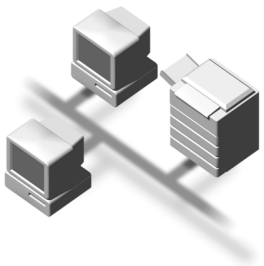
Network Guide



Read this manual carefully before you use this machine and keep it handy for future reference. For safe and correct use, be sure to read the Safety Information before using the machine.

Introduction

This manual contains detailed instructions and notes on the operation and use of this machine. For your safety and benefit, read this manual carefully before using the machine. Keep this manual in a handy place for quick reference.

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, 4.2 and IntranetWare.

Two kinds of size notation are employed in this manual.

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

- The product name of Windows® 95 is Microsoft® Windows 95.
- The product name of Windows® 98 is Microsoft® Windows 98.
- The product name of Windows® Me is Microsoft® Windows Millennium Edition (Windows Me).
- The product names of Windows® 2000 are as follows:
  Microsoft® Windows® 2000 Server
  Microsoft® Windows® 2000 Professional
- The product names of Windows® XP are as follows:
  Microsoft® Windows® XP Professional
  Microsoft® Windows® XP Home Edition
- The product names of Windows™ Server 2003 are as follows:
  Microsoft® Windows™ Server 2003 Standard Edition
  Microsoft® Windows™ Server 2003 Enterprise Edition
  Microsoft® Windows™ Server 2003 Web Edition
- The product names of Windows NT® 4.0 are as follows:
  Microsoft® Windows NT® Server 4.0
  Microsoft® Windows NT® Workstation 4.0

Note:

Some illustrations in this manual might be slightly different from the machine.

Manuals for This Machine

The following manuals describe the operational procedures of this machine. For particular functions, see the relevant parts of the manual.

Note

❒ Manuals provided are specific to machine type.

❒ Adobe Acrobat Reader/Adobe Reader is necessary to view the manuals as a PDF file.

❖ **Safety Information (paper)**
Describes information about the safety precautions.

❖ **Easy Operation Guide (paper/PDF file - CD-ROM [*1])**
Describes information about the control panel and basic operations.

❖ **Operating Instructions (PDF file - CD-ROM [*1])**
Describes operations, functions, User Tools (initial setting, mode setting, etc.) and troubleshooting.

❖ **Network Guide (this manual)**
Describes procedures for configuring the machine and computers in a network environment.

❖ **Printer Reference (PDF file - CD-ROM [*1])**
Describes system settings and operations for the machine's printer function.

❖ **Preparations for Use as a Printer (paper/PDF file - CD-ROM [*1])**
Describes procedures for connecting the Ethernet and USB cables to the machine.

❖ **Manuals for DeskTopBinder Lite**
DeskTopBinder Lite is a utility included on the CD-ROM labeled "Document Management Utility".

- DeskTopBinder Lite Setup Guide (PDF file - CD-ROM [*2])
  Describes the installation of, and the operating environment for DeskTopBinder Lite in detail. This guide can be displayed from the **[Setup]** dialog box when DeskTopBinder Lite is installed.
- DeskTopBinder Lite Introduction Guide (PDF file - CD-ROM [*2])
  Describes operations of DeskTopBinder Lite and provides an overview of its functions. This guide is added to the **[Start]** menu when DeskTopBinder Lite is installed.

❖ **Other manuals**

- PostScript3 (PDF file - CD-ROM [*1])

[*1] Provided on the CD-ROM labeled "Operating Instructions"
[*2] Provided on the CD-ROM labeled "Document Management Utility"

TABLE OF CONTENTS

7. Using SmartDeviceMonitor for Admin

8. Configuring the Network Interface Module Using a Web Image Monitor

9. Appendix

How to Read This Manual

Symbols

The following set of symbols is used in this manual.

⚠ ***WARNING:***
This symbol indicates a potentially hazardous situation that might result in death or serious injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

⚠ ***CAUTION:***
This symbol indicates a potentially hazardous situation that might result in minor or moderate injury or property damage that does not involve personal injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

* The statements above are notes for your safety.

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

Preparation
This symbol indicates information or preparations required prior to operating.

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

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 that appear on the machine's display panel.

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

【 】
Keys built into the machine's control panel.

【 】
Keys on the computer's keyboard.

Names of Major Options

Major options of this printer are referred to as follows in this manual:

- IEEE 1284 Parallel Board Type 1 → IEEE 1284 parallel board
- IEEE 802.11b I/F Unit Type 1 → IEEE 802.11b interface unit
- PostScript3 Board Type 2 → PostScript board
- Extension HDD Type 1→ HDD board

The following software product is referred to using a general name:

- DeskTopBinder Lite and DeskTopBinder professional → DeskTopBinder Lite/professional

1. Printer Functions Available over a Network

This printer provides printer functions over a network.

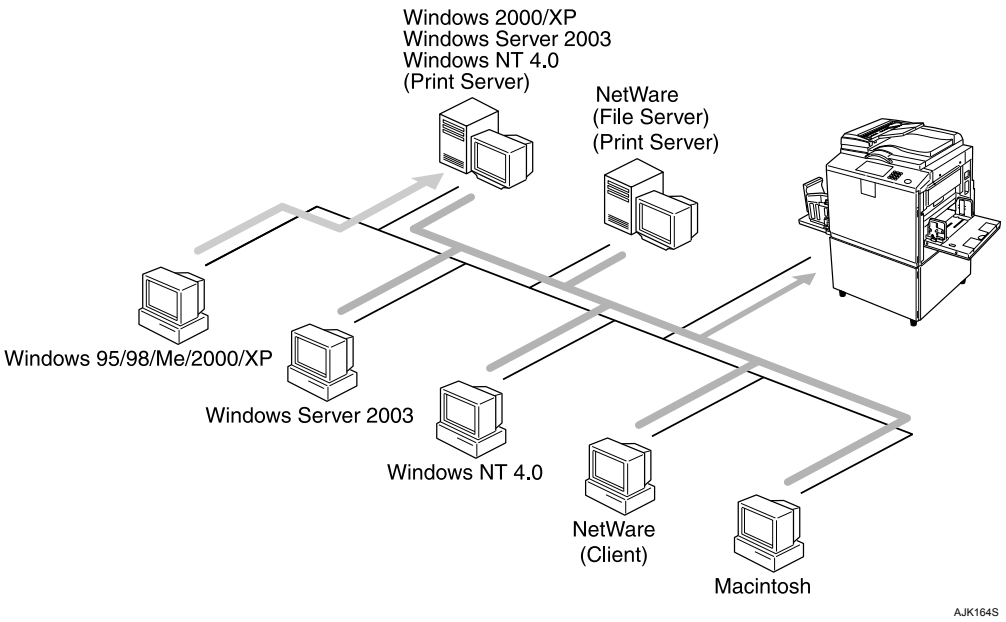
Using the Printer

The network interface module is compatible with NetWare [*1] (IPX/SPX, TCP/IP), Windows NT 4.0 (TCP/IP, NetBEUI [*2], IPP [*3]), Windows 2000 (TCP/IP, NetBEUI [*2], IPP [*3]), Windows XP (TCP/IP, IPP [*3]), Windows Server 2003 (TCP/IP, IPP [*3]), Windows 95/98/Me (TCP/IP, NetBEUI [*2], IPP [*3]), and Macintosh (AppleTalk) protocols. This allows you to operate the printer in a network that uses different protocols and operating systems.

[*1] If the IEEE 802.11b interface unit is installed, you can use only infrastructure mode.

[*2] For NetBEUI, use the SmartDeviceMonitor for Client port.

[*3] IPP (Internet Printing Protocol) is a protocol for printing via the Internet.



Reference

For details about what settings to make, see p.7 “Setting Up the Machine on a Network”.

For details about using this function, see p.21 “Using the Printer Function”.

2. Connecting the Network Cable to the Network

Confirming the Connection

This section gives instructions for connecting the printer and computer, configuring the printer, and installing software.

❖ **When operating the printer with a USB or a parallel connection**

- Connect the printer and computer using a USB or a parallel cable.

  Reference

  For more information about connection using the USB, see *Preparations for Use as a Printer*.

  For more information about connection using the parallel cable, see "Connecting the Printer", *Printer Reference*.

- Install a printer driver from the CD-ROM labeled "Printer Drivers and Utilities".

  Reference

  For more information, see "Installing the Software", *Printer Reference*.

❖ **When operating the printer under a network environment**

- Configure the network using the machine's control panel.

  Reference

  For more information see "User Tools Menu (System Settings)", *Printer Reference*.

  For information about connection using Ethernet, see *Preparations for Use as a Printer*.

  For information about connection using wireless LAN, see "Connecting the Printer", *Printer Reference*.

- Install a printer driver and other utilities from the CD-ROM labeled "Printer Drivers and Utilities".

  Note

  ❒ "Network environment" describes a situation where the printer is connected to a computer via wireless LAN.

  ❒ The IEEE 1284 parallel board for parallel connection and the IEEE 802.11b interface unit for wireless LAN connection cannot be used at the same time.

  ❒ Wireless LAN and parallel connection are optional functions.

3. Setting Up the Machine on a Network

User Tools Menu (System Settings)

This section describes the network settings you can change with User Tools (System Settings). Make settings according to functions you want to use and the interface to be connected.

Important

❒ These settings should be made by the systems administrator, or after consulting with the systems administrator.

❖ **Viewing the Information Displayed in the List**

● These items must be set to use the function. Be sure to set them before attempting to use the corresponding function.
For details about settings, see p.11 “Settings You Can Change with User Tools”.

❍ These items must be set if required.
For details about settings, see p.11 “Settings You Can Change with User Tools”.

Interface Settings

Interface	Settings		
Ethernet	Interface Settings/Network Seep.11 "Interface Settings/Network".	IP Address	●
		Gateway Address	❍
		NW Frame Type	❍
		Efective Protocol *1	●
		Ethernet Speed	❍
		LAN Type *2	●
IEEE 802.11b (wireless LAN)	Interface Settings/Network Seep.11 "Interface Settings/Network"	IP Address	●
		Gateway Address	❍
		Efective Protocol *1	●
		NW Frame Type	❍
		Ethernet Speed	❍
		LAN Type *2	●
	Interface Settings/IEEE 802.11b *2 See⇒ p.13 "Interface Settings/IEEE 802.11b"	Communication Mode	●
		SSID Setting	❍
		Channel	❍
		WEP (Encryption) Setting	❍
		Wireless LAN Signal	❍
		Transmission Speed	❍

*1 Check **[Active]** is selected for TCP/IP.

*2 Appears when the IEEE 802.11b interface unit is installed.
If Ethernet and IEEE 802.11b (wireless LAN) are both connected to the printer, the selected interface has priority.

Network Configuration

Any change you make with User Tools remains in effect even if the main power switch or operation switch is turned off, or if the 【Clear Modes】 key is pressed.

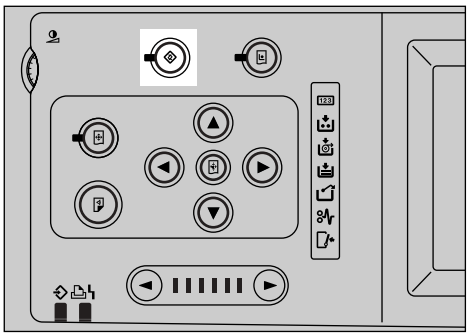
Configuring the network using the control panel

Note

❒ Operations for System Settings are different from normal operations. After using User Tools, press the 【User Tools】 key to exit.

❒ If the key operator code has been set, the key operator code entry screen appears. Enter the code, and then press the **[OK]** key. For details about the key operator code, see *Operating Instructions*.

1 **Press the 【User Tools】 key.**



AJK135S

2 **Press [System Settings].**

3 **Press [Interface Settings].**

4 **Select the setting you want to change, and then press [OK].**

5 **Change the setting, and then press [OK].**

Note

❒ To cancel changes made to settings and return to theSystem Settings menu, press **[Cancel]**.

6 **Press [Exit].**

7 **Press the 【User Tools】 key.**

Note

❒ You can also exit by pressing **[Exit]** on the User Tools main menu.

Configuring the network using other utilities

In addition to the control panel, a Web Image Monitor and SmartDeviceMonitor for Admin can also be used for configuring the network.

The following table shows available settings:

Note

❒ ❍ Indicates printer settings can be changed.

❒ - Indicates the setting cannot be changed from that device.

Name on the control panel				Web Image Monitor	SmartDeviceMonitor for Admin	telnet
Interface	Network	DHCP		❍	❍	❍
		IP Address		❍	❍	❍
		Subnet Mask		❍	❍	❍
		Gateway Address		❍	❍	❍
		NW Frame Type	Auto	❍	-	❍
			EthernetII	❍	-	❍
			Ethernet802.2	❍	-	❍
			Ethernet802.3	❍	-	❍
			EthernetSNAP	❍	-	❍
		Active Protocol	TCP/IP	-	❍*1	❍
			NetWare	❍	❍*2	❍
			SMB	❍	❍	❍
			AppleTalk	❍	❍	❍
		Ethernet Speed		-	-	-
		LAN Type	Ethernet	❍	-	❍
			IEEE 802.11b	❍	-	❍
	IEEE 802.11b	Comm. Mode		❍	-	❍
		Channel		❍	-	❍
		Trans. Speed		-	-	❍
		SSID		❍	-	❍
		WEP Encryption		❍	-	❍
		WEP Key		❍	-	❍

*1 You can make the TCP/IP settings if SmartDeviceMonitor for Admin is communicating with the printer using IPX/SPX.

*2 You can make the IPX/SPX settings if SmartDeviceMonitor for Admin is communicating with the printer using TCP/IP.

Settings You Can Change with User Tools

Interface Settings/Network

❖ IP Address

Before using this machine in the network environment, you must configure the IP address and subnet mask.

- Auto-Obtain (DHCP)
- Specify
  When you select **[Specify]**, enter the **[IP Address]**and **[Sub-net Mask]** as "xxx.xxx.xxx.xxx"("x" indicates a number).
  - IP Address: 011.022.033.044
  - Sub-net Mask: 000.000.000.000

Note

❒ Default: *Auto-Obtain (DHCP)*

❒ When you select **[Specify]**, be sure not to set the same **[IP Address]** as that of another machines on the network.

❒ The physical address (MAC address) also appears.

❖ Gateway Address

A gateway is a connection or interchange point between two networks. Configure the gateway address for the router or host computer used as a gateway.

- Gateway Address:000.000.000.000

Note

❒ Default: *000.000.000.000*

❖ Effective Protocol

Select the protocol to use in the network.

- TCP/IP:Effective/Invalid
- NetWare:Effective/Invalid
- SMB:Effective/Invalid
- AppleTalk:Effective/Invalid

Note

❒ Default: *TCP/IP: Effective*, *NetWare: Effective*, *SMB: Effective*, *AppleTalk: Effective*

❖ **NW Frame Type**

Select the frame type when you use NetWare.

- Auto Select
- Ethernet II
- Ethernet 802.2
- Ethernet 802.3
- Ethernet SNAP

Note

❒ Default: *Auto Select*

❖ **Ethernet Speed**

Set the access speed for networks.
Select a speed that matches your network environment. **[Auto Select]** should usually be selected.

- Auto Select
- 100Mbps Fixed
- 10Mbps Fixed

Note

❒ Default: *Auto Select*

❖ **LAN Type**

When you have installed the optional IEEE 802.11b interface unit, select interface, IEEE 802.11b (wireless LAN) or Ethernet.

- Ethernet
- IEEE 802.11b

Note

❒ Default: *Ethernet*

❒ Appears when the optional IEEE 802.11b interface unit is installed.

❒ If Ethernet and IEEE 802.11b (wireless LAN) are both connected to the machine, the selected interface takes precedence.

Interface Settings/IEEE 802.11b

Preparation

You must install the IEEE 802.11b interface unit into the printer.

Note

❒ Be sure to make all settings.

❖ Communication Mode

Specifies the communication mode of the wireless LAN.

- 802.11 Ad hoc
- Ad hoc
- Infrastructure

Note

❒ Default: *802.11 Ad hoc*

❖ SSID Setting

Specifies SSID to distinguish the access point in infrastructure mode or 802.11 ad hoc mode.

Limitation

❒ The characters that can be used are ASCII 0x20-0x7e (32 bytes).

Note

❒ Default: *blank (ASSID)*

❒ If blank is specified in 802.11b ad hoc mode or ad hoc mode, "ASSID" appears.

❖ Channel

Specifies a channel when you select 802.11b ad hoc mode or ad hoc mode.

Note

❒ Default: *11*

❒ The following channels are available:

- Metric version: 1-13
- Inch version: 1-11

❖ **WEP (Encryption) Setting**

Specifies the encryption of the IEEE 802.11b (wireless LAN). If this is set to **[Active]**, you must enter the WEP key.

- ▶WEP
  - Active
  - Inactive
- ▶Encryption
  10 alphanumeric characters must be entered for 64 bit, 26 characters for 128 bit.

Note

❒ Default: *Inactive*

❖ **Wireless LAN Signal**

Shows the radio wave conditions of the access point connected in infrastructure mode.

Note

❒ Radio wave status is displayed when you press **[Wireless LAN Signal]**.

❖ **Transmission Speed**

Specifies the communication speed of the IEEE 802.11b (wireless LAN).

- Auto
- 11Mbps Fixed
- 5.5Mbps Fixed
- 2Mbps Fixed
- 1Mbps Fixed

Note

❒ Default: *Auto*

❖ **Return to Defaults**

You can return the IEEE 802.11b (wireless LAN) settings to their defaults.

- No
- Yes

4. Windows Configuration

Configuring TCP/IP

This section describes how to configure Windows for TCP/IP and IPP.

Configuring a Windows 95/98/Me Computer

Follow the procedure below to configure a Windows 95/98/Me computer to use TCP/IP.

1. **Open [Control Panel], and then double-click the Network icon. Make sure [TCP/IP] is selected in the [The following network components are installed] box on the [Configuration] tab.**

   Note

   ❒ Select TCP/IP if it is not already selected.

   ❒ If TCP/IP is not installed, click **[Add...]** on the **[Configuration]** tab to install it. For more information about installing TCP/IP, see Windows 95/98/Me Help.

2. **Click [Properties].**

3. **Configure TCP/IP using the appropriate IP address, subnet mask, and other settings.**

   Check with the network administrator that the settings are correct.

Configuring a Windows 2000 Computer

Follow the procedure below to configure a Windows 2000 computer to use TCP/IP.

1. **On the [Start] menu, point to [Settings], and then click [Network and Dial-up Connections].**

2. **Double-click [Local Area Connection]. On the [General] tab, click [Properties].**

3. **Make sure [Internet Protocol (TCP/IP)] is selected in the [Components checked are used by this connection] box on the [General] tab.**

   Note

   ❒ Select TCP/IP if it is not already selected.

   ❒ If TCP/IP is not installed, click **[Install]** on the **[General]** tab to install it. For more information about installing TCP/IP, see Windows 2000 Help.

4. **Click [Properties].**

5. **Configure TCP/IP using the appropriate IP address, subnet mask, and other settings.**

   Check with the network administrator that the settings are correct.

Configuring a Windows XP Computer

Follow the procedure below to configure a Windows XP computer to use TCP/IP.

1. **On the [Start] menu, click [Control Panel], 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. **Make sure [Internet Protocol (TCP/IP)] is selected in the [This connection uses the following items] box on the [General] tab.**

   Note

   ❒ Select TCP/IP if it is not already selected.

   ❒ If TCP/IP is not installed, click **[Install]** on the **[General]** tab to install it. For more information about installing TCP/IP, see Windows XP Help.

5. **Click [Properties].**

6. **Configure TCP/IP using the appropriate IP address, subnet mask, and other settings.**

   Check with the network administrator that the settings are correct.

Configuring a Windows Server 2003 Computer

Follow the procedure below to configure a Windows Server 2003 computer to use TCP/IP.

1. **On the [Start] menu, point to [Control Panel], point to [Network Connections], and then click [Local Area Connection].**

2. **On the [General] tab, click [Properties].**

3 **Make sure [Internet Protocol (TCP/IP)] is selected in the [This connection uses the following items] box on the [General] tab.**

Note

❒ Select TCP/IP if it is not already selected.

❒ If TCP/IP is not installed, click **[Install...]** on the **[General]** tab to install it. For more information about installing TCP/IP, see Windows Server 2003 Help.

4 **Click [Properties].**

5 **Configure TCP/IP using the appropriate IP address, subnet mask, and other settings.**

Check with the network administrator that the settings are correct.

Configuring a Windows NT 4.0 Computer

Follow the procedure below to configure a Windows NT 4.0 computer to use TCP/IP.

1 **Open [Control Panel], and then double-click the Network icon. Make sure [TCP/IP Protocol] is selected in the [Network Protocols] box on the [Protocols] tab.**

Note

❒ Select TCP/IP if it is not already selected.

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

2 **Click [Properties...].**

3 **Configure TCP/IP using the appropriate IP address, subnet mask, and other settings.**

Check with the network administrator that the settings are correct.

Configuring NetBEUI

This section describes how to configure Windows to use NetBEUI.

Limitation

❒ NetBEUI cannot be used under Windows XP or Windows Server 2003.

Note

❒ NetBEUI appears as SMB in the control panel, manual, and related utilities.

Configuring a Windows 95/98/Me Computer

Follow the procedure below to configure a Windows 95/98/Me computer to use NetBEUI.

1. **Open [Control Panel], and then double-click the Network icon. Make sure [NetBEUI] is listed in the [The following network components are installed] box on the [Configuration] tab.**

   Note

   ❒ If NetBEUI is not installed, click **[Add...]** on the **[Configuration]** tab to install it. For more information about installing NetBEUI, 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. **Click [OK] to close the [Network] dialog box.**

Configuring a Windows 2000 Computer

Follow the procedure below to configure a Windows 2000 computer to use NetBEUI.

1. **On the [Start] menu, point to [Settings], and then click [Network and Dial-up Connections].**

2. **Double-click [Local Area Connection]. On the [General] tab, click [Properties].**

3. **Make sure [NetBEUI Protocol] is selected in the [Components checked are used by this connection] box on the [General] tab.**

   Note

   ❒ Select NetBEUI if it is not already selected.

   ❒ If NetBEUI is not installed, click **[Install]** on the **[General]** tab to install it. For more information about installing NetBEUI, see Windows 2000 Help.

4. **Click [OK] to close the [Local Area Connection Proparties] dialog box.**

Configuring a Windows NT 4.0 Computer

Follow the procedure below to configure a Windows NT 4.0 computer to use NetBEUI.

1. **Open [Control Panel], and then double-click the Network icon. Make sure [NetBEUI Protocol] is listed in the [Network Protocols] box on the [Protocols] tab.**

   Note

   ❒ If NetBEUI is not installed, click **[Add...]** on the **[Protocols]** tab to install it. For more information about installing NetBEUI, see Windows NT 4.0 Help.

2. **Change the Lana Number. Click the [Services] tab, click [NetBIOS Interface] in the [Network Services] box, and then click [Properties...].**

3. **Click the Lana Number corresponding to the Nbf protocol in the [Network Route] column, and then click [Edit].**

4. **Enter "0" as the Lana Number.**

   Note

   ❒ If the other protocol's Lana Number is "0", you must change the Lana Number to a number other than "0".

5. **Click [OK].**

6. **Click [Close] to close the [Network] dialog box.**

   The confirmation message about restarting appears.

7. **Click [Yes].**

   Note

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

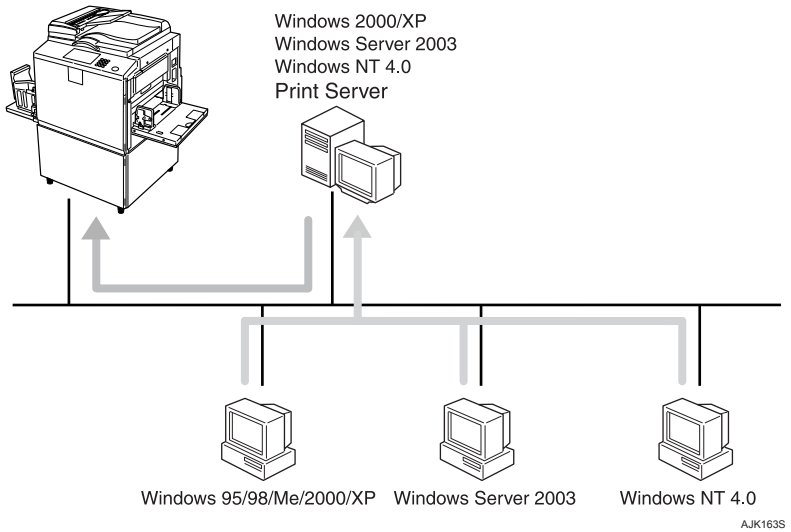
5. Using the Printer Function

This section contains instructions for configuring the printer as a network printer. Read the section that relates to your network environment for information about correct configuration.

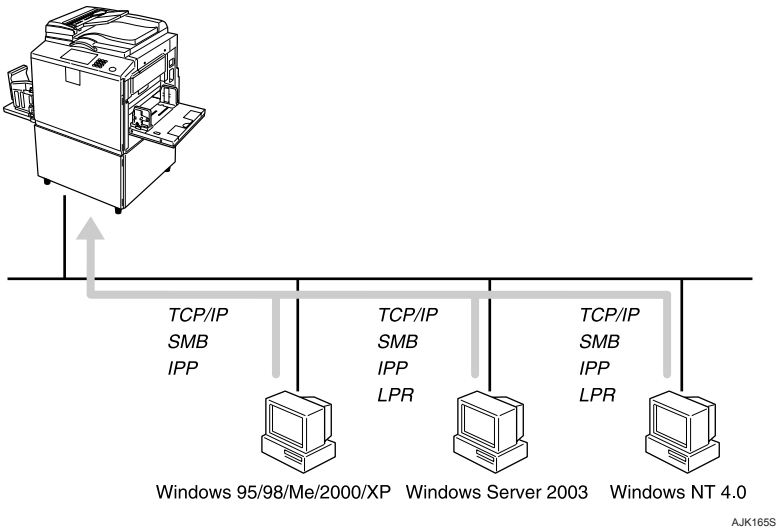
❖ **Printing with a Windows 2000/XP, Windows Server 2003, or Windows NT 4.0 Print Server**

To set up the printer as a network printer in Windows 95/98/Me/2000/XP, Windows Server 2003, and Windows NT 4.0 environment, see p.24 “Printing with Windows”.

- Printing with a Windows 2000/XP, Windows Server 2003, or Windows NT 4.0 print server



- Printing without a print server

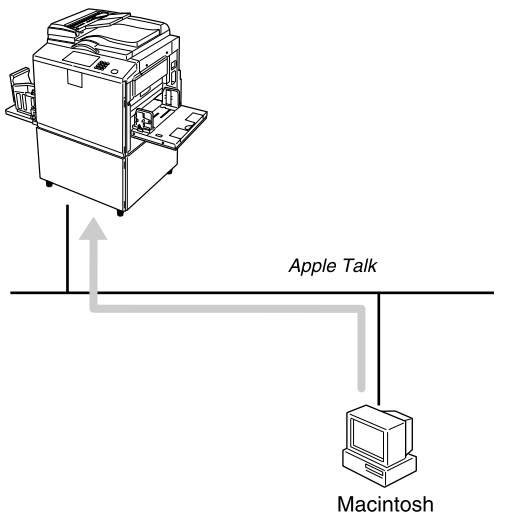


Note

❒ Under Windows XP, Windows Server 2003 you cannot print via NetBEUI using SMB.

❖ Printing with a Macintosh

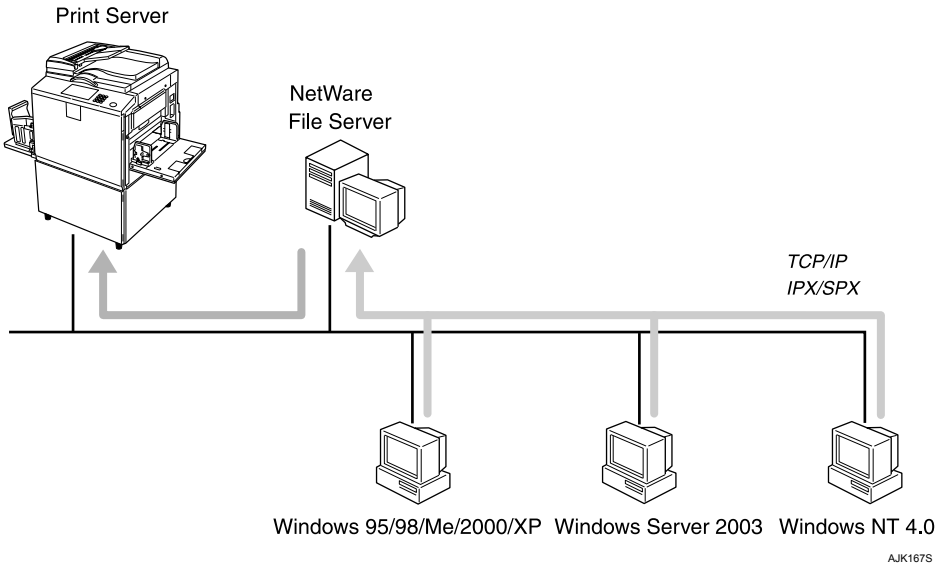
To set up the printer as a network printer in a Macintosh environment, see p.29 “Printing with a Mac OS”.



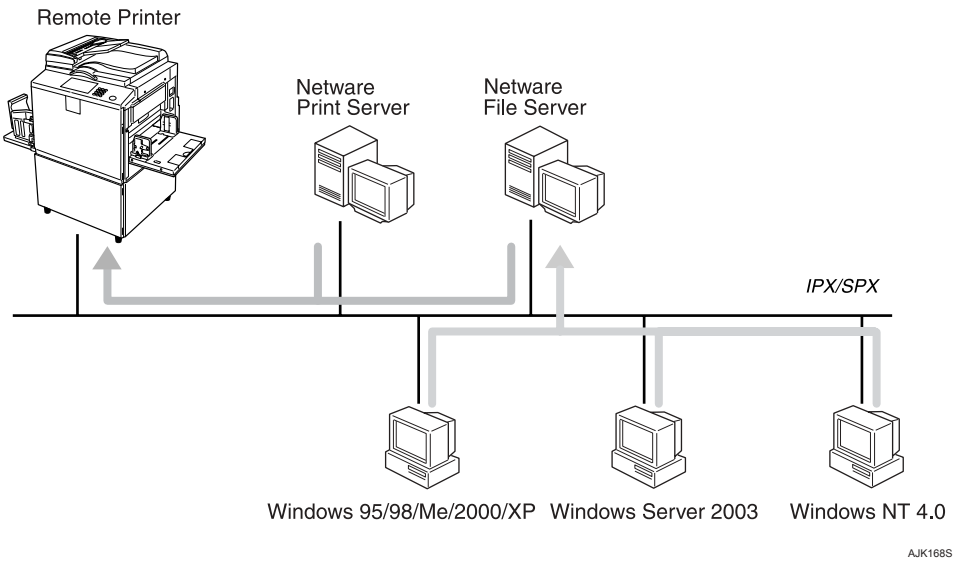
❖ Printing with NetWare

To set up the printer as a print server or remote printer in a NetWare environment, see p.31 “Printing with NetWare”. The network interface module allows you to use the printer as either a print server or a remote printer.

- Configuring the printer as a print server



- Configuring the printer as a remote printer



Printing with Windows

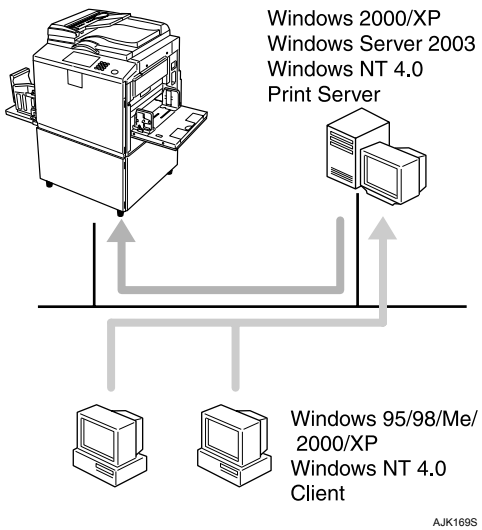
Printing with a Windows 2000/XP, Windows Server 2003 or Windows NT 4.0 Print Server

This section describes how to configure a client computer on a network using Windows 2000/XP, Windows Server 2003, Windows NT 4.0 Server or Windows NT 4.0 Workstation as a print server.

When using a Windows 2000/XP, Windows Server 2003, or Windows NT 4.0 print server, select a shared printer on Windows 2000/XP, Windows Server 2003, or Windows NT 4.0.

This section describes running **[Add Printer Wizard]** on each client computer, and adding the Windows 2000, Windows XP, Windows Server 2003, and Windows NT 4.0 print servers as the network printer.

These instructions are for Windows 98.



Limitation

- ❒ When using a print server connected to the printer with SmartDeviceMonitor 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.

Note

- ❒ This section assumes the client is already configured to communicate with a Windows 2000/XP, Windows Server 2003, or Windows NT 4.0 print server. Do not begin the following procedure until the client computer is set up and configured correctly.
- ❒ When using Windows NT 4.0 as the print server, make sure you 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 **On the [Start] menu, point to [Settings], and then click [Printers].**

2 **Click the icon of the printer you want to use. On the [File] menu, click [Properties].**

3 **Click the [Details] tab, and then click [Add Port].**

4 **Click [Network], and then click [Browse].**

5 **On the network tree, double-click the name of the computer used as the print server.**

The printers connected to the network are displayed.

6 **Click the name of the printer you want to use, and then click [OK].**

7 **Click [OK].**

8 **Make sure the port name is displayed in the [Print to the following port] box, and then click [OK].**

Printing without a Print Server

You can use this printer as a network printer without connecting to a print server.

You can configure the following ports:

❖ **SmartDeviceMonitor**
You can print via TCP/IP, IPP, or NetBEUI using SmartDeviceMonitor.

Note

❒ Install SmartDeviceMonitor for Client from the supplied CD-ROM. For more information about installation, see *Printer Reference*.

❒ For more information about SmartDeviceMonitor for Client, see p.47 "Using SmartDeviceMonitor for Client".

❖ **Standard TCP/IP port**
You can print via TCP/IP using a standard TCP/IP port.

Note

❒ A standard TCP/IP port can be used with Windows 2000/XP or Windows Server 2003.

❖ **LPR port**
You can print via TCP/IP using an LPR port.

Note

❒ An LPR port can be used with Windows 2000/XP, Windows Server 2003, or Windows NT 4.0.

Changing port settings

This section describes how to change the port settings under Windows 2000 when a printer driver has been installed.

1 In the [Printers] window, click the icon of the printer you want to use. On the [File] menu, click [Properties].

2 Click the [Ports] tab, and then click [Add Port].

Select the port you want to use.

SmartDeviceMonitor

❶ **Click [SmartDeviceMonitor], and then click [New Port].**

❷ **Select the printer you want to use.**

❖ **TCP/IP**

① Click **[TCP/IP]**, and then click **[Search]**.
Available printers are listed.

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

Note

❒ Printers that respond to a broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then enter the printer's IP address or host name.

❖ **NetBEUI**

Note

❒ Do not use NetBEUI under Windows XP or Windows Server 2003.

① Click **[NetBEUI]**, and then click **[Search]**.
Available printers are listed.

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

Note

❒ Printers that respond to a broadcast from the computer will be displayed. To print to a printer not listed here, click **[Specify Address]**, and then enter the NetBEUI address. Confirm the NetBEUI address on the network appears on the configuration page. For more information about printing the configuration page, see "List/Test Print", *Printer Reference*. NetBEUI addresses appear as "\\RNPxxxx\xxx" on the configuration page. Enter the printer's network path name in the format: "%%Computer name\Share name". Do not enter "\\" as head characters but "%%".

❒ 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, enter "http://printer's IP address/printer" or "ipp://printer's IP address/printer" in the **[Printer URL]** box.
(Example: IP address is 192.168.15.16)

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

③ If necessary, enter the name to identify the printer in the **[IPP Port Name]** box. Enter a different name from those of any existing port name.
If you do not do this, the address entered in the **[Printer URL]** box is set as the IPP port name.

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

⑤ Click **[OK]**.

5

Standard TCP/IP Port

❶ **Click [Standard TCP/IP], and then click [New Port].**

❷ **In the [Add Standard TCP/IP Printer Port Wizard] dialog box, click [Next].**

❸ **In the [Printer Name or IP Address] box, enter the printer name or IP address, and then click [Next].**

❹ **In the [Add Standard TCP/IP Printer Port Wizard] dialog box, click [Finish].**

LPR Port

❶ **Click [LPR Port], and then click [New Port].**

❷ **In the [Name or address of server providing lpd] box, enter the printer's IP address.**

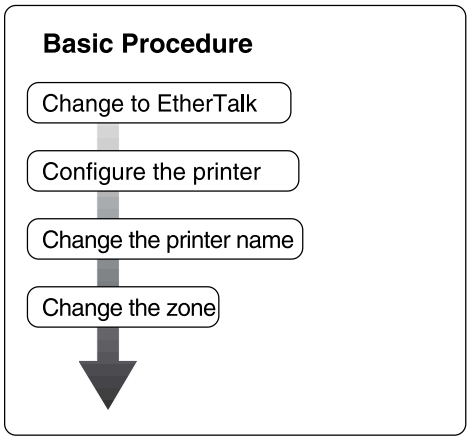
❸ **In the [Name of printer or print queue on that server] box, enter "lp", and then click [OK].**

3 **Click [OK].**

4 **Check the location for the selected printer, and click [Close].**

Printing with a Mac OS

This section describes how to configure a Mac OS computer to use EtherTalk. Actual procedures may vary depending on the version of the Mac OS. The following procedures describe how to configure Mac OS 9.1 and Mac OS X v10.1. If you are using other version than Mac OS 9.1 and Mac OS X v10.1, see the manual that comes with Mac OS for more information.



Note

❒ Mac OS 8.6 and later versions are supported (except for Mac OS X v10.0.x).

❒ To print from a Mac OS, PostScript board is required.

Changing to EtherTalk

Follow the procedure below to configure a Mac OS computer to use EtherTalk.

Reference

For more information about installing the software required for EtherTalk, see the Mac OS manuals.

Mac OS

1 Open [Control Panel], and then double-click the AppleTalk icon.

2 On the [Connect via] pop-up menu, click [Ethernet].

3 If you change zones, select a name on the [Current zone] pop-up menu.

4 Close the [AppleTalk] control panel.

5 Click [Save].

6 Restart the Mac OS.

Mac OS X

Note

❒ You need an administrator name and a password (phrase). For more information, consult your administrator.

1. **Open [System Preferences...], and then click the Network icon.**
2. **From the [show] pop-up menu, select [Built-in Ethernet].**
3. **Click the [AppleTalk] tab.**
4. **If you change zones, select a name on the [AppleTalk Zone:] pop-up menu.**
5. **When the setting is complete, click [Apply Now].**

Configuring the Printer

Use the control panel to activate the AppleTalk protocol (The default is active).

Reference

For more information about configuration, see p.11 “Interface Settings/Network”.

Changing the Printer Name

If the network has several similar model printers, the names will be the same. Printers with the same name will have slightly different names in the **[Chooser]** dialog box. For example, three printers named “printer” will appear in the **[Chooser]** dialog box as “printer0”, “printer1”, and “printer2”.

To change the printer name in the Mac OS EtherTalk environment, use Printer Utility for Mac included on the CD-ROM labeled “Printer Drivers and Utilities”.

Changing the Zone

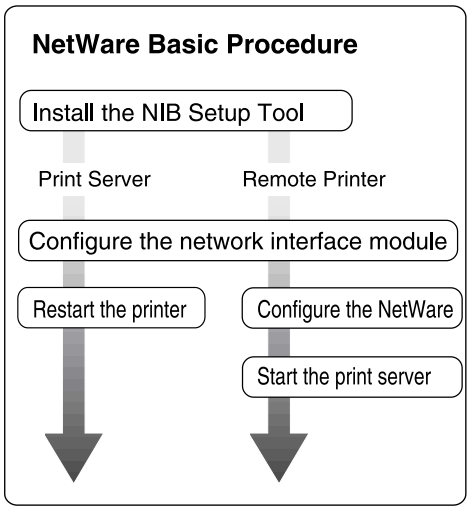
To change the zone configuration in a Mac OS EtherTalk environment, use Printer Utility for Mac included on the CD-ROM labeled “Printer Drivers and Utilities”.

Reference

For more information about using Printer Utility for Mac, see *PostScript3*, provided as a PDF file on the CD-ROM labeled “Printer Drivers and Utilities”.

Printing with NetWare

This section describes how to configure the printer for use as a print server or remote printer in a NetWare environment.



This section assumes NetWare is functional and the necessary environment for the NetWare print service is available.

Note

❒ NetWare must be set to active using the control panel. For more information about how to set it, see p.5 “"Network environment" describes a situation where the printer is connected to a computer via wireless LAN.”.

❖ **SmartDeviceMonitor for Admin**

To use a printer in a NetWare environment, configure the NetWare printing environment using SmartDeviceMonitor for Admin.

Note

❒ If you configure NetWare printing using SmartDeviceMonitor for Admin under the following environments, NetWare Client from Novell is required:

- NDS mode in Windows 95/98/Me
- NDS or Bindery mode in Windows 2000/XP, Windows Server 2003, Windows NT 4.0

❖ **Printers listed by SmartDeviceMonitor for Admin**

SmartDeviceMonitor for Admin displays a list of printers that are connected to the network.

If you cannot find the printer from the displayed list, refer to the configuration page printed from the printer. For more information about printing a configuration page, see “List/Test Print”, *Printer Reference*.

Setting Up as a Print Server

NetWare 3.x

1. **Log on to the file server as a Supervisor, or equivalent.**
2. **Start SmartDeviceMonitor for Admin.**
3. **On the [Group] menu, point to [Search Device], and then click [IPX/SPX].**
   A list of machines appears.
4. **In the list, select the printer for which you want to change configuration.**
5. **On the [Tools] menu, click [NIB Setup Tool].**
   NIB Setup Tool starts.
6. **Click [Wizard], and then click [OK].**
7. **If necessary, enter the print server name in the [Device name:] box, and then click [Next >].**
8. **Select the [NetWare] check box, and then click [Next >].**
9. **Click [Bindery mode], enter the file server name in the [File Server Name:] box, and then click [Next >].**
   - In the **[File Server Name:]** box, enter the file server name (up to 47 alphanumeric characters) of the server to make the print server. You can also click **[Browse...]** to select a file server in the **[Browse...]** dialog box.
10. **Enter the print server name in the [Print Server Name:] box, the printer name in the [Printer Name:] box, and the print queue name in the [Print Queue Name:] box, and then click [Next >].**
    - In the **[Print Server Name:]** box, enter the name of the NetWare print server using up to 47 characters.
    - In the **[Printer Name:]** box, enter the name of the NetWare printer using up to 47 characters.
    - In the **[Print Queue Name:]** box, enter the name of the print queue to be added to NetWare.
11. **After confirming the settings, click [Next >].**
    The settings take effect, and NIB Setup Tool closes.
12. **Quit SmartDeviceMonitor for Admin.**

13 Restart the printer.

Note

❒ To make sure the printer is correctly configured, enter the following from the command prompt:

```
F:> USERLIST
```

❒ If the printer works as configured, the name of the print server appears as an attached user.

NetWare 4.x, 5/5.1, 6

Important

❒ You must set up the print server using NDS mode in NetWare 4.x, 5/5.1, 6.

❖ **To use NetWare 5/5.1, 6**

- Use the printer as a print server. Do not use it as a remote printer in a PureIP environment.
- If you use PureIP, configure the printer to use TCP/IP. For more information about how to make the settings, see p.5 “"Network environment" describes a situation where the printer is connected to a computer via wireless LAN.”.

1 Log on to the file server as an administrator, or equivalent.

2 Start SmartDeviceMonitor for Admin.

3 On the [Group] menu, point to [Search Device], and then click [IPX/SPX] or [TCP/IP].

A list of machines appears.

4 In the list, select the printer for which you want to change configuration.

5 On the [Tools] menu, click [NIB Setup Tool].

NIB Setup Tool starts.

Reference

If you use NetWare 5/5.1 or NetWare 6 in a PureIP environment, see p.35 “Using PureIP in the NetWare 5/5.1, 6 environment”.

6 Click [Wizard], and then click [OK].

7 If necessary, enter the print server name in the [Device name:] box, and then click [Next >].

8 Select the [NetWare] check box, and then click [Next >].

9 Click [NDS Mode:], enter the file server name in the [File Server Name:] box, the NDS tree name in the [NDS Tree:] box and the context in the [NDS Context:] box, and then click [Next >].

- In the **[File Server Name:]** box, enter the file server name (up to 47 alphanumeric characters) of the server to make the print server. You can also click **[Browse...]** to select a file server in the **[Browse...]** dialog box.
- In the **[NDS Tree:]** box, enter the NDS tree name (using up to 32 alphanumeric characters ("-" and "_" can be used)) of the NDS tree in which you want to make the print server. **[Browse...]** to select an NDS tree from those listed in the **[Browse...]** dialog box.
- In the **[NDS Context:]** box, enter the NDS context in which to make the print server. As context, object names are entered in lower object order and divided by a period. For example, if you want to create a print server in NET under DS, enter "NET.DS".

10 Enter the print server name in the [Print Server Name:] box, the printer name in the [Printer Name:] box, the print queue name in the [Print Queue Name:] box, and the print queue volume in the [Queue Volume:], and then click [Next >].

- In the **[Print Server Name:]** box, enter the name of the NetWare print server using up to 47 characters.
- In the **[Printer Name:]** box, enter the name of the NetWare printer using up to 47 characters.
- In the **[Print Queue Name:]** box, enter the name of the print queue to be added to NetWare.
- In **[Queue Volume:]**, enter the print queue volume. As a volume, object names are entered from a lower object and divided by a period. You can also click **[Browse...]** to select a volume in the **[Browse...]** dialog box.

11 After confirming the settings, click [Next >].

12 Click [Finish].

The settings take effect, and NIB Setup Tool closes.

13 Quit SmartDeviceMonitor for Admin.

14 Restart the printer.

Note

❒ To make sure the printer is correctly configured, enter the following from the command prompt:

```
F:>NLIST USER /A/B
```

❒ If the printer works as configured, the name of the print server appears as an attached user.

Using PureIP in the NetWare 5/5.1, 6 environment

Note

❒ When not using IPX, it is recommended that you change the print server protocol in the Web Image Monitor from **[TCP/IP+IPX]** to **[TCP/IP]**.

1 Log on to the file server as an administrator, or equivalent.

2 Start SmartDeviceMonitor for Admin.

3 On the [Group] menu, point to [Search Device], and then click [IPX/SPX].

A list of machines appears.

4 In the list, select the printer for which you want to change configuration.

5 On the [Tools] menu, click [NIB Setup Tool].

NIB Setup Tool starts.

6 Click [Property Sheet], and then click [OK].

7 If necessary, enter the print server name in the [Device name:] box.

8 Click the [NetWare] tab, and then make the following settings:

❶ In the [Logon Mode] area, click [File Server Mode] or [NDS Mode:].

Note

❒ If **[File Server Mode]** is selected, a connecting destination will be chosen based on the string entered in step ❸.

❒ If **[NDS Mode:]** is selected, a connecting destination will be chosen based on the string entered in step ❹.

❷ In the [Print Server Name:] box, enter the print server name.

Limitation

❒ Enter up to 47 alphanumeric characters.

❸ **In the [File Server Name:] box, enter the name of the file server in which the print server is to be created.**

By clicking **[Browse...]**, you can select a file server among those listed in the **[Browse...]** dialog box.

Limitation

❒ Enter up to 47 alphanumeric characters.

❹ **In the [NDS Tree:] box, enter the NDS tree name in which to make the file server.**

By clicking **[Browse...]**, you can select the NDS tree name and NDS context name from their lists.

Limitation

❒ Enter up to 32 alphanumeric characters ("-" and "_" can be used).

❺ **In the [NDS Context:] box, enter the context of the print server.**

Limitation

❒ Enter up to 127 alphanumeric characters.

Note

❒ As context, object names are entered in lower object order and divided by a period. For example, if you want to create a print server into NET under d, enter "d".

❻ **In the [Print Server Operation Mode] area, click [As Print Server].**

❼ **Click [OK] to close the [NIB Setup Tool - Network board list] dialog box.**

9 **Quit SmartDeviceMonitor for Admin.**

After this step, operate the printer by following the procedure from step 9 on p.39 "NetWare 4.x, 5/5.1, 6". However, steps 14-❸ and 14-❹ are not required.

Setting Up as a Remote Printer

NetWare 3.x

1. **Log on to the file server as an administrator, or equivalent.**
2. **Start SmartDeviceMonitor for Admin.**
3. **On the [Group] menu, point to [Search Device], and then click [IPX/SPX].**
   A list of machines appears.
4. **In the list, select the printer for which you want to change configuration.**
5. **On the [Tools] menu, click [NIB Setup Tool].**
   NIB Setup Tool starts.
6. **Click [Property Sheet], and then click [OK].**
   The **[NIB Setup Tool - Network board list]** dialog box appears.
7. **Click the [NetWare] tab, and then make the following settings:**
   - ❶ **In the [Print Server Name:] box, enter the name of the print server.**

     Limitation
     - ❒ Enter up to 47 alphanumeric characters.
   - ❷ **In the [File Server Name:] box, enter the name of the file server in which a print server is to be created.**

     By clicking **[Browse...]**, you can select a file server among those listed in the **[Browse...]** dialog box.

     Limitation
     - ❒ Enter up to 47 alphanumeric characters.
   - ❸ **In the [Print Server Operation Mode] area, click [As Remote Printer].**
   - ❹ **In the [Remote Printer No.] box, enter the printer number.**

     Important
     - ❒ Use the same printer number as that to be created in the print server.
   - ❺ **Click [OK] to close the [NIB Setup Tool - Network board list] dialog box.**
8. **Quit SmartDeviceMonitor for Admin.**
9. **Enter "PCONSOLE" from the command prompt.**

```
F:> PCONSOLE
```

⓾ Create a print queue as follows:

Note

❒ If you are using a currently defined print queue, proceed to step ⓫

❶ On the [Available Options] menu, click [Print Queue Information], and then press the【ENTER】key.

❷ Press the【INSERT】key, and then enter a print queue name.

❸ Press the【ESCAPE】key to return to the [Available Options] menu.

⓫ Create a printer as follows:

❶ On the [Available Options] menu, click [Print Server Information], and then press the【ENTER】key.

❷ To create a new print server, press the【INSERT】key, and then enter a print server name.

Note

❒ If you are using a currently defined print server, select one of the print servers shown in the **[Print Server]** list.

Important

❒ Use the same name as that specified in NIB Setup Tool. (Step 7-❶).

❸ On the [Print Server Information] menu, click [Print Server Configuration].

❹ On the [Print Server Configuration] menu, click [Printer Configuration].

❺ Select the printer indicated as "Not Installed".

Important

❒ Use the same number as that specified as the Remote Printer No. using NIB Setup Tool. (Step 7-❹).

❻ If you want to change the printer name, enter a new name.

Note

❒ The name "Printer x" is assigned to the printer. "x" stands for the number of the selected printer.

❼ Click [Remote Parallel, LPT1] as the printer type.

IRQ, Buffer size, Starting form, and Queue service mode are automatically configured.

❽ Press the【ESC】key, and then click [Yes] when the confirmation message appears.

❾ Press the【ESC】key to return to the [Print Server Configuration] menu.

12 **Assign print queues to the created printer as follows:**

❶ **On the [Print Server Configuration] menu, click [Queues Serviced By Printer].**

❷ **Select the printer created in step 11.**

❸ **Press the 【INSERT】 key to select a queue serviced by the printer.**

Note

❒ You can select more than one queue at a time.

❹ **Follow the instructions on screen to make other necessary settings.**

When you have finished the above procedure, make sure the queues are assigned.

13 **Press the 【ESC】 key until the "Exit?" appears, and then click [Yes] to quit PCONSOLE.**

14 **Start the print server by entering the following from the NetWare server's keyboard.**

If it is running, restart after quitting.

❖ **To quit**

```
CAREE: unload pserver
```

❖ **To start**

```
CAREE: load pserver print_server_name
```

Note

❒ If the printer works as configured, "Waiting for job" appears.

❒ NetWare 3.x ends here.

NetWare 4.x, 5/5.1, 6

---

1 **Log on to the file server as an administrator, or equivalent.**

2 **Start SmartDeviceMonitor for Admin.**

3 **On the [Group] menu, point to [Search Device], and then click [IPX/SPX].**

A list of machines appears.

4 **In the list, select the printer for which you want to change configuration.**

5 **On the [Tools] menu, click [NIB Setup Tool].**

NIB Setup Tool starts.

6 **Click [Property Sheet], and then click [OK].**

The **[NIB Setup Tool - Network board list]** dialog box appears.

7 Click the [NetWare] tab, and then make the following settings:

❶ In the [Logon Mode] area, select [File Server Mode] or [NDS Mode:].

Note

❒ If **[File Server Mode]** is selected, a connecting destination will be chosen based on the string entered in step ❸.

❒ If **[NDS Mode:]** is selected, a connecting destination will be chosen based on the string entered in step ❹.

❷ In the [Print Server Name:] box, enter the name of the print server.

Important

❒ Use the same name as that of the print server name to be set from NWadmin (13-❸).

Limitation

❒ Enter up to 47 alphanumeric characters.

❸ In the [File Server Name:] box, enter the name of the file server in which a print server is to be created.

By clicking **[Browse...]**, you can select a file server among those listed in the **[Browse...]** dialog box.

Limitation

❒ Enter up to 47 alphanumeric characters.

❹ In the [NDS Tree:] box, enter the NDS tree name in which to make the file server.

By clicking **[Browse...]**, you can select the NDS tree name and NDS context name from their lists.

Limitation

❒ Enter up to 32 alphanumeric characters ("-" and "_" can be used).

❺ In the [NDS Context:] box, enter the context in which the print server is to be created.

Limitation

❒ Enter up to 127 alphanumeric characters.

❻ In the [Print Server Operation Mode] area, click [As Remote Printer].

❼ In the [Remote Printer No.] box, enter the number of the printer.

Important

❒ Use the same number as that of the printer to be created in the print server (14-❹.)

❽ Click [OK] to close the [NIB Setup Tool - Network board list] dialog box.

8 **Quit SmartDeviceMonitor for Admin.**

9 **On Windows, start NWadmin.**

Reference

For more information about NWadmin, see the operating instructions that come with the NetWare.

10 **Create a print queue as follows:**

Note

❒ If you are using a currently defined print queue, proceed to step **11**.

❶ **Select the container object the print queue is located in from those in the directory tree, and then click [Create] on the [Object] menu.**

❷ **In the [Class of new object] box, click [Print Queue], and then click [OK].**

❸ **In the [Print Queue name] box, enter the name of the print queue.**

❹ **In the [Print Queue Volume] box, click [Browse].**

❺ **In the [Available objects] box, click the volume in which the print queue is created, and then click [OK].**

❻ **After checking the settings, click [Create].**

11 **Create a printer as follows:**

❶ **Select the container object where the printer is located, and then click [Create] on the [Object] menu.**

❷ **In the [Class of new object] box, click [Printer], and then click [OK]. If you are using NetWare 5/5.1, 6, click [Printer (Non NDPS)].**

❸ **In the [Printer name] box, enter the name of the printer.**

❹ **Select the [Define additional properties] check box, and then click [Create].**

12 **Assign print queues to the created printer as follows:**

❶ **Click [Assignments], and then click [Add] in the [Assignments] area.**

❷ **In the [Available objects] box, click the queue created in step 11, and then click [OK].**

❸ **Click [Configuration], and in the [Printer type] list, click [Parallel], and then click [Communication].**

❹ **In the [Communication type] area, click [Manual load], and then click [OK].**

❺ **After checking the settings, click [OK].**

13 Create a print server as follows:

❶ Select the context specified using NIB Setup Tool (Step 7-❷), and on the [Object] menu, click [Create].

❷ In the [Class of new object] list, click [Print Server], and then click [OK].

If you are using NetWare 5/5.1, 6, click **[Print Server (Non NDPS)]**.

❸ In the [Print Server name] box, enter the name of the print server.

Important

❒ Use the same name as that specified using NIB Setup Tool (step 7-❷).

❹ Select the [Define additional properties] check box, and then click [Create].

14 Assign the printer to the created print server as follows:

❶ Click [Assignments], and then click [Add] in the [Assignments] area.

❷ In the [Available objects] box, click the queue created in step 10, and then click [OK].

❸ In the [Printers] box, click the printer assigned in step ❷, and then click [Printer Number].

❹ Enter the printer number, and then click [OK].

Important

❒ Use the same number as that specified as Remote Printer No. using NIB Setup Tool (step 7-❼).

❺ After checking the settings, click [OK].

15 Start the print server by entering the following from the NetWare server's keyboard.

If it is running, restart after quitting.

❖ **To quit**

```
CAREE: unload pserver
```

❖ **To start**

```
CAREE: load pserver print_server_name
```

Setting Up a Client Computer

This section describes how to set up a client computer when using a NetWare print server.

Note

❒ Use the version of Novell Client provided with your operating system, or the latest version.

❒ This section assumes the client computer has NetWare client applications installed and is correctly configured to communicate with a NetWare print server. If it is not, install the necessary applications before starting the setting up procedure.

Windows 95/98/Me

Follow the procedure below to set up a Windows 95/98/Me client computer:

Preparation

Log on to the NetWare file server before starting the following procedure:

1 Install the printer driver you want to use as "local printer".

Reference

For more information about installing the printer driver, see "Installing the Software", *Printer Reference*.

Note

❒ Any port can be selected during installation. However, LPT1 is recommended.

2 On the [Start] menu, point to [Settings], and then click [Printers].

3 In the [Printers] window, click the icon of the printer you want to use.

4 On the [File] menu, click [Properties].

5 Click the [Details] tab, and then click [Add Port].

6 Click [Network], and then click [Browse].

7 In the tree, double-click the name of the file server.

The queues are displayed.

8 Select the queue you want to print, and then click [OK].

9 Click [OK].

In the **[Print to the following port]** box, a network path to the printer appears.

10 Click [OK] to close the [Printer Properties] dialog box, and then open it again.

11 **Click the [Printer Settings] tab.**

12 **Clear the [Form feed] and [Enable banner] check boxes.**

Note

❒ You do not have to select these boxes because they should be specified in the printer driver. If they are selected, the printer might not print correctly.

When using the PostScript printer driver

Follow the procedure below to set the PostScript printer driver:

❶ **Click the [PostScript] tab.**

❷ **Click [Advanced].**

❸ **Clear the [Send CTRL+D before job] and [Send CTRL+D after job] check boxes.**

13 **Click [OK] to close the [Printer Properties] dialog box.**

5

Windows 2000/XP, Windows Server 2003, Windows NT 4.0

Follow the procedure below to set up a Windows 2000/XP, Windows Server 2003, Windows NT 4.0 client computer.

Preparation

Log on to the NetWare file server before starting the following procedure:

1 **Double-click [My Network Places], navigate to the queue you want to use, and then double-click it.**

The **[Printers]** dialog box appears.

Note

❒ When using Windows NT 4.0, the Network Neighborhood icon appears on the desktop instead of the My Network Places icon.

2 **Click [Yes], and then click [OK].**

Add Printer Wizard starts.

3 **Insert the CD-ROM labeled "Printer Drivers and Utilities" into the CD-ROM drive, and then click [Have Disk].**

If the setup menu starts automatically, you can proceed to the next step. If not, see *Printer Reference*.

4 **Follow the instructions on screen to complete installation of the printer driver.**

NDPS

The printer operates using NDPS. Operating requirements are as follows:

- NetWare Version: 5/5.1, 6

❖ Printer Drivers and Operating Systems

Printer driver	Operating system
PostScript 3	Windows 95/98/Me/2000 Windows XP Professional Windows 2003 Server Windows NT 4.0

To use the printer with NDPS, NDPS Gateway is required.

- Novell NDPS Gateway
  For more information about using Novell NDPS Gateway, see the manual provided with it.
- Custom NDPS Gateway
  For more information about using Custom NDPS Gateway, consult your authorized retailer.

iPrint

This printer does not support iPrint.

6. Using SmartDeviceMonitor for Client

SmartDeviceMonitor for Client

SmartDeviceMonitor for Client is equipped with the following functions. We recommend all users of this printer to install this software.

❖ Protocol Stack

Operating system	Protocol stack
Microsoft Windows 95/98/Me	TCP/IP provided with Windows 95/98/Me IPX/SPX provided with Windows 95/98/Me NetBEUI provided with Windows 95/98/Me NetWare network client provided with Windows 95/98/Me Novell Client for Windows 95/98/Me
Microsoft Windows 2000	TCP/IP provided with Windows 2000 IPX/SPX provided with Windows 2000 NetBEUI provided with Windows 2000 NetWare Client provided with Windows 2000 Novell Client for Windows NT/2000/XP
Microsoft Windows XP	TCP/IP provided with Windows XP IPX/SPX provided with Windows XP NetWare Client provided with Windows XP Novell Client for Windows NT/2000/XP
Microsoft Windows Server 2003	TCP/IP provided with Windows Server 2003 IPX/SPX provided with Windows Server 2003
Microsoft Windows NT 4.0	TCP/IP provided with Windows NT 4.0 IPX/SPX provided with Windows NT 4.0 NetBEUI provided with Windows NT 4.0 Client Service for NetWare provided with Windows NT 4.0 Novell Client for Windows NT/2000/XP

❖ What can it do?

- Peer-to-Peer print function
  - Print directly on the network printer without a print server.
  - Print on a substitute printer if too many jobs accumulate in the specified printer, or if an error disables printing (Recovery Printing).
  - Allocate multiple printings to multiple printers (Parallel Printing).
  - Perform prior group registration of printers specified for Recovery Printing /Parallel Printing.
- Notification function
  - Display an error message if there is an error on the specified printer during transfer or printing of data.
  - Open a window to notify you of print completion. You can also select to be notified of the print condition, such as displaying the notice only when Recovery Printing is executed.
  - Display a completion message after printing.
- Display an error message if an error occurs during printing or transmission of a print job.
- Monitoring function
  - Check the equipment to give you information about printing, paper levels, etc., via your computer.
  - Simultaneously monitor multiple printers in use.
  - Check the printer's network settings and detailed information of devices.
  - Check the print job log using the user ID.
- Receive the reports of print completion and document storage using the printer function, and print completion.
- Display up to 100 print jobs.

Limitation

❒ Recovery/Parallel Printing can only be performed with the same model of machine as this one.

❒ Make the same settings for the option configuration of the printer for Recovery/Parallel Printing and the printer for giving print commands. If the options necessary for printing, such as the paper feed unit, are not installed on the substitute printer, that function is disabled.

❒ Load paper of the same size on both the printer for Recovery/Parallel Printing and the printer for giving print commands.

❒ If the type and devices of the printer for Recovery/Parallel Printing and the printer for giving commands are different, print results might not be identical.

Reference

For more information about using Recovery/Parallel Printing, see SmartDeviceMonitor for Client Help.

Setting the Network Monitoring Function

To view the status of machines using SmartDeviceMonitor for Client, you must configure SmartDeviceMonitor for Client in advance, so that it monitors the printer whose status you want to view.

1 Start SmartDeviceMonitor for Client.

The SmartDeviceMonitor for Client icon appears at the right end of the taskbar.

2 Right-click the SmartDeviceMonitor for Client icon, and then check the desired printer is on the shortcut menu that appears.

For details about the printer status icon, see SmartDeviceMonitor for Client Help.

3 If the desired printer does not appear, click [Options...] on the shortcut menu.

The **[SmartDeviceMonitor for Client - Options]** dialog box appears.

4 Select the printer to be monitored, and then select the [To be Monitored] check box.

Note

❒ Selecting the **[Displayed on Task Bar]** check box will bring up the status of a printer on the SmartDeviceMonitor for Client icon on the taskbar.

5 Click [OK].

The dialog box closes and the selected printer is monitored.

Displaying the Status of Machines

Follow the procedure below to monitor printer status using SmartDeviceMonitor for Client.

1 Start SmartDeviceMonitor for Client.

2 The status of printers is displayed on the SmartDeviceMonitor for Client icon on the taskbar.

Note

❒ For more information about status icons, see SmartDeviceMonitor for Client Help.

3 For more information on status, right-click the SmartDeviceMonitor for Client icon, and then select the desired printer.

The status of the printer is displayed in the dialog box.

Note

❒ For more information about each item in the dialog box, see SmartDeviceMonitor for Client Help.

7. Using SmartDeviceMonitor for Admin

SmartDeviceMonitor for Admin

Using SmartDeviceMonitor for Admin, not only can you monitor the status of network printers, but you can also change the configuration of the network interface module using the TCP/IP or IPX/SPX protocol.

❖ Protocol Stack

Operating system	Protocol stack
Microsoft Windows 95/98/Me	TCP/IP provided with Windows 95/98/Me IPX [*1] /SPX provided with Windows 95/98/Me NetWare network client provided with Windows 95/98/Me Novell Client for Windows 95/98/Me
Microsoft Windows 2000	TCP/IP provided with Windows 2000 IPX [*1] /SPX provided with Windows 2000 NetWare Client provided with Windows 2000 Novell Client for Windows NT/2000/XP
Microsoft Windows XP	TCP/IP provided with Windows XP IPX [*1] /SPX provided with Windows XP Novell Client for Windows NT/2000/XP
Microsoft Windows Server 2003	TCP/IP provided with Windows Server 2003 IPX [*1] /SPX provided with Windows Server 2003 Novell Client for Windows NT/2000/XP
Microsoft Windows NT 4.0	TCP/IP provided with Windows NT 4.0 IPX [*1] /SPX provided with Windows NT 4.0 Client Service for NetWare provided with Windows NT 4.0 Novell Client for Windows NT/2000/XP

[*1] IPX is used for monitoring the machines.

❖ **What can it do?**

- Switch to, and come out of Energy Saver mode.
- Check information about printing, paper quantity, etc.
- Simultaneously monitor multiple printers. When there are many printers, you can create groups and classify printers to facilitate management.
- Check the machine's network settings and detailed device information.
- Change the machine's network settings.
- Check details of print jobs sent from a computer.
- Check job histories of printed and photocopied documents identified by user codes.
- Change and save numbers stored in the printer by computer.
- Check settings for and display the status changes of group devices.

Reference

For more information about these settings, see SmartDeviceMonitor for Admin Help.

Limitation

❒ TCP/IP is required for the following functions:

- Using Tools
  - Managing User Information
  - Starting the Web Image Monitor using SmartDeviceMonitor for Admin

Changing the Network Interface Module Configuration

Limitation

❒ Internet Explorer 4.01 or a later version is required to use NIB Setup Tool.

1 **Start SmartDeviceMonitor for Admin.**

A list of machines appears.

2 **In the list, select the printer for which you want to change configuration.**

3 **On the [Tools] menu, click [NIB Setup Tool].**

NIB Setup Tool starts.

4 **Click [Property Sheet], and then click [OK].**

The dialog box for entering the password appears.

5 **Enter the password, and then click [OK].**

Note

❒ The factory default password is “password”.

6 **Change the device name and comment.**

7 **Click [OK].**

Confirmation message appears.

8 **Click [OK].**

Note

❒ For more information about changing printer names, comments, and other items, see NIB Setup Tool Help.

Displaying Printer Status

Follow the procedure below to view the status of machines using SmartDeviceMonitor for Admin.

1 **Start SmartDeviceMonitor for Admin.**

A list of machines appears.

2 **For more information, select the desired printer in the list, and then click [Open] on the [Device] menu.**

The status of the printer is displayed in the dialog box.

Note

❒ For more information about each item in the dialog box, see SmartDeviceMonitor for Admin Help.

Managing User Information

1 **Start SmartDeviceMonitor for Admin.**

A list of machines appears.

2 **In the list, select the printer for which you want to change configuration.**

3 **On the [Tools] menu, click [User Management Tool].**

The dialog box for entering the password appears.

4 **Enter the password, and then click [OK].**

Note

❒ The factory default password is “password”.

User Management Tool starts.

For more information about using User Management Tool, see User Management Tool Help.

Configuring Energy Saver Mode

1 **Start SmartDeviceMonitor for Admin.**

A list of machines appears.

2 **On the [Group] menu, point to [Energy Saver Mode].**

For more information about the Energy Saver Mode settings, see SmartDeviceMonitor for Admin Help.

Note

❒ Point to **[Set by Group]** if you want to change all devices in the area.

❒ Point to **[Set Individually]** if you want to change only selected devices.

❒ When you point to **[Set Individually]**, **[Timer Settings]** is not displayed.

8. Configuring the Network Interface Module Using a Web Image Monitor

You can check the status of a printer and change its settings using the Web Image Monitor.

❖ What can it do?

You can remotely check the status of a printer or specify its settings over the network using a computer's Web browser.
The following functions are available with Web Image Monitor:

- Displaying printer status/settings
- Checking print job status and history, or deleting the print job
- Making printer settings
- Network protocol settings
- Security settings

❖ Configuring the printer

This requires TCP/IP to be installed. After the printer has been configured to use TCP/IP, it will be possible to adjust settings using a Web Image Monitor.

Reference

For more information about configuring the printer to use TCP/IP, see p.5 “"Network environment" describes a situation where the printer is connected to a computer via wireless LAN.”.

❖ Browser

- Windows
  - Microsoft Internet Explorer 5.5 or later
  - Netscape 6.2 or later
- Macintosh
  - Netscape 6.2 or later
  - Safari 1.0 or later

Limitation

❒ If the Web browser in use is older than the recommended version or **[JavaScript]** and **[Cookie]** are not available, display and operation problems may occur.

❒ If you are using a proxy server, change the Web browser settings. Consult your network administrator about the settings.

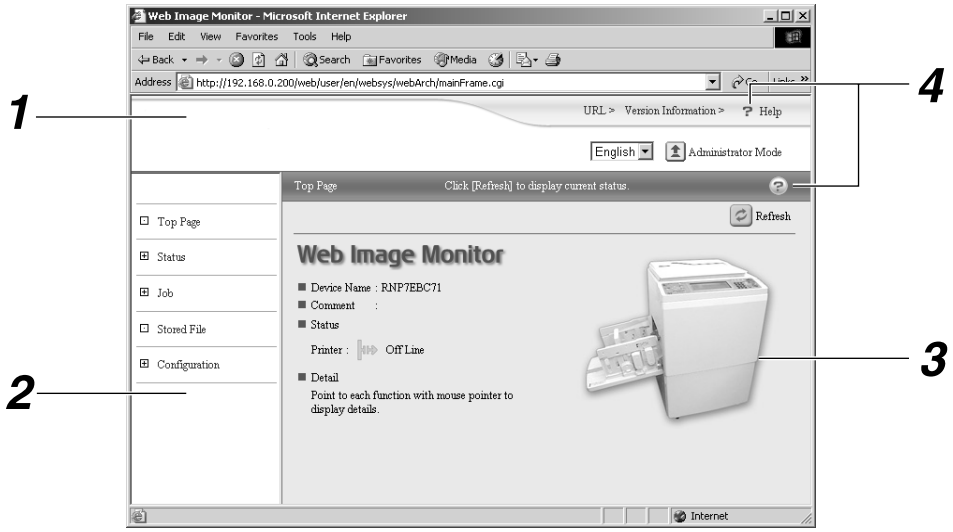
❒ Sometimes after clicking **[Back]**, the previous page may not appear. In this case, click **[Refresh]** or **[Reload]**.

❒ This printer information cannot be refreshed automatically. Click **[Reload]** or **[Refresh]** on the Web browser, or click **[Refresh]** on the work area when you want to refresh the printer information.

❖ **Specifying the address**

In the **[Address]** box, enter the address (for example http://XXX.XXX,XXX,XXX, where the Xs are the numbers of the IP address). If the host name of the printer is registered on the DNS server or WINS server, you can enter it.

Going to the Top Page



1. Header area

You can register favorite URLs using **[URL]**. To view the Help section, click **[Help]**.

2. Menu area

These menus are for configuring the network interface module and checking printer status.

3. Status

Displays printer status, network interface module name, and comments.

Information is not updated automatically. To update it, click **[Refresh]** at the top-right of the display area.

4. Help

To view the Help section, click **[Help]**.

Types of Menu Configuration and Mode

Items that appear on the menu area differ between user mode and administrator mode.

The work area which appears under the selected menu displays printer status under user mode and printer status and settings under administrator mode.

Note

❒ ❍ Indicates printer status can be displayed.

❒ ● Indicates printer settings can be changed.

Menu				User mode	Administrator mode
Reset Printer Job				-	●
Status	Input Tray			❍	❍
	Output Tray			❍	❍
	Master			❍	❍
	Drum			❍	❍
	Function			❍	❍
	System			❍	❍
	Printer Language			❍	❍
Job	Printer	Job History		❍	❍
		Error Log		❍	❍
Stored File				●	●
Configuration	System			-	●
	Printer			❍	●
	Network	Interface		❍	● *1
		Protocol	Protocol	❍	●
			TCP/IP	❍	●
			NetWare	❍	●
			AppleTalk	❍	●
			SMB	❍	●
			SNMP	-	●
		System Log		❍	❍
	Webpage			❍	●
	Security	Password		-	●
		Access Control		-	●
		IPP Authentication		-	●

*1 You can make the IEEE 802.11b interface or parallel interface settings. You can also check the Ethernet status.

Reference

For more information about displaying status and changing settings, see p.62 "Using Web Image Monitor Help".

Menu Summary

This section briefly describes the menus.

Reference

For details about each menu, see Web Image Monitor Help. See p.62 “Using Web Image Monitor Help”.

Reset Printer Job

By clicking **[Reset Printer Job]** on the top page, you can reset jobs in progress.

Status

Printer status information, such as the number of sheets left in the paper feed tray and how much master is left is displayed.

Job

The job and error history list is displayed.

Stored File

The stored foles list displayed. You can print and the delete of stored files.

Configuration

- System
  You can configure some settings using the control panel, such as the system and interface settings.
- Network
  You can configure the interfaces, such as Ethernet and wireless LAN, configure and enable/disable various protocols, such as TCP/IP and NetWare, and display the system log.
- Webpage
  You can configure the settings for Web Image Monitor Help, such as the hyperlink and language.
- Security
  You can configure the security settings, such as the administrator password for Web Image Monitor and the access control.

Verifying the Network Interface Module Settings

1. **Start the Web Image Monitor.**
2. **In the [Address] box, enter the machine's IP address (for example http://XXX.XXX,XXX,XXX, where the Xs are the numbers of the IP address).**

   The status of the printer you chose appears on the Web Image Monitor.
3. **In the menu area, click the selected menu.**

   If a sub-menu appears, click it.

   Reference

   For more information about each item, see p.62 “Using Web Image Monitor Help”.

Configuring the Network Interface Module Settings

1. **Start the Web Image Monitor.**

2. **In the [Address] box, enter the machine's IP address (for example http://XXX.XXX,XXX,XXX, where the Xs are the numbers of the IP address).**

   The status of the printer you chose appears on the Web Image Monitor.

3. **Click [Administrator Mode].**

   The dialog box for entering the password and user name appears.

4. **Enter your user name and password, and then click [OK].**

   To use the factory default account, enter no user name and enter "password" for the password.

5. **In the menu area, select the item, and then make the necessary settings.**

6. **Click [Apply].**

   The configuration is transmitted.

Reference

For more information about making settings, see p.62 "Using Web Image Monitor Help".

Using Web Image Monitor Help

When using Help for the first time, clicking either **[Help]** in the header area or the icon marked "?" in the work area makes the following screen appear. From there you can check Help in two different ways, as shown below:

❖ **Checking a Help Using the Internet**
You can check the latest Help updates.

❖ **Downloading and Checking Help**
You can download Help to your computer's hard drive and view it. As the Help URL, you can specify the path to the local file to view the Help without connecting to the Internet.

Note

❒ By clicking **[Help]** in the header area, Help contents normally appear.

❒ By clicking "?", the Help icon in the work area, Help for the items shown in the work area normally appears.

Downloading Help

1 **In the [OS] list, select the operating system.**

2 **In the [Language] list, select the language.**

3 **Click [Download].**

4 **Download Help by following the messages on screen.**

5 **Save the downloaded compressed file, and then decompress it.**

Note

❒ To check the downloaded Help, specify the path where the file is decompressed.

Linking the address (URL) to the [Help] button

You can link the address (URL) of the **【Help】** button to the Help files on the computer or Web server.

① Download the Help files on the computer to the desired location.

② Using a Web Image Monitor, navigate to Top Page and click **[Administrator Mode]**.

③ Enter your password, (it is not necessary to enter a user name) and click **[OK]**.

④ Click **[Configuration]**, and then click **[Webpage]**.

⑤ In the **[Help URL]** box, enter the path to the Help files.
If you copied the Help files to "C:\HELP\EN", enter "file ://C:/HELP/".
For example, if you copied the files to a Web server and the index URL is "http:// a.b.c.d/HELP/EN/index.html", enter "http://a.b.c.d/HELP/".

⑥ Click **[Apply]**.

Printing Files Directly from Windows

You can print files directly using Windows commands. For example, you can print postscript files for PostScript3. Commands that can be used are as follows.

Operating system	lpr	rcp	ftp
Windows 95/98/Me			✓
Windows 2000/XP, Windows Server 2003	✓	✓	✓
Windows NT 4.0	✓	✓	✓

The following explains setup and printing.

Setup

1 Make settings for the printer's network environment.

- Enable the TCP/IP protocol (the default is enabled).
- Set TCP/IP-related items, including the IP address.

Reference

p.11 “Interface Settings/Network”.

p.101 “Using DHCP”, when setting the IP address of the printer using DHCP.

2 Install the TCP/IP protocol in Windows to set the network environment.

Note

❒ Make sure network settings are checked by a network administrator.

3 When printing with Windows 2000/XP, Windows Server 2003, or Windows NT 4.0, install “Printing service for UNIX” as the network software. When printing with Windows NT 4.0, install “Microsoft TCP/IP printing” as the network software.

Note

❒ When using Windows 95/98/Me, lpr cannot be used to print.

❒ This completes the setup for specifying a printer using an IP address when printing. When using a host name to specify a printer, proceed to p.66 “Using a Host Name Instead of an IP Address” and continue the setup.

Using a Host Name Instead of an IP Address

When using DNS

Use the host name set for the data file on the DNS server.

When setting the IP address of a printer using DHCP

Use the "Printer name" on the Configuration Page as the host name. For more information about printing a configuration page, see "List/Test Print", *Printer Reference*.

In other cases

Add the IP address and host name of the network printer to the hosts file on the computer used for printing. Methods of addition vary according to the operating system.

Windows 95/98/Me

1 Copy to the same \WINDOWS\HOSTS.SAM directory and name it "HOSTS" (no extension required).

2 Open the \WINDOWS\HOSTS file you created using Memo Pad or other applications.

3 Add an IP address and a host name to the hosts file in the following format:

```
192.168.15.16  host  # NP
```

"192.168.15.16" is the IP address, "host" is the printer's host name, and "#" to the end are comments. Separate each item with a space or tab, and use only one line.

4 Save the file.

Windows 2000/XP, Windows Server 2003, Windows NT 4.0

1 Open the hosts file using Memo Pad or other applications.

The hosts file is in the following folder:

```
\WINNT\SYSTEM32\DRIVERS\ETC\HOSTS
```

\WINNT is the directory of the installation destination for Windows 2000/XP, Windows Server 2003, and Windows NT 4.0.

2 **Add an IP address and a host name to the hosts file in the following format:**

```
192.168.15.16  host  # NP
```

"192.168.15.16" is the IP address, "host" is the printer's host name, and "#" to the end are comments. Separate each item with a space or tab, and use only one line.

3 **Save the file.**

Printing Method

The following explains printing using the "lpr", "rcp", and "ftp" commands.

Preparation

Enter commands using the commands prompt window. The location of the commands prompt in each operating system is as follows:

- Windows 95/98
  [Start]-[Programs]-[MS-DOS Prompt]
- Windows Me
  [Start]-[Programs]-[Accessories]-[MS-DOS Prompt]
- Windows 2000
  [Start]-[Programs]-[Accessories]-[Command Prompt]
- Windows XP, Windows Server 2003
  [Start]-[All Programs]-[Accessories]-[Command Prompt]
- Windows NT 4.0
  [Start]-[Programs]-[Command Prompt]

Note

❒ If the "print requests full" message appears, no more print requests can be accepted. Try printing again when the number of sessions has dropped below the value shown in the following table below.

rcp	5
ftp	3

❒ Enter the file name in a format including the path from the directory executing the commands.

lpr

❖ **When specifying a printer by IP address**

```
c:> lpr -Sprinter's IP address [-Poption] [ol] \pass name\file name
```

❖ **When using a host name instead of an IP address**

c:> lpr -S*printer's host name* [-P*option*] [ol] *pass namefile name***

Note

❒ When printing a binary file, add the "-ol" option (lowercase o, and lowercase l).

When using a printer with the host name "host", to print a PostScript file named "file1" located in the C:\PRINT directory, the command line is as follows:

```
c:> lpr -Shost -Pfiletype=PS3 -ol C:\PRINT\file1
```

rcp

Register the printer's host name in the hosts file beforehand. See p.66 "Using a Host Name Instead of an IP Address".

c:> rcp [-b] *pass namefile name* [*pass name**file name...*] *printer's host name*:[option]**

Note

❒ In the file names, "*" and "?" can be used as wild cards.

❒ When printing a binary file, add the "-b" option.

When using a printer with the host name "host", to print a PostScript file named "file1" or "file2" located in the C:\PRINT directory, the command line is as follows.

```
c:> rcp -b \PRINT\file1 \PRINT\file2 host:filetype=RPS
```

ftp

Use the "put" or "mput" command according to the number of files to be printed.

❖ **When the number of files to be printed is one**

ftp> put *pass namefile name* [option]**

❖ **When the number of files to be printed is two or more**

ftp> put *pass namefile name* [*pass name**file name...*] [option]**

Note

❒ For the mput command, "*" and "?" can be used as wild cards in the file name.

❒ If these symbols are used, the file name will be read as an option string.

The procedure from starting ftp to printing is as follows.

1 Formulate the printer's IP address (or host name of the hosts file printer) as an argument and use the "ftp" command.

% ftp *printer's IP address*

2 **Enter user names and passwords as needed, and then press the【Enter】key.**

There is no default user name when the default password is "password".

```
User:
password:
```

3 **When printing a binary file, set binary as the file mode.**

```
ftp> bin
```

Note

❒ When a binary file is printed in ASCII mode, print data may change and may not print out correctly.

4 **Specify the file to be printed.**

The following are examples of printing a PostScript file named "file1"in the C:\PRINT directory, and printing file1 and file2.

```
ftp> put C:\PRINT\file1 filetype=RPS
ftp> mput C:\PRINT\file1 C:\PRINT\file2
```

5 **Quit ftp.**

```
ftp> bye
```

Specifying the Device Option

With the following options, you can print with specific printer functions.

Configuring the Device Option

The configuration of the print option varies, depending on printing commands.

- rcp

```
% rcp file_name host_name:option1=value1,…
```

- ftp

```
ftp> put file_name option1=value1,…
```

Host_name is the printer host name. *File_name* is the file name you want to print. The device option is specified in the form of " *option=value* ". For more information about types of device options and values, see the following explanations.

For example, the following settings are for printing with rcp and ftp : feed paper from paper feed tray, set the printing amount to 3 sets (host_name : nphost, file_name : file1).

- rcp

```
% rcp  file1 nphost:tray=bypass,copies=3
```

- ftp

```
ftp> put file1 tray=bypass,copies=3
```

Limitation

❒ The optional character strings the printer can recognize contain a maximum of 512 bytes.

❒ The number of available characters used as options is limited, depending on operating systems.

Note

❒ Multiple options must be separated by commas (,). Do not use spaces.

Using the cd command with ftp

For printing with ftp, if the option is specified using the cd command, it becomes available whenever the put or mput command is used.

```
ftp> cd option
```

Note

❒ The pwd command shows the current option settings.

```
ftp> pwd
```

List of the device options

Device option	Value	Function summary.
copies	Number of copies (1–9999)	Specifies the number of copies.
orientation	portrait, landscape	Specifies the feed direction of the paper.
outbin	upper, lower, finisherproof	Specifies the output tray.
paper	a3 - a6, jisb4, jisb5, jisb6, ledger, legal, letter, halfletter, fgl, k8, k16	Specifies the paper size.
qty	Number of collated sets (1–9999)	Specifies the number to collate.
tray	all, bypass, lct	Specifies the input tray

Device option	Value	Function summary.
command	panelpriority_on, panelpriority_off, panelpriority_none	Select whether or not the control panel settings take precedence.
	modeclear_on,modeclear_off, modeclear_none	Select whether or not to initialize the settings.
	mastermakeandprint_on, mastermakeandprint_off, mastermakeandprint_none	Select whether or not to make the master and print continuously.
	inksaver_off, inksaver_lv1, inksaver_lv2, inksaver_none	Select whether or not to print with the normal amount of ink.
	printspeed_1, printspeed_2, printspeed_3, printspeed_4, printspeed_5, printspeed_6, printspeed_none	Specify the print speed.
	skipfeed_1, skipfeed_2, skipfeed_3, skipfeed_4, skipfeed_5, skipfeed_6, skipfeed_7, skipfeed_8, skipfeed_9, skipfeed_none	Specify the number of drum idle rotations.
	classify_on, classify_off, classify_none	Select whether or not to classify different print jobs and copies.
	mastercut_on, mastercut_off, mastercut_none	If the size of the print image is half the maximum master size, select whether or not to make the master only for the size of the print image.
	status	Receive the printer's status information.

Copies

Specify the number of copies.

copies=*number of copies (1 to 9999)*

Limitation

❒ Do not specify " copies " and " qty [*1] " commands at the same time.

[*1] " qty " specifies the number of collated sets.

The following sample shows how to print 10 copies (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:copies=10

- ftp

  ftp> put file1 copies=10

Orientation

Select the paper feed orientation.

orientation=*feed direction (portrait or landscape)*

Orientation	value
Portrait	portrait
Landscape	landscape

The following sample shows how to print the paper vertically using the orientation function (host name : nphost, file name : file1):

- rcp

  % rcp file1 nphost:orientation=portrait

- ftp

  ftp> put file1 orientation=portrait

Output Tray

Select the output tray.

outbin=*value of output tray*

Limitation

❒ Only installed output trays are available.

Note

❒ The output tray value corresponds to the ID number of the output tray obtained from the printer information (for example, info command in ftp, info command in telnet. For more information about telnet, see p.80 “Remote Maintenance by telnet”.).

❒ You can select an output tray using alphabet letters instead of the ID number of the output tray. For more printer information, see p.105 “Printer Status and Configuration”.

Output tray	Value
Paper Tray	upper
LCOT (Large Capacity Output Tray)	lower

The following sample shows how to print from the standard tray (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:outbin=lower

- ftp

  ftp> put file1 outbin=lower

Paper Size

Select the paper size.

Limitation

❒ Only the loaded paper sizes are available.

paper=*value of paper size*

Paper size	Value
A3	a3
A4	a4
A5	a5
A6	a6
B4JIS	jisb4
B5JIS	jisb5
B6JIS	jisb6
11 × 17	ledger
$8^1/_2 \times 14$	legal
$8^1/_2 \times 11$	letter
$5^1/_2 \times 8^1/_2$	halfletter
8 × 13	fgl
$10^1/_2$" × 15.35"	k8
7.68" × $10^1/_2$"	k16

The following sample shows how to print using A4 paper (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:paper=a4

- ftp

  ftp> put file1 paper=a4

Collating

Specify the number of collated sets.

qty=*number of collated sets (1 to 9999)*

Limitation

❒ Do not specify " qty " and " copies " commands at the same time.

The following sample shows how to print 10 copies using the collate function (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:qty=10

- ftp

  ftp> put file1 qty=10

Input Tray

Select a default input tray.

Limitation

❒ Only installed input trays are available.

tray=*value of input tray*

Input tray	Value
Auto Tray Select	all
Paper Feed Tray	bypass
Large Capacity Input Tray	lct

The following sample shows how to print from bypass (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:tray=bypass

- ftp

  ftp> put file1 tray=bypass

Hold Data-in

Select whether or not the control panel settings take precedence.

command=*value of panel priority*

Panel priority	Value
When printing, the control panel settings override the print job settings.	panelpriority_on
Printing is based on the print job settings.	panelpriority_off
Settings are not specified.	panelpriority_none

The following example shows the command for making the control panel settings take precedence: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=panelpriority_on

- ftp

  ftp> put file1 command=panelpriority_on

Mode Clear

Select whether or not to initialize the settings

command=*value of mode clear*

Mode clear	Value
The settings are initialized.	modeclear_on
The settings are not initialized.	modeclear_off
Settings are not specified.	modeclear_none

The following example shows the command for initializing the settings: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=modeclear_on

- ftp

  ftp> put file1 command=modeclear_on

Cycle Setting

Select the cycle setting mode of making master and printing.

command=*value of cycle setting*

Cycle Setting	Value
Auto Cycle	intprint_off
Original Page Cycle	intprint_afterprint
Master Cycle	intprint_aftermastermaking
Master/Print Cycle	intprint_all
Settings are not specigfied	intprint_none

The following example shows the command for auto cycle: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=intprint_off

- ftp

  ftp> put file1 command=intprint_off

Storing File

Select wahtever or not to store the print data..

command=*value of storing file*

Storing File	Value
Storing File is performed	oppdiskimage_on
Storing File is not performed	oppdiskimage_off

The following example shows the command for storing file: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=oppdiskimage_on

- ftp

  ftp> put file1 command=oppdiskimage_on

Ink Saver

Select whether or not to print with the normal amount of ink.

command=*value of ink saver*

Ink saver	Value
Prints with the normal amount of ink.	inksaver_off
Prints with "level 1" ink saving.	inksaver_lv1
Prints with "level 2" ink saving.	inksaver_lv2
Settings are not specified.	inksaver_none

The following example shows the command for printing with "level 1" ink saving: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=inksaver_lv1

- ftp

  ftp> put file1 command=inksaver_lv1

Print Speed

Specify the print speed.

command=*value of print speed*

Print speed	Value
The print speed can be set to between 1 (slowest) and 6 (fastest).	printspeed_1
	printspeed_2
	printspeed_3
	printspeed_4
	printspeed_5
	printspeed_6
Settings are not specified.	printspeed_none

The following example shows the command for specifying "printspeed_3" printing: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=printspeed_3

- ftp

  ftp> put file1 command=printspeed_3

Skip Feed

Specify the number of drum idle rotations.

command=*value of skip feed*

Skip feed	Value
If you select "1", printing is performed normally.	skipfeed_1
	skipfeed_2
	skipfeed_3
	skipfeed_4
	skipfeed_5
	skipfeed_6
	skipfeed_7
	skipfeed_8
	skipfeed_9
Settings are not specified.	skipfeed_none

The following example shows the command for selecting "skipfeed_2" printing: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=skipfeed_2

- ftp

  ftp> put file1 command=skipfeed_2

Classify

Select whether or not to classify different print jobs and copies.

command=*value of classify*

Classify	Value
Classification is performed.	classify_on
Classification is not performed.	classify_off
Settings are not specified.	classify_none

The following example shows the classification command: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=classify_on

- ftp

  ftp> put file1 command=classify_on

Master Cut

If the size of the print image is half the maximum master size, select whether or not to make the master only for the size of the print image.

command=*value of master cut*

Master cut	Value
Master is made only for the size of the print image.	mastercut_on
Master is made for the whole drum surface, regardless of the size of the print image.	mastercut_off
Settings are not specified.	mastercut_none

The following example shows the command for making the master only for the size of the print image: (host name: nphost, file name: file1):

- rcp

  % rcp file1 nphost:command=mastercut_on

- ftp

  ftp> put file1 command=mastercut_on

Status

Receive the printer's status information.

command=status

The following example shows use of the "status" command: (host name: nphost):

- rcp

  % rcp nphost:command=status

- ftp

  ftp> put command=status

Remote Maintenance by telnet

You can view printer status and configure the network interface module using telnet.

Note

❒ You should specify a password so only the network administrator, or a person with network administrator privileges, can use remote maintenance.

❒ The password is the same as that used for configuring the network interface module with a Web Image Monitor.

❒ If you change a password using remote maintenance, the other passwords are also changed.

Using telnet

Follow the procedure below to use telnet.

Limitation

❒ Only one person at a time can be logged on to do remote maintenance.

1 **Using the machine's IP address or host name, start telnet.**

```
% telnet IP_address
```

Note

❒ In order to use the host name instead of the IP address, you must write it to the hosts file.

2 **Enter the password.**

Note

❒ The default is “password”.

3 **Enter a command.**

Reference

For more information about telnet commands, see p.81 “Commands List”.

4 **Quit telnet.**

```
msh> logout
```

When the configuration changes, a message asks whether the changes should be saved or not.

5 Enter "yes" to save the changes, and then press the 【ENTER】 key.

If you do not want to save the changes, enter "no", and then press the 【ENTER】 key. If you want to make additional changes, enter "return", and then press the 【ENTER】 key.

Note

❒ If "Cannot write NVRAM information" appears, the changes are not saved. Repeat the steps above, as necessary.

❒ The network interface module is automatically reset when the changes are saved.

❒ When the network interface module is reset, active print jobs already sent to the printer will be finished. However, jobs not already sent will be canceled.

Commands List

Use the "help" command to display remote maintenance use.

Note

❒ Enter "help" to display a list of commands that can be used.

```
msh> help
```

❒ Enter "help command_name" to display information about the syntax of that command.

```
msh> help command_name
```

TCP/IP address

Use the "ifconfig" command to configure the Ethernet interface, IEEE 802.11b interface, and the TCP/IP (IP address, subnet mask, broadcast address, default gateway address) for the printer.

Reference

```
msh> ifconfig
```

❖ Configuration

msh> ifconfig *interface_name parameter address*

Interface name	Interface to be configured
ether	Ethernet interface *1
wlan *2	IEEE 802.11b interface

*1 If you did not enter an interface name, it will automatically be set to the Ethernet interface.
*2 You can specify an interface when installing the IEEE 802.11b interface unit.

Parameter	Meaning
(no parameter)	IP address
netmask	subnet mask
broadcast	broadcast address

❖ Changing the Interface

You can specify either Ethernet interface or IEEE 802.11b interface when using the IEEE 802.11b interface unit.

msh> ifconfig *interface* up

The following is a sample configuration, using an IP address of 192.168.15.16 on an Ethernet interface:

```
msh> ifconfig ether 192.168.15.16
```

The following is a sample configuration, using a subnet mask of 255.255.255.0 on an Ethernet interface:

```
msh> ifconfig ether netmask 255.255.255.0
```

Note

❒ This affects the configuration of the network interface module on the IP address used.

❒ The TCP/IP setting is the same as that of the Ethernet interface and IEEE 802.11b interface.

❒ To enter an address using hexadecimal, prefix it with “0x”.

Address

❖ **Subnet Mask**
A number used to numerically "mask" or hide the IP address on the network by eliminating those parts of the address that are alike for all machines on the network.

❖ **Broadcast address**
A specified address for sending data to specific devices on the network.

Note

❒ To get the above addresses, contact your network administrator.

❒ If you do not know the address to configure, use the machine's default.

❒ The Ethernet interface and IEEE 802.11b interface share the same TCP/IP address. When changing interfaces, the former interface setting is applied to the new interface.

Access control

Use the "access" command to view and configure access control. You can also specify two or more access ranges.

❖ **Reference**

```
msh> access
```

❖ **Configuration**

```
msh> access ☆ range start-address end-address
```

- ☆ represents a target number between 1 and 5. (Up to five access ranges can be registered and selected.)

Example: To specify accessible IP addresses between 192.168.0.10 and 192.168.0.20:

```
msh> access 1 range 192.168.0.10 192.168.0.20
```

Note

❒ The access range restricts the workstations from which printing is possible by means of an address. If you do not need to restrict printing, make the setting "0.0.0.0".

❒ The entry is invalid if the start address is greater than the end address.

❒ Up to five access ranges can be specified. The entry is invalid if the target number is omitted.

❒ Sessions other than those from a Web Image Monitor or telnet are limited by access control.

❖ **Access control initialization**

```
msh> access flush
```

Note

❒ This restores the factory default so all access ranges become "0.0.0.0".

DHCP

Use the "dhcp" command to configure the DHCP settings.

❖ **Reference**

The following command displays the current DHCP settings.

```
msh> dhcp
```

❖ **Configuration**

You can configure the DHCP settings.

```
msh> dhcp interface_name [on | off]
```

Note

❒ Select **[on]** to enable DHCP. Select **[off]** to disable DHCP.

❖ **Interface Priority Configuration**

You can assign priorities governing which interface obtains DHCP parameters.

```
msh> dhcp priority interface_name
```

Note

❒ Priority assignment is useful when connecting more than one interface to the printer.

❒ If an interface is not selected, it appears according to the currently set priority regardless of multiple interface connections.

Interface name	Interface to be configured
ether	Ethernet interface
wlan *1	IEEE 802.11b interface

*1 Available when the IEEE 802.11b interface unit is installed.

Reference

For more information about DHCP, see p.101 "Using DHCP".

Protocol

Use the "set" command to allow or prevent remote access for each protocol.

msh> set *protocol* {up | down}

Protocol	
tcpip appletalk netware smb lpr ftp rsh diprint web snmp ipp http	"up" means active and "down" means inactive.

Note

❒ If you prohibit remote access via TCP/IP and then log out, you cannot use remote access. If you did this by mistake, you can use the control panel to allow access by TCP/IP.

❒ When you prevent access via TCP/IP, you are also prevented from using lpr, ftp, rsh, diprint, web, snmp, ipp, and http.

❖ Display

The following command displays current tcpip, appletalk, netware, and smb settings.

msh> set protocol

Printer status

The following command can be used to get information about the current printer status:

msh> *command*

Command	Information that is displayed
status	Status of printer. Information about print jobs.
info	Information about the paper tray, output tray, printer language of printer.
prnlog [ID]	Lists the last 20 print jobs.

Note

❒ More information about print jobs is displayed if the ID number is added after the prnlog command.

Reference

For more information about the meaning of the data returned using these commands, see p.104 “Understanding Displayed Information”.

Network interface module configuration settings information

Use the “show” command to display the network interface module configuration settings.

msh> show [-p]

Note

❒ Add “-p” (as above) to have the information displayed one screen at a time.

Reference

For more information about the meaning of the data returned using this command, see p.108 “Configuring the Network Interface Module”.

System log information

Use the “syslog” command to display information stored in the system log.

msh> syslog

Reference

For more information about the displayed information, see p.112 “System Log Information”.

SNMP

Use the "snmp" command to display and edit SNMP configuration settings such as the community name.

Note

❒ You can configure one of ten SNMP access settings numbered 1-10.

❒ If you change the community name, you must change your computer settings. See p.102 "SNMP".

❒ Default access settings 1 and 2 are as follows:

Number	1	2
Community name	public	admin
IP address	0.0.0.0	0.0.0.0
Access type	read-only trap off	read-write trap off

❖ Display

Shows SNMP information and available protocols.

msh> snmp ?

The following command displays the settings of registered number specified.

msh> snmp [*registered_number*]

Omitting the number displays all access settings.

msh> snmp [-p]

Note

❒ Add "-p" (as above) to have the information displayed one screen at a time.

❖ Community name configuration

You can set the community name of the registered number.

msh> snmp *number* name *community_name*

Note

❒ The community name can consist of up to 15 characters.

❖ Access type configuration

You can select the access type from those listed below:

msh> snmp *number* type *access_type*

Access type	Type of access permitted
read	Read only
write	Read and write
trap	User notified of trap messages.
no	All access denied.

❖ Protocol configuration

You should use the following command to set protocols to active or inactive. If you set a protocol to inactive, all access settings for that protocol will be disabled:

msh> snmp {ip | ipx} {on | off}

- "on" means active, "off" means inactive.

To change an access setting protocol, use the following command. However, if you have disabled a protocol using the above command, making it active here will have no effect.

msh> snmp *number* active {ip | ipx} {on | off}

❖ Access configuration

You can configure a host address according to protocols used.
The network interface module accepts requests only from hosts with "read-only" or "read-write" access type addresses. Enter "0" to have the network interface module accept requests from any host without requiring a specific type of access.

msh> snmp *number* {ip | ipx} *address*

Note

❒ To specify TCP/IP protocol, enter "ip" followed by a space, and then the IP address.

❒ To specify the IPX/SPX protocol, enter "ipx" followed by a space, and then the IPX address followed by a decimal, and then the MAC address of the network interface module.

The following is a sample configuration using the registration number 3 with the IP address 192.168.15.16:

msh> snmp 3 ip 192.168.15.16

The following is a sample configuration using the registration number 3 with the IPX address 7390A448, and the MAC address 00:00:74:62:5C:65:

msh> snmp 3 ipx 7390A448:0000

IPP

Use the "ipp" command to configure IPP settings.

❖ Viewing setting

The following command displays the current IPP setting:

```
msh> ipp
```

Example output:

```
timeout=900(sec)
auth=off
```

- The "timeout" setting specifies how many seconds the computer keeps trying to access the network printer to send print jobs if no connection can be made.
- The "auth" setting indicates the user authentication mode.

❖ IPP timeout configuration

Specify how many seconds to wait before canceling a print job if it has been interrupted for some reason. The time can be from 30 to 65535 seconds.

```
msh> ipp timeout {30 - 65535}
```

❖ IPP user authentication configuration

Use IPP user authentication to restrict printing with IPP to certain users. The default is "off".

```
msh> ipp auth {basic | digest | off}
```

- "basic" and "digest" are user authentication settings.
- "off" removes the user authentication.

Note

❒ If you select "basic" or "digest", see next section "Configuring IPP user authentication" for how to configure the user name. Up to ten user names are available.

❖ Configuring IPP user authentication

Use the following command:

```
msh> ipp user
```

The following message appears:

```
Input user number (1 to 10):
```

Enter the number, user name, and password.

```
IPP user name: user1 IPP password:*******
```

After configuring, the following message appears:

```
IPP configuration changed.
```

Direct printing port

The direct printing port allows printing directly from a computer, connected to the network, to the printer.

Use the "diprint" command to change direct printing port settings.

❖ View settings

The following command displays the current direct printing port settings:

```
msh> diprint
```

Example output:

```
port 9100
timeout=300 (sec)
bidirect off
```

- "Port" specifies the port number of the direct printing port.
- The "bidirect" setting indicates whether the direct printing port is bidirectional or not.

❖ Setting timeout

You can specify the timeout interval in use when receiving data from the network.

```
msh> diprint timeout [30~65535]
```

Note

❒ The default is 300 seconds.

❖ Bidirectional configuration for the direct printing port

Use this setting to configure whether the direct printing port is bidirectional or not. The default is "off".

```
msh> diprint bidirect {on | off}
```

Note

❒ If you select "on", SmartDeviceMonitor for Client or Standard TCP/IP on Windows 2000 might not work correctly.

Netware

Use the "netware" command to configure the NetWare settings such as the print server name or file server name.

msh> netware *parameter*

Parameter	Settings
pname	Enter the NetWare print server name using up to 47 characters.
fname	Enter the NetWare file server name using up to 47 characters.
encap {802.3 | 802.2 | snap | ethernet2 | auto}	Select the encap type.
rnum	Specify the remote printer number.
timeout	Set the timeout.
mode {pserver | ps}	Select the print server mode.
mode {rprinter | rp}	Select the remote printer mode.
context	Specify the NDS context name.
sap_interval	Specify the SAP intervals. Each interval can be set to between 0 and 3600 seconds in one-second increments.
login server	Specify "login with a selected file server" as the login mode.
login tree	Specify "login with a selected NDS tree" as the login mode.
tree *NDS tree name*	Select the NDS tree to log on to.

SMB

Use the "smb" command to configure or delete the NetBEUI settings such as the computer name or workgroup name.

msh> smb *parameter*

Parameter	Settings
comp	Your computer name consisting of up to 15 characters
group	Workgroup name consisting of up to 15 characters
comment	Comment consisting of up to 31 characters
notif {on | off}	You can enable or disable notification of print job completion.
clear comp	Clears the computer name
clear group	Clears the Workgroup name
clear comment	Clears comment

Note

❒ You cannot use a computer name starting with "RNP" or "rnp".

ROUTE

Use the “route” command to control the routing table.

This command allows you to configure and display routing information. You can change the network configuration from remote computers using this command.

Note

❒ The maximum number of routing tables is 16.

Commands	Topics of setting
route add {host | net} destination *1 gateway *1	Adds a host/network route to “destination”, and a gateway address to “gateway” in the table. Host becomes the default.
route delete {host | net} destination *1	Deletes a host/network route from the table. Host becomes the default.
route get {destination *1 }	Displays only route information corresponding to a specified destination. When the destination is unspecified, all routing information is displayed.
route active {host | net} destination *1 on | off	You can turn the specified destination on or off. Host becomes the default.
route add default gateway *1	You can set the default gateway address.
route flush	Deletes all routing information.

*1 IP address

SLP

Use the “slp” command to configure SLP settings.

You can search the NetWare server using SLP in the PureIP environment of NetWare5/5.1, 6. Use the “slp” command to configure the value of TTL used by the SLP multi-cast-packet.

Note

❒ The default value of TTL is “1”. A search is executed only within a local segment. If the router does not support multi-cast, the settings are not available even if the TTL value is increased.

❒ The acceptable TTL value is 1 - 255.

```
msh> slp ttl {1 - 255}
```

Setting IEEE 802.11b

Use the "wiconfig" command to configure IEEE 802.11b interface settings.

Limitation

❒ You can make settings when installing the IEEE 802.11b interface unit.

❖ View settings

The following command displays the current IEEE 802.11b interface settings.

```
msh> wiconfig
```

The following command displays the IEEE 802.11b card information.

```
msh> wiconfig cardinfo
```

Note

❒ If the IEEE 802.11b interface is not working correctly, the IEEE 802.11b card information is not displayed.

❖ Configuration

msh> wiconfig *parameter*

Parameter	Value to be configured
mode [ap | 802.11adhoc | adhoc]	You can set infrastructure mode (ap), 802.11 ad hoc mode (802.11adhoc), or ad hoc mode (adhoc). The default is 802.11 ad hoc mode.
ssid *ID value*	You can set SSID in infrastructure mode. The characters that can be used are ASCII 0x20-0x7e (32 bytes). SSID value is set automatically to the nearest access point if the setting has not been made. If the setting has not been made for ad hoc mode, the same value as for infrastructure mode or an "ASSID" value is automatically set.
channel frequency *channel no.*	You can set the channel. You can specify from the following channels: • Metric Version : 1-13 • Inch Version : 1-11 Set the same channel for all the machines you are using.
enc {on | off}	You can enable or disable the WEP function. To enable the WEP function, select [on]; to disable it, select [off]. To start the WEP function, enter the correct WEP key.

Parameter	Value to be configured
key {*key value*}	64-bit or 128-bit can be set. Only 10 hexadecimal characters can be set when using 64-bit; or 26 hexadecimal characters when using 128-bit. Also, set 0x as the prefix. To use this function, set the same WEP key for all ports that transmit to each other.
auth {open | shared}	You can set the authorized mode when using WEP. The specified value and the authorized mode are as follows: open: Open system authorized (default) shared: Shared key authorized
rate {auto | 11m | 5.5m | 2m | 1m}	You can set the IEEE 802.11b transmission speed. The transmission speed you specify here is the speed at which data is sent. You can receive data at any speed. auto: automatically set (default) 11m: 11 Mbps fixed 5.5m: 5.5 Mbps fixed 2m: 2 Mbps fixed 1m: 1 Mbps fixed

Note

❒ When changing the interface to IEEE 802.11b interface, see p.81 “TCP/IP address”.

❒ When configuring the IEEE 802.11b interface TCP/IP, see p.81 “TCP/IP address”.

Changing the host name

Use the "hostname" command to change the printer name.

msh hostname *interface_name printer_name*

Interface name	Interface to be configured
ether	Ethernet interface *1
wlan *2	IEEE 802.11b interface

*1 If you did not enter the interface name, it will be automatically set to the Ethernet interface.
*2 Available when the IEEE 802.11b interface unit is installed.

Note

❒ Enter the printer name using up to 15 characters.

❒ You cannot use a printer name starting with "RNP" or "rnp".

❒ The Ethernet interface and IEEE 802.11b interface will have the same printer name.

WINS

Use the "wins" command to configure WINS server settings.

❖ Viewing setting

The following command displays the WINS server IP address:

msh> wins

Example output:

```
msh> wins
WINS Configuration:
interface_name:
WINS: On
primary server 0.0.0.0 secondary server 0.0.0.0
ScopeID
Current configuration:
primary server 0.0.0.0 secondary server 0.0.0.0
hostname host_name ScopeID
```

Note

❒ If the IP address obtained from DHCP differs from the WINS IP address, the DHCP address is the valid address.

❖ Configuration

Use the "set" command to make WINS active or inactive.

msh> wins *interface_name* {on | off}

- "on" means active; "off" means inactive.

❖ Setting WINS Server Address

You can make settings for the WINS server address.

msh> wins *interface_name* {primary | secondary} *IP_address*

- "primary" is for setting the primary WINS server address.
- "secondary" is for setting the secondary WINS server address.

❖ NBT scope ID setting

You can configure the NBT scope ID.

Limitation

❒ Enter a scope ID using up to 31 alphanumeric characters.

msh> wins *interface_name* scope *scope_ID*

Note

❒ If you receive different scope IDs from DHCP and WINS, the scope ID from DHCP takes priority.

Interface name	Interface to be configured
ether	Ethernet interface
wlan *1	IEEE 802.11b interface

*1 Available when the IEEE 802.11b interface unit is installed.

AutoNet

Use the "autonet" command to configure AutoNet settings.

❖ Display

The following command displays the current AutoNet settings.

msh> autonet

❖ Configuration

You can configure the AutoNet settings.

msh> autonet *interface_name* [on | off]

Note

❒ Select **[on]** to enable AutoNet.

❒ Select **[off]** to disable AutoNet.

❖ Interface Priority Configuration

You can assign priorities governing which interface obtains AutoNet parameters.

```
msh> autonet priority interface_name
```

Note

❒ Priority assignment is useful when connecting more than one interface to the printer.

❒ If an interface is not selected, the interface appears according to the currently set priority, regardless of multiple interface connections.

Interface name	Interface to be configured
ether	Ethernet interface
wlan *1	IEEE 802.11b interface

*1 Available when the IEEE 802.11b interface unit is installed.

Reference

For more information about AutoNet, see p.16 "Configuring a Windows Server 2003 Computer".

Changing the password

Use the "passwd" command to change the remote maintenance password.

Important

❒ Be sure not to forget or lose the password.

Note

❒ The default password is "password".

1 **Enter "passwd".**

```
msh> passwd
```

2 **Enter the current password.**

```
Old password:
```

3 **Enter the new password.**

```
New password:
```

Note

❒ The password must consist of three to eight alphanumeric characters and symbols. Passwords are case-sensitive. For example, "R" is different from "r".

❒ The password is the same as that used in configuring the network interface module with a Web Image Monitor and that used in NIB Setup Tool. If you change a password from telnet, the other passwords are also changed.

4 **Enter the new password again.**

```
Retype new password:
```

DNS

Use the "dns" command to configure or display DNS (Domain Name System) settings.

❖ View setting

The following command displays current DNS settings:

```
msh> dns
```

❖ Using the DNS server obtained from the DHCP server

The following command enables/disables use the DNS server obtained from the DHCP server:

```
msh> dns dhcp {valid | invalid}
```

- If you use the DNS server obtained from the DHCP server, select "valid". If not, select "invalid".
  If you set "valid", the DNS server from the DHCP server is prioritized.

❖ DNS server configuration

The following command enables/disables use of the DNS server address:

msh> dns *number* server *server_address*

The following is a sample configuration using an IP address of 192.168.15.16 on DNS 1 server:

```
msh> dns 1 server 192.168.15.16
```

- You can register up to three DNS server numbers.
- You cannot use "255.255.255.255" as the DNS server address.

Domain name

Use the "domainname" command to display or configure domain name settings.

You can configure the Ethernet interface or IEEE 802.11b interface.

❖ View setting

The following command displays the current domain name:

```
msh> domainname
```

❖ Interface domain configuration

The following command displays or sets the Ethernet interface domain name or IEEE 802.11b interface.

msh> domainname *interface_name domain_name*

The following is a sample configuration using a domain name on the Ethernet interface:

msh> domainname ether *domain_name*

Interface	Interface that can be set
ether	Ethernet interface
wlan *1	IEEE 802.11b interface

*1 Available when the IEEE 802.11b interface unit is installed.

Note

❒ A domain name can consist of up to 63 alphanumeric characters.

Setting Protocols

The protocols described in this section provide various functions that can be used on the printer.

Important

❒ If a protocol is disabled or inactive, functions provided by that protocol cannot be used.

Reference

For more information about setting protocols, consult your network administrator.

❖ TCP/IP

- Functions using ftp, lpr, rsh/rcp, diprint, http, ipp, web, wins, or smb *1

*1 SMB session using TCP/IP

Note

❒ You cannot switch between protocols, but turning off or disabling TCP/IP will also disable smtp and dns.

❖ AppleTalk

- Printer function using AppleTalk under Macintosh

Note

❒ This can be configured when a module supporting PostScript board is installed in the printer.

❖ NetWare

- Printer function using NetWare server

Note

❒ In a PureIP environment, you can use only the print server even if this protocol has been turned off or disabled.

❒ Turning off or disabling NetWare will also disable the SNMP session using IPX/SPX.

❖ **SMB**

- Printer function using SmartDeviceMonitor for Client
- Printer function using Microsoft Windows Network

❖ **LPR**

- Printer function using standard TCP/IP
- Printer function using the command line

❖ **FTP**

- Printer function using the command line
- Function to obtain device information using the command line

❖ **RSH/RCP**

- Printer function using the command line
- Function to obtain device information using the command line

❖ **DIPRINT**

- Printer function using SmartDeviceMonitor for Client

❖ **WEB**

- Web Image Monitor function

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❖ **SNMP**

- Bidirectional communication function using a printer driver
- Function to obtain device information using SmartDeviceMonitor for Client/Admin

❖ **IPP**

- Printer function using SmartDeviceMonitor for Client

❖ **HTTP**

- Web Image Monitor function
- Function to obtain device information using SmartDeviceMonitor for Admin

Note

❒ Disabling http will also disable ipp and web.

Using DHCP

You can use the printer in a DHCP environment. You can also register the printer NetBIOS name on a WINS server when it is running.

Note

- ❒ Printers that register the printer NetBIOS name on a WINS server must be configured for the WINS server. See p.95 “WINS”.
- ❒ Supported DHCP servers: Microsoft DHCP server - included with Windows 2000 Server, Windows Server 2003, and Windows NT 4.0; and the DHCP servers included with NetWare.
- ❒ If you do not use the WINS server, reserve the printer's IP address in the DHCP server so the same IP address is assigned every time.
- ❒ To use the WINS server, change the WINS server setting to “active” using the control panel.
- ❒ Using the WINS server, you can configure the host name via the remote network printer port.
- ❒ DHCP relay-agent is not supported. If you use DHCP relay-agent on a network via ISDN, it will result in increased line charges. This is because your computer connects to the ISDN line whenever a packet is transferred from the printer.
- ❒ If there is more than one DHCP server, use the same setting for all servers. The printer operates using data from the DHCP server that responds first.

Using AutoNet

If the printer IP address is not automatically assigned by the DHCP server, a temporary IP address starting with 169.254 and not used on the network can be automatically selected by the printer.

Note

- ❒ The IP address assigned by the DHCP server is given priority over that selected by AutoNet.
- ❒ You can confirm the current IP address on the configuration page. For more information about the configuration page, see “List/Test Print”, *Printer Reference*.
- ❒ When AutoNet is running, the NetBIOS name is not registered on the WINS server.
- ❒ The printer cannot communicate with devices that do not have the AutoNet function.

SNMP

The printer is equipped with an SNMP (Simple Network Management Protocol) agent that operates under UDP and IPX on the Ethernet/wireless LAN interface. Using the SNMP manager you can get information about the printer.

The default community names are “public” and “admin”. You can get MIB information using these community names.

Important

❒ If you change the machine’s community name to one different from the default, use SNMP Setup Tool to change the setting for the computer. For more information, see SNMP Setup Tool Help.

Note

❒ Before using SNMP Setup Tool, install SmartDeviceMonitor for Admin.

❒ Follow the procedure below to start SNMP Setup Tool:

- Windows 95/98/Me/2000, Windows NT 4.0:
  On the **[Start]** menu, point to **[Programs]**, point to **[SmartDeviceMonitor for Admin]**, and then click **[SNMP Setup Tool]**.
- Windows XP, Windows Server 2003:
  On the **[Start]** menu, point to **[All Programs]**, point to **[SmartDeviceMonitor for Admin]**, and then click **[SNMP Setup Tool]**.

❖ **Supported MIBs**

- MIB-II
- PrinterMIB
- HostResourceMIB
- RicohPrivateMIB

Error Messages on the Display

This section describes the most common network-related messages that appear on the display. If a message not described here appears, act according to that message.

Reference

Before turning the main power off, see "Turning On the Power", *Operating Instructions*.

Message	Causes	Solutions
Ethernet Error	An error has occurred in the Ethernet module.	Turn off the main power switch, and back on again. If the message appears again, contact your sales or service representative.
IEEE802.11b Error	IEEE 802.11b card was not inserted when the printer was turned on, or it was pulled out after the printer turned on. An error has occurred in the IEEE 802.11b card.	Turn off the main power switch, and check the card is installed correctly. If the message appears again, contact your sales or service representative.

Understanding Displayed Information

This section describes how to read the status information returned by the network interface module.

Print Job Information

Print job status can be viewed using the following commands:

- telnet : Use the "status" command. See p.86 "Printer status".

Item name	Meaning
Rank	Print job status: • Active Printing or preparing for printing • Waiting Waiting to be transferred to the printer
Owner	Print request user name
Job	Print request number
Files	The name of the document
Total Size	The size of the data (spooled) The default is "0 bytes".

Print Log Information

This is a record of the most recent 20 jobs printed.

This log can be displayed with the following commands:

- telnet : Use the "prnlog" command. See p.86 "Printer status".

Name	Meaning
ID	Print request ID
User	Print request user name
Page	The number of pages printed
Result	The result of the print request
Time	The time the print request was received
UserID *1	User ID is to be configured using the printer driver
JobName *1	The name of the document for printing

*1 Displays UserID and JobName information when entering the "prnlog" command using the ID.

Printer Status and Configuration

You can check the printer status and configuration using telnet.

❖ **telnet**
Use the “info” or “status” command.

Printer status

Status	Description
Call Service Center	Call service center and ask for help.
Cover Open: Front Cover	The machine's front cover is open.
Cover Open: LCT Bridge Cover	The machine’s LCT bridge cover is open.
Cover Open: Sorter Covers	The machine’s sorter cover is open.
Empty: Ink	The ink has run out.
Empty: Master	The master has run out. Change the master roll.
Energy Saver Mode	The printer is standing by in energy saver mode.
Error: ASIC	An ASIC (application-specific integrated circuit) error has occurred.
Error: DIMM Value	A DIMM value error has occurred.
Error: Ethernet Board	An Ethernet module error has occurred.
Error: Memory Switch	A memory switch data error has occurred.
Error: Optional Font	An error has occurred in the optional fonts.
Error: Optional RAM	An error has occurred in the optional memory unit.
Error: Resident Font ROM	An error has occurred in the resident font ROM.
Error: USB Interface	A USB interface module error has occurred.
Error: Wireless Card	No wireless card is inserted.
Error: Wireless Card or Board	A wireless card or wireless board error has occurred.
Miscellaneous Error	An unspecified error has occurred.
Error HDD Board	HDD board error has occured
Mismatch: Paper Size	Auto Select cannot find paper in any of the trays to match the paper size setting.
Mismatch: Paper Size: Feed Tray	The paper feed tray is set to the wrong paper size for the paper it contains.
Mismatch: Paper Size: LCT	The LCT tray is set to the wrong paper size for the paper it contains.

Status	Description
No Paper: Not Detected:LCIT	The LCT tray has run out of paper.
No Paper: Not Detected:Feed Tray	The paper feed tray has run out of paper.
Not Detected: Drum Unit	The drum unit is not installed properly.
Not Detected: Paper Feed Tray	The paper feed tray is not attached properly.
Paper Misfeed: Input Tray	Paper has jammed in paper feed path.
Paper Misfeed: Internal Path	Paper has jammed somewhere in the printer.
Paper Misfeed: Output Tray	Paper has jammed in the output tray.
Paper Misfeed: Sorter	Paper has jammed in the sorter.
Ready	The printer is ready to print.

Printer configuration

Note

❒ "*" (asterisk) is displayed with the current setting.

❒ Regarding *1-*5, see table below.

Item	Description
Input Tray	
No.	ID number of the paper tray
Name	Name of the paper tray*1
Paper Size	Paper size loaded in the paper tray*2
Status	Current status of the paper tray*3
Output Tray	
No.	ID number of the output tray
Name	Name of the output tray*4
Status	Current status of the output tray*5

❖ *1 Input Tray: Name

Name	Description
Paper Feed Tray	Paper Feed Tray
LCT	Large Capacity Input Tray

❖ *2 Input Tray: Paper Size

Paper size	Description
A3 (420 × 297 mm)	A3
B4JIS (364 × 257 mm)	B4
A4 (297 × 210 mm)	A4
A4 (210 × 297 mm)	A4
B5JIS (257 × 182 mm)	B5
B5JIS (182 × 257 mm)	B5
A5 (210 × 148 mm)	A5
A5 (148 × 210 mm)	A5
A6 (105 × 148 mm)	A6
B6JIS (128 × 182 mm)	B6
11 × 17"	DLT
$8^1/_2 \times 11$"	LT
$11 \times 8^1/_2$"	LT
$8\ ^1/_2 \times 14$"	LG
$5^1/_2 \times 8^1/_2$"	HLT
$8^1/_2 \times 5^1/_2$"	HLT
8 × 13"	F
8K (267 × 390 mm)	8K
16K (267 × 195 mm)	16K
16K (195 × 267 mm)	16K
Card (100 × 148 mm)	Card

❖ *3 Input Tray: Status

Status	Description
Normal	----
Paper End	There is no paper in the paper feed tray.
Error	An error has occurred in the paper feed tray.

❖ *4 Output Tray: Name

Name	Description
Paper Tray	Paper Tray
Delivery Tray	Delivery Tray

❖ *5 Output Tray: Status

Status	Description
Normal	----
Error	Other error

Configuring the Network Interface Module

The network interface module settings can be displayed using the commands below.

- telnet : Use the "show" command. See p.86 "Network interface module configuration settings information".

Item name	Meaning
Common	
Mode	
Protocol Up/Down	"Up" means active; "Down" means inactive.
AppleTalk	
TCP/IP	
NetWare	
SMB	
Ethernet interface	
Syslog priority	
NVRAM version	
Device name	
Comment	
Location	Internal version number
Contact	
Soft switch	Internal version number
AppleTalk	
Mode	AppleTalk protocol selected
Net	Network number
Object	Macintosh printer name
Type	The type of printer
Zone	Name of zone the printer belongs to

Item name	Meaning
TCP/IP	
Mode	"Up" means active, "Down" means inactive.
ftp	
lpr	
rsh	
telnet	
diprint	
web	
http	
ftpc	
snmp	
ipp	
autonet	
EncapType	Frame type
DHCP	Dynamic Host Configuration Protocol
Address	IP address
Netmask	Subnet mask
Broadcast	Broadcast address
Gateway	Default gateway address
AccessRange[☆] *1	Access Control Range
SYSLOG server	
Home page URL	URL of homepage
Home page link name	URL name of homepage
Help page URL	URL of Help page
SNMP protocol	Protocol used with SNMP

Item name	Meaning
NetWare	
EncapType	Frame type
RPRINTER number	Remote printer number
Print server name	Print server name
File server name	Name of the connect file server
Context name	Context of print server
Switch	
Mode	Active mode
NDS/Bindery	(this value is fixed)
Packet negotiation	(this value is fixed)
Login Mode	
Print job timeout	Time of the job timeout
Protocol	Protocol names that can be used
SAP interval time	Intervals under the SAP function
NDS Tree Name	NDS Tree Name
SMB	
Switch	
Mode	(this value is fixed)
Direct print	(this value is fixed)
Notification	Notification of print job completion
Workgroup name	Name of the workgroup
Computer name	Name of the computer
Comment	Comment
Share name[1]	Share name (name of the printer type)
Protocol	

Item name	Meaning
IEEE 802.11b *2	
Device name	
DHCP	Dynamic Host Configuration Protocol
Address	IP address
Netmask	Subnet mask
Broadcast	Broadcast address
SSID	SSID being used
Channel range	Channels available for use
Channel	Channel being used
Communication mode	IEEE 802.11b interface transmission mode
Authentication	Validity or invalidity of the authorized mode setting when using WEP
Tx Rate	IEEE 802.11b interface speed
WEP encryption	Enable or disable WEP
Encryption key	64-bit WEP key/128-bit WEP key
DNS	
Server[☆] *3	DNS server address
use DHCP parameters	
Domain name	
ether	Ethernet interface domain name
wlan *2	IEEE 802.11b interface domain name
WINS	
ether	Ethernet interface WINS name
Primary WINS	Primary WINS server address
Secondary WINS	Secondary WINS server address
wlan *2	IEEE 802.11b interface WINS name
Primary WINS	Primary WINS server address
Secondary WINS	Secondary WINS server address
Shell mode	Mode of the remote maintenance tool

*1 ☆ represents a target number between 1 and 5.
*2 You can display these item names when installing the IEEE 802.11b interface unit.
*3 ☆ represents a target number between 1 and 3.

Message List

This is a list of messages written to the machine's system log. The system log can be viewed using the “syslog” command.

System Log Information

You can use the following methods to view the system log:

- telnet : Use the “syslog” command. See p.86 “System log information”.

Message	Causes and solutions
Access to NetWare server <file server name> denied. Either there is no account for this print server or the NetWare server or the password was incorrect.	(In print server mode) Cannot log on to the file server. Make sure the print server is registered on the file server. If a password is specified for the print server, delete it.
add_sess: bad trap addr:<IP Address>, community:<community name>	The IP address (0.0.0.0.) is unavailable when the community access type is TRAP. Specify the host IP address for the TRAP destination.
add_sess: community<community name> already defined.	The same community name already exists. Use another community name.
add_sess_ipx: bad trap addr: <IPX address>, <community name>	The IPX address (00:00:00:00:00:00) is unavailable when the community access type is TRAP. Specify the host IPX address for the TRAP destination.
add_sess_ipx: community <community name> already defined.	The community name already exists. Use another community name.
ANONYMOUS FTP LOGIN FROM <IP address>, <password>	An anonymous login has been made with a password <password> from the host <IP address>.
anpd start.(AppleTalk)	An anpd (AppleTalk Network Package Daemon) has started.
Attach FileServer= <file server name>	Attached to the file server as a nearest server
Attach to print queue <print queue name>	(In print server mode) Attached to the print queue name
Cannot create service connection	If the remote printer is working: A connection with the file server cannot be established. The amount of data may have exceeded the file server’s user limit. If the remote printer is working: The printer with the required <printer number> does not appear in <print server name>. Check the printer number of the printer registered in the print server.
Cannot find rprinter (<print server name>/<printer number>)	Check the printer number registered in the print server.

Message	Causes and solutions
Change IP address from DHCP Server.	The IP address changes when DHCP LEASE is renewed. To always assign the same IP address, set a static IP address to the DHCP server.
child process exec error! (process name)	The network service failed to start. Turn the printer off and then on. If this does not work, contact your service or sales representatives.
Connected DHCP Server (<DHCP server address>).	The IP address was successfully received from the DHCP server.
connection from <IP address>	Logged on from the host <IP address>
Could not attach to PServer <print server name>	When using a remote printer: Cannot connect to the print server. The print server is rejecting the connection for some reason. Check the print server settings.
Could not attach to FileServer <error code>	When using a remote printer: Cannot connect to the file server. The file server is rejecting the connection for some reason. Check the file server settings.
Current Interface Speed:xxxMbps	The speed of the network (10 Mbps or 100 Mbps)
Current IP address <current IP address>	The IP address <current IP address> was received from the DHCP server.
Current IPX address <IPX address>	The current IPX address
DHCP lease time expired.	DHCP lease time has expired. The printer tries to locate the DHCP server again. The IP address used till now becomes invalid.
DHCP server not found.	The DHCP server cannot be found. Make sure the DHCP server is running on the network.
dhcpcd start.	A dhcpcd (DHCP client server) has started.
Duplicate IP=<IP address>(from <MAC address>).	The same IP address is used. Every IP address must be unique. Check the address of the device indicated in <MAC address>.
Established SPX Connection with PServer, (RPSocket=<socket number>, connID =<connection ID>)	(In remote printer mode) A connection with the print server has been established.
exiting	lpd service has ended and the system is closing down.
Exit pserver	(In print server mode) Exits the print server because necessary print server settings have not been made.
Frametype =<frame type name>	The <frame type name> is configured to be used on NetWare.
httpd start.	httpd has started.

Message	Causes and solutions
IEEE 802.11b <Transmission mode> mode	Transmission mode for IEEE 802.11b (Example: current mode is infrastructure mode.) IEEE 802.11b [infrastructure] mode (Example: current mode is 802.11 ad hoc mode.) IEEE 802.11b [802.11 ad hoc] mode (Example: current mode is ad hoc mode.) IEEE 802.11b [ad hoc] mode
IEEE 802.11b current channel <Channel>	The current channel is displayed. The value selected by the user is displayed in ad hoc mode. The channel used in the access point is displayed in infrastructure mode. (Example: current channel is 11.) IEEE 802.11b current channel 11
IEEE 802.11b Card Firmware REV. <Version>	IEEE 802.11b interface unit Firmware version (Example: current version is 0.8.3.) IEEE 802.11b interface unit Firmware REV. 0.8.3
IEEE 802.11b MAC Address = <MAC Address>	The IEEE 802.11b I/F MAC address is displayed. (Example: current MAC address is 00:00:74:XX:XX:XX.) IEEE 802.11b MAC Address = 00:00:74:XX:XX:XX
IEEE 802.11b SSID <ssid> (AP MAC Address < MAC Address>)	The access point SSID used in infrastructure mode and the MAC address of the access point are displayed. (Example: current MAC address is xx:xx:xx:xx:xx:xx and SSID value is “test-ssid”.) IEEE 802.11b SSID test-ssid (AP MAC Address xx:xx:xx:xx:xx:xx)
IEEE 802.11b TX Rate <Transfer Speed>	The IEEE 802.11b transmitting speed (set speed) is displayed. (Example: current Tx Rate is 11 Mbps.) IEEE 802.11b Tx Rate 11 Mbps Transmission speeds vary depending on signal quality. Displayed values may differ from actual transmission speed.
inetd start.	An inetd has started.
<interface> started with IP: <IP address>	<IP address> has been set for <Interface> and <Interface> started.

Message	Causes and solutions
<Interface>: Subnet overlap.	Subnet from Netmask and the IP address you tried to set for <Interface> overlap the subnet of another interface. Set Subnet so it does not overlap with another interface.
IPP cancel-job: permission denied.	The printer could not authenticate the name of the user attempting to cancel a job.
ipp disable.	Printing with ipp is disabled.
ipp enable.	Printing with ipp is enabled.
LeaseTime=<lease time>(sec), Renew-Time=<renew time>(sec).	The resource lease time received from the DHCP server is <lease time> in seconds. The renewal time is also <renew time> in seconds.
Login to fileserver <file server name> (<IPX | IP>,<NDS | BINDERY>)	(In print server mode) Logged on to the file server with NDS or BINDERY mode.
multid start.	Data transmission service for multiprotocols has started.
Name registration failed. name=<NetBIOS name>	The printer could not register the name of NetBIOS.
Name registration success in Broadcast name=<NetBIOS name>	The NetBIOS name was successfully registered from a broadcast.
Name registration success. WINS Server=<WINS Server Address> NetBIOS Name=<NetBIOS name>	The NetBIOS name was successfully registered to the WINS server.
nbstart start.(NetBEUI)	The server for setting the NetBEUI protocol stack has started.
nbtd start.	nbtd (NetBIOS over TCP/IP Daemon) has started. (Available only in DHCP mode)
NetBEUI Computer Name =<computer name>	The NetBEUI Computer Name is defined as <computer name>.
nmsd start. (NetBEUI)	nmsd (Name Server Daemon) has started.
nprinter start. (NetWare)	(In remote printer mode) NetWare service has started.
nwstart start. (NetWare)	The service for NetWare protocol stack setting has started.
Open log file <file name>	(In print server mode) The specified log file has been opened.
papd start. (Apple Talk)	Apple Talk print service has started.
permission denied.	Job cancellation was determined to be unauthorized after checking the user name and host address (except for ROOT authorization).
phy release file open failed.	A replacement network interface module is required. Contact your sales or service representatives.

Message	Causes and solutions
Print queue <print queue name> cannot be serviced by printer 0, <print server name>	(In print server mode) The print queue name cannot be serviced. Make sure that print queue volume is on the specified file server.
Print server <print server name> has no printer.	(In print server mode) The printer is not assigned to the print server <print server name>. Using NWadmin, assign the printer, and then restart the printer device.
Print sessions full	Cannot accept the print session.
Printer <printer name> has no queue.	(In print server mode) The print queue is not assigned to the printer. Using NWadmin, assign the print queue to the printer, and then restart it.
pserver start. (NetWare)	(In print server mode) NetWare service has started.
Required computer name (<Computer name>) is duplicated name.	The same computer name is detected on the network. The start job determines the computer name by adding it to the suffix (0,1....). Configure a new computer name that is unique.
Required file server (<file server name>) not found.	Cannot find the required file server.
restarted.	LPD has started.
sap enable, saptype=<SAP type>, sapname=<SAP name>	The SAP function has started. The SAP (SAP type and SAP name) packet is issued to advertise the service on the NetWare server SAP table.
session<community name> not defined.	The requested community name is not defined.
session_ipx<community name> not defined.	The requested community name is not defined.
Set context to <NDS context name>	A <NDS context name> has been set.
shutdown signal received. network service rebooting...	Rebooting the network service.
smbd start. (NetBEUI)	An smbd (SMB (Server Message Block) service) has started.
Snmp over ip is ready.	Communication over TCP/IP via SNMP is available.
Snmp over ipx is ready.	Communication over IPX via SNMP is available.
snmpd start.	SNMP service has started.
started.	Direct print service has started.

Message	Causes and solutions
The print server received error <error number> during attempt to log in to the network.Access to the network was denied.Verify that the print server name and password are correct.	Cannot log on to the file server. The print server is not registered or a password is specified. Register the print server without specifying a password.
WINS name registration: No response to server (WINS server address)	There is no response from the server during data registration. Check the WINS server address is correct and WINS server is working properly.
WINS name registration/refresh error code (error code)	The NetBEUI name could not be registered or updated. Make sure the name is not already being used. If the name is not the problem, check that the WINS server address is correct and that the WINS server is working properly.
WINS wrong scopeID	The scope ID is wrong. Specify the correct scope ID.

Precautions

Please pay attention to the following when using the network interface module. When configuration is necessary, follow the appropriate procedures below.

Connecting a Dial-Up Router to a Network

When using NetWare (file server)

If the NetWare file server and printer are on opposite sides of a router, packets are sent back and forth continuously, possibly incurring communications charges. Because packet transmission is a feature of NetWare, you need to change the configuration of the router. If the network you are using does not allow you to configure the router, configure the printer instead.

❖ **Configuring the router**
Filter packets so they do not pass over the dial-up router.

Note

❒ The MAC address of the filtering printer is printed on the printer configuration page. For more information about printing a configuration page, see "List/Test Print", *Printer Reference*.

❒ For more information about configuring the printer if the router cannot be configured, see the following instructions.

Configuring the printer with NetWare

1 Following the setup method described earlier in this manual, configure the file server.

2 Set the frame type for NetWare environment.

Reference

For more information about selecting a frame type, see p.5 ""Network environment" describes a situation where the printer is connected to a computer via wireless LAN.".

Configuring the printer without NetWare

1 When not printing, the network interface module sends packets over the network. Set NetWare to "inactive".

Reference

For more information about selecting a protocol, see p.5 ""Network environment" describes a situation where the printer is connected to a computer via wireless LAN.".

When Using Network Utility

If the printer is connected to a network, observe the following points when setting up the printer or changing settings:

For more details, see the operating instructions and Help for DeskTopBinder Lite/professional.

❖ **When a dial-up router is connected in a network environment**

The settings for the delivery server to be connected must be made appropriately for the printer with Auto Document Link, or DeskTopBinder Lite/professional. In addition.

If the network environment changes, make the necessary changes for the delivery server using the printer, the administration utility of client computers, Auto Document Link, and DeskTopBinder Lite/professional.

Important

❒ If the printer is set up to connect to the delivery server via a dial-up router, the router will dial and go online whenever a connection to the delivery server is made. Telephone charges may be incurred.

❖ **When connected to a computer that uses dial-up access**

- When using DeskTopBinder Lite/professional, or Auto Document Link on a computer with dial-up access, a dial-up connection may be performed when connecting to the delivery server and other equipment, depending on the setup. If the computer is set up to connect to the Internet automatically, the confirmation dialog box will not appear, and telephone charges may be incurred without your being aware of it. To prevent unnecessary connections, the computer should be set up so the confirmation dialog box always appears before establishing a connection. Do not make unnecessary connections when using the above listed software.

NetWare Printing

Form feed

You should not configure form feed on NetWare. Form feed is controlled by the printer driver on Windows. If NetWare form feed is configured, the printer might not work properly. If you want to change form feed settings, always configure them using Windows.

- Under Windows 95/98/Me, clear the **[Form feed]** check box on the **[Printer Settings]** tab in the **[Printer Properties]** dialog box.
- Under Windows 2000/XP, clear the **[Form feed]** check box on the **[NetWare Settings]** tab in the **[Printer Properties]** dialog box.
- Under Windows NT 4.0, clear the **[Form feed]** check box on the **[NetWare Settings]** tab in the **[Printer Properties]** dialog box.

Banner page

You should not configure a banner page on NetWare. If you want to change the banner page setting, always configure it using Windows.

- Under Windows 95/98/Me, clear the **[Enable banner]** check box on the **[Printer Settings]** tab in the **[Printer Properties]** dialog box.
- Under Windows 2000/XP, clear the **[Enable banner]** check box on the **[NetWare Settings]** tab in the **[Printer Properties]** dialog box.
- Under Windows NT 4.0, clear the **[Enable banner]** check box on the **[NetWare Settings]** tab in the **[Printer Properties]** dialog box.

Printing after resetting the printer

After resetting the remote printer, the connection from the print server will be cut off for about 30-40 seconds before re-connecting. Depending on the NetWare specification, print jobs may be accepted, but they will not be printed during this interval.

When using the printer as a remote printer, wait about two minutes after resetting before attempting to print.

When Using IPP with SmartDeviceMonitor for Client

When using IPP with SmartDeviceMonitor for Client, note the following:

- The network printer can only receive one print job from SmartDeviceMonitor for Client at a time. While the network printer is printing, another user cannot access it until the job is finished. In this case, SmartDeviceMonitor for Client tries to access the network printer until the retry interval expires.
- If SmartDeviceMonitor for Client cannot access the network printer and times out, it will stop sending the print job. In this case, you should cancel the paused status from the print queue window. SmartDeviceMonitor for Client will resume access to the network printer. You can delete the print job from the print queue window, but canceling a print job printed by the network printer might cause the next job sent from another user to be incorrectly printed.
- If a print job sent from SmartDeviceMonitor for Client is interrupted and the network printer cancels the job because something went wrong, send the print job again.
- Print jobs sent from another computer do not appear in the print queue window, regardless of protocol.
- If various users send print jobs using SmartDeviceMonitor for Client to network printers, the printing order might not be the same as that in which the jobs were sent.
- An IP address cannot be used for the IPP port name because the IP address is used for the SmartDeviceMonitor for Client port name.

Specifications

Interface	100BASE-TX, 10BASE-T, IEEE 802.11b
Frame type	EthernetII, IEEE 802.2, IEEE 802.3, SNAP
Protocol	• Printer (LAN) TCP/IP LPR RSH RCP DIPRINT FTP IPP *1 *2 IPX/SPX (NetWare) AppleTalk *3 NetBEUI SMB *1 *4
SNMP	MIB-II, PrinterMIB, HostResourceMIB, RicohPrivateMIB

*1 Use the SmartDeviceMonitor for Client port.
*2 To use IPP under Windows XP or Windows Server 2003, use the Standard IPP port. Note, in SmartDeviceMonitor for Client however, this port does not support digest access authentication.
*3 This can be used when the PostScript board is installed.
*4 Under Windows, this function can be used with TCP/IP and NetBEUI.

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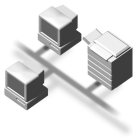

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