server

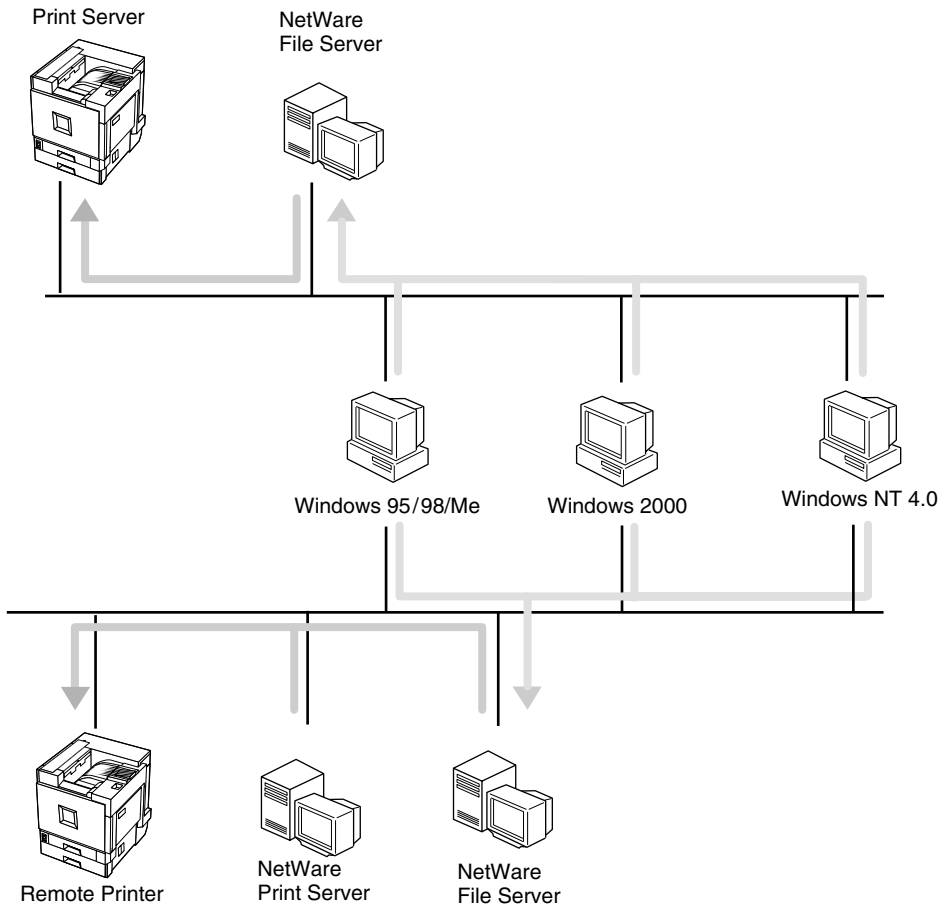


❖ Printing with a Parallel Connection



NetWare Client

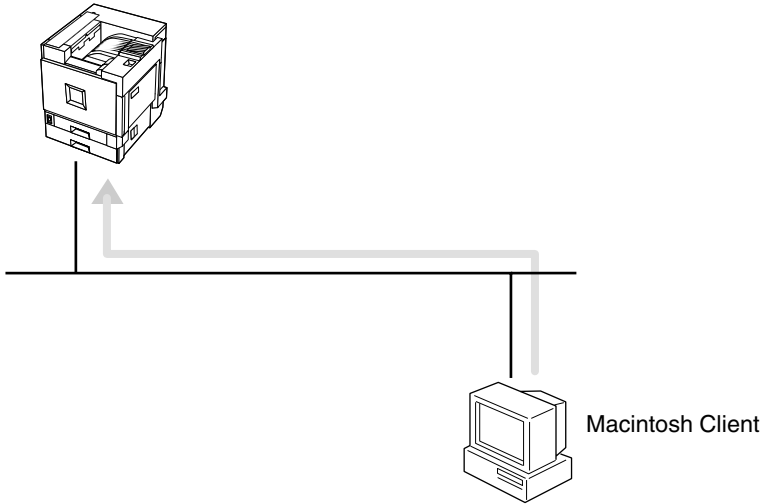
For details about how to set up the printer as a network printer in a NetWare environment, and how to use the printer as either a print server or a remote printer, see "NetWare Configuration", *Printer Client Reference 2* as a PDF file on the CD-ROM.



Macintosh Client

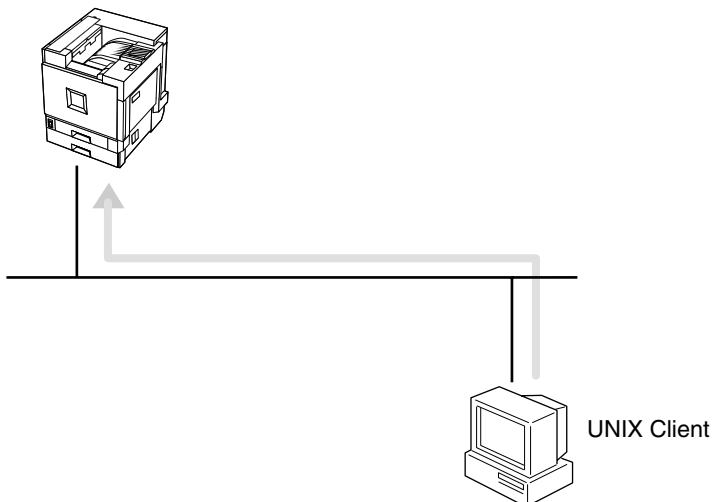
1

For details about how to set up the printer as a network printer in a Macintosh environment, see “Macintosh Configuration”, *Printer Client Reference 2* as a PDF file on the CD-ROM.



UNIX Client

For details about how to setup the printer as a network printer in a UNIX environment, see *UNIX Supplement* as a PDF file on the CD-ROM.



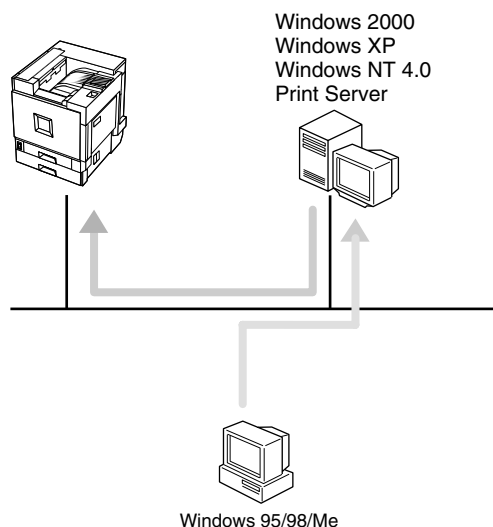
2. Windows 95/98/Me Configuration

Printing with a Print Server

Printing with a Windows 2000 or Windows NT 4.0 Print Server

This section describes the procedures for setting up a client on a network that uses Windows 2000 Server, Windows 2000 Professional, Windows XP Professional, Windows XP Home Edition, Windows NT 4.0 Server or Windows NT 4.0 Workstation as a print server.

To print from Windows 95/98/Me, you must install the printer driver and change the printer port to the print server.



Preparation

If you print with a print server, select **[Typical]** installation.

The PCL 5c and RPCS printer driver can be installed by **[Typical]** installation.

This section assumes that the client has already been configured to communicate with a Windows 2000 or Windows NT 4.0 print server. Do not begin the following procedure until the client has been set up and configured correctly.

Limitation

- When using a print server connected to the machine with SmartNetMonitor for Client, you cannot use Recovery Printing and Parallel Printing.
- When using Windows XP as a print server, the client computer cannot receive notification of print job completion.

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.**4** Select [Typical] installation, and then click [Next].**5** Follow the instructions on the screen.**6** Click [Add] when the "Select Port" dialog box appears.**7** Select [network printer], and then click [OK].**8** Double-click the computer name you want to use as a print server in the "Browse for Printer" window.**9** Select the printer you want to use, and then click [OK].**10** After confirming that the location for the selected printer appears, click [Next].**11** Follow the instructions on the screen.**12** If you use a user code, configure it.**13** Restart the computer after the installation is complete.**14** Set up the options with the printer driver.**Note**

- The procedure to specify the "User Code" may differ depending on the printer language.
 - **RPCS**
You can specify the "User Code" when installing the printer driver. You cannot register or edit the "User Code" from the printer driver dialog box. To change the "User Code", you must uninstall the printer driver then register the new "User Code" during the re-install process.
 - **PCL 5c/PostScript3**
You can specify the "User Code" with the printer driver properties after installing the printer driver. See the Help file for the printer driver.

- ❑ You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 “The conditions of the bidirectional transmissions”

 **Reference**

For more information about settings for options, see p.21 “Setting up Options”.

Printing without Using a Print Server

Configuring Protocols

Configuring TCP/IP and IPP for Printing

2

Follow these instructions to configure the printer and Windows 95/98/Me to use the TCP/IP protocol and IPP.

❖ Configuring the printer

Configure the printer to use the TCP/IP protocol.

- Confirm that the TCP/IP protocol is set to be active. (The factory default is active.)
- Assign an IP address and make other settings required for using the TCP/IP protocol.

🔍 Reference

For more information about how to make the above settings, see “Configuring the printer for the Network”, *Administrator Reference 1*.

If DHCP is used to assign IP addresses, see Appendix, “When Using DHCP”, *Administrator Reference 2* included as a PDF file on the CD-ROM.

📝 Note

- ❑ After setting the IP address, use the ping command to confirm that it has been set correctly.

① Enable the use of the command prompt as follows:

- On Windows 95 or Windows 98
Click **[Start]**, point to **[Programs]**, and then click **[MS-DOS Prompt]**.
- On Windows Me
Click **[Start]**, point to **[Programs]**, point to **[Accessories]**, and then click **[MS-DOS Prompt]**.

② Type the following. (Example IP address is 192.168.15.16)

```
C:> ping 192.168.15.16
```

If the address has been configured correctly, the following message appears.

```
Reply from 192.168.15.16 : bytes=32 time<10ms TTL=32
```

If the address has been configured incorrectly, the following message appears.

```
Request timed out.
```

❖ Configuring a Windows 95/98/Me computer

Follow these steps to configure a Windows 95/98/Me computer to use the TCP/IP protocol.

- ① Open **[Control Panel]** and double-click the **[Network]** icon. Confirm that “TCP/IP” is listed in the **[The following network components are installed:]** box under the **[Configuration]** tab.

Note

- If the TCP/IP protocol is not installed, click **[Add]** under the **[Configuration]** tab and install it. For more information about installing the TCP/IP protocol, see Windows 95/98/Me Help.
- ② Configure the TCP/IP protocol with the appropriate IP address, subnet mask and other settings.
Confirm with the network administrator that the settings are correct.

Configuring NetBEUI for Printing

Follow these instructions to configure the printer and Windows 95/98/Me to use the NetBEUI protocol.

Preparation

To use NetBEUI, use the SmartNetMonitor for Client port.

❖ Configuring the printer

Configure the printer to use the NetBEUI protocol.

- Confirm that the NetBEUI protocol is set to be active. (The factory default is active.)

Reference

For more information about how to make the above settings, see “Configuring the printer for the Network”, *Administrator Reference 1*.

❖ Configuring a Windows 95/98/Me computer

Install the NetBEUI protocol on the Windows 95/98/Me computer and set it as the default protocol.

- ① Open **[Control Panel]** and double-click the **[Network]** icon. Confirm that “NetBEUI” is listed in the **[The following network components are installed:]** box under the **[Configuration]** tab.

Note

- If the NetBEUI protocol is not installed, click **[Add]** under the **[Configuration]** tab and install it. For more information about installing the NetBEUI protocol, see Windows 95/98/Me Help.
- If “NetBEUI ->Dial-Up Adaptor” is listed in the **[The following network components are installed:]** box, select it, and then click **[Remove]** to remove the binding.

- ② Set the NetBEUI protocol as the default protocol. Click the **[Configuration]** tab, select "NetBEUI" in the **[The following network components are installed:]** box, and then click **[Properties]**.
- ③ Click the **[Advanced]** tab, select **[Set this protocol to be the default protocol]**, and then click **[OK]**.
- ④ Click **[OK]** to close the **[Network]** dialog box.
- ⑤ When the message to restart appears, click **[Yes]**.

Installing Software

Preparation

Select **[Network]** installation when you print without using a print server.

[Network] installation installs the PCL 5c and RPCS printer driver and SmartNetMonitor for Client. When you print using TCP/IP, NetBEUI or IPP protocol in a Peer-to-Peer Network, you must select this installation.

[Custom] installation allows you to install SmartNetMonitor for Client separately.

Installing by "Network" installation

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Network]** installation when the selection screen appears.

5 Follow the instructions on the screen.

6 Select a printer you want to use when the **[Select Printer]** dialog box appears.

7 Click **[Add..]** when the **[Select Port]** dialog box appears.

8 Select **[SmartNetMonitor for Client]**, and then click **[OK]**.

Available printers will be listed.

9 Select a printer you want to use.

TCP/IP

1 Click the printer you want to use, and then click [OK].

Note

- Printers that respond to an IP broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then type the IP address or host name.
- You cannot add an address partially similar to that already used. For example, when "192.168.0.2" is already used, "192.168.0.2xx" cannot be used. Similarly, when "192.168.0.20" is already used, "192.168.0.2" cannot be used.

NetBEUI

1 Click [NetBEUI].

A list of printers that can be used by the NetBEUI protocol appears.

2 Click the printer you want to use, and then click [OK].

Note

- Printers that respond to an broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then type the NetBEUI address. Confirm the NetBEUI address on the network configuration page. For more information about the printing of configuration page, see "Printing a Configuration Page", *Administrator Reference 2* included as a PDF file on the CD-ROM.
- You cannot print to printers beyond routers.

IPP

1 Click [IPP].

The IPP setting dialog box appears.

2 To specify the IP address of the printer, type "http://printer's-ip-address/printer" or "ipp://printer's-ip-address/printer" in the [Printer URL] field. (Example IP address is 192.168.15.16)

```
http://192.168.15.16/printer
ipp://192.168.15.16/printer
```

3 If necessary, type the names to distinguish the printer in [IPP Port Name]. Type a name differing from those of any existing port names.

If you omit this, the address typed in **[Printer URL]** will be set as the IPP port name.

- 4 If a proxy server and IPP user name are used, click **[Detailed Settings]** and configure the necessary settings.

 **Note**

- For more information about these settings, see SmartNetMonitor for Client Help.

10 Click **[OK]**.

11 Confirm that the selected port is highlighted, and then click **[Next]**.

12 Click **[Finish]**.

13 Restart the computer after the installation is complete.

14 Set up the options with the printer driver.

 **Reference**

For more information about settings for options, see p.21 "Setting up Options".

 **Note**

- The procedure to specify the "User Code" may differ depending on the printer language.
 - RPCS
You can specify the "User Code" when installing the printer driver. You cannot register or edit the "User Code" from the printer driver dialog box. To change the "User Code", you must uninstall the printer driver then register the new "User Code" during the re-install process.
 - PCL 5c/PostScript3
You can specify the "User Code" with the printer driver properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions".

Accessing the Port Settings Dialog Box

This section describes how to access the port settings dialog box to change the settings of SmartNetMonitor for Client.

 **Reference**

For more information about these settings, see SmartNetMonitor for Client Help.

1 Click **[Start]** on the taskbar, point to **[Settings]**, and then click **[Printers]**.

2 Click to select the icon of the printer you want to use.

3 On the **[File]** menu, click **[Properties]**.

4 Click the **[Details]** tab, and then click **[Port Settings]**.

The **[Port Settings]** dialog box appears.

- For TCP/IP protocol, you can configure Parallel Printing, Recovery Printing and Timeout Settings.

 **Note**

- If you cannot set items on the **[Recovery/Parallel Printing]** tab, follow the procedure below.

- ① Click **[Cancel]** to close the **[Port Configuration:]** dialog box.
- ② Start SmartNetMonitor for Client, and then right-click the SmartNetMonitor for Client icon on the taskbar.
- ③ Click **[Extended Features Settings]**, and then select the **[Set Recovery/Parallel Printing for each port]** check box.
- ④ Click **[OK]** to close the **[Extended Features Settings]** dialog box.

- For IPP, you can configure User Settings, Proxy Settings and Timeout Settings.

 **Note**

- For more information about these settings, see SmartNetMonitor for Client Help.

 **Installing SmartNetMonitor for Client individually**

- ① Close all applications that are running.
- ② Insert the CD-ROM into the CD-ROM drive.
The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.
- ③ Follow the instructions on the screen.
 - ④ Select **[Custom]** installation, and then click **[Next]**.
 - ⑤ Remove the check mark from the RPCS and PCL 5c printer driver.
 - ⑥ Click to select **[SmartNetMonitor for Client]**, and then click **[Install]**.
 - ⑦ Click **[OK]**.

⑧ Follow the instructions on the screen.

 **Note**

- If you are required to restart the computer after the installation of Smart-NetMonitor for Client, restart the computer and continue with necessary configurations.



Printing with Parallel Connection

Select **[Typical]** installation when you use the printer with a parallel connection. **[Typical]** installation installs the PCL 5c and RPCS printer driver.

Installing the Printer Driver

2

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Typical]** installation, and then click **[Next]**.

5 Follow the instructions on the screen.

6 Select **[LPT1]** when the **[Select Port]** dialog box appears, and then click **[Next]**.

7 Click **[Finish]**.

8 If you use a User Code, configure it.

9 Restart the computer after the installation is complete.

10 Set up the options with the printer driver.

Reference

For more information about settings for options, see p.21 "Setting up Options".

 **Note**

- The procedure to specify the "User Code" may differ depending on the printer language.
 - **RPCS**
You can specify the "User Code" when installing the printer driver. You cannot register or edit the "User Code" from the printer driver dialog box. To change the "User Code", you must uninstall the printer driver then register the new "User Code" during the re-install process.
 - **PCL 5c/PostScript3**
You can specify the "User Code" with the printer driver properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions".

Setting up Options

You must set up the options when the bidirectional transmission is disabled.

1 Click **[Start]** on the taskbar, point to **[Settings]**, and then click **[Printers]**.

The **[Printers]** window appears.

2 Click the icon of the printer you want to use.

3 On the **[File]** menu, click **[Properties]**.

4 Click the **[Accessories]** tab.

 **Note**

If you use the RPCS printer driver, Click **[Printer Configuration...]** under the **Print Settings** tab.

5 Select options you have installed from the **[Option]** group. Make any settings you require.

6 Click **[OK]**.



 **The conditions of the bidirectional transmissions**

When the bidirectional transmissions is enabled, the information about the paper size and feed direction settings are automatically sent to the printer by the computer. You can also confirm the printer's condition from your computer.

- The bidirectional transmissions is supported by Windows 95/98/Me, Windows 2000, Windows XP and Windows NT 4.0.
- If you use the RPCS printer driver and the bidirectional transmissions is enabled on Windows 95/98/Me, the unavailable functions are grayed out in the **[Change Accessories]** dialog box of the printer properties. The **[Change Accessories]** dialog box is displayed by clicking the **[Change Accessories...]** button under the **[Printer Configuration]** tab.

 **Note**

- The RPCS printer driver supports the bidirectional transmission and update the printer status automatically.
- The PCL 5c printer driver supports the bidirectional transmission, you can update the printer status manually.
- The PostScript3 printer driver does not support the bidirectional transmission.

To support the bidirectional transmissions, the following conditions are required.

❖ **Connecting with the parallel interface cable and the USB exchange cable.**

- The computer supports the bidirectional transmissions.
- The interface cable supports the bidirectional transmissions.
- The printer is connected to the computer using the standard parallel interface cable and the parallel connector.
- On Windows 95/98/Me, the **[Enable bi-directional support for this printer]** is selected in the **[Spool Settings...]** under the **[Details]** tab.

❖ **Connecting with the network**

- SmartNetMonitor for Client and the TCP/IP protocol are used.
- On Windows 95/98/Me, the **[Enable bi-directional support for this printer]** is selected in the **[Spool Settings...]** under the **[Details]** tab.
- SmartNetMonitor for Client included on the CD-ROM is installed.



Using Adobe PageMaker Version 6.0, 6.5 or 7.0

If you use the machine under Windows 95/98/Me, Windows 2000/XP or Windows NT 4.0 with Adobe PageMaker, you need to copy the PPD file to the PageMaker folder.

The PPD file is the file with extension “.ppd” in the folder “DRIVERS\PS\WIN9X_ME\ (Language)\DISK1\” on the CD-ROM.

The “WIN9X_ME” folder, inside the “PS” folder is for Windows 95/98/Me. Use the folder at this level that is appropriate for the operating system you are currently using.

The third folder, “(Language)” may be substituted by an appropriate language name.

Copy the file with extension “.ppd” to the PageMaker folder.

- **For PageMaker 6.0 default installation**
The directory is “C:\PM6\RSRC\PPD4”.
- **For PageMaker 6.5 default installation**
The directory is “C:\PM65\RSRC\USENGLISH\PPD4”.
The “USENGLISH” may vary depending on your language selection.
- **For PageMaker 7.0 default installation**
The directory is “C:\PM7\RSRC\USENGLISH\PPD4”.
The “USENGLISH” may vary depending on your language selection.

Note

- When using PageMaker, the optional features that can be selected by the printer driver will not be active. The following procedure describes how to activate the optional printer features.
 - ① On the **[File]** menu, click **[Print]**.
The **[Print Document]** dialogue box appears.
 - ② Make the necessary settings in the **[Features]** box.

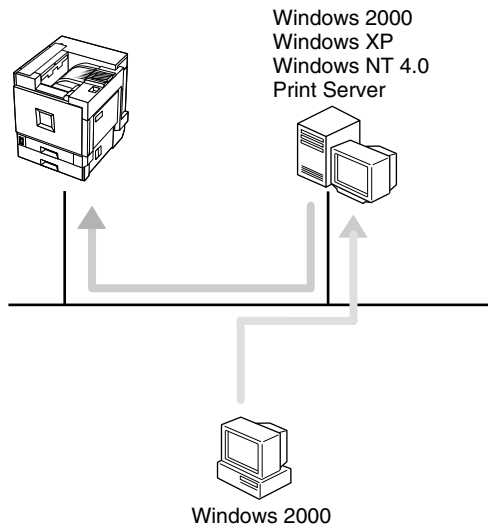
3. Windows 2000 Configuration

Printing with a Print Server

Printing with a Windows 2000, Windows XP or Windows NT 4.0 Print Server

This section describes the procedures for setting up a client in a network that uses Windows 2000 Server, Windows 2000 Professional, Windows XP Professional, Windows XP Home Edition, Windows NT 4.0 Server or Windows NT 4.0 Workstation as a print server.

To print from Windows 2000, you must install the printer driver and change the printer port to the print server.



! Limitation

- When using a print server connected to the machine with SmartNetMonitor for Client, you cannot use Recovery Printing and Parallel Printing.

📝 Note

- This section assumes that the client has already been configured to communicate with a Windows 2000/XP or Windows NT 4.0 print server. Do not begin the following procedure until the client has been set up and configured correctly.
- When using Windows NT 4.0 as the print server, make sure to install the Windows NT 4.0 printer driver before connecting the print server. There is a Windows NT 4.0 printer driver on the CD-ROM labeled "Printer Drivers and Utilities".

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select [Typical] installation, and then click [Next].

5 Follow the instructions on the screen.

6 Click [Add] when the "Select Port" dialog box appears.

7 Select [network printer], and then click [OK].

8 Double-click the computer name you want to use as a print server in the "Browse for Printer" window.

9 Select the printer you want to use, and then click [OK].

10 After confirming that the location for the selected printer appears, click [Next].

11 Follow the instructions on the screen.

 **Note**

- During installation, the [Digital Signature Not Found] dialog box may appear. In this case, click [Yes] to continue the installation.

12 Restart the computer after the installation is complete.

13 Set up the options with the printer driver.

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.

 **Reference**

For more information about settings for options, see p.38 "Setting up Options".

Printing without Using a Print Server

Configuring the Protocols

Configuring TCP/IP and IPP for Printing

Follow these instructions to configure the printer and Windows 2000 to use the TCP/IP protocol and IPP.

❖ Configuring the printer

Configure the printer to use the TCP/IP protocol.

- Confirm that the TCP/IP protocol is set to be active. (The factory default is active.)
- Assign an IP address and make other settings required for using the TCP/IP protocol.

Reference

For more information about how to make the above settings, see “Configuring the printer for the Network”, *Administrator Reference 1*.

If DHCP is used to assign IP addresses, see Appendix, “When Using DHCP”, *Administrator Reference 2* included as a PDF file on the CD-ROM.

Note

- After setting the IP address, use the ping command to confirm that it has been set correctly.

① Click **[Start]**, point to **[Programs]**, point to **[Accessories]**, and then click **[Command Prompt]**.

② Type the following. (Example IP address is 192.168.15.16)

```
C:> ping 192.168.15.16
```

If the address has been configured correctly, the following message appears.

```
Reply from 192.168.15.16 : bytes=32 time<10ms TTL=32
```

If the address has been configured incorrectly, the following message appears.

```
Request timed out.
```

❖ Configuring a Windows 2000 computer

Follow these steps to configure a Windows 2000 computer to use the TCP/IP protocol.

- ① Click **[Start]** on the taskbar, point to **[Settings]**, and then click **[Network and Dial-up Connections]**.
- ② Click **[Local Area Connection]**.
- ③ On the **[File]** menu, click **[Properties]**.

- ④ Confirm that “Internet Protocol (TCP/IP)” is selected in the **[Components checked are used by this connection:]** box on the **[General]** tab.

 **Note**

- If the check box of TCP/IP protocol is not selected, select the box.
 - If the TCP/IP protocol is not installed, click **[Install...]** on the **[General]** tab and install it. For more information about installing the TCP/IP protocol, see Windows 2000 Help.
- ⑤ Configure the TCP/IP protocols with the appropriate IP address, subnet mask and other settings.
Confirm with the network administrator that the settings are correct.

3

Configuring NetBEUI for Printing

Follow these instructions to configure the Network Interface Board and Windows 2000 to use the NetBEUI protocol.

 **Preparation**

To use NetBEUI, use the SmartNetMonitor for Client port.

❖ **Configuring the printer**

Configure the printer to use the NetBEUI protocol.

- Confirm that the NetBEUI protocol is set to be active. (The factory default is active.)

 **Reference**

For more information about how to make the above settings, see “Configuring the printer for the Network”, *Administrator Reference 1*.

❖ **Configuring a Windows 2000 computer**

Follow these steps to configure a Windows 2000 computer to use the NetBEUI protocol.

- ① Click **[Start]** on the taskbar, point to **[Settings]**, and then click **[Network and Dial-up Connections]**.
- ② Click **[Local Area Connection]**.
- ③ On the **[File]** menu, click **[Properties]**.
- ④ Confirm that “NetBEUI Protocol” is selected in the **[Components checked are used by this connection:]** box on the **[General]** tab.

 **Note**

- If the check box of the NetBEUI protocol is not selected, select the box.
- If the NetBEUI protocol is not installed, click **[Install...]** on the **[General]** tab and install it. For more information about installing the NetBEUI protocol, see Windows 2000 Help.

Installing Software

Preparation

Select **[Network]** installation when you print without using a print server.

[Network] installation installs the PCL 5c and RPCS printer driver and SmartNetMonitor for Client. When you print using TCP/IP, NetBEUI or IPP protocol in a Peer-to-Peer Network, you must select this installation.

[Custom] installation allows you to install SmartNetMonitor for Client separately.

Installing by "Network" installation

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Network]** installation when the selection screen appears.

5 Follow the instructions on the screen.

6 Select a printer you want to use when the **[Select Printer]** dialog box appears.

7 Click **[Add.]** when the **[Select Port]** dialog box appears.

8 Select **[SmartNetMonitor for Client]**, and then click **[OK]**.

Available printers will be listed.

9 Select a printer you want to use.

TCP/IP

- 1 Click the printer you want to use, and then click **[OK]**.

 **Note**

- Printers that respond to an IP broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then type the IP address or host name.
- You cannot add an address partially similar to that already used. For example, when “192.168.0.2” is already used, “192.168.0.2xx” cannot be used. Similarly, when “192.168.0.20” is already used, “192.168.0.2” cannot be used.

NetBEUI

- 1 Click **[NetBEUI]**.

A list of printers that can be used by the NetBEUI protocol appears.

- 2 Click the printer you want to use, and then click **[OK]**.

 **Note**

- Printers that respond to an broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then type the NetBEUI address. Confirm the NetBEUI address on the network configuration page. For more information about the printing of configuration page, see “Printing a Configuration Page”, *Administrator Reference 2* included as a PDF file on the CD-ROM.
- You cannot print to printers beyond routers.

IPP

- 1 Click **[IPP]**.

The IPP setting dialog box appears.

- 2 To specify the IP address of the printer, type “**http://(printer's-ip-address)/printer**” or “**ipp://(printer's-ip-address)/printer**” in the **[Printer URL]** field.

(Example IP address is 192.168.15.16)

http://192.168.15.16/printer

ipp://192.168.15.16/printer

- 3 If necessary, type the names to distinguish the printer in **[IPP Port Name]**. Type a name differing from those of any existing port names.

If you omit this, the address typed in **[Printer URL]** will be set as the IPP port name.

- 4 If a proxy server and IPP user name are used, click **[Detailed Settings]** and configure the necessary settings.

 **Note**

- For more information about these settings, see SmartNetMonitor for Client Help.

- 10 Click **[OK]**.

- 11 Confirm that the selected port is highlighted, and then click **[Next]**.

- 12 Click **[Finish]**.

 **Note**

- During installation, the **[Digital Signature Not Found]** dialog box may appear. In this case, click **[Yes]** to continue the installation.

- 13 Restart the computer after the installation is complete.

- 14 Set up the options with the printer driver.

 **Reference**

For more information about settings for options, see p.38 “Setting up Options”.

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 “The conditions of the bidirectional transmissions”.

Accessing the Port Settings Dialog Box

This section describes how to access the port settings dialog box to change the settings of SmartNetMonitor for Client.

 **Reference**

For more information about these settings, see SmartNetMonitor for Client Help.

- 1 Click **[Start]** on the taskbar, point to **[Settings]**, and click **[Printers]**.

- 2 Click the icon of the printer you want to use.

- 3 On the **[File]** menu, click **[Properties]**.

- 4 Click the **[Details]** tab, and then click **[Port Settings]**.

The **[Port Settings]** dialog box appears.

- For TCP/IP protocol, you can configure Parallel Printing, Recovery Printing and Timeout Settings.

 **Note**

- If you cannot set items on the **[Recovery/Parallel Printing]** tab, follow the procedure below.
 - ① Click **[Cancel]** to close the **[Port Configuration:]** dialog box.
 - ② Start SmartNetMonitor for Client, and then right-click the SmartNetMonitor for Client icon on the taskbar.
 - ③ Click **[Extended Features Settings]**, and then select the **[Set Recovery/Parallel Printing for each port]** check box.
 - ④ Click **[OK]** to close the **[Extended Features Settings]** dialog box.

- For IPP, you can configure User Settings, Proxy Settings and Timeout Settings.

 **Note**

- For more information about these settings, see SmartNetMonitor for Client Help.

Installing SmartNetMonitor for Client individually

- ① Close all applications that are running.
- ② Insert the CD-ROM into the CD-ROM drive.
The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.
- ③ Follow the instructions on the screen.
 - ④ Select **[Custom]** installation, and then click **[Next]**.
 - ⑤ Remove the check mark from the RPCS and PCL 5c printer driver.
 - ⑥ Click to select **[SmartNetMonitor for Client]**, and then click **[Install]**.
 - ⑦ Click **[OK]**.
 - ⑧ Follow the instructions on the screen.

 **Note**

- If you are required to restart the computer after the installation of SmartNetMonitor for Client, restart the computer and continue with necessary configurations.

Printing with a Standard TCP/IP Port

Preparation

Select **[Typical]** installation when you use the printer with Standard TCP/IP port.

[Typical] installation installs the PCL 5c and RPCS printer driver.

Installing the Printer Driver

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Typical]** installation, and then click **[Next]**.

5 Follow the instructions on the screen.

6 Select **[Standard TCP/IP]** when the "Select Port" dialog box appears, and then click **[Next]**.

7 Click **[Next]** in the "Add Standard TCP/IP Printer Port Wizard" window.

8 Type the printer name or IP address in the "Printer Name or IP Address" box.

9 Click **[Finish]** in the "Add Standard TCP/IP Printer Port Wizard" window.

10 Confirm that the selected port has been displayed in the "Port" box, and then click **[Next]**.

Note

- During installation, the **[Digital Signature Not Found]** dialog box may appear. In this case, click **[Yes]** to continue the installation.

11 Click **[Finish]**.

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions"

12 Restart the computer after the installation is complete.

13 Set up the options with the printer driver.

14 You must set up the options when the bidirectional transmission is disabled.

 **Reference**

For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions".

For more information about settings for options, see p.38 "Setting up Options".

Configuring LPR Port Printing

 **Preparation**

Select **[Typical]** installation when you use the printer with the LPR port.

[Typical] installation installs the PCL 5c and RPCS printer driver.

Installing the Printer Driver

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

- 4** Select **[Typical]** installation, and then click **[Next]**.
- 5** Follow the instructions on the screen.
- 6** Select **[LPR Port]** when the "Select Port" dialog box appears, and then click **[Next]**.

 **Note**

- If "LPR Port" does not appear, "Print Services for Unix" has not been installed. For more information about how to install "Print Services for Unix", see Windows 2000 Help.

- 7** Type the printer's IP address in the "Name or address of server providing lpd" box.
- 8** Type "lp" in the "Name of printer or print queue on that server" box, and then click **[OK]**.
- 9** Confirm that the selected port has been displayed in the "Port" box, and then click **[Next]**.
- 10** Click **[Finish]**.

 **Note**

- During installation, the **[Digital Signature Not Found]** dialog box may appear. In this case, click **[Yes]** to continue the installation.

- 11** Restart the computer after the installation is complete.

- 12** Set up the options with the printer driver.

 **Reference**

For more information about settings for options, see p.38 "Setting up Options".

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions".

Printing with Parallel Connection

Preparation

Select **[Typical]** installation when you use the printer with parallel connection. **[Typical]** installation installs the PCL 5c and RPCS printer driver.

Installing a Printer Driver

3

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Typical]** installation, and then click **[Next]**.

5 Follow the instructions on the screen.

6 Select **[LPT1]** when the **[Select Port]** dialog box appears, and then click **[Next]**.

7 Click **[Finish]**.

Note

- During installation, the **[Digital Signature Not Found]** dialog box may appear. In this case, click **[Yes]** to continue the installation.

8 Restart the computer after the installation is complete.

9 Set up the options with the printer driver.

Reference

For more information about settings for options, see p.38 "Setting up Options".

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions".

Setting up Options

You must set up the options when the bidirectional transmission is disabled.

1 Click **[Start]** on the taskbar, point to **[Settings]**, and then click **[Printers]**.

The **[Printers]** window appears.

2 Click the icon of the printer you want to use.

3 On the **[File]** menu, click **[Properties]**.

4 Click the **[Accessories]** tab.

 **Note**

- If you use the RPCS printer driver, Click the **[Change Accessories]** tab.
- If you use the PS printer driver, Click the **[Device Settings]** tab.

5 Select options you have installed from the **[Option]** group. Make any settings you require.

6 Click **[OK]**.

 **The conditions of the bidirectional transmissions**

When the bidirectional transmissions is enabled, the information about the paper size and feed direction settings are automatically sent to the printer by the computer. You can also confirm the printer's condition from your computer.

- The bidirectional transmissions is supported by Windows 95/98/Me, Windows 2000, Windows XP and Windows NT 4.0.
- If you use the RPCS printer driver and the bidirectional transmissions is enabled on Windows 2000, the **[Change Accessories]** tab are grayed out.

 **Note**

- The RPCS printer driver supports the bidirectional transmission and update the printer status automatically.
- The PCL 5c printer driver supports the bidirectional transmission, you can update the printer status manually.
- The PostScript3 printer driver does not support the bidirectional transmission.

To support the bidirectional transmissions, the following conditions are required.

❖ **Connecting with the parallel interface cable and the USB exchange cable.**

- The computer supports the bidirectional transmissions.
- The interface cable supports the bidirectional transmissions.
- The printer is connected to the computer using the standard parallel interface cable and the parallel connector.
- On Windows 2000, the **[Enable bidirectional support]** is selected and **[Enable printer pooling]** is not selected under the **[ports]** tab.

❖ **Connecting with the network**

- SmartNetMonitor for Client and the TCP/IP protocol are used.
 - On Windows 2000, the **[Enable bidirectional support]** is selected and **[Enable printer pooling]** is not selected under the **[ports]** tab.
 - SmartNetMonitor for Client included on the CD-ROM is installed.
-

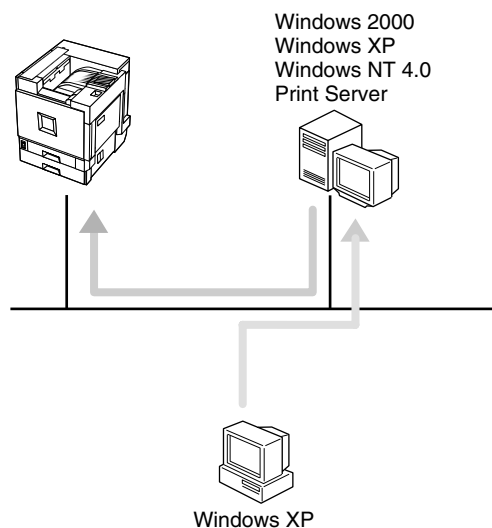
4. Windows XP Configuration

Printing with a Print Server

Printing with a Windows 2000, Windows XP or Windows NT 4.0 Print Server

This section describes the procedures for setting up a client in a network that uses Windows 2000 Server, Windows 2000 Professional, Windows XP Professional, Windows XP Home Edition, Windows NT 4.0 Server or Windows NT 4.0 Workstation as a print server.

To print from Windows XP, you must install the printer driver and change the printer port to the print server.



! Limitation

- When using a print server connected to the machine with SmartNetMonitor for Client, you cannot use Recovery Printing and Parallel Printing.

✎ Note

- This section assumes that the client has already been configured to communicate with a Windows 2000/XP or Windows NT 4.0 print server. Do not begin the following procedure until the client has been set up and configured correctly.
- When using Windows NT 4.0 as the print server, make sure to install the Windows NT 4.0 printer driver before connecting the print server. There is a Windows NT 4.0 printer driver on the CD-ROM labeled "Printer Drivers and Utilities".

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

4

3 Follow the instructions on the screen.

4 Select [Typical] installation, and then click [Next].

5 Follow the instructions on the screen.

6 Click [Add] when the "Select Port" dialog box appears.

7 Select [network printer], and then click [OK].

8 Double-click the computer name you want to use as a print server in the "Browse for Printer" window.

9 Select the printer you want to use, and then click [OK].

10 After confirming that the location for the selected printer appears, click [Next].

11 Follow the instructions on the screen.

 **Note**

- During installation, the [Hardware Installation] dialog box may appear. In this case, click [Continue Anyway] to continue the installation.

12 Restart the computer after the installation is complete.

13 Set up the options with the printer driver.

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.

 **Reference**

For more information about settings for options, see p.53 "Setting up Options".

Printing without Using a Print Server

Configuring the Protocols

Configuring TCP/IP and IPP for Printing

Follow these instructions to configure the printer and Windows XP to use the TCP/IP protocol and IPP.

❖ Configuring the printer

Configure the printer to use the TCP/IP protocol.

- Confirm that the TCP/IP protocol is set to be active. (The factory default is active.)
- Assign an IP address and make other settings required for using the TCP/IP protocol.

Reference

For more information about how to make the above settings, see “Configuring the printer for the Network”, *Administrator Reference 1*.

If DHCP is used to assign IP addresses, see Appendix, “When Using DHCP”, *Administrator Reference 2* included as a PDF file on the CD-ROM.

Note

- After setting the IP address, use the ping command to confirm that it has been set correctly.

① Click **[Start]**, point to **[Programs]**, point to **[Accessories]**, and then click **[Command Prompt]**.

② Type the following. (Example IP address is 192.168.15.16)

```
C:> ping 192.168.15.16
```

If the address has been configured correctly, the following message appears.

```
Reply from 192.168.15.16 : bytes=32 time<10ms TTL=32
```

If the address has been configured incorrectly, the following message appears.

```
Request timed out.
```

❖ Configuring a Windows XP computer

Follow these steps to configure a Windows XP computer to use the TCP/IP protocol.

- ① Click **[Start]** on the taskbar, point to **[Settings]**, and then click **[Network and Internet Connections]**.
- ② Click **[Network Connections]**, and then double-click **[Local Area Connection]**.
- ③ On the **[General]** tab, click **[Properties]**.

- ④ Confirm that “Internet Protocol (TCP/IP)” is selected in the **[This connection uses the following items]** box on the **[General]** tab.

 **Note**

- If the check box of TCP/IP protocol is not selected, select the box.
 - If the TCP/IP protocol is not installed, click **[Install...]** on the **[General]** tab and install it. For more information about installing the TCP/IP protocol, see Windows 2000 Help.
- ⑤ Configure the TCP/IP protocols with the appropriate IP address, subnet mask and other settings.
Confirm with the network administrator that the settings are correct.

Installing Software

4

 **Preparation**

Select **[Network]** installation when you print without using a print server.

[Network] installation installs the PCL 5c and RPCS printer driver and SmartNetMonitor for Client. When you print using TCP/IP, NetBEUI or IPP protocol in a Peer-to-Peer Network, you must select this installation.

[Custom] installation allows you to install SmartNetMonitor for Client separately.

Installing by "Network" installation

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Network]** installation when the selection screen appears.

5 Follow the instructions on the screen.

6 Select a printer you want to use when the **[Select Printer]** dialog box appears.

- 7** Click **[Add.]** when the **[Select Port]** dialog box appears.
- 8** Select **[SmartNetMonitor for Client]**, and then click **[OK]**.
Available printers will be listed.
- 9** Select a printer you want to use.

TCP/IP

- 1** Click the printer you want to use, and then click **[OK]**.

 **Note**

- Printers that respond to an IP broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then type the IP address or host name.
- You cannot add an address partially similar to that already used. For example, when “192.168.0.2” is already used, “192.168.0.2xx” cannot be used. Similarly, when “192.168.0.20” is already used, “192.168.0.2” cannot be used.

IPP

- 1** Click **[IPP]**.
The IPP setting dialog box appears.
- 2** To specify the IP address of the printer, type “**http://(printer's-ip-address)/printer**” or “**ipp://(printer's-ip-address)/printer**” in the **[Printer URL]** field.

(Example IP address is 192.168.15.16)

`http://192.168.15.16/printer`

`ipp://192.168.15.16/printer`

- 3** If necessary, type the names to distinguish the printer in **[IPP Port Name]**. Type a name differing from those of any existing port names.
If you omit this, the address typed in **[Printer URL]** will be set as the IPP port name.
- 4** If a proxy server and IPP user name are used, click **[Detailed Settings]** and configure the necessary settings.

 **Note**

- For more information about these settings, see SmartNetMonitor for Client Help.

- 10** Click **[OK]**.
- 11** Confirm that the selected port is highlighted, and then click **[Next]**.

12 Click **[Finish]**. **Note**

- During installation, the **[Hardware Installation]** dialog box may appear. In this case, click **[Continue Anyway]** to continue the installation.

13 Restart the computer after the installation is complete.**14** Set up the options with the printer driver. **Reference**

For more information about settings for options, see p.53 “Setting up Options”.

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 “The conditions of the bidirectional transmissions”.

Accessing the Port Settings Dialog Box

This section describes how to access the port settings dialog box to change the settings of SmartNetMonitor for Client.

 **Reference**

For more information about these settings, see SmartNetMonitor for Client Help.

1 Click **[Start]** on the taskbar, point to **[Settings]**, and click **[Printers]**.**2** Click the icon of the printer you want to use.**3** On the **[File]** menu, click **[Properties]**.**4** Click the **[Details]** tab, and then click **[Port Settings]**.

The **[Port Settings]** dialog box appears.

- For TCP/IP protocol, you can configure Parallel Printing, Recovery Printing and Timeout Settings.

 **Note**

- If you cannot set items on the **[Recovery/Parallel Printing]** tab, follow the procedure below.
 - ① Click **[Cancel]** to close the **[Port Configuration:]** dialog box.
 - ② Start SmartNetMonitor for Client, and then right-click the SmartNet-Monitor for Client icon on the taskbar.

- ③ Click **[Extended Features Settings]**, and then select the **[Set Recovery/Parallel Printing for each port]** check box.
 - ④ Click **[OK]** to close the **[Extended Features Settings]** dialog box.
- For IPP, you can configure User Settings, Proxy Settings and Timeout Settings.

 **Note**

- For more information about these settings, see SmartNetMonitor for Client Help.

 **Installing SmartNetMonitor for Client individually**

- ① Close all applications that are running.
- ② Insert the CD-ROM into the CD-ROM drive.
The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.
- ③ Follow the instructions on the screen.
 - ④ Select **[Custom]** installation, and then click **[Next]**.
 - ⑤ Remove the check mark from the RPCS and PCL 5c printer driver.
 - ⑥ Click to select **[SmartNetMonitor for Client]**, and then click **[Install]**.
 - ⑦ Click **[OK]**.
 - ⑧ Follow the instructions on the screen.

 **Note**

- If you are required to restart the computer after the installation of SmartNetMonitor for Client, restart the computer and continue with necessary configurations.

Printing with a Standard TCP/IP Port

Preparation

Select **[Typical]** installation when you use the printer with Standard TCP/IP port.

[Typical] installation installs the PCL 5c and RPCS printer driver.

Installing the Printer Driver

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Typical]** installation, and then click **[Next]**.

5 Follow the instructions on the screen.

6 Select **[Standard TCP/IP]** when the "Select Port" dialog box appears, and then click **[Next]**.

7 Click **[Next]** in the "Add Standard TCP/IP Printer Port Wizard" window.

8 Type the printer name or IP address in the "Printer Name or IP Address" box.

9 Click **[Finish]** in the "Add Standard TCP/IP Printer Port Wizard" window.

10 Confirm that the selected port has been displayed in the "Port" box, and then click **[Next]**.

Note

During installation, the **[Digital Signature Not Found]** dialog box may appear. In this case, click **[Yes]** to continue the installation.

11 Click **[Finish]**. **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions"

12 Restart the computer after the installation is complete.**13** Set up the options with the printer driver.**14** You must set up the options when the bidirectional transmission is disabled. **Reference**

For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions".

For more information about settings for options, see p.53 "Setting up Options".

Configuring LPR Port Printing

 **Preparation**

Select **[Typical]** installation when you use the printer with the LPR port.

[Typical] installation installs the PCL 5c and RPCS printer driver.

Installing the Printer Driver

1 Close all applications that are running.**2** Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

- 4** Select **[Typical]** installation, and then click **[Next]**.
- 5** Follow the instructions on the screen.
- 6** Select **[LPR Port]** when the "Select Port" dialog box appears, and then click **[Next]**.

 **Note**

- If "LPR Port" does not appear, "Print Services for Unix" has not been installed. For more information about how to install "Print Services for Unix", see Windows 2000 Help.

- 7** Type the printer's IP address in the "Name or address of server providing lpd" box.

4

- 8** Type "lp" in the "Name of printer or print queue on that server" box, and then click **[OK]**.

- 9** Confirm that the selected port has been displayed in the "Port" box, and then click **[Next]**.

- 10** Click **[Finish]**.

 **Note**

- During installation, the **[Digital Signature Not Found]** dialog box may appear. In this case, click **[Yes]** to continue the installation.

- 11** Restart the computer after the installation is complete.

- 12** Set up the options with the printer driver.

 **Reference**

For more information about settings for options, see p.53 "Setting up Options".

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions".

Printing with Parallel Connection

Preparation

Select **[Typical]** installation when you use the printer with parallel connection. **[Typical]** installation installs the PCL 5c and RPCS printer driver.

Installing a Printer Driver

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Typical]** installation, and then click **[Next]**.

5 Follow the instructions on the screen.

6 Select **[LPT1]** when the **[Select Port]** dialog box appears, and then click **[Next]**.

7 Click **[Finish]**.

Note

During installation, the **[Hardware Installation]** dialog box may appear. In this case, click **[Continue Anyway]** to continue the installation.

8 Restart the computer after the installation is complete.

9 Set up the options with the printer driver.

Reference

For more information about settings for options, see p.53 "Setting up Options".

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.21 "The conditions of the bidirectional transmissions".

Setting up Options

You must set up the options when the bidirectional transmission is disabled.

1 Access the **[Printers and Faxes]** window from **[Start]** on the taskbar.

The **[Printers and Faxes]** window appears.

2 Click the icon of the printer you want to use.

3 On the **[File]** menu, click **[Properties]**.

4 Click the **[Accessories]** tab.

 **Note**

- If you use the RPCS printer driver, Click the **[Change Accessories]** tab.
- If you use the PS printer driver, Click the **[Device Settings]** tab.

5 Select options you have installed from the **[Option]** group. Make any settings you require.

6 Click **[OK]**.



The conditions of the bidirectional transmissions

When the bidirectional transmissions is enabled, the information about the paper size and feed direction settings are automatically sent to the printer by the computer. You can also confirm the printer's condition from your computer.

- The bidirectional transmissions is supported by Windows 95/98/Me, Windows 2000, Windows XP and Windows NT 4.0.
- If you use the RPCS printer driver and the bidirectional transmissions is enabled on Windows XP, the **[Change Accessories]** tab are grayed out.

 **Note**

- The RPCS printer driver supports the bidirectional transmission and update the printer status automatically.
- The PCL 5c printer driver supports the bidirectional transmission, you can update the printer status manually.
- The PostScript3 printer driver does not support the bidirectional transmission.

To support the bidirectional transmissions, the following conditions are required.

❖ **Connecting with the parallel interface cable and the USB exchange cable.**

- The computer supports the bidirectional transmissions.
- The interface cable supports the bidirectional transmissions.
- The printer is connected to the computer using the standard parallel interface cable and the parallel connector.
- Under Windows XP, the **[Enable bidirectional support]** is selected and **[Enable printer pooling]** is not selected under the **[ports]** tab.

❖ **Connecting with the network**

- SmartNetMonitor for Client and the TCP/IP protocol are used.
- Under Windows XP, the **[Enable bidirectional support]** is selected and **[Enable printer pooling]** is not selected under the **[ports]** tab.
- SmartNetMonitor for Client included on the CD-ROM is installed.



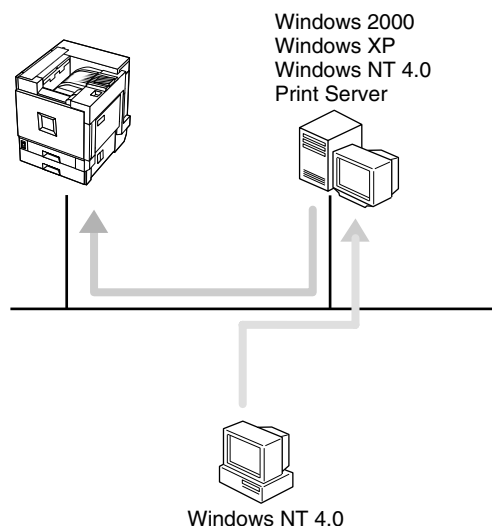
5. Windows NT 4.0 Configuration

Printing with a Print Server

Printing with a Windows 2000, Windows XP or Windows NT 4.0 Print Server

This section describes the procedures for setting up a client in a network that uses Windows 2000 Server, Windows 2000 Professional, Windows XP Professional, Windows XP Home Edition, Windows NT 4.0 Server or Windows NT 4.0 Workstation as a print server.

To print from Windows NT 4.0, you must install the printer driver and change the printer port to the print server.



! Limitation

- When using a print server connected to the machine with SmartNetMonitor for Client, you cannot use Recovery Printing and Parallel Printing.

✎ Note

- This section assumes that the client has already been configured to communicate with a Windows 2000/XP or Windows NT 4.0 print server. Do not begin the following procedure until the client has been set up and configured correctly.
- When using Windows NT 4.0 as the print server, make sure to install the Windows NT 4.0 printer driver before connecting the print server. There is a Windows NT 4.0 printer driver on the CD-ROM labeled "Printer Drivers and Utilities".

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select [Typical] installation, and then click [Next].

5 Follow the instructions on the screen.

6 Click [Add] when the "Select Port" dialog box appears.

7 Select [network printer], and then click [OK].

8 Double-click the computer name you want to use as a print server in the "Browse for Printer" window.

9 Select the printer you want to use, and then click [OK].

10 After confirming that the location for the selected printer appears, click [Next].

11 Follow the instructions on the screen.

12 Restart the computer after the installation is complete.

13 Set up the options with the printer driver.

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.

 **Reference**

For more information about settings for options, see p.67 "Setting up Options".

Printing without Using a Print Server

Configuring the Protocols

Configuring TCP/IP and IPP for Printing

Follow these instructions to configure the printer and Windows NT 4.0 to use the TCP/IP protocol and IPP.

❖ Configuring the printer

Configure the printer to use the TCP/IP protocol.

- Confirm that the TCP/IP protocol is set to be active. (The factory default is active.)
- Assign an IP address and make other settings required for using the TCP/IP protocol.

Reference

For more information about how to make the above settings, see “Configuring the printer for the Network”, *Administrator Reference 1*.

If DHCP is used to assign IP addresses, see Appendix, “When Using DHCP”, *Administrator Reference 2* included as a PDF file on the CD-ROM.

Note

- After setting the IP address, use the ping command to confirm that it has been set correctly.

① Click **[Start]**, point to **[Programs]**, and then click **[Command Prompt]**.

② Type the following. (Example IP address is 192.168.15.16)

```
C:> ping 192.168.15.16
```

If the address has been configured correctly, the following message appears.

```
Reply from 192.168.15.16 : bytes=32 time<10ms TTL=32
```

If the address has been configured incorrectly, the following message appears.

```
Request timed out.
```

❖ Configuring a Windows NT 4.0 computer

Follow these steps to configure a Windows NT 4.0 computer to use the TCP/IP protocol.

- ① Open **[Control Panel]** and double-click the **[Network]** icon. Confirm that “TCP/IP Protocol” is listed in the **[Network protocols]** box under the **[Protocols]** tab.

Note

- If the TCP/IP protocol is not installed, click **[Add]** under the **[Protocols]** tab and install it. For more information about installing the TCP/IP protocol, see Windows NT 4.0 Help.

- ② Configure the TCP/IP protocols with the appropriate IP address, subnet mask and other settings.
Confirm with the network administrator that the settings are correct.
- ③ Click the **[Services]** tab, and confirm that “Microsoft TCP/IP Printing” is installed.
If “Microsoft TCP/IP Printing” is not installed, click **[Add]** under the **[Services]** tab, and install it. For more information about installing and configuring network services, see Windows NT 4.0 Help.

Configuring NetBEUI for Printing

Follow these instructions to configure the printer and Windows NT 4.0 to use the NetBEUI protocol.

Preparation

To use NetBEUI, use the SmartNetMonitor for Client port.

❖ **Configuring the printer**

Configure the printer to use the NetBEUI protocol.

- Confirm that the NetBEUI protocol is set to be active. (The factory default is active.)

Reference

For more information about how to make the above settings, see “Configuring the printer for the Network”, *Administrator Reference 1*.

❖ **Configuring a Windows NT 4.0 computer**

Install the NetBEUI protocol on the Windows NT 4.0 computer, and change the LAN adapter number (Lana Number).

- ① Open **[Control Panel]** and double-click the **[Network]** icon. Confirm that “NetBEUI Protocol” is listed in the **[Network Protocols]** box under the **[Protocols]** tab.

Note

- If the NetBEUI protocol is not installed, click **[Add...]** under the **[Protocols]** tab, and install it. For more information about installing the NetBEUI protocol, see Windows NT 4.0 Help.
- ② Change the Lana Number. Click the **[Services]** tab, click “NetBIOS Interface” in the **[Network Services:]** box, and click **[Properties]**.
 - ③ Click the Lana Number corresponding to the Nbf protocol of the **[Network Route]** headline, and click **[Edit]**.
 - ④ Type “0” as the Lana Number.

Note

- If the other protocol's Lana Number is configured with “0”, you must change the Lana Number to a number other than “0”.

- ⑤ Click **[OK]**.
- ⑥ Click **[Close]**, and close the **[Network]** dialog box.
- ⑦ After confirming the message to restart, click **[Yes]**.

 **Note**

- After you change the Lana Number, you must restart the computer.

Installing Software

Preparation

Select **[Network]** installation when you print without using a print server.

[Network] installation installs the PCL 5c and RPCS printer driver and SmartNetMonitor for Client. When you print using TCP/IP, NetBEUI or IPP protocol in a Peer-to-Peer Network, you must select this installation.

[Custom] installation allows you to install SmartNetMonitor for Client separately.

Installing by "Network" installation

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Network]** installation when the selection screen appears.

5 Follow the instructions on the screen.

6 Select a printer you want to use when the **[Select Printer]** dialog box appears.

7 Click **[Add..]** when the **[Select Port]** dialog box appears.

8 Select **[SmartNetMonitor for Client]**, and then click **[OK]**.

Available printers will be listed.

9 Select a printer you want to use.

TCP/IP

- 1 Click the printer you want to use, and then click [OK].

 **Note**

- Printers that respond to an IP broadcast from the computer will be displayed. To print to a printer not listed here, click [**Specify Address**], and then type the IP address or host name.
- You cannot add an address partially similar to that already used. For example, when "192.168.0.2" is already used, "192.168.0.2xx" cannot be used. Similarly, when "192.168.0.20" is already used, "192.168.0.2" cannot be used.

NetBEUI

- 1 Click [NetBEUI].

A list of printers that can be used by the NetBEUI protocol appears.

- 2 Click the printer you want to use, and then click [OK].

 **Note**

- Printers that respond to an broadcast from the computer will be displayed. To print to a printer not listed here, click [**Specify Address**], and then type the NetBEUI address. Confirm the NetBEUI address on the network configuration page. For more information about the printing of configuration page, see "Printing a Configuration Page", *Administrator Reference 2* included as a PDF file on the CD-ROM.
- You cannot print to printers beyond routers.

IPP

- 1 Click [IPP].

The IPP settings dialog box appears.

- 2 To specify the IP address of the printer, type "http://(printer's-ip-address)/printer" or "ipp://(printer's-ip-address)/printer" in the [Printer URL] field.

(Example IP address is 192.168.15.16)

`http://192.168.15.16/printer`

`ipp://192.168.15.16/printer`

- 3 If necessary, type the names to distinguish the printer in [IPP Port Name]. Type a name differing from those of any existing port names.

If you omit this, the address typed in [Printer URL] will be set as the IPP port name.

- 4 If a proxy server and IPP user name are used, click **[Detailed Settings]** and configure the necessary settings.

 **Note**

- For more information about these settings, see SmartNetMonitor for Client Help.

10 Click **[OK]**.

11 Confirm that the selected port is highlighted, and then click **[Next]**.

12 Click **[Finish]**.

13 Restart the computer after the installation is complete.

14 Set up the options with the printer driver.

 **Reference**

For more information about settings for options, see p.67 "Setting up Options".

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.67 "The conditions of the bidirectional transmissions".

Accessing the Port Settings Dialog Box

This section describes how to access the port settings dialog box to change the settings of SmartNetMonitor for Client.

 **Reference**

For more information about these settings, see SmartNetMonitor for Client Help.

1 Click **[Start]** on the taskbar, point to **[Settings]**, and click **[Printers]**.

2 Click the icon of the printer you want to use.

3 On the **[File]** menu, click **[Properties]**.

4 Click the **[Details]** tab and click **[Port Settings]**.

The **[Port Settings]** dialog box appears.

- For TCP/IP protocol, you can configure Parallel Printing, Recovery Printing and Timeout Settings.

 **Note**

- If you cannot set items on the **[Recovery/Parallel Printing]** tab, follow the procedure below.
 - ① Click **[Cancel]** to close the **[Port Configuration:]** dialog box.
 - ② Start SmartNetMonitor for Client, and then right-click the SmartNetMonitor for Client icon on the taskbar.
 - ③ Click **[Extended Features Settings]**, and then select the **[Set Recovery/Parallel Printing for each port]** check box.
 - ④ Click **[OK]** to close the **[Extended Features Settings]** dialog box.
- For IPP, you can configure User Settings, Proxy Settings and Timeout Settings.

 **Note**

- For more information about these settings, see SmartNetMonitor for Client Help.

5

 **Installing SmartNetMonitor for Client individually**

- ① Close all applications that are running.
- ② Insert the CD-ROM into the CD-ROM drive.
The installer will start by Auto Run.

 **Important**

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

 **Note**

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.
- ③ Follow the instructions on the screen.
 - ④ Select **[Custom]** installation, and then click **[Next]**.
 - ⑤ Remove the check mark from the RPCS and PCL 5c printer driver.
 - ⑥ Click to select **[SmartNetMonitor for Client]**, and then click **[Install]**.
 - ⑦ Click **[OK]**.
 - ⑧ Follow the instructions on the screen.

 **Note**

- If you are required to restart the computer after the installation of SmartNetMonitor for Client, restart the computer and continue with necessary configurations.

Configuring LPR Port Printing

Preparation

Select **[Typical]** installation when you use the printer with the LPR port.
[Typical] installation installs the PCL 5c and RPCS printer driver.

Installing the Printer Driver

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Typical]** installation, and then click **[Next]**.

5 Follow the instructions on the screen.

6 Select **[LPR Port]** when the "Select Port" dialog box appears, and then click **[Next]**.

Note

- If "LPR Port" does not appear, "Microsoft TCP/IP Printing" has not been installed. For more information about how to install "Microsoft TCP/IP Printing", see Windows 2000 Help.

7 Type the printer's IP address in the "Name or address of server providing lpd" box.

8 Type "lp" in the "Name of printer or print queue on that server" box, and then click **[OK]**.

9 Confirm that the selected port has been displayed in the "Port" box, and then click **[Next]**.

10 Click **[Finish]**.

11 Restart the computer after the installation is complete.

12 Set up the options with the printer driver.

 **Reference**

For more information about settings for options, see p.67 "Setting up Options".

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.67 "The conditions of the bidirectional transmissions".

Printing with a Parallel Connection

Preparation

Select **[Typical]** installation when you use the printer with parallel connection. **[Typical]** installation installs the PCL 5c and RPCS printer driver.

Installing a Printer Driver

Preparation

The target printer must be turned on before starting the installation process.

1 Close all applications that are running.

2 Insert the CD-ROM into the CD-ROM drive.

The installer will start by Auto Run.

Important

- Never have two versions of the same printer driver installed on your system at the same time. When upgrading to a new version of the printer driver, delete the old version, and then install the new one.

Note

- Auto Run might not automatically work with certain operating system settings. In this case, launch "INSTTOOL.EXE" located on the CD-ROM root directory.

3 Follow the instructions on the screen.

4 Select **[Typical]** installation, and then click **[Next]**.

5 Follow the instructions on the screen.

6 Select **[LPT1]** when the **[Select Port]** dialog box appears, and then click **[Next]**.

7 Click **[Finish]**.

8 Restart the computer after the installation is complete.

9 Set up the options with the printer driver.

Reference

For more information about settings for options, see p.67 "Setting up Options".

 **Note**

- You can specify the "User Code" with the printer properties after installing the printer driver. See the Help file for the printer driver.
- You must set up the options when the bidirectional transmission is disabled. For more information about the status of the bidirectional transmission, see p.67 "The conditions of the bidirectional transmissions".

Setting up Options

You must set up the options when the bidirectional transmission is disabled.

1 Click **[Start]** on the taskbar, point to **[Settings]**, and then click **[Printers]**.

The **[Printers]** window appears.

2 Click the icon of the printer you want to use.

3 On the **[File]** menu, click **[Properties]**.

4 Click the **[Accessories]** tab.

 **Note**

If you use the RPCS printer driver, Click the **[Change Accessories]** tab.

If you use the PS printer driver, Click the **[Device Settings]** tab.

5 Select options you have installed from the **[Option]** group. Make any settings you require.

6 Click **[OK]**.

 **The conditions of the bidirectional transmissions**

When the bidirectional transmissions is enabled, the information about the paper size and feed direction settings are automatically sent to the printer by the computer. You can also confirm the printer's condition from your computer.

- The bidirectional transmissions is supported by Windows 95/98/Me, Windows 2000, Windows XP and Windows NT 4.0.
- If you use the RPCS printer driver and the bidirectional transmissions is enabled on Windows NT 4.0, the **[Change Accessories]** tab are grayed out.

 **Note**

- The RPCS printer driver supports the bidirectional transmission and update the printer status automatically.
- The PCL 5c printer driver supports the bidirectional transmission, you can update the printer status manually.
- The PostScript3 printer driver does not support the bidirectional transmission.

To support the bidirectional transmissions, the following conditions are required.

❖ **Connecting with the parallel interface cable and the USB exchange cable.**

- The computer supports the bidirectional transmissions.
- The interface cable supports the bidirectional transmissions.
- The printer is connected to the computer using the standard parallel interface cable and the parallel connector.
- Under Windows NT 4.0, the **[Enable bidirectional support]** is selected and **[Enable printer pooling]** is not selected under the **[ports]** tab.

❖ **Connecting with the network**

- SmartNetMonitor for Client and the TCP/IP protocol are used.
- Under Windows NT 4.0, the **[Enable bidirectional support]** is selected and **[Enable printer pooling]** is not selected under the **[ports]** tab.
- SmartNetMonitor for Client included on the CD-ROM is installed.



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