

**3406**WD GWD3006 *LW426* **Aficio**™ MP W3601

# Operating Instructions Network and System Settings Reference



- 1 System Settings
- 2 Connecting the Machine
- 3 Using a Printer Server
- 4 Monitoring and Configuring the Machine
- 5 Registering Addresses and Users for Scanner Functions
- 6 Special Operations under Windows
- 7 Appendix

# **TABLE OF CONTENTS**

Manuals for This Machine	9
Notice	11
Important	11
How to Read This Manual	12
Symbols	12
Machine Types	12
Names of Major Items	13
Notes	13
About IP Address	13
Laws and Regulations	14
Legal Prohibition	14
Model-Specific Information	15
Display Panel	16
Accessing User Tools	17
Changing Default Settings	17
Quitting User Tools	18
1. System Settings	
General Features	19
Tray Paper Settings	24
Timer Settings	29
Interface Settings	31
Network	31
Wireless LAN	35
Print List	37
File Transfer	39
Administrator Tools	45
Programming the LDAP server	56
Programming the LDAP server	56
Changing the LDAP server	60
Deleting the LDAP server	60
Programming the Realm	62
Programming the Realm	62
Changing the Realm	63

Deleting the Realm	64
2. Connecting the Machine	
Connecting to the Interface	65
Connecting to the Ethernet Interface	66
Connecting to the Gigabit Ethernet Interface	67
Connecting to the USB (Type B) Interface	69
Connecting a Device to the Machine's USB Host Interface	70
Connecting to the Wireless LAN Interface	70
Network Settings Required to Use the Printer	73
Ethernet	73
Wireless LAN	74
Network Settings Required to Use E-mail Function	76
Ethernet	76
Wireless LAN	77
Network Settings Required to Use Scan to Folder Function	80
Ethernet	80
Wireless LAN	81
Network Settings Required to Use the Network Delivery Scanner	83
Ethernet	83
Wireless LAN	84
Network Settings Required to Use Network TWAIN Scanner	86
Ethernet	86
Wireless LAN	87
Network Settings Required to Use Document Server	89
Ethernet	89
Wireless LAN	90
Using Utilities to Make Network Settings	92
Interface Settings	92
File Transfer	97
3. Using a Printer Server	
Preparing Printer Server	99
Using NetWare	100
Setting Up as a Print Server (NetWare 3 x)	100

Setting Up as a Print Server (NetWare 4.x, 5/5.1, 6/6.5)	102
Using Pure IP in the NetWare 5/5.1 or 6/6.5 Environment	103
Setting Up as a Remote Printer (NetWare 3.x)	105
Setting Up as a Remote Printer (NetWare 4.x, 5/5.1, 6/6.5)	107
4. Monitoring and Configuring the Machine	
Using Web Image Monitor	111
Displaying Top Page	112
When User Authentication is Set	114
About Menu and Mode	114
Access in the Administrator Mode	116
List of Setting Items	116
Displaying Web Image Monitor Help	123
When Using IPP with SmartDeviceMonitor for Client	125
Machine Status Notification by E-Mail	126
Setting the Account for E-mail Notification	127
Mail Authentication	128
Auto E-mail Notification	129
On-demand E-mail Notification	130
Format of On-demand E-mail Messages	131
Remote Maintenance Using telnet	132
Using telnet	132
access	133
authfree	134
autonet	134
bonjour	135
devicename	137
dhcp	137
dhcp6	138
diprint	139
dns	139
domainname	141
etherauth	142
etherconfig	142

help	142
hostname	143
ifconfig	143
info	145
ipp	145
ipsec	146
ipv6	146
logout	146
lpr	146
netware	147
passwd	148
pathmtu	149
prnlog	149
route	150
set	151
show	154
slp	154
smb	154
snmp	155
sntp	159
spoolsw	159
ssdp	160
ssh	160
status	161
syslog	162
upnp	162
web	162
wiconfig	163
wins	168
wsmfp	169
8021x	170
NMP	173
Getting Machine Information over the Network	174

Current Machine Status.	174
Printer configuration	176
Understanding the Displayed Information	179
Print Job Information	179
Print Log Information	179
Configuring the Network Interface Board	180
Message List	186
System Log Information	186
5. Registering Addresses and Users for Scanner Functions	
Address Book	199
Managing names in the Address Book	202
Sending e-mail by Quick Dial	202
Sending scanned files to a shared folder directly	202
Preventing unauthorized user access to shared folders from the machine	203
Managing users and machine usage	203
Registering Names	204
Registering Names	204
Changing a Registered Name	205
Deleting a Registered Name	206
Authentication Information	208
Registering a User Code	208
Changing a User Code	210
Deleting a User Code	211
Displaying the Counter for Each User	213
Printing the Counter for Each User	213
Printing the Counter for All Users	214
Clearing the Number of Prints	215
E-mail Destination.	217
Registering an E-mail Destination	217
Changing an E-mail Destination	218
Deleting an E-mail Destination	220
Registering Folders	221
Registering an SMB Folder	221

Changing an SMB Folder	225
Deleting an SMB Registered Folder	226
Registering an FTP Folder	227
Changing an FTP Folder	230
Deleting an FTP Folder	231
Registering an NCP Folder	232
Changing an NCP Registered Folder	236
Deleting an NCP Folder	237
Registering Names to a Group	239
Registering a Group	239
Registering Names to a Group	240
Adding a Group to Another Group	242
Displaying Names Registered in a Group	243
Removing a Name from a Group	244
Deleting a Group Within Another Group	245
Changing a Group Name	246
Deleting a Group	247
Registering a Protection Code	249
Registering a Protection Code to a Single User	249
Registering a Protection Code to a Group User	250
Registering SMTP and LDAP Authentication	252
SMTP Authentication	252
LDAP Authentication	253
6. Special Operations under Windows	
Printing Files Directly from Windows	257
Setup	257
Using a Host Name Instead of an IPv4 Address	257
Printing Commands	258
7. Appendix	
When Using Windows Terminal Service/Citrix Presentation Server/Citrix XenApp	261
Operating Environment	
Supported Printer Drivers	
limitations	261

Using DHCP	263
Using AutoNet	263
Configuring the WINS Server	264
Using Web Image Monitor	264
Using telnet	265
Using the Dynamic DNS Function	266
Updating	266
DNS servers targeted for operation	267
DHCPv4 servers targeted for operation	267
Setting the dynamic DNS function	267
Precautions	269
Connecting a Dial-Up Router to a Network	269
NetWare Printing	270
When the IEEE 802.11 Interface Unit is Installed	272
Configuring IEEE 802.1X	273
Installing a Site Certificate	273
Installing Device Certificate	273
Enabling SSL	274
Setting Items of IEEE 802.1X for Ethernet	275
Setting Items of IEEE 802.1X for Wireless LAN	277
Specifications	279
Copyrights	281
expat	281
FreeBSD 4.6.2/netipx	281
Heimdal	281
ILU	282
IPS <sup>TM</sup> print language emulations	282
JPEG LIBRARY	282
LibTIFF	283
The m17n library	283
MD4	284
MD5	284
nana	284

	NetBSD	285
	Open LDAP	294
	Open SSH	295
	Open SSL	299
	racoon	301
	RSA BSAFE®	301
	Sablotron (Version 0.82)	301
	Samba	302
	SASL	307
	SPX/IPX	308
	TrouSerS	308
	WPA Supplicant	312
Γr	rademarks	313
1	NDEX	315

# Manuals for This Machine

Read this manual carefully before you use this machine.

Refer to the manuals that are relevant to what you want to do with the machine.

## Mportant (

- · Media differ according to manual.
- The printed and electronic versions of a manual have the same contents.
- Adobe Acrobat Reader/Adobe Reader must be installed in order to view the manuals as PDF files.
- A Web browser must be installed in order to view the html manuals.

#### **About This Machine**

Before using the machine, be sure to read the section of this manual entitled Safety Information.

This manual introduces the machine's various functions. It also explains the control panel, preparation procedures for using the machine, how to enter text, how to install the CD-ROMs provided, and how to replace paper, toner, and other consumables.

#### **Troubleshooting**

Provides a guide for resolving common usage-related problems.

#### Copy and Document Server Reference

Explains Copier and Document Server functions and operations. Also refer to this manual for explanations on how to place originals.

#### **Printer Reference**

Explains Printer functions and operations.

#### Scanner Reference

Explains Scanner functions and operations.

#### Network and System Settings Reference

Explains how to connect the machine to a network, configure and operate the machine in a network environment, and use the software provided. Also explains how to change User Tools settings and how to register information in the Address Book.

#### **Security Reference**

This manual is for administrators of the machine. It explains security functions that you can use to prevent unauthorized use of the machine, data tampering, or information leakage. For enhanced security, we recommend that you first make the following settings:

- Install the Device Certificate.
- Enable SSL (Secure Sockets Layer) Encryption.
- Change the user name and password of the administrator using Web Image Monitor.

For details, see "Setting Up the Machine", Security Reference.

Be sure to read this manual when setting the enhanced security functions, or user and administrator authentication.

#### VM Card Extended Feature Settings Device Reference

Explains how to set up the extended features settings with the machine.

#### VM Card Extended Feature Settings Web Reference

Explains how to set up the extended features settings using Web Image Monitor.

#### Other manuals

- UNIX Supplement
- Quick Reference Copy Guide
- Quick Reference Printer Guide
- Quick Reference Scanner Guide



- Manuals provided are specific to machine types.
- For "UNIX Supplement", please visit our Web site or consult an authorized dealer. This manual includes descriptions of functions and settings that might not be available on this machine.
- The following software products are referred to using general names:

	Product Name	General name
Sco	anRouter EX Professional*1 and ScanRouter EX Enterprise*1	the ScanRouter delivery software

<sup>\*1</sup> Optional

# Notice

## **Important**

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.

For good copy quality, the manufacturer recommends that you use genuine toner from the manufacturer.

The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your office products.

# How to Read This Manual

## **Symbols**

This manual uses the following symbols:

# 

Indicates points to pay attention to when using the machine, and explanations of likely causes of paper misfeeds, damage to originals, or loss of data. Be sure to read these explanations.

# **U**Note

Indicates supplementary explanations of the machine's functions, and instructions on resolving user errors.

# ■ Reference

This symbol is located at the end of sections. It indicates where you can find further relevant information.

# []

Indicates the names of keys on the machine's display or control panels.

Region A (mainly Europe and Asia)

Region B (mainly North America)

Differences in the functions of Region A and Region B models are indicated by two symbols. Read the information indicated by the symbol that corresponds to the region of the model you are using. For details about which symbol corresponds to the model you are using, see "Model-Specific Information".

## **Machine Types**

This machine comes in several models which vary in copy/print speed.

#### Region A (mainly Europe and Asia)

	Туре 1	Туре 2
Cany (print speed	2 sheets/minute(A0(E)D)	3 sheets/minute(AO(E)D)
Copy/print speed	4 sheets/minute(A1(D)□)	6 sheets/minute(A1(D)□)

#### Region B (mainly North America)

Copy/print speed	3 sheets/minute(AO(E)D)
	6 sheets/minute(A1(D)□)

## Names of Major Items

Major items of this machine are referred to as follows in this manual:

- Roll Feeder Type 3601A → Paper roll tray 1
- Roll Feeder Type 3601B → Paper roll tray 2
- Paper Cassette Type 240 → Cut paper tray
- Table Type 240 → Table

#### Notes

Contents of this manual are subject to change without prior notice.

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

Certain options might not be available in some countries. For details, please contact your local dealer.

Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

#### About IP Address

In this manual, "IP address" covers both IPv4 and IPv6 environments. Read the instructions that are relevant to the environment you are using.

# Laws and Regulations

# **Legal Prohibition**

Do not copy or print any item for which reproduction is prohibited by law.

Copying or printing the following items is generally prohibited by local law:

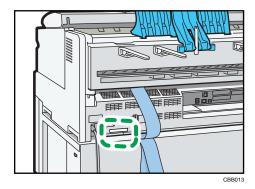
bank notes, revenue stamps, bonds, stock certificates, bank drafts, checks, passports, driver's licenses.

The preceding list is meant as a guide only and is not inclusive. We assume no responsibility for its completeness or accuracy. If you have any questions concerning the legality of copying or printing certain items, consult with your legal advisor.

# **Model-Specific Information**

This section explains how you can identify the region your machine belongs to.

There is a label on the rear of the machine, located in the position shown below. The label contains details that identify the region your machine belongs to. Read the label.



The following information is region-specific. Read the information under the symbol that corresponds to the region of your machine.

Region A (mainly Europe and Asia)

If the label contains the following, your machine is a region A model:

- CODE XXXX -27
- 220-240V

Region B (mainly North America)

If the label contains the following, your machine is a region B model:

- CODE XXXX -17
- 120V



• Dimensions in this manual are given in two units of measure: metric and inch. If your machine is a Region A model, refer to the metric units. If your machine is a Region B model, refer to the inch units.

# **Display Panel**

The display panel shows machine status, error messages, and function menus.

The function items displayed serve as selector keys. You can select or specify an item by lightly pressing it.

When you select or specify an item on the display panel, it is highlighted like Program / Change . Keys appearing as cannot be used.

To display the following screen, press the [User Tools/Counter] key to display the User Tools menu, and then press [System Settings].

Using the System Settings menu screen as an example, this section explains how to use the machine's display panel.



- 1. The menu tabs for various settings appear. To display the setting you want to specify or change, press the appropriate menu tab.
- 2. A list of settings appears. To specify or change a setting, press the appropriate key in the list.
- 3. Press this to quit the User Tools menu.

# **Accessing User Tools**

This section describes how to access User Tools menu.

User Tools allow you to change or set defaults.



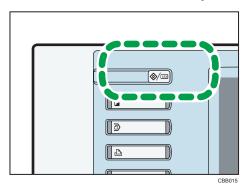
- Operations for system settings differ from normal operations. Always quit User Tools when you have finished.
- Any changes you make with User Tools remain in effect even if the main power switch or operation switch is turned off, or the [Energy Saver] or [Clear Modes] key is pressed.

## **Changing Default Settings**

This section describes how to change the settings of User Tools.



- If Administrator Authentication Management is specified, contact your administrator.
- 1. Press the [User Tools/Counter] key.



- 2. Press [System Settings].
- 3. Select the user tool you want to change.
- 4. Change settings by following instructions on the display, and then press [OK].



- To cancel changes made to settings and return to the initial display, press the [User Tools/Counter] key.
- For details about specifying System Settings, see "System Settings".
- For details about changing the language, see "Changing the Display Language", About This Machine.
- For details about checking inquiry and counter, see "Remarks", About This Machine.

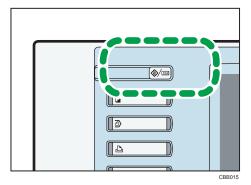


• p.19 "System Settings"

# **Quitting User Tools**

This section describes how to quit the settings of User Tools.

1. Press the [User Tools/Counter] key.





• You can also quit User Tools by pressing [Exit].

# 1. System Settings

This chapter describes user tools in the System Settings menu.

# **General Features**

This section describes the user tools in the General Features menu under System Settings.

#### Program / Change / Delete User Text

You can register text phrases you often use when specifying settings, such as ".com" and "Regards".

You can register up to 40 entries.

- Program / Change
  - 1. Press the [User Tools/Counter] key.
  - 2. Press [System Settings].
  - 3. Check that [General Features] is selected.
  - 4. Press [Program / Change / Delete User Text].
  - 5. Check that [Program / Change] is selected.
  - 6. Select the user text you want to change.

To program new user text, press [\*Not Programmed].

7. Enter the user text, and then press [OK].

Enter the user text using up to 80 characters.

- 8. Press [Exit].
- 9. Press the [User Tools/Counter] key.
- Delete
  - 1. Press the [User Tools/Counter] key.
  - 2. Press [System Settings].
  - 3. Check that [General Features] is selected.
  - 4. Press [Program / Change / Delete User Text].
  - 5. Press [Delete].
  - 6. Select the user text you want to delete.
  - 7. Press [Yes].
  - 8. Press [Exit].
  - 9. Press the [User Tools/Counter] key.

#### **Panel Key Sound**

The beeper (key tone) sounds when a key is pressed.

1

Default: [Medium]

#### Warm-up Beeper (copier/Document Server)

You can have the beeper sound when the machine becomes ready to copy after leaving Energy Saver mode, or when the power is turned on.

Default: [On]

If the Panel Key Sound setting is [Off], the beeper does not sound, whatever the Warm-up Beeper Notice setting.

## Copy Count Display (copier/Document Server)

The copy counter can be set to show the number of copies made (count up) the number of copies yet to be made (count down).

Default: [Up]

#### **Function Priority**

Specify the mode to be displayed immediately after the operation switch turned on, or when System Reset mode is turned on.

Default: [Copier]

#### **Print Priority**

Print Priority is given to the mode selected.

Default: [Display Mode]

When [Interleave] is selected, the current print job will be interrupted after maximum of five sheets.

#### **Function Reset Timer**

You can set the length of time the machine waits before changing modes when using the multi-access function

This is useful if you are making many copies and have to change settings each copy. If you set a longer reset period, you can prevent interruption from other functions.

Default: [Set Time], [3 second(s)]

When you select [Set Time], enter the time (3-30 seconds, in 1 second increments) using the number keys.

The Function Reset Timer setting is ignored if [Interleave] or [Job Order] is set for Print Priority.

#### **Output: Printer**

Specify a tray to which documents are delivered.

Default: [Upper Paper Exit]

#### **Key Repeat**

You can enable or disable repetition of an operation if a key on the screen or control panel is pressed continuously.

Default: [Normal]

#### System Status/Job List Display Time

Specify how long to display the System Status and Job List display for.

Default: [On], [15 second(s)]

By selecting [On], you can specify a display time between 10 and 999 seconds.

#### **Interleave Print**

You can set the timing for changing modes when [Print Priority] has been set [Interleave].

Default: [10 sheet(s)]

You can set the number from 1 to 20 sheets using the number keys.

#### Feed Start Method

Specify whether feeding starts automatically or after pressing the [Start] Key.

Default: [Auto]

#### Original Feed Delay 2

Specify the duration of the pause immediately after originals are first fed into the machine. If originals frequently feed in slanted, or you are using special originals, set the delay accordingly.

Default: [1 second(s)]

The time can be set from 1 to 5 seconds.

#### Original Feed Delay 1

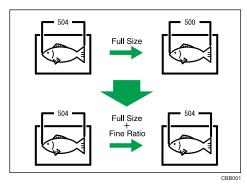
Specify the duration of delay before an original is fed into the machine after being set. If originals frequently feed in slanted, or you are using special originals, set the delay accordingly.

Default: [1 second(s)]

The time can be set from 0 to 5 seconds.

#### Fine Ratio Adjustment: Copier

Depending on paper type, environment, and humidity, copy paper can expand or shrink slightly. This means that the size of the copy and the original do not match. if this happens, specify the vertical and horizontal correction ratio. You can specify this setting for each paper type (plain, translucent, film and recycled paper).



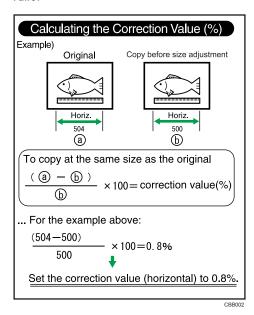
21

1

Default for Vertical: [0.0%] / Horizontal: [0.0%].

Specify the ratio between -1.0% and 1.0% (in 0.1% increments)

To set the Fine Ratio setting, measure the length of the original and the copy image to calculate the ratio.



#### Fine Ratio Adjustment: Printer

Specify the fine ratio when the optional printer is installed. Depending on paper type, environment, and humidity, copy paper can expand or shrink slightly. This means that the size of the copy and the original do not match.

When the horizontal ratios are almost the same and there are differences between the vertical ratios, you can specify the vertical correction ratio. You can make this setting for each paper type (plain, translucent, film and recycled paper).

Default: [0.0%]

Specify the ratio between -1.0% and 1.0% (in 0.1% increments).

For details about how to set the fine ratio, see "Fine Ratio Adjustment: Copier".

#### **Adjust Scan Position**

You can adjust the position of the scan area.

Default: [0]

Specify the scan position between -10 and +10 (in 1 increments).

#### **Preview Area Settings**

Specify the default settings of preview area, area size, and orientation for previewing stored document at the control panel.

This setting is effective when a preview of an enter image cannot be displayed due to document size.

Default for Area: [1]

Default for Area Size: [Small]

Default for Landscape/Portrait: [□]

#### **Print Image Priority**

You can prioritize either lines or gradation in printed images.

Default: [Thin Lines]



• For details on how to access System Settings, see "Accessing User Tools".

## **■** Reference

• p.17 "Accessing User Tools"

# **Tray Paper Settings**

This section describes the user tools in the Tray Paper Settings menu under System Settings.



• If the specified paper size differs from the actual size of the paper loaded in the paper tray, a misfeed might occur because the correct paper size was not detected.

#### Paper Tray Priority: Copier (copier/Document Server)

Specify the tray to supply paper for output.

Default: [Tray 1]

When optional cut paper tray is installed, the default setting will be the cut paper tray.

When optional paper roll tray or optional cut paper tray is installed, [Tray 2] is displayed.

When optional two paper rolls tray and cut paper tray are installed, [Tray 3] is displayed.

#### **Paper Tray Priority: Printer**

Specify the tray to supply paper for output.

Default: [Tray 1]

When optional paper roll tray or optional cut paper tray is installed, [Tray 2] is displayed.

When optional two paper rolls tray and cut paper tray are installed, [Tray 3] is displayed.

#### Tray Paper Size: Tray 1

Select the size of the paper loaded in the paper tray.

A Series:

A0 Width (841 mm), A1 Width (594 mm), A2 Width (420 mm), A3 Width (297 mm), A4 Width (210 mm)

JIS B Series:

B1 JIS Width (728 mm), B2 JIS Width (515 mm), B3 JIS Width (364 mm), B4 JIS Width (257 mm)

• Others:

880 mm, 800 mm, 707 mm, 680mm, 660 mm, 625mm, 620mm, 490mm, 440 mm

• Engineering:

34 inch, 22 inch, 17 inch, 11 inch,  $8^{1}/_{2}$  inch

Architecture:

36 inch / 914 mm, 24 inch, 18 inch, 12 inch, 9 inch

• Others:

30 inch

Default:

Region A (mainly Europe and Asia)

[A0 Width (841 mm)]

Region B (mainly North America)

[36 inch / 914 mm]

#### Tray Paper Size: Tray 2

Select the size of the paper loaded in the paper tray.

- When two paper rolls tray is installed
  - A Series:

A0 Width (841 mm), A1 Width (594 mm), A2 Width (420 mm), A3 Width (297 mm), A4 Width (210 mm)

• JIS B Series:

B1 JIS Width (728 mm), B2 JIS Width (515 mm), B3 JIS Width (364 mm), B4 JIS Width (257 mm)

• Others:

880 mm, 800 mm, 707 mm, 680mm, 660 mm, 625 mm, 620 mm, 490mm, 440 mm

• Engineering:

34 inch, 22 inch, 17 inch, 11 inch,  $8^{1}/_{2}$  inch

Architecture:

36 inch/914 mm, 24 inch, 18 inch, 12 inch, 9 inch

• Others:

30 inch

Default:

Region A (mainly Europe and Asia)

[A0 Width (841 mm)]

Region B (mainly North America)

[36 inch / 914 mm]

When paper roll tray and cut paper tray are installed

A3
$$\mathbb{D}$$
, A4 $\mathbb{D}$ , B4 JIS $\mathbb{D}$ , 12 × 18 $\mathbb{D}$ , 11 × 17 $\mathbb{D}$ , 8 $^1/_2$  × 14 $\mathbb{D}$ , 8 $^1/_2$  × 13 $\mathbb{D}$ , 8 $^1/_2$  × 11 $\mathbb{D}$ 

Default:

Region A (mainly Europe and Asia)

[A3D]

Region B (mainly North America)

[12 × 18□]

#### 1

#### Tray Paper Size: Tray 3

Select the size of the paper loaded in the paper tray.

A3D, A4D, B4 JISD, 
$$12 \times 18D$$
,  $11 \times 17D$ ,  $8^{1}/_{2} \times 14D$ ,  $8^{1}/_{2} \times 13D$ ,  $8^{1}/_{2} \times 11D$ 

Default:

Region A (mainly Europe and Asia)

[A3]

Region B (mainly North America)

[12 × 18□]

#### **Printer Bypass Paper Size**

Specify the size of the paper in the paper bypass when printing data from the computer.

AO $\mathbb{P}$ , B1 JIS $\mathbb{P}$ , A1 $\mathbb{P}$ , A1 $\mathbb{P}$ , B2 JIS $\mathbb{P}$ , B2 JIS $\mathbb{P}$ , A2 $\mathbb{P}$ , A2 $\mathbb{P}$ , B3 JIS $\mathbb{P}$ , B3 JIS $\mathbb{P}$ , A3 $\mathbb{P}$ , A3 $\mathbb{P}$ , B4 JIS $\mathbb{P}$ . A4 $\mathbb{P}$ 

You can specify a custom size of between 257.0 - 2000.0 mm (10.12 - 78.74) vertically, and between 210.0 - 914.4 mm (8.27 - 36.00) horizontally.

#### Paper Type: Bypass Tray

Sets the display so you can see what type of paper is loaded in the paper bypass.

The paper types you can set for the paper bypass are as follows:

Do not Display, Recycled Paper, Translucent Paper, Film

Default: [Do not Display]

#### Paper Type: Tray 1-3

Sets the display so you can see what type of paper is loaded in each paper tray. The print function uses this information to automatically select the paper tray.

• The paper types you can set for the paper bypass are as follows:

Do not Display, Recycled Paper, Translucent Paper, Film

Default for Paper Type: [Do not Display]

Default for Apply Auto Paper Select: [Yes]

A 🎝 mark appears next to the paper tray if [No] is selected in "Apply Auto Paper Select".

When cut paper tray is installed, you cannot select [Translucent Paper] and [Film].

"Apply Auto Paper Select" can only be selected for the copier function if [Do not Display] and [Recycled Paper] are selected. If [No] is selected, Auto Paper Select is not valid for the tray.

For details about the relations between possible paper sizes and thickness, see "Recommended Paper Sizes and Types", About This Machine.

#### Paper Thickness: Paper Tray

Specify the thickness of paper loaded in the paper trays.

If the copy image blurs or the translucent paper loosens, changing the paper thickness level may improve results.

Default for Plain Paper: [3]

Default for Recycled Paper: [3]

Default for Translucent Paper: [2]

Default for Film: [3]

Refer to the chart below when selecting the mode for the paper thickness.

Thickness Paper type	1	2	3	4	5
Plain Paper	110 g/m <sup>2</sup> (29.3 lb)	90 g/m <sup>2</sup> (23.9 lb)	70 g/m <sup>2</sup> (18.6 lb)	60 g/m <sup>2</sup> (15.9 lb)	51 g/m <sup>2</sup> (13.9 lb)
Recycled Paper	110 g/m <sup>2</sup> (29.3 lb)	90 g/m <sup>2</sup> (23.9 lb)	70 g/m <sup>2</sup> (18.6 lb)	60 g/m <sup>2</sup> (15.9 lb)	51 g/m <sup>2</sup> (13.9 lb)
Translucent Paper	70 - 90 g/m <sup>2</sup> (18.6 - 23.9 lb)	70 - 80 g/m <sup>2</sup> (18.6 - 21.3 lb)	70 - 80 g/m <sup>2</sup> (18.6 - 21.3 lb)	51 - 70 g/m <sup>2</sup> (13.9 - 18.6 lb)	Hemmed paper
Film	0.07 - 0.095 mm (2.8 - 3.7 Mil)	-			

When Plain Paper is used for printing in a low-temperature environment (temperature 10 °C, humidity 15%), change the thickness level from 3 to 2.

If the paper becomes loose when [Translucent Paper] is selected with a thickness level of 2, change the thickness level to 1.

These settings do not apply for hemmed paper.

Depending on paper type, operating conditions (low temperature and humidity), and paper feeding settings (multiple copies on paper of 542 mm, 22 in width or less), toner fusing conditions vary. To improve toner fusing, change the thickness level to  $3 \rightarrow 2 \rightarrow 1$ .

When using thin, soft, or limp paper, toner fusing may appear wrinkled or the image may be blurred. If this happens, change the thickness level to  $3 \rightarrow 4 \rightarrow 5$ .

When level 1 or 2 are selected for translucent paper, and you change the paper type from plain or film to translucent, it may take longer for the machine to get ready for copying (up to two minutes).

٦

When level 1 or 2 are selected for translucent paper, and you make copies on paper of size A1 or above continuously, the interval between each copying may take longer. Even if you make copy on one sheet only, it may takes 1 minute until the next copy job starts.

#### Paper Thickness: Paper Bypass

Specify the thickness of paper placed in the paper bypass.

If the copy image blurs or the translucent paper becomes loose, changing the paper thickness level may improve the situation.

Default for Plain Paper: [3]

Default for Recycled Paper: [3]

Default for Translucent Paper: [2]

Default for Film: [3]

For information on the available settings, see the table titled "Paper Thickness: Paper Tray".

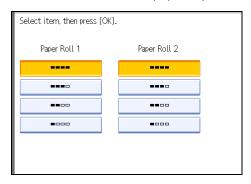
#### **Paper Volume**

Specify the initial remaining volume of roll paper to be displayed for each paper tray.

The system monitors the amount of paper used, and automatically determines the remaining volume, based on the specified initial remaining volume.

We recommend that you specify an appropriate remaining volume each time a paper tray is loaded.

Select "New (Full)" when a paper tray is loaded with a new 150 m roll of paper.



Default: [New (Full)]



• For details on how to access System Settings, see "Accessing User Tools".

# Reference

• p.17 "Accessing User Tools"

I

# **Timer Settings**

This section describes the user tools in the Timer Settings menu under System Settings.

#### **Auto Off Timer**

After a specified period has passed, following job completion, the machine automatically turns off, in order to conserve energy. This function is called "Auto Off".

The machine status after the Auto Off operation is referred to as "Off mode", or "Sleep mode".

For the Auto Off Timer, specify the time to elapse before Auto Off.

Default: [14 minute(s)]

The machine takes about 2 minutes to reach operation readiness after turning the power on or leaving sleep mode.

The time can be set from 10 seconds and 240 minutes, using the number keys.

Auto Off Timer may not work when error messages appear.

Depending on which Embedded Software Architecture application is installed on it, the machine might take longer than indicated to enter Sleep Mode.

#### **Energy Saver Timer**

Set the amount of time the machine waits before switching to lower-power mode after copying has finished or the last operation is performed.

Default: [7 minute(s)]

The time can be set from 1 to 240 minutes, using the number keys.

Energy Saver Timer may not work when error messages appear.

#### **Panel Off Timer**

Set the amount of time the machine waits before switching the panel off after copying has finished or the last operation is performed.

Enter a time interval between 10 seconds and 240 minutes, using the number keys.

The warm up time for making a copy from standby mode is 3 seconds for Panel off Level 1 and 15 seconds for Panel off Level 2.

Default: [On], [1 minute(s)]

Panel Off Timer may not work when error messages appear.

#### System Auto Reset Timer

The System Reset setting automatically switches the screen to that of the function set in Function Priority when no operations are in progress, or when an interrupted job is cleared. This setting determines the system reset interval.

The time can be set from 10 to 999 seconds, using the number keys.

Default: [On], [60 second(s)]

#### Copier / Document Server Auto Reset Timer (copier/Document Server)

Specifies the time to elapse before copier and Document Server modes reset.

If [Off] is selected, the machine does not automatically switch to the user code entry screen.

The time can be set from 10 to 999 seconds, using the number keys.

Default: [On], [60 second(s)]

#### Printer Auto Reset Timer (printer)

Specify the time to elapse before the printer function resets.

The time can be set from 10 to 999 seconds, using the number keys.

Default: [On], [60 second(s)]

#### Scanner Auto Reset Timer (scanner)

Specify the time to elapse before the scanner function resets.

If [Off] is selected, the machine will not automatically switch to the user code entry screen.

The time can be set from 10 to 999 seconds, using the number keys.

Default: [On], [60 second(s)]

#### Set Date

Set the date for the copier's internal clock using the number keys.

To change between year, month, and day, press  $[\leftarrow]$  and  $[\rightarrow]$ .

#### Set Time

Set the time for the copier's internal clock using the number keys.

Region A (mainly Europe and Asia)

Enter the time using the 24-hour format (in 1 second increments).

Region B (mainly North America)

Enter the time using the 12-hour format (in 1 second increments).

To change between hours, minutes and seconds, press  $[\leftarrow]$  and  $[\rightarrow]$ .

#### **Auto Logout Timer**

Specify whether or not to automatically log out a user when the user does not operate the machine for a specified period of time after logging in.

The time can be set from 60 to 999 seconds, in one second increments, using the number keys.

Default: [On], [180 second(s)]



• For details on how to access System Settings, see "Accessing User Tools".

## Reference

• p.17 "Accessing User Tools"

# **Interface Settings**

This section describes the user tools in the Interface Settings menu under System Settings.

#### Network

This section describes the user tools in the Network menu under Interface Settings.

#### Machine IPv4 Address

Specify the machine's IPv4 network address.

Default: [Auto-Obtain (DHCP)]

When you select [Specify], enter the IPv4 address and subnet mask as "xxx.xxx.xxx.xxx" ("x" indicates a number).

When you select [Specify], make sure that IPv4 address is different from that of other machines on the network.

The physical address (MAC address) also appears.

#### IPv4 Gateway Address

A gateway is a connection or interchange point between two networks.

Specify the gateway address for the router or host computer used as a gateway.

Default: [0.0.0.0]

#### Machine IPv6 Address

Displays the machine's IPv6 network address.

Link-local Address

The machine's specified link-local address appears.

• Manual Configuration Address

The machine's manually configured address appears.

• Stateless Address: 1-5

The specified stateless address appears.

#### IPv6 Gateway Address

Displays the machine's IPv6 gateway address.

#### **IPv6 Stateless Address Autoconfiguration**

Specify IPv6 Stateless Address Autoconfiguration.

Default: [Active]

#### **DNS Configuration**

Make settings for the DNS server.

1

Default: [Auto-Obtain (DHCP)]

When you select [Specify], enter the DNS Server IPv4 address as "xxx.xxx.xxx.xxx" ("x" indicates a number).

#### **DDNS Configuration**

Specify the DDNS settings.

Default: [Active]

#### **IPsec**

Specify the machine's IPsec function Active/Inactive.

Default: [Inactive]

For details about this function, consult your administrator.

#### **Domain Name**

Specify the domain name.

Default: [Auto-Obtain (DHCP)]

When you select [Specify], enter the domain name using up to 63 characters.

#### **WINS Configuration**

Specify the WINS server settings.

Default: [On]

If [On] is selected, enter the WINS Server IPv4 address as "xxx.xxx.xxx" ("x" indicates a number).

If DHCP is in use, specify the Scope ID. Enter a Scope ID using up to 31 characters.

Do not enter "255.255.255.255" as the primary or secondary WINS server address.

#### Effective Protocol

Select the Protocol to use in the network.

Default for "IPv4": [Active]

Default for "IPv6": [Inactive]

Default for "NetWare": [Inactive]

"NetWare" is displayed only when Netware is installed.

Default for "SMB": [Active]

#### **NCP Delivery Protocol**

Select the protocol NCP delivery.

Default: [TCP / IP Priority]

If you select [IPX Only] or [TCP / IP Only], you cannot switch the protocol even if you cannot connect with it. If "NetWare" in "Effective Protocol" is set to [Inactive], you can only use TCP/IP.

#### **NW Frame Type**

Select the frame type when you use NetWare.

Default: [Auto Select]

#### **SMB Computer Name**

Specify the SMB computer name.

Enter the computer name using up to 15 characters.

"\*+,/:;<>=?[\]|. and spaces cannot be entered.

Do not set a computer name starting with RNP and rnp.

Use uppercase letters for alphabets.

#### **SMB Work Group**

Specify the SMB work group.

Enter the computer name using up to 15 characters.

"\*+,/:;<>= $?[\]$ ]. and spaces cannot be entered.

Use uppercase letters for alphabet.

#### **Ethernet Speed**

Set the access speed for networks.

Default: [Auto Select]

Select a speed that matches your network environment. [Auto Select] should usually be selected.

		Machine Setting						
		10Mbps Half Duplex	10Mbps Full Duplex	100Mbps Half Duplex	100Mbps Full Duplex	Auto Select		
Connection	10Mbps Half Duplex	0	_	_	_	0		
	10Mbps Full Duplex	_	0	_	_	0		
	100Mbps Half Duplex	_	_	0	_	0		
	100Mbps Full Duplex	_	_	_	0	0		
	Auto Select*	0	0	0	0	0		

<sup>\*</sup>Terms will vary depending on the network.

Not Connectable

BZU022

#### **LAN Type**

When you have installed the Wireless LAN interface unit, select the method of connection.

Default: [Ethernet]

O Connectable

П

[LAN Type] is displayed when wireless LAN board is installed. If Ethernet and Wireless LAN are both connected, the selected interface has priority.

#### **Ping Command**

Check the network connection with ping command using given IPv4 address.

If you fail to connect to the network, check the following, and then retry the ping command.

- Make sure that "IPv4" in [Effective Protocol] is set to [Active].
- Check that the machine with assigned IPv4 address is connected to the network.
- There is a possibility that the same IPv4 address is used for the specified equipment.

#### Permit SNMPv3 Communication

Set the encrypted communication of SNMPv3.

Default: [Encryption / Cleartext]

If you select to [Encryption Only], you need to set an encryption password for the machine.

#### Permit SSL / TLS Communication

Set the encrypted communication of SSL/TLS.

Default: [Ciphertext Priority]

If you set to [Ciphertext Only], you need to install the SSL certificate for the machine.

#### **Host Name**

Specify the host name.

Enter the host name using up to 63 characters.

You cannot enter a host name starting or ending with a hyphen.

You cannot enter a host name starting with "RNP" or "rnp".

#### Machine Name

Specify the machine name.

Enter the machine name using up to 31 characters.

#### **IEEE 802.1X Authentication for Ethernet**

Specify the IEEE 802.1X authentication for Ethernet.

Default: [Inactive]

For details about IEEE 802.1X authentication, see "Configuring IEEE 802.1X".

#### Restore IEEE 802.1X Authentication to Defaults

You can return the IEEE 802.1X authentication settings to their defaults.

For details about IEEE 802.1X authentication, see "Configuring IEEE 802.1X".



• For details on how to access System Settings, see "Accessing User Tools".

# **■** Reference

- p.17 "Accessing User Tools"
- p.273 "Configuring IEEE 802.1X"

#### Wireless LAN

This section describes the user tools in the Wireless LAN menu under Interface Settings.

[Wireless LAN] is displayed when this machine is installed with the wireless LAN interface board.

Be sure to make all settings simultaneously.

#### **Communication Mode**

Specifies the communication mode of the wireless LAN.

Default: [Infrastructure Mode]

# **SSID Setting**

Specifies SSID to distinguish the access point in [Infrastructure Mode] or [802.11 Ad-hoc Mode].

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

If blank is specified in [802.11 Ad-hoc Mode], "ASSID" appears.

#### Ad-hoc Channel

Specify the channel to use when [802.11 Ad-hoc Mode] has been selected. Set the channel that matches the type of wireless LAN being used. The channel in use might differ depending on the country.

The following channels are available:

Region A (mainly Europe and Asia)

• IEEE 802.11 a/b/g Wireless LAN

Frequency range:

2412 - 2472 MHz (1 - 13 channels)

5180 - 5240 MHz (36, 40, 44 and 48 channels)

In some countries, only the following channels are available:

• IEEE 802.11 b/g Wireless LAN

Frequency range:

2412 - 2462 MHz (1 - 11 channels)

Default: [11]

Region B (mainly North America)

IEEE 802.11 a/b/g Wireless LAN

Frequency range:

2412 - 2462 MHz (1 - 11 channels)

5180 - 5240 MHz (36, 40, 44 and 48 channels)

Default: [11]

# Security Method

Specifies the encryption of the Wireless LAN.

Default: [Off]

If you select [WEP], always enter WEP key. If you select [WPA], specify the encryption and authentication methods.

Specify "WPA", when [Communication Mode] is set to [Infrastructure Mode].

WFP

If you select [WEP], enter WEP key.

When using 64 bit WEP, up to 10 characters can be used for hexadecimal and up to 5 characters for ASCII. When using 128 bit WEP, up to 26 characters can be used for hexadecimal and up to 13 characters for ASCII.

The number of characters that can be entered is limited to 10 or 26 for hexadecimal and 5 or 13 for ASCII.

- WPA
  - WPA Encryption Method
     Select either [TKIP] or [CCMP (AES)].
  - WPA Authent. Method

Select either [WPA-PSK], [WPA], [WPA2-PSK], or [WPA2].

If you select [WPA-PSK] or [WPA2-PSK], enter the pre-shared key (PSK) of 8-63 characters in ASCII code.

When [WPA] or [WPA2] are selected, authentication settings and certificate installation settings are required. For details about setting methods, see "Configuring IEEE 802.1X".

#### Wireless LAN Signal

When using in infrastructure mode, you can check the machine's radio wave status using the control panel.

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

#### **Restore Factory Defaults**

You can return the wireless LAN settings to their defaults.



• For details on how to access System Settings, see "Accessing User Tools".

# Reference

- p.17 "Accessing User Tools"
- p.273 "Configuring IEEE 802.1X"

This section describes how to print the configuration page.

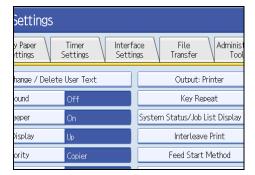
You can check items related to the network environment.

The configuration page shows the current network settings and network information.

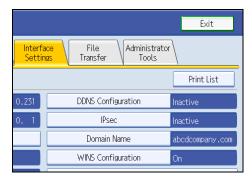
- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



3. Press [Interface Settings].



4. Press [Print List].



5. Press the [Start] key.

The configuration page is printed.

- 1
- 6. Press [Exit].
- 7. Press the [User Tools/Counter] key.

# **U** Note

- You can also exit by pressing [Exit] on the User Tools main menu.
- For details on how to access System Settings, see "Accessing User Tools".

# **■** Reference

- p.17 "Accessing User Tools"
- p.273 "Configuring IEEE 802.1X"

# File Transfer

This section describes the user tools in the File Transfer menu under System Settings.

### **Delivery Option**

Enables or disables sending stored or scanned documents to the ScanRouter delivery server.

Default: [Off]

Specify this option when selecting whether or not to use the ScanRouter delivery software. If you do, you will have to preregister I/O devices in the ScanRouter delivery software.

# Capture Server IPv4 Address

Specify the capture server IPv4 address.

This setting appears when the File Format Converter is installed, and when the capture function is being used by the ScanRouter delivery software.

#### **SMTP Server**

Specify the SMTP server name.

If DNS is in use, enter the host name.

If DNS is not in use, enter the SMTP server IPv4 address.

Default for "Port No.": [25]

Enter the server name using up to 127 characters. Spaces cannot be entered.

Enter port number between 1 and 65535 using the number keys, and then press the [ $^{\sharp 1}$ ] key.

#### **SMTP Authentication**

Specify SMTP authentication (PLAIN, LOGIN, CRAMMD5, DIGEST-MD5). When sending e-mail to an SMTP server, you can enhance the SMTP server security level using authentication that requires entering the user name and password.

If the SMTP server requires authentication, set [SMTP Authentication] to [On], and then specify the user name, password and encryption.

Default: [Off]

User Name

Enter the user name using up to 191 characters.

Spaces cannot be entered. Depending on the SMTP server type, "realm" must be specified. Add "@" after the user name. as in "user name@realm".

F-mail Address

Enter the E-mail address using up to 128 characters.

Password

Enter the password using up to 128 characters.

Spaces cannot be entered.

٦

• Encryption

Select Encryption as follows:

[Auto]

Use if the authentication method is PLAIN, LOGIN, CRAM-MD5, or DIGEST-MD5.

[On]

Use if the authentication method is CRAMMD5 or DIGEST-MD5.

[Off]

Use if the authentication method is PLAIN, or LOGIN.

#### POP before SMTP

Specify POP authentication (POP before SMTP).

When sending e-mail to an SMTP server, you can enhance the SMTP server security level by connecting to the POP server for authentication.

Default: [Off]

If you set POP before SMTP to [On], specify the waiting time after authentication, user name, e-mail address, and password.

• Wait Time after Authent.:

Default: [300 msec.]

Specify [Wait Time after Authent.] from zero to 10,000 milliseconds, in increments of one millisecond.

User Name

Enter the user name using up to 191 characters. Spaces cannot be entered.

E-mail Address

Enter the E-mail Address using up to 128 characters. Spaces cannot be entered.

Password

Enter the password using up to 128 characters. Spaces cannot be entered.

To enable POP server authentication before sending e-mail via the SMTP server, set [POP before SMTP] to [On]. E-mail is sent to the SMTP server after the time specified for [Wait Time after Authent.] has elapsed.

If you select [On], enter server name in POP3/IMAP4 Settings. Also, check POP3 port number in E-mail Communication Port.

#### **Reception Protocol**

Specify Reception Protocol for E-mail Notification function.

Default: [POP3]

#### POP3 / IMAP4 Settings

Specify the POP3/IMAP4 server name for E-mail Notification function.

The specified POP3/IMAP4 server name is used for [POP before SMTP].

Default: [Auto]

Server Name

If DNS is in use, enter the host name.

If DNS is not in use, enter the POP3/IMAP4 or server IPv4 address.

Enter POP3/IMAP4 server name using up to 127 characters. Spaces cannot be entered.

Encryption

Select Encryption as follows:

[Auto]

Password encryption is automatically set according to the POP/IMAP server settings.

[On]

Encrypt password.

[Off]

Do not encrypt password.

#### Administrator's E-mail Address

Specify the Administrator's E-mail Address.

On e-mailed scanned documents, if the sender is not specified this appears as the sender's address.

When sending e-mail, administrator's e-mail address will appear as the sender's address under the following conditions:

When conducting SMTP authentication for the transmitted files under the e-mail function, the Administrator's E-mail Address will appear in the "From:" box. If you have specified the user name and e-mail address in [SMTP Authentication], make sure to specify this setting.

Enter up to 128 characters.

On e-mailed scanned documents, if [Auto Specify Sender Name] is [Off], specify the sender.

#### E-mail Communication Port

Specify the port numbers for receiving e-mails. The specified POP3 port number is used for [POP before SMTP].

Default for "POP3": [110]

Default for "IMAP4": [143]

Enter a port number between 1 and 65535 using the number keys, and then press the [#] key.

#### E-mail Reception Interval

Specify, in minutes, the time interval for receiving E-mail Notification function via POP3 or IMAP4 server.

Default: [On], [15 minute(s)]

If [On] is selected, the time can be set from 2 to 1440 minutes in increments of one minute.

### Max. Reception E-mail Size

Specify the maximum reception e-mail size for receiving e-mails.

Default: [2 MB]

Enter a size from 1 - 50 MB in increments of one megabyte.

### E-mail Storage in Server

Specify whether or not to store received e-mails on the POP3 or IMAP4 server.

Default: [Off]

# Default User Name / Password (Send)

Specify the user name and password required when sending scan files directly to a shared folder on a computer running Windows, to an FTP server, or to a NetWare server.

Enter in up to 64 characters.

## Program / Change / Delete E-mail Message

You can program, change, or delete the e-mail message used when sending a scan file as an attachment.

- Program/Change:
  - 1. Press the [User Tools/Counter] key.
  - 2. Press [System Settings].
  - 3. Press [File Transfer].
  - 4. Press [Program / Change / Delete E-mail Message].
  - 5. Check that [Program / Change] is selected.
  - 6. Press [\*Not Programmed].

To change the registered e-mail message, select the e-mail message to change.

- 7. Press [Change] under the "Name".
- 8. Enter a name, and then press [OK].

Enter the name using up to 20 characters.

9. Press [Edit].

To start a new line, press [OK] to return to the e-mail message screen, and then press [▼ Next] in "Select Line to Edit:".

10. Enter the text, and then press [OK].

Enter up to five lines of text. Each line can consist of up to 80 characters.

- 11. Press [OK].
- 12. Press [Exit].
- 13. Press the [User Tools/Counter] key.

- Delete:
  - 1. Press the [User Tools/Counter] key.
  - 2. Press [System Settings].
  - 3. Press [File Transfer].
  - 4. Press [Program / Change / Delete E-mail Message].
  - 5. Press [Delete].
  - Select the e-mail message to delete.
     The confirmation message about deleting appears.
  - 7. Press [Yes].
  - 8. Press [Exit].
  - 9. Press the [User Tools/Counter] key.

### **Auto Specify Sender Name**

Set whether or not to specify the name of the sender when sending e-mail.

Default: [Off]

On

If you select [On], the specified e-mail address will appear in the "From:" box. If you do not specify the sender's address, the administrator's e-mail address will appear in the "From:" box.

If you do not specify the sender when sending a file by e-mail, or if the specified e-mail address is not registered in the machine's Address Book, the machine's e-mail address will appear in the "From:" box. If the machine does not have an e-mail address, the administrator's e-mail address will appear in the "From:" box.

Off

If you select [Off], the specified e-mail address will appear in the "From:" box, but you cannot send e-mail without specifying the sender's e-mail address.

#### Scanner Resend Interval Time

Specifies the interval the machine waits before resending a scan file, if it cannot be sent to the delivery server or mail server.

Default: [300 second(s)]

The interval time can be set from 60 to 900 seconds in one second increments, using the number keys.

This setting is for the scanner function.

#### **Number of Scanner Resends**

Sets a maximum number of times a scan file is resent to the delivery server or mail server.

Default: [On], [3 time(s)]

If [On] is selected, the number of times can be set from 1 to 99.

This setting is for the scanner function.

- For details on how to access System Settings, see "Accessing User Tools".
- **■** Reference
  - p.17 "Accessing User Tools"

# **Administrator Tools**

This section describes the user tools in the Administrator Tools menu under System Settings.

Administrator Tools are used by the administrator. To change these settings, contact the administrator.

We recommend specifying Administrator Authentication before making Administrator Tools settings.

# **Address Book Management**

You can add, change or delete information registered in the Address Book.

For details, see "Address Book".

• Program / Change

You can register and change names as well as user codes.

Names

You can register a name, key display, registration number, and title selection.

• Auth. Info

You can register a user code, and specify the functions available to each user code. You can also register user names and passwords to be used when sending e-mail, sending files to folders, or accessing an LDAP server.

• Protection

You can register a protection code.

• E-mail

You can register an e-mail address.

Folder

You can register the protocol, path, port number, and server name.

Add to Group

You can put names registered in the Address Book into a group.

Delete

You can delete a name from the Address Book.

You can register up to 2,000 names.

You can register up to 500 user codes.

You can also register and manage names in the Address Book using Web Image Monitor.

#### Address Book: Program / Change / Delete Group

Names registered in the Address Book can be added into a group. You can then easily manage the names registered in each group.

• Program/Change

You can register and change groups.

П

Names

You can register a name, key display, registration number, and title selection.

• Programmed User/Group

You can check the names or groups registered in each group.

• Protection

You can register a protection code.

Add to Group

You can put groups registered in the Address Book into a group.

Delete

You can delete a group from the Address Book.

You can register up to 100 groups.

You can also register and manage groups in the Address Book using Web Image Monitor.

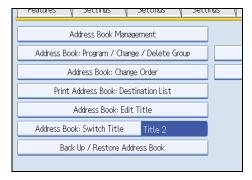
# Address Book: Change Order

Changes the order of registered names.

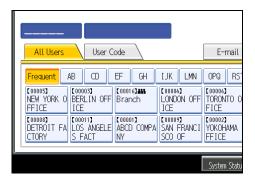
You can rearrange the order of items on the same page, but you cannot move items to another page.

For example, you cannot move an item from "PLANNING" ([OPQ]) to "DAILY" ([CD]).

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [Address Book: Change Order].

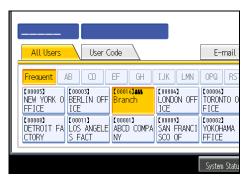


5. Press the name key to be moved.



You can select a name using the number keys.

6. Press the name key in place you want to move it to.



The user key is moved to the selected position, and the user key currently at the selected position is moved forward or backward.

If you move the selected user key forward, the user key currently at the selected position is moved backward.

If you move the selected user key backward, the user key currently at the selected position is moved forward.



You can also select a name using the number keys.

#### **Print Address Book: Destination List**

You can print the destination list registered in the Address Book.

- Print in Title 1 Order
   Prints the Address Book in Title 1 order.
- Print in Title 2 Order
   Prints the Address Book in Title 2 order.
- Print in Title 3 Order
   Prints the Address Book in Title 3 order.
- Print Group Dial List

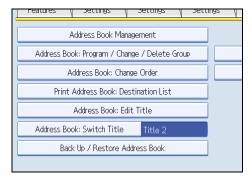
Prints the group Address Book.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [Print Address Book: Destination List].
- 5. Select the print format.
- Press the [Start] key.The list prints out.

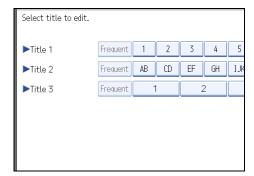
#### Address Book: Edit Title

You can edit the title to easily find a user.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [Address Book: Edit Title].



5. Press the title key you want to change.



- 6. Enter the new name, and then press [OK].
- 7. Press [OK].
- 8. Press the [User Tools/Counter] key.

#### Address Book: Switch Title

Specifies the title to select a name.

Default: [Title 1]

### Back Up / Restore Address Book

You can back up the machine's Address Book to external storage or restore the backup copy from the external storage.

Backup requires a removable SD card to be installed in this machine.

For details about installing and removing the SD card, contact your sales or service representative.

Restore data overwrites Address Book data stored on the machine, and clears the counter of each registered user of the machine.

You can also back up and restore the machine's Address Book using Web Image Monitor. For details, see the Help files of Web Image Monitor.

• Back Up

You can back up the machine's Address Book to external storage.

Restore

You can restore the backup copy of the Address Book from external storage.

Format

You can format the external storage.

Obtain Memory Device Info

The free space and occupied space of the external storage are displayed.

#### Data Carry-over Setting for Address Book Auto-program

By using Data Carry-over Setting for Address Book Auto-program, you can carry over user authentication information that has already been registered to the Address Book of the Windows authentication, LDAP authentication, or integration server authentication.

### Default: [Do not Carry-over]

If you select [Carry-over Data], use the number keys to enter the registration number of the data you wish to carry over from an Address Book.

For details about the Windows authentication, LDAP authentication, or Integration server authentication, consult your administrator.

# Display / Print Counter

Allows you to view and print the number of prints.

- Display / Print Counter
  - Displays the number of prints for each function (Total, Copier, Printer, Send / TX Total, Scanner Send).
- Print Counter List

Prints out a list of the number of prints made under each function.

# Display / Clear / Print Counter per User

Allows you to view and print the numbers of prints accessed with user codes, and to set those values to 0.

Press [▲Previous] and [▼Next] to show all the numbers of prints.

The number of prints may differ from the counter values shown in Display/Print Counter.

- Print Counter List for All Users
  - Prints the counter value for all the users.
- Clear Counter List for All Users

Resets the counter value for all the users.

• Print Counter List Per User

Prints the counter value for each user.

• Clear Counter List Per User

Resets the counter value for each user.

Select All on the Page

Select all the users on the page.

For details about printing the counter, see "Printing the Counter for Each User" and "Printing the Counter for All Users".

#### **User Authentication Management**

• User Code Auth.

Using User Code Authentication, you can limit the available functions and supervise their use.

When using User Code Authentication, register the user code.

Using the Printer PC Control function, you can obtain a log of prints corresponding to the codes entered using the printer driver.

For details about Basic Authentication, Windows Authentication, LDAP Authentication, and Integration Server Authentication, consult your administrator.

#### Function to Restrict

- Copier
- Document Server
- Printer
- Printer: PC Control
- Scanner
- Printer Job Authentication:

```
[Entire], [Simple (Limitation)], [Simple (All)]
```

• Limitation Range:

[Change]

- Basic Auth.
- Windows Auth.
- LDAP Auth.
- Integration Svr. Auth.
- Off

Default: [Off]

# **Enhanced Authentication Management**

For details about this function, consult your administrator.

# **Administrator Authentication Management**

For details about this function, consult your administrator.

# Program / Change Administrator

For details about this function, consult your administrator.

# **Key Counter Management**

Specify the functions you want to manage with the key counter.

- Copier
- Document Server
- Printer
- Scanner

# **External Charge Unit Management**

Using the key card, you can use the key card to specify an upper limit onto machine use.

• Copier

- T
- Document Server
- Printer
- Scanner

For details about this function, consult your administrator.

### **Enhanced External Charge Unit Management**

Specify whether or not to make available enhanced features for enhanced external charge unit management.

For details about this function, consult your administrator.

# **Extended Security**

Specify whether or not to use the extended security functions. For details about the extended security functions, consult your administrator.

#### **Auto Delete File in Document Server**

Specify whether documents stored in the Document Server will or will not be deleted after a specified period of time.

Default: [On], [3 day(s)]

If you select [On], documents stored subsequently are deleted after the specified period.

If you select [Off], documents are not automatically deleted.

If you select [On], enter a number of days from 1 to 180 (in 1 day increments).

The default is 3 days, this means documents are deleted 3 days (72 hours) after they are stored.

#### **Delete All Files in Document Server**

You can delete files stored in the Document Server, including files stored for Sample Print, Locked Print, Hold Print, and Stored Print under the printer function.

Even if a password is always set, all documents are deleted.

A confirmation message appears. To delete all documents, select [Yes].

#### **Capture Priority**

This setting appears when the File Format Converter is installed, and when the capture function is being used by the ScanRouter delivery software.

For details about this function, consult your administrator.

#### Capture: Delete All Unsent Files

This setting appears when the File Format Converter is installed, and when the capture function is being used by the ScanRouter delivery software.

For details about this function, consult your administrator.

#### Capture: Ownership

This setting appears when the File Format Converter is installed, and when the capture function is being used by the ScanRouter delivery software.

1

For details about this function, consult your administrator.

### **Capture: Public Priority**

This setting appears when the File Format Converter is installed, and when the capture function is being used by the ScanRouter delivery software.

For details about this function, consult your administrator.

### **Capture: Owner Defaults**

This setting appears when the File Format Converter is installed, and when the capture function is being used by the ScanRouter delivery software.

For details about this function, consult your administrator.

### Program / Change / Delete LDAP Server

Program the LDAP server to find up e-mail destinations in the LDAP server Address Book directly. This function is possible when sending scan files by e-mail using the scanner.

- Name
- Server Name
- Search Base
- Port Number
- Use Secure Connection (SSL)
- Authentication
- User Name
- Password
- Realm Name
- Search Conditions
- Search Options

This function supports LDAP Version 2.0 and 3.0. Digest authentication can only be used under LDAP Ver.3.0.

To use the LDAP server, select [On] under LDAP Search.

For details about how to program the LDAP Server, see "Programming the LDAP server".

#### **LDAP Search**

Specify whether or not to use the LDAP server for searching.

Default: [Off]

If you select [Off], LDAP server list will not appear on the searching display.

#### Service Test Call

You can make a test call to the @Remote center.

This function is available only if the @Remote service is enabled and active.

# **Notify Machine Status**

You can send notification of the machine's status to the @Remote center.

This function is available only if the @Remote service is enabled and active.

#### Service Mode Lock

For details about this function, consult your administrator.

#### Firmware Version

You can check the version of the software installed in this machine.

### **Network Security Level**

For details about this function, consult your administrator.

### **Auto Erase Memory Setting**

For details about this function, consult your administrator.

#### **Erase All Memory**

For details about this function, consult your administrator.

# **Delete All Logs**

For details about this function, consult your administrator.

# **Transfer Log Setting**

For details about this function, consult your administrator.

#### **Fixed USB Port**

Specify whether or not to fix the USB port.

Default: [Off]

If set to [Level 1]

It is not necessary to install a new driver when the printer driver of this machine has already been installed on the PC.

If set to [Level 2]

Please contact your service representative for details.

#### Program / Change / Delete Realm

Program the realm to be used for Kerberos authentication.

- Realm Name
- KDC Server Name
- Domain Name

Be sure to set both the realm name and KDC server name when programming a realm.

For details about Program/Change/Delete Realm, see "Programming the Realm".

# **Machine Data Encryption Settings**

For details about this function, consult your administrator.

# **₩**Note

• For details on how to access System Settings, see "Accessing User Tools".

# **■** Reference

- p.17 "Accessing User Tools"
- p.56 "Programming the LDAP server"
- p.62 "Programming the Realm"
- p.213 "Printing the Counter for Each User"
- p.214 "Printing the Counter for All Users"

# **Programming the LDAP server**

This section describes how to specify the LDAP server settings.

This function supports LDAP version 2.0 and 3.0.

Program the LDAP server to find e-mail destinations in the LDAP server Address Book directly.

This function is possible when sending scan files by e-mail using the scanner function.

To start an LDAP search, make sure that the items listed below are set. For other items, check your environment and make any necessary changes.

- Server Name
- Search Base
- Port Number
- Authentication
- Search Conditions

If [Kerberos Authentication] is selected be sure to set the "User Name", "Password", and the "Realm Name".

If [Digest Authentication] or [Cleartext Authentication] is selected be sure to set the "User Name" and "Password".

To use the LDAP server in Administrator Tools, select [On] under "LDAP Search".

The LDAP version 2.0 does not support Digest Authentication.

To select Kerberos Authentication, a realm must be registered in advance.

# Programming the LDAP server

This section describes how to program the LDAP server.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [▼Next] twice.
- 5. Press [Program / Change / Delete LDAP Server].
- 6. Check that [Program / Change] is selected.
- 7. Select the LDAP server you want to program or change.

When programming the server, select [\*Not Programmed].

- 8. Press [Change] under "Name".
- 9. Enter the name, and then press [OK].
- 10. Press [Change] under "Server Name".

1

# 11. Enter the server name, and then press [OK].

### 12. Press [Change] under "Search Base".

Select a root folder to start the search from e-mail addresses registered in the selected folder are search targets.

#### 13. Enter the search base, and then press [OK].

For example, if the search target is the sales department of ABC company, enter "dc=sales department, o=ABC". (In this example, the description is for an active directory. "dc" is for the organization unit, and "o" is for the company.)

Search base registration may be required depending on your server environment. When registration is required, unspecified searches will result in error.

Check your server environment and enter any required specifications.

### 14. Press [Change] under "Port Number".

Specify the port number for communicating with the LDAP server. Specify a port that is compliant with your environment.

# 15. Enter the port number using the number keys, and then press the [#] key.

When SSL is set to [On], the port number automatically changes to "636".

# 16. Under "Use Secure Connection (SSL)", press [On].

Use SSL to communicate with the LDAP server.

For SSL to function, the LDAP server must support SSL.

If you set SSL to [On], the port number automatically changes to "636".

If you do not enable SSL, security problems may occur. To enable SSL, you must use the machine's settings. For details, consult your network administrator.

# 17. Press [VNext].

#### 18. Select the authentication method.

To make a search request to the LDAP server, use the administrator account for authentication.

Authentication settings must comply with your server's authentication settings. Check your server settings before setting this machine.

[Digest Authentication] is available only with LDAP Version 3.0.

If you select [Cleartext Authentication], a password is sent to the LDAP server as is, without any encryption processing.

If you select [Digest Authentication], a password is sent using an encryption process that prevents passwords from being revealed during transmission to the LDAP server.

If you select [Kerberos Authentication], a password is sent using an encryption process that prevents passwords from being revealed during transmission to the KDC server where authentication occurs.

If you select [Off], proceed to step 24.

If you select [Digest Authentication] or [Cleartext Authentication], proceed to step 19 to 22, and then proceed to step 24.

If you select [Kerberos Authentication], proceed to step 19 to 23, and then proceed to step 24.



#### 19. Press [Change] under "User Name".

When [Kerberos Authentication], [Digest Authentication], or [Cleartext Authentication] is selected for the authentication setting, use the administrator account name and password. Do not enter the administrator account name and password when using authentication for each individual or each search.

# 20. Enter the user name, and then press [OK].

Procedures for the user name setting differ depending on server environment. Check your server environment before making the setting.

Example: Domain Name\User Name, User Name@Domain Name, CN=Name, OU=Department Name, DC=Server Name

# 21. Press [Change] under "Password".

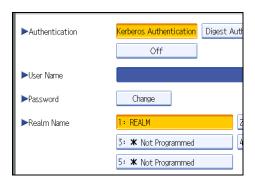
### 22. Enter the password, and then press [OK].

The user name and password are required for administrator authentication to access the LDAP server.

You can connect to the LDAP server using a user name and password stored in the Address Book. For details, see "Registering SMTP and LDAP Authentication".

If you select [Digest Authentication] or [Cleartext Authentication], proceed to step 24.

# 23. Select the Realm.



### 24. Press [Connection Test].

Access the LDAP server to check that the proper connection is established. Check authentication works according to the authentication settings.

#### 25. Press [Exit].

If the connection test fails, check your settings and try again.

This function does not check search conditions or the search base.

- 26. Press [VNext].
- Press [Change] for items you want to use as search conditions from the following: "Name",
   "E-mail Address", "Fax Number", "Company Name", and "Department Name".

You can enter an attribute as a typical search keyword. Using the entered attribute, the function searches the LDAP server's Address Book.

28. Enter the attribute you want to use when searching for e-mail addresses, and then press [OK].

The attribute value may change depending on the server environment. Check that the attribute value complies with your server environment before setting it.

You can leave items blank, but you cannot leave attributes blank when searching for e-mail addresses from the LDAP server Address Book.

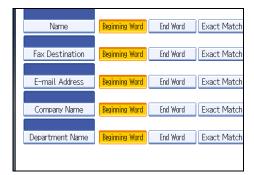
- 29. Press [VNext].
- 30. Press [Change] under "Attribute".
- 31. Enter the attribute you want to use when searching for e-mail addresses, and then press [OK].

The attribute value may change depending on the server environment. Check that the attribute complies with your server environment before setting it.

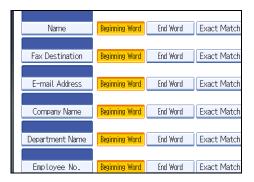
- 32. Press [Change] under "Key Display".
- 33. Enter the key display, and then press [OK].

The registered "Key Display" appears as a keyword for searching LDAP.

• Without key display registration



• With key display registration



The key does not appear on the search screen unless both "Attribute" and "Key Display" are registered. Make sure you register both to use the optional search.

- 34. Press [OK].
- 35. Press [Exit].
- 36. Press the [User Tools/Counter] key.
- Reference
  - p.252 "Registering SMTP and LDAP Authentication"

# Changing the LDAP server

This section describes how to change the programmed LDAP server.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [▼Next] twice.
- 5. Press [Program / Change / Delete LDAP Server].
- 6. Check that [Program / Change] is selected.
- 7. Select the LDAP server you want to change.
- 8. Change the settings as necessary.
- 9. Press [OK] after changing each item.
- 10. Press [Exit].
- 11. Press the [User Tools/Counter] key.

# Deleting the LDAP server

This section describes how to delete the programmed LDAP server.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [▼Next] twice.
- 5. Press [Program / Change / Delete LDAP Server].
- 6. Press [Delete].
- 7. Select the LDAP server you want to delete.
- 8. Press [Yes].
- 9. Press [Exit].
- 10. Press the [User Tools/Counter] key.

# **Programming the Realm**

This section describes how to specify the Realm settings.

Program the realm to be used for Kerberos authentication.

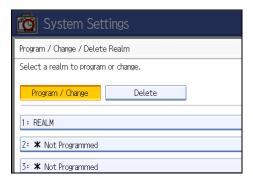
A realm is the network area in which Kerberos authentication is used. After confirming the network environment, specify the necessary items.

You can register up to 5 realms.

# **Programming the Realm**

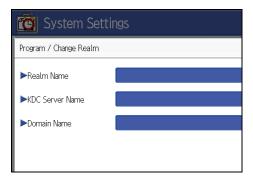
This section describes how to program the Realm.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [▼Next] twice.
- 5. Press [Program / Change / Delete Realm].
- 6. Check that [Program / Change] is selected.



7. Press [\*Not Programmed].

# 8. Press [Change] under "Realm Name".



9. Enter the realm name, and then press [OK].

Enter the realm name, or host name.

You can enter a realm name using up to 64 characters.

- 10. Press [Change] under "KDC Server Name".
- 11. Enter the KDC server name, and then press [OK].

Enter the KDC server name, host name, or IPv4 address.

You can enter a KDC server name using up to 64 characters.

- 12. Press [Change] under "Domain Name".
- 13. Enter the domain name, and then press [OK].

Enter the domain name, or host name.

You can enter a domain name using up to 64 characters.

- 14. Press [OK].
- 15. Press [Exit].
- 16. Press the [User Tools/Counter] key.

# **Changing the Realm**

This section describes how to change the programmed Realm.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [▼Next] twice.
- 5. Press [Program / Change / Delete Realm].
- 6. Check that [Program / Change] is selected.
- 7. Select the Realm you want to change.

- 8. To change the realm name, press [Change] under "Realm Name".
- 9. Enter the realm name, and then press [OK].

You can enter a realm name using up to 64 characters.

- 10. To change the KDC server name, press [Change] under "KDC Server Name".
- 11. Enter the KDC server name, and then press [OK].

You can enter a KDC server name using up to 64 characters.

- 12. To change the domain name, press [Change] under "Domain Name".
- 13. Enter the domain name, and then press [OK].

You can enter a domain name using up to 64 characters.

- 14. Press [OK].
- 15. Press [Exit].
- 16. Press the [User Tools/Counter] key.

# **Deleting the Realm**

This section describes how to delete the programmed Realm.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Administrator Tools].
- 4. Press [▼Next] twice.
- 5. Press [Program / Change / Delete Realm].
- 6. Press [Delete].
- 7. Select the realm you want to delete.
- 8. Press [Yes].
- 9. Press [Exit].
- 10. Press the [User Tools/Counter] key.

# 2

# 2. Connecting the Machine

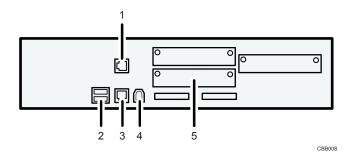
This chapter describes how to connect the machine to the network and specify the network settings.

# Connecting to the Interface

This section explains how to identify the machine's interface and connect the machine according to the network environment.



• A network interface cable with a ferrite core must be used for RF interference suppression.



#### 1. Gigabit Ethernet port (optional)

Port for using the 1000BASE-T, 100BASE-TX, or 10BASE-T cable

#### 2. USB Host Interface

Port for connecting the USB interface cable

Use this interface to connect the machine to a card authentication device or memory card reader.

#### 3. 10BASE-T/100BASE-TX port

Port for connecting the 10BASE-T or 100BASE-TX cable

#### 4. USB2.0 port

Port for connecting the USB2.0 interface cable.

# 5. Wireless LAN interface unit (optional)

This unit allows you to connect the machine to an IEEE 802.11 a or IEEE 802.11 b/g wireless LAN.



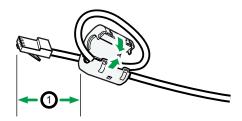
 The Ethernet and Gigabit Ethernet port cannot be used simultaneously. If the optional Gigabit Ethernet board is installed, connect the Ethernet cable to the port on the Gigabit Ethernet board Communication with the machine will fail if cables are connected to both ports simultaneously.

# Connecting to the Ethernet Interface

This section describes how to connect an Ethernet cable to the Ethernet interface.

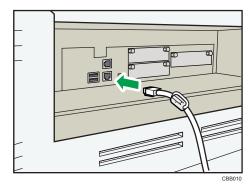


- If the main power switch is on, turn it off.
- Use the following Ethernet cables.
  - Unshielded Twisted Pair Cable (UTP) or Shielded Twisted Pair Cable (STP) and Category type
     5 or more
- 1. Make a loop 3 cm (1.2 inch) (1) from the end of the Ethernet cable and attach the included ferrite core to the loops as shown.



3ZU007

- 2. Make sure the main power is switched off.
- 3. Connect the Ethernet interface cable to the 10BASE-T/100BASE-TX port.



4. Connect the other end of the Ethernet interface cable to a network connection device such as a hub.

5. Turn on the main power switch of the machine.



#### 1. Indicator (green)

When 10BASE-T is operating, the LED is lit green. When 100BASE-TX is operating it is turned off.

# 2. Indicator (orange)

When 100BASE-TX is operating, the LED is lit orange. When 10BASE-T is operating it is turned off.



- For details about how to turn on the main power switch, see "Turning On the Power", About This Machine.
- For details about installing the printer driver, see "Preparing the Machine", Printer Reference.

# Connecting to the Gigabit Ethernet Interface

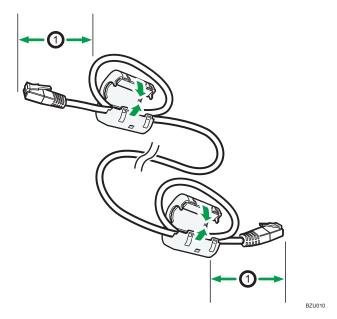
This section describes how to connect the Ethernet interface cable to the Gigabit Ethernet port.



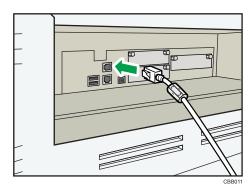
- If the main power switch is on, turn it off.
- Use the following Ethernet cables.
  - When using 100BASE-TX/10BASE-T:
     Unshielded Twisted Pair Cable (UTP) or Shielded Twisted Pair Cable (STP) and Category type
     5 or more
  - When using 1000BASE-T:

Unshielded Twisted Pair Cable (UTP) or Shielded Twisted Pair Cable (STP) and Category type 5e or more

1. Make loops 3 cm (1.2 inch) (1) from the end of each Ethernet cable and attach included ferrite cores to each loop as shown.

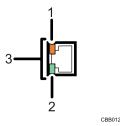


- 2. Make sure the main power is switched off.
- 3. Connect the Ethernet interface cable to the Gigabit Ethernet port.



4. Connect the other end of the Ethernet interface cable to a network connection device such as a hub.

5. Turn on the main power switch of the machine.



1. Indicator (orange)

When 100BASE-TX is operating, the LED is lit orange. When 10BASE-T is operating, it is turned off.

2. Indicator (green)

When 10BASE-T is operating, the LED is lit green. When 100BASE-TX is operating it is turned off.

3. Indicators (both green and orange)

When 1000BASE-T is operating, both LED are lit.



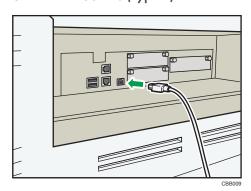
- For details about how to turn on the main power switch, see "Turning On the Power", About This Machine.
- For details about installing the printer driver, see "Preparing the Machine", Printer Reference.

# Connecting to the USB (Type B) Interface

This section describes how to connect the USB2.0 (Type B) interface cable to the USB2.0 port.



- Properly shielded and grounded cables and connectors must be used for connections to a host computer (and/or peripheral) in order to meet emission limits.
- 1. Connect the USB2.0 (Type B) interface cable to the USB2.0 port.



2. Connect the other end to the USB2.0 port on the host computer.

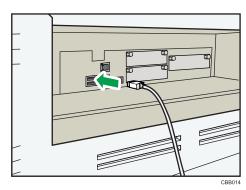


- This machine does not come with a USB interface cable. Make sure you purchase the appropriate cable for the machine and your computer.
- The USB2.0 interface board is supported by Windows 2000/XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, Mac OS X 10.3.3 or higher.
  - To use Macintosh, the machine must be equipped with the optional PostScript 3 unit. When used with Mac OS X 10.3.3 or higher, a transfer speed of USB2.0 is supported.
- For details about installing the printer driver, see "Preparing the Machine", Printer Reference.

# Connecting a Device to the Machine's USB Host Interface

This section explains how to connect a device to the machine's USB host interface.

1. Connect one end of the USB interface cable to the machine's USB host interface.



2. Connect the other end of the USB interface cable to a card authentication device or media slot.



 This machine does not come with a USB interface cable. Make sure you purchase the appropriate cable.

# Connecting to the Wireless LAN Interface

This section describes how to connect to the wireless LAN interface.



- Check the machine's IPv4 address and subnet mask, or the IPv6 address settings.
- For details about how to set the IPv4 address and subnet mask from the control panel of the machine, see "Interface Settings".

Before using this machine with a wireless LAN interface, you must select [Wireless LAN] in [LAN Type].

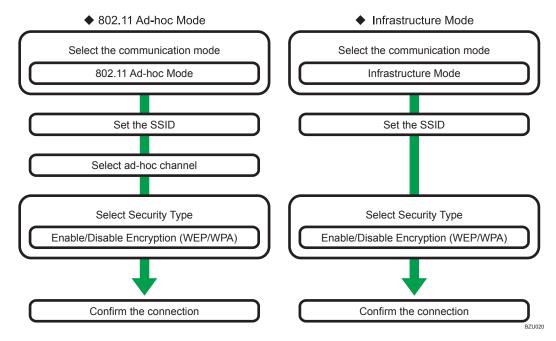
# ■ Reference

• p.31 "Interface Settings"

#### Setup Procedure

This section describes how to setup wireless LAN interface.

To configure the wireless LAN settings: open [System Settings], [Interface Settings], select [Wireless LAN], and then use the following procedure.





- Select [802.11 Ad-hoc Mode] when connecting Windows XP as a wireless LAN client using Windows XP standard driver or utilities, or when not using the infrastructure mode.
- When [802.11 Ad-hoc Mode] is selected in Communication Mode, select the channel for [Ad-hoc Channel]. Set a channel that matches the type of wireless LAN being used. For details about setting the Ad-hoc Channel, see "Interface Settings".
- You can specify either "WEP" or "WPA" to the Security Method.
- Specify "WPA", when [Communication Mode] is set to [Infrastructure Mode].
- If you select the [WPA] option for Security Method, select one of the following: [WPA-PSK], [WPA], [WPA2-PSK], or [WPA2]. If you select [WPA-PSK] or [WPA2-PSK], enter your PSK. If you select [WPA] or [WPA2], authentication settings and certificate installation settings are required. For details about setting methods, see "Configuring IEEE 802.1X".

 For details about how to specify wireless LAN settings from the control panel on the machine, see "Interface Settings".

#### Reference

- p.31 "Interface Settings"
- p.273 "Configuring IEEE 802.1X"

#### **Checking the Signal**

This section describes how to check the machine's radio wave status.

When using in infrastructure mode, you can check the machine's radio wave status using the control panel.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].
- 3. Press [Interface Settings].
- 4. Press [Wireless LAN].
- Press [Wireless LAN Signal].
   The machine's radio wave status appears.
- 6. After checking radio wave status, press [Exit].
- 7. Press the [User Tools/Counter] key.

#### 2

# Network Settings Required to Use the Printer

This section lists the network settings required for using the printer function.



• These settings should be made by the administrator, or with the advice of the administrator.

#### **Ethernet**

This section lists the settings required for using the printer function with an Ethernet connection. For details about how to specify the settings, see "Interface Settings".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	As required
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	NCP Delivery Protocol	As required
Interface Settings/Network	NW Frame Type	As required
Interface Settings/Network	SMB Computer Name	As required
Interface Settings/Network	SMB Work Group	As required
Interface Settings/Network	Ethernet Speed	As required

Menu	User Tool	Setting Requirements
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required
Interface Settings/Network	Host Name	As required
Interface Settings/Network	Machine Name	As required
Interface Settings/Network	IEEE 802.1X Authentication for Ethernet	As required

# **U** Note

- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [LAN Type] is displayed when the wireless LAN board is installed. If Ethernet and wireless LAN are both connected, the selected interface has priority.

#### Reference

• p.31 "Interface Settings"

# Wireless LAN

This section lists the settings required for using the printer function with a wireless LAN connection. For details about how to specify the settings, see "Interface Settings".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	As required
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required

Menu	User Tool	Setting Requirements
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	NCP Delivery Protocol	As required
Interface Settings/Network	NW Frame Type	As required
Interface Settings/Network	SMB Computer Name	As required
Interface Settings/Network	SMB Work Group	As required
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required
Interface Settings/Network	Host Name	As required
Interface Settings/Network	Machine Name	As required
Interface Settings/Wireless LAN	Communication Mode	Necessary
Interface Settings/Wireless LAN	SSID Setting	As required
Interface Settings/Wireless LAN	Ad-hoc Channel	As required
Interface Settings/Wireless LAN	Security Method	As required



- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [Wireless LAN] and [LAN Type] are displayed when the wireless LAN interface board is installed. If both Ethernet and wireless LAN are connected, the selected interface takes precedence.

# **■** Reference

• p.31 "Interface Settings"

# Network Settings Required to Use E-mail Function

This section lists the network settings required for sending e-mail.



• These settings should be made by the administrator, or with the advice of the administrator.

#### **Ethernet**

This section lists the settings required for sending e-mail with an Ethernet connection.

For details about how to specify the settings, see "Interface Settings" and "File Transfer".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	Necessary
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	Ethernet Speed	As required
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required

Menu	User Tool	Setting Requirements
Interface Settings/Network	Host Name	As required
Interface Settings/Network	IEEE 802.1X Authentication for Ethernet	As required
File Transfer	SMTP Server	Necessary
File Transfer	SMTP Authentication	As required
File Transfer	POP before SMTP	As required
File Transfer	Reception Protocol	As required
File Transfer	POP3 / IMAP4 Settings	As required
File Transfer	Administrator's E-mail Address	As required
File Transfer	E-mail Communication Port	As required
File Transfer	Program / Change / Delete E-mail Message	As required
File Transfer	Scanner Resend Interval Time	As required
File Transfer	Number of Scanner Resends	As required

# **U** Note

- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [LAN Type] is displayed when the wireless LAN interface board is installed. If both Ethernet and wireless LAN are connected, the selected interface takes precedence.
- When POP before SMTP is set to [On], also make settings for Reception Protocol and POP3 / IMAP4 Settings.
- When setting POP before SMTP to [On], check POP3 port number in E-mail Communication Port.

# ■ Reference

- p.31 "Interface Settings"
- p.39 "File Transfer"

#### Wireless LAN

This section lists the settings required for sending e-mail with a Wireless LAN connection.

For details about how to specify the settings, see "Interface Settings" and "File Transfer".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	Necessary
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required
Interface Settings/Network	Host Name	As required
Interface Settings/Wireless LAN	Communication Mode	Necessary
Interface Settings/Wireless LAN	SSID Setting	As required
Interface Settings/Wireless LAN	Ad-hoc Channel	As required
Interface Settings/Wireless LAN	Security Method	As required
File Transfer	SMTP Server	Necessary
File Transfer	SMTP Authentication	As required
File Transfer	POP before SMTP	As required
File Transfer	Reception Protocol	As required
File Transfer	POP3 / IMAP4 Settings	As required

Menu	User Tool	Setting Requirements
File Transfer	Administrator's E-mail Address	As required
File Transfer	E-mail Communication Port	As required
File Transfer	Program / Change / Delete E- mail Message	As required
File Transfer	Scanner Resend Interval Time	As required
File Transfer	Number of Scanner Resends	As required

# **U** Note

- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [Wireless LAN] and [LAN Type] are displayed when the wireless LAN interface board is installed. If both Ethernet and wireless LAN are connected, the selected interface takes precedence.
- When POP before SMTP is set to [On], you must also make settings for Reception Protocol and POP3 / IMAP4 Settings.
- When setting POP before SMTP to [On], check POP3 port number in E-mail Communication Port.

# **■** Reference

- p.31 "Interface Settings"
- p.39 "File Transfer"

# Network Settings Required to Use Scan to Folder Function

This section lists the network settings required for sending files.



• These settings should be made by the administrator, or with the advice of the administrator.

#### **Ethernet**

This section lists the settings required for sending files with an Ethernet connection.

For details about how to specify the settings, see "Interface Settings" and "File Transfer".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	Necessary
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	Ethernet Speed	As required
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required

Menu	User Tool	Setting Requirements
Interface Settings/Network	Host Name	As required
Interface Settings/Network	IEEE 802.1X Authentication for Ethernet	As required
File Transfer	Default User Name / Password (Send)	As required
File Transfer	Scanner Resend Interval Time	As required
File Transfer	Number of Scanner Resends	As required



- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [LAN Type] is displayed when the wireless LAN interface board is installed. If both Ethernet and wireless LAN are connected, the selected interface takes precedence.

# Reference

- p.31 "Interface Settings"
- p.39 "File Transfer"

### Wireless LAN

This section lists the settings required for sending files with a Wireless LAN connection. For details about how to specify the settings, see "Interface Settings" and "File Transfer".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	Necessary
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required

Menu	User Tool	Setting Requirements
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required
Interface Settings/Network	Host Name	As required
Interface Settings/Wireless LAN	Communication Mode	Necessary
Interface Settings/Wireless LAN	SSID Setting	As required
Interface Settings/Wireless LAN	Ad-hoc Channel	As required
Interface Settings/Wireless LAN	Security Method	As required
File Transfer	Default User Name / Password (Send)	As required
File Transfer	Scanner Resend Interval Time	As required
File Transfer	Number of Scanner Resends	As required

# **U** Note

- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [Wireless LAN] and [LAN Type] are displayed when the wireless LAN interface board is installed. If both Ethernet and wireless LAN are connected, the selected interface takes precedence.

# **■** Reference

- p.31 "Interface Settings"
- p.39 "File Transfer"

# 2

# Network Settings Required to Use the Network Delivery Scanner

This section lists the network settings required for delivering data to the network.



• These settings should be made by the administrator, or with the advice of the administrator.

#### **Ethernet**

This section lists the settings required for delivering data to the network with an Ethernet connection. For details about how to specify the settings, see "Interface Settings" and "File Transfer".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	As required
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	Ethernet Speed	As required
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required

Menu	User Tool	Setting Requirements
Interface Settings/Network	Host Name	As required
Interface Settings/Network	IEEE 802.1X Authentication for Ethernet	As required
File Transfer	Delivery Option	Necessary
File Transfer	Scanner Resend Interval Time	As required
File Transfer	Number of Scanner Resends	As required

#### **Note**

- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [LAN Type] is displayed when the wireless LAN interface board is installed. If both Ethernet and wireless LAN are connected, the selected interface takes precedence.
- If Delivery Option is set to [On], check that IPv4 Address is specified.

# **■** Reference

- p.31 "Interface Settings"
- p.39 "File Transfer"

#### Wireless LAN

This section lists the settings required for delivering data to the network with a wireless LAN connection. For details about how to specify the settings, see "Interface Settings" and "File Transfer".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	As required
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required

Menu	User Tool	Setting Requirements
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required
Interface Settings/Network	Host Name	As required
Interface Settings/Wireless LAN	Communication Mode	Necessary
Interface Settings/Wireless LAN	SSID Setting	As required
Interface Settings/Wireless LAN	Ad-hoc Channel	As required
Interface Settings/Wireless LAN	Security Method	As required
File Transfer	Delivery Option	Necessary
File Transfer	Scanner Resend Interval Time	As required
File Transfer	Number of Scanner Resends	As required

# **U** Note

- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [Wireless LAN] and [LAN Type] are displayed when the wireless LAN interface board is installed. When both Ethernet and wireless LAN are connected, the selected interface takes precedence.
- If Delivery Option is set to [On], check that IPv4 Address is specified.

# ■ Reference

- p.31 "Interface Settings"
- p.39 "File Transfer"

# Network Settings Required to Use Network TWAIN Scanner

This section lists the network settings required for using the TWAIN Scanner under the network environment.



• These settings should be made by the administrator, or with the advice of the administrator.

#### **Ethernet**

This section lists the settings required for using the network TWAIN Scanner with an Ethernet connection. For details about how to specify the settings, see "Interface Settings".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	Ethernet Speed	As required
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required
Interface Settings/Network	Host Name	As required
Interface Settings/Network	IEEE 802.1X Authentication for Ethernet	As required



- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [LAN Type] is displayed when the wireless LAN interface board is installed.
- When both Ethernet and wireless LAN are connected, the selected interface takes precedence.

# **■** Reference

• p.31 "Interface Settings"

#### Wireless LAN

This section lists the settings required for using the network TWAIN Scanner with a wireless LAN connection. For details about how to specify the settings, see "Interface Settings".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required
Interface Settings/Network	Host Name	As required
Interface Settings/Wireless LAN	Communication Mode	Necessary
Interface Settings/Wireless LAN	SSID Setting	As required
Interface Settings/Wireless LAN	Ad-hoc Channel	As required
Interface Settings/Wireless LAN	Security Method	As required



- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [Wireless LAN] and [LAN Type] are displayed when the wireless LAN interface board is installed. When both Ethernet and wireless LAN are connected, the selected interface takes precedence.

### ■ Reference

• p.31 "Interface Settings"

# 2

# Network Settings Required to Use Document Server

This section lists the settings required for using the Document Server function under the network environment.



• These settings should be made by the administrator, or with the advice of the administrator.

### **Ethernet**

This section lists the settings required for using the Document Server function with an Ethernet connection. For details about how to specify the settings, see "Interface Settings".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	As required
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary
Interface Settings/Network	Ethernet Speed	As required
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required

Menu	User Tool	Setting Requirements
Interface Settings/Network	Host Name	As required
Interface Settings/Network	IEEE 802.1X Authentication for Ethernet	As required

# **U** Note

- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [LAN Type] is displayed when the wireless LAN interface board is installed.
- When both Ethernet and wireless LAN are connected, the selected interface takes precedence.

#### ■ Reference

• p.31 "Interface Settings"

#### Wireless LAN

This section lists the settings required for using the Document Server function with a wireless LAN connection. For details about how to specify the settings, see "Interface Settings".

Menu	User Tool	Setting Requirements
Interface Settings/Network	Machine IPv4 Address	Necessary
Interface Settings/Network	IPv4 Gateway Address	As required
Interface Settings/Network	Machine IPv6 Address	As required
Interface Settings/Network	IPv6 Gateway Address	As required
Interface Settings/Network	IPv6 Stateless Address Autoconfiguration	As required
Interface Settings/Network	DNS Configuration	As required
Interface Settings/Network	DDNS Configuration	As required
Interface Settings/Network	IPsec	As required
Interface Settings/Network	Domain Name	As required
Interface Settings/Network	WINS Configuration	As required
Interface Settings/Network	Effective Protocol	Necessary

Menu	User Tool	Setting Requirements
Interface Settings/Network	LAN Type	Necessary
Interface Settings/Network	Permit SNMPv3 Communication	As required
Interface Settings/Network	Permit SSL / TLS Communication	As required
Interface Settings/Network	Host Name	As required
Interface Settings/Wireless LAN	Communication Mode	Necessary
Interface Settings/Wireless LAN	SSID Setting	As required
Interface Settings/Wireless LAN	Ad-hoc Channel	As required
Interface Settings/Wireless LAN	Security Method	As required



- For the Effective Protocol setting, check that the protocol you want to use is set to [Active].
- [Wireless LAN] and [LAN Type] are displayed when the wireless LAN interface board is installed. When both Ethernet and wireless LAN are connected, the selected interface takes precedence.

# **■** Reference

• p.31 "Interface Settings"

# **Using Utilities to Make Network Settings**

This section describes how to make network settings using utilities.

You can also specify network settings using utilities such as Web Image Monitor and telnet.

# **U** Note

- These settings should be made by the administrator, or with the advice of the administrator.
- For details about using Web Image Monitor, see "Using Web Image Monitor".
- For details about using telnet, see "Remote Maintenance Using telnet".

# Reference

- p.111 "Using Web Image Monitor"
- p.132 "Remote Maintenance Using telnet"

# **Interface Settings**

This section describes how to make Interface settings using utilities.

Change settings by using Web Image Monitor and telnet.

#### [Network] → [Machine IPv4 Address] → [Auto-Obtain (DHCP)]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Machine IPv4 Address] → [Specify] → "Machine IPv4 Address"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Machine IPv4 Address] → [Specify] → "Subnet Mask"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [IPv4 Gateway Address]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Machine IPv6 Address] → "Manual Configuration Address"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [IPv6 Gateway Address]

• telnet: Can be used for specifying the setting.

#### [Network] → [IPv6 Stateless Address Autoconfiguration]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [DNS Configuration] → [Auto-Obtain (DHCP)]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [DNS Configuration] → [Specify] → "DNS Server 1-3"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [DDNS Configuration]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [IPsec]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Domain Name] → [Auto-Obtain (DHCP)]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Domain Name] → [Specify] → "Domain Name"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [WINS Configuration] → [On] → "Primary WINS Server"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

# [Network] → [WINS Configuration] → [On] → "Secondary WINS Server"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [WINS Configuration] → [On] → "Scope ID"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [WINS Configuration] → [Off]

• telnet: Can be used for specifying the setting.

#### [Network] → [Effective Protocol] → "IPv4"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Effective Protocol] → "IPv6"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Effective Protocol] → "NetWare"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

# [Network] → [Effective Protocol] → "SMB"

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [NCP Delivery Protocol] → [IPX Priority]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [Network] → [NCP Delivery Protocol] → [TCP / IP Priority]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [Network] → [NCP Delivery Protocol] → [IPX Only]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [Network] → [NCP Delivery Protocol] → [TCP / IP Only]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [Network] → [NW Frame Type] → [Auto Select]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [NW Frame Type] → [Ethernet II]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### $[Network] \rightarrow [NW Frame Type] \rightarrow [Ethernet 802.2]$

• telnet: Can be used for specifying the setting.

#### [Network] $\rightarrow$ [NW Frame Type] $\rightarrow$ [Ethernet 802.3]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### $[Network] \rightarrow [NW Frame Type] \rightarrow [Ethernet SNAP]$

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

# [Network] → [SMB Computer Name]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [SMB Work Group]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Ethernet Speed]

- Web Image Monitor: Cannot be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

# [Network] → [LAN Type] → [Ethernet]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [LAN Type] → [Wireless LAN]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Ping Command]

- Web Image Monitor: Cannot be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

# [Network] → [Permit SNMPv3 Communication] → [Encryption Only]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Permit SNMPv3 Communication] → [Encryption / Cleartext]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Permit SSL / TLS Communication] → [Ciphertext Only]

• telnet: Cannot be used for specifying the setting.

#### [Network] → [Permit SSL / TLS Communication] → [Ciphertext Priority]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

# [Network] → [Permit SSL / TLS Communication] → [Ciphertext / Cleartext]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [Network] → [Host Name]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [Machine Name]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Network] → [IEEE 802.1X Authentication for Ethernet]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Wireless LAN] → [Communication Mode] → [802.11 Ad-hoc Mode]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Wireless LAN] → [Communication Mode] → [Infrastructure Mode]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Wireless LAN] → [SSID Setting]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Wireless LAN] → [Ad-hoc Channel]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### [Wireless LAN] → [Security Method]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Can be used for specifying the setting.

#### File Transfer

This section describes how to make File Transfer settings using utilities.

Change settings by using Web Image Monitor and telnet.

#### [File Transfer] → [Delivery Option]

- Web Image Monitor: Cannot be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Capture Server IPv4 Address]

- Web Image Monitor: Cannot be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [SMTP Server]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [SMTP Authentication]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [POP before SMTP]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Reception Protocol] → [POP3]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Reception Protocol] → [IMAP4]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Reception Protocol] → [SMTP]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [POP3 / IMAP4 Settings]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Administrator's E-mail Address]

• telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [E-mail Communication Port]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [E-mail Reception Interval]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Max. Reception E-mail Size]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [E-mail Storage in Server]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Default User Name / Password (Send)]

- Web Image Monitor: Can be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Program / Change / Delete E-mail Message]

- Web Image Monitor: Cannot be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Auto Specify Sender Name]

- Web Image Monitor: Cannot be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Scanner Resend Interval Time]

- Web Image Monitor: Cannot be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

#### [File Transfer] → [Number of Scanner Resends]

- Web Image Monitor: Cannot be used for specifying the setting.
- telnet: Cannot be used for specifying the setting.

# 3. Using a Printer Server

This chapter describes how to configure the machine as a network printer.

# **Preparing Printer Server**

This section explains how to configure the machine as a Windows network printer. The machine is configured to enable network clients to use it.



- Under Windows XP Professional or Windows Server 2003/2003 R2/2008/2008 R2, to change
  printer properties in the [Printer] or [Printers and Faxes] window, you need Printer Management access
  authentication; under Windows Vista/7, Full Control access authentication. Log in to the file server
  as an Administrator or member of the PowerUsers group.
- Open the [Printers and Faxes] window from the [Start] menu.
   The [Printers and Faxes] window appears.
- 2. Click the icon of the machine you want to use. On the [File] menu, click [Properties]. The printer properties appear.
- 3. On the [Sharing] tab, click [Share this printer].
- 4. To share the machine with users using a different version of Windows, click [Additional Drivers...].
  - If you have installed an alternative driver by selecting [Share As:] during the printer driver installation, this step can be ignored.
- On the [Advanced] tab, click the [Printing Default...] button. Specify the default values for the printer driver that will be distributed to the client computers, and then click [OK].
- 6. Click [OK], and then close the printer properties.

# **Using NetWare**

This section describes the setting procedure for network printers in the NetWare environment. In the NetWare environment, you can connect the machine as a "print server" or "remote printer".



IPvó cannot be used on this function.



- This procedure assumes an environment is already prepared for normal NetWare running the printing service setting.
- The procedure is explained with the following example settings:
  - File server's name ... CAREE
  - Print server's name ... PSERV
  - Printer's name ...R-PRN
  - Queue name ...R-QUEUE

# Setting Up as a Print Server (NetWare 3.x)

Follow the procedure below to connect the machine as a print server using NetWare 3.x.

- 1. Start Web Image Monitor.
- 2. Click [Login].

A dialog box for entering the login user name and password appears.

3. Enter the login user name and password, and then click [Login].

For details about the login user name and password, consult your network administrator.

The Web browser might be configured to auto complete login dialog boxes by retaining user names and passwords. This function reduces security. To prevent the browser retaining user names and passwords, disable the browser's auto complete function.

- 4. In the menu area, click [Configuration].
- 5. Under "Network", click [NetWare].
  - Print Server Name: Enter the NetWare print server name. To use the interface board as a print server, enter the name of a print server that is not active on the file server. Use up to 47 characters.
  - Logon Mode: Specify whether to designate a file server or NDS tree when logging in to NetWare
  - File Server Name: When a file server name is entered here, only the specified file server is searched for. This item is mandatory. Use up to 47 characters.

3

- NDS Tree: To enable NDS mode, enter the name of the NDS tree you want to log in to. Use up to 32 alphanumeric characters.
- NDS Context Name: To enable NDS mode, enter the print server context. Use up to 127 characters.
- Operation Mode: Specify whether to use the interface board as a print server or a remote printer.
- Remote Printer No.: This item is effective when the interface board is specified as a remote printer.
   Enter the same number as the number of the printer to be created on the print server (0 to 254 characters).
- Job Timeout: When the interface board is used as a NetWare remote printer, the printer cannot
  detect when a print job ends. Therefore, the printer terminates printing when a certain period of
  time has elapsed since it last received print data (i.e., when it has not received print data for a
  certain period of time). Specify here this period of time (3 to 255 seconds). The initial value is
  15 (seconds).
- Frame Type: Select the frame type from the drop-down menu.
- Print Server Protocol: Select the protocol for NetWare from the drop-down menu.
- NCP Delivery Protocol: Select the protocol for NCP delivery.
- 6. Confirm the settings, and then click [OK].

Configuration is now complete. Wait several before restarting Web Image Monitor.

7. Click [Logout].



• To check the configuration is correct, enter the following from the command prompt:

F:> USERLIST

- If the printer works as configured, the name of the print server appears as a connected user.
- If you cannot identify the printer you want to configure, check the printer name against the configuration page printed from the printer.
- If no printer names appear in the list, match the frame types of IPX/SPXs for the computer and printer.

  Use the [Network] dialog box of Windows to change the frame type of the computer.
- For details about Web Image Monitor, see "Using Web Image Monitor".
- For details about login user names and passwords, see Security Reference, which is the administrator's manual.



• p.111 "Using Web Image Monitor"

# Setting Up as a Print Server (NetWare 4.x, 5/5.1, 6/6.5)

Follow the procedure below to connect the machine as a print server using NetWare 4.x, NetWare 5/5.1, or NetWare 6/6.5.



- When using the printer as a print server in NetWare 4.x, NetWare 5/5.1, or NetWare 6/6.5, set
  it to the NDS mode.
- When using NetWare 5/5.1 or NetWare 6/6.5, set the printer as a print server.
- 1. Start Web Image Monitor.
- 2. Click [Login].

A dialog box for entering the login user name and password appears.

3. Enter the login user name and password, and then click [Login].

For details about the login user name and password, consult your network administrator.

Depending on the configuration of your Web browser, the login user name and password might be saved. If you do not want to save them, configure your Web browser's settings so that this information is not saved.

- 4. In the menu area, click [Configuration].
- 5. Under "Network", click [NetWare].
- 6. Confirm the settings, and then click [OK].

Configuration is now complete. Wait several minutes before restarting Web Image Monitor.

- 7. Click [Logout].
- 8. Quit Web Image Monitor.



To check the configuration is correct, enter the following from the command prompt:

F:> USERLIST

- If the printer works as configured, the name of the print server appears as a connected user.
- If you cannot identify the printer you want to configure, check the printer name against the
  configuration page printed from the printer. If no printer names appear in the list, match the frame
  types of IPX/SPXs for the computer and printer. Use the [Network] dialog box of Windows to change
  the frame type of the computer.
- For details about Web Image Monitor, see "Using Web Image Monitor".
- For details about login user names and passwords, see Security Reference, which is the administrator's manual.

# Reference

• p.111 "Using Web Image Monitor"

# 3

# Using Pure IP in the NetWare 5/5.1 or 6/6.5 Environment

Follow the procedure below to connect the machine as a print server in a pure IP environment of NetWare 5/5.1 or NetWare 6/6.5.

# 

- When creating a queued print server in a pure IP environment of NetWare 5/5.1 or NetWare 6/6.5,
   create a print queue on the file server using NetWare Administrator.
- This printer is not available as a remote printer for use in a pure IP environment.
- To use the printer in a pure IP environment, set it to IPv4.

#### Setting up using NWadmin

- 1. From Windows, start NWadmin.
  - For details about NWadmin, see the NetWare manuals.
- Select the object in which the print queue is located in the directory tree, and then click [Create] on the [Object] menu.
- 3. In the [Class of new object] box, click [Print Queue], and then click [OK].
- 4. In the [Print Queue Name] box, enter the name of the print queue.
- 5. In the [Print Queue Volume] box, click [Browse].
- 6. In the [Available objects] box, click the volume in which the print queue is created, and then click [OK].
- 7. Check the settings, and then click [Create].
- 8. Select the object in which the printer is located, and then click [Create] on the [Object] menu.
- In the [Class of new object] box, click [Printer], and then click [OK]. For NetWare 5, click [Printer (Non NDPS)].
- 10. In the [Printer name] box, enter the printer name.
- Select the [Define additional properties] check box, and then click [Create].
- 12. Click [Assignments], and then click [Add] in the [Assignments] area.
- 13. In the [Available objects] box, click the queue you created, and then click [OK].
- Click [Configuration], click [Parallel] in the [Printer type] list, and then click [Communication].
- 15. Click [Manual load] in the [Communication type] area, and then click [OK].
- 16. Check the settings, and then click [OK].
- 17. Select a context specified, and then click [Create] on the [Object] menu.
- 18. In the [Class of new object] box, click [Print Server], and then click [OK]. For NetWare 5, click [Print Server (Non NDPS)].

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

Use the same print server name specified using Web Image Monitor.

- 20. Select the [Define additional properties] check box, and then click [Create].
- 21. Click [Assignments], and then click [Add] in the [Assignments] area.
- 22. In the [Available objects] box, click the queue you created, and then click [OK].
- 23. Check the settings, and then click [OK].
- 24. Start the print server by entering the following from the console of the NetWare server.

If the print server is in operation, quit and restart it.

#### To quit

CAREE: unload pserver

To start

CAREE: load pserver [print server name]

#### Setting up using Web Image Monitor

- 1. Start Web Image Monitor.
- 2. Click [Login].

A dialog box for entering the login user name and login password appears.

3. Enter the login user name and password, and then click [Login].

For details about the login user name and password, consult your network administrator.

Depending on the configuration of your Web browser, the login user name and password might be saved. If you do not want to save them, configure your Web browser's settings so that this information is not saved.

- 4. In the menu area, click [Configuration].
- 5. Under "Network", click [NetWare].
- 6. Confirm the settings, and then click [OK].

Configuration is now complete. Wait several minutes before restarting Web Image Monitor.

- 7. Click [Logout].
- 8. Quit Web Image Monitor.



- If you cannot identify the printer you want to configure, check the printer name against the configuration page printed from the printer.
- If no printer names appear in the list, match the frame types of IPX/SPXs for the computer and printer.

  Use the [Network] dialog box of Windows to change the frame type of the computer.
- For details about Web Image Monitor, see "Using Web Image Monitor".

 For details about login user names and passwords, see Security Reference, which is the administrator's manual.

# ■ Reference

• p.111 "Using Web Image Monitor"

### Setting Up as a Remote Printer (NetWare 3.x)

Follow the procedure below to use the machine as a remote printer under NetWare 3.x.

#### Setting up using PCONSOLE

1. Enter "PCONSOLE" from the command prompt.

F:> PCONSOLE

2. Create a print queue.

When using the existing print queue, go to the procedure for creating a printer.

- From the [Available Options] menu, select [Print Queue Information], and then press the [Enter] key.
- 4. Press [Insert] key, and then enter a print queue name.
- 5. Press [Esc] key to return to the [Available Options] menu.
- 6. Set up the network connection to a printer.
- On the [Available Options] menu, click [Print Server Information], and then press the [Enter] key.
- 8. To create a new print server, press the [Insert] key, and then enter a print server name.

For a currently defined print server, select a print server in the [Print Server] list.

Use the same printer name specified using Web Image Monitor.

- 9. From the [Print Server Information] menu, select [Print Server Configuration].
- 10. From the [Print Server Configuration] menu, select [Printer Configuration].
- 11. Select the printer indicated as [Not Installed].

Use the same printer number specified as the remote printer number using Web Image Monitor.

12. To change the printer name, enter a new name.

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

13. As type, select [Remote Parallel, LPT1].

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

- 14. Press the [Esc] key, and then click [Yes] on the confirmation message.
- 15. Press the [Esc] key to return to [Print Server Configuration Menu].
- 16. Assign print queues to the created printer.

- 17. From [Print Server Configuration Menu], select [Queues Serviced By Printer].
- 18. Select the printer created.
- 19. Press the [Insert] key to select a queue serviced by the printer.

You can select several queues.

20. Follow the instructions on the screen to make other necessary settings.

Following these steps, check that the queues are assigned.

- 21. Press the [Esc] key until "Exit?" appears, and then select [Yes] to exit PCONSOLE.
- Start the print server by entering the following from the console of the NetWare server.

If the print server is in operation, quit and restart it.

#### To quit

CAREE: unload pserver

#### To start

CAREE: load pserver [print server name]

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

#### Setting up using Web Image Monitor

- 1. Start Web Image Monitor.
- 2. Click [Login].

A dialog box for entering the login user name and login password appears.

3. Enter the login user name and password, and then click [Login].

For details about the login user name and password, consult your network administrator.

Depending on the configuration of your Web browser, the login user name and password might be saved. If you do not want to save them, configure your Web browser's settings so that this information is not saved.

- 4. In the menu area, click [Configuration].
- 5. Under "Network", click [NetWare].
- 6. Confirm the settings, and then click [OK].

Configuration is now complete. Wait several minutes before restarting Web Image Monitor.

- 7. Click [Logout].
- 8. Quit Web Image Monitor.



If you cannot identify the printer you want to configure, check the printer name against the
configuration page printed from the printer.

- If no printer names appear in the list, match the frame types of IPX/SPXs for the computer and printer.

  Use the [Network] dialog box of Windows to change the frame type of the computer.
- For details about Web Image Monitor, see "Using Web Image Monitor".
- For details about login user names and passwords, see Security Reference, which is the administrator's manual.

# Reference

• p.111 "Using Web Image Monitor"

# Setting Up as a Remote Printer (NetWare 4.x, 5/5.1, 6/6.5)

Follow the procedure below to use the printer as a remote printer under NetWare 4.x, 5/5.1 and 6/6.5.

# ☆ Important

- To use the printer as a remote printer under NetWare 4.x, 5/5.1, 6/6.5, set it to NDS mode.
- Do not use the printer as a remote printer when Pure IP is used.

#### Setting up using NWadmin

- 1. From Windows, start NWadmin.
  - For details about NWadmin, see the NetWare manuals.
- 2. Set up the network connection to a print queue. Select the object in which the print queue is located in the directory tree, and then click [Create] on the [Object] menu.
- 3. In the [Class of new object] box, click [Print Queue], and then click [OK].
- 4. In the [Print Queue Name] box, enter the name of the print queue.
- 5. In the [Print Queue Volume] box, click [Browse].
- 6. In the [Available objects] box, click the volume in which the print queue is created, and then click [OK].
- 7. Check the settings, and then click [Create].
- 8. Set up the network connection to a printer. Select the object in which the printer is located, and then click [Create] on the [Object] menu.
- In the [Class of new object] box, click [Printer], and then click [OK]. For NetWare 5, click [Printer (Non NDPS)].
- 10. In the [Printer name] box, enter the printer name.
- 11. Select the [Define additional properties] check box, and then click [Create].
- Assign print queues to the created printer. Click [Assignments, and then click [Add] in the [Assignments] area.
- 13. In the [Available objects] box, click the queue you created, and then click [OK].

- 14. Click [Configuration], click [Parallel] in the [Printer type] list, and then click [Communication].
- 15. Click [Manual load] in the [Communication type] area, and then click [OK]. Check the settings, and then click [OK].
- 16. Set up the network connection to a print server. Select a context specified, and then click [Create] on the [Object] menu.
- 17. In the [Class of new object] box, click [Print Server], and then click [OK]. For NetWare 5, click [Print Server (Non NDPS)].
- 18. In the [Print Server Name:] box, enter the print server name.
  Use the same print server name specified using Web Image Monitor.
- 19. Select the [Define additional properties] check box, and then click [Create].
- 20. Assign the printer to the created print server. Click [Assignments], and then click [Add] in the [Assignments] area.
- 21. In the [Available objects] box, click the queue you created, and then click [OK].
- 22. In the [Printers] area, click the printer you assigned, and then click [Printer Number].
- 23. Enter the printer number, and then click [OK]. Check the settings, and then click [OK].
  Use the same printer number specified as the remote printer number using Web Image Monitor.
- 24. Start the print server by entering the following from the console of the NetWare server.

  If the print server is in operation, quit and restart it.

#### To exit

CAREE: unload pserver

#### To start

CAREE: load pserver [print server name]

- 25. Enter the printer server name as the context name, and then press the [Enter] key.
- 26. Select the printer name on the context menu, and then press the [Enter] key.

#### Setting up using Web Image Monitor

- 1. Start Web Image Monitor.
- 2. Click [Login].

A dialog box for entering the login user name and login password appears.

3. Enter the login user name and password, and then click [Login].

For details about the login user name and password, consult your network administrator.

Depending on the configuration of your Web browser, the login user name and password might be saved. If you do not want to save them, configure your Web browser's settings so that this information is not saved.

- 4. In the menu area, click [Configuration].
- 5. Under "Network", click [NetWare].
- Confirm the settings, and then click [OK].
   Configuration is now complete. Wait several minutes before restarting Web Image Monitor.
- 7. Click [Logout].
- 8. Quit Web Image Monitor.



- If you cannot identify the printer you want to configure, check the printer name against the configuration page printed from the printer.
- If no printer names appear in the list, match the frame types of IPX/SPXs for the computer and printer.

  Use the [Network] dialog box of Windows to change the frame type of the computer.
- For details about Web Image Monitor, see "Using Web Image Monitor".
- For details about login user names and passwords, see Security Reference, which is the administrator's manual.

#### ■ Reference

• p.111 "Using Web Image Monitor"

# 4. Monitoring and Configuring the Machine

This chapter describes how to monitor and configure the machine.

# **Using Web Image Monitor**

Using Web Image Monitor, you can check the machine status and change settings.

#### Available operations

The following operations can be remotely performed using Web Image Monitor from a client computer.

- · Displaying machine status or settings
- · Checking the print job status or history
- · Checking, modifying, printing, or deleting print jobs stored in the Document Server
- Interrupting currently printing jobs
- · Resetting the machine
- · Managing the Address Book
- Making machine settings
- · Making network protocol settings
- Making security settings

#### Configuring the machine

To perform the operations from Web Image Monitor, TCP/IP is required. After the machine is configured to use TCP/IP, operations from Web Image Monitor become available.

#### Recommended Web browser

• Windows:

Internet Explorer 5.5 SP2 or higher

Firefox 1.0 or higher

Mac OS:

Firefox 1.0 or higher

Safari 1.0, 1.2, 2.0 (412.2) or higher

Web Image Monitor supports screen reader software. We recommend JAWS 7.0 or a later version.



Safari cannot be used on Mac OS X 10.4.1.

- Display and operation problems can occur if you do not enable JavaScript and cookies, or if you are using a non-recommended Web Browser.
- If you are using a proxy server, change the Web browser settings. Contact your administrator for information about the settings.
- If you click your browser's back button but the previous page does not appear, click the browser's refresh button and try again.
- Machine information is not automatically updated. To perform an update, click [Refresh] in the display
  area.
- We recommend using Web Image Monitor in the same network.
- If the machine is firewall-protected, it cannot be accessed from computers outside the firewall.
- When using the machine under DHCP, the IP address may be automatically changed by the DHCP server settings. Enable DDNS setting on the machine, and then connect using the machine's host name.
   Alternatively, set a static IP address to the DHCP server.
- If the HTTP port is disabled, connection to the machine using the machine's URL cannot be established. SSL setting must be enabled on this machine. For details, consult your network administrator.
- When using the SSL encryption protocol, enter "https://(machine's IP address or host name)/".
- Internet Explorer must be installed on your computer. Use the most recent available version. We recommend Internet Explorer 6.0 or later.
- When you are using Firefox, fonts and colors may be different, or tables may be out of shape.
- When using a host name under Windows Server 2003/2003 R2/2008/2008 R2 with IPv6
  protocol, perform host name resolution using an external DNS server. The host file cannot be used.
- To use JAWS 7.0 under Web Image Monitor, you must be running Windows OS and Microsoft Internet Explorer 5.5 SP2, or a later version.
- If you are using Internet Explorer 8, downloading will be slower than with other browsers. To
  download faster with Internet Explorer 8, open the browser's [Internet Options] menu and register the
  machine's URL as a trusted site. Then disable SmartScreen filter for trusted sites. For details about these
  settings, see the Internet Explorer 8 Help files.
- You can access Web Image Monitor more quickly by registering the machine's URL as a bookmark.
   Note that the URL you register must be the URL of the top page, which is the page that appears before login. If you register the URL of a page that appears after login, Web Image Monitor will not open properly from the bookmark.

# **Displaying Top Page**

This section explains the Top Page and how to display Web Image Monitor.



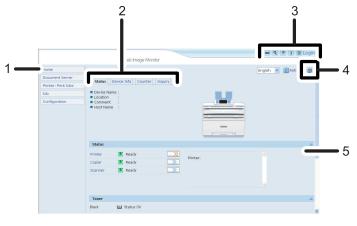
- When entering an IPv4 address, do not begin segments with zeros. For example: If the address is "192.168.001.010", you must enter it as "192.168.1.10".
- 1. Start your Web browser.
- 2. Enter "http://(machine's IP address or host name)/" in your Web browser's URL bar.

Top Page of Web Image Monitor appears.

If the machine's host name has been registered on the DNS or WINS server, you can enter it.

When setting SSL, a protocol for encrypted communication, under environment which server authentication is issued, enter "https://(machine's IP address or host name)/".

Every Web Image Monitor page is divided into the following areas:



CBB005

#### 1. Menu area

If you select menu, it's content will be shown on the work area.

#### 2. Tab area

Details about each menu appear.

#### 3. Header area

The dialog box for switching to the user mode and administrator mode appears, and each mode's menu will be displayed.

The link to help and dialog box for keyword search appears.

#### 4. Help

Use Help to view or download Help file contents.

#### 5. Work area

Displays the contents of the item selected in the menu area.



When using a host name under Windows Server 2003/2003 R2/2008/2008 R2 with IPv6
protocol, perform host name resolution using an external DNS server. The host file cannot be used.

#### When User Authentication is Set

#### Login (using Web Image Monitor)

Follow the procedure below to log in when user authentication is set.

- 1. Click [Login].
- 2. Enter a login user name and password, and then click [Login].

For details about the login user name and password, consult your network administrator.

Depending on the configuration of your Web browser, the login user name and password might be saved. If you do not want to save them, configure your Web browser's settings so that this information is not saved.



- For user code authentication, enter a user code in [Login User Name], and then click [Login].
- The procedure may differ depending on the Web browser used.

#### Log out (using Web Image Monitor)

Click [Logout] to log out.



• When you log in and make the setting, always click [Logout].

#### **About Menu and Mode**

There are two modes available with Web Image Monitor: guest mode and administrator mode.

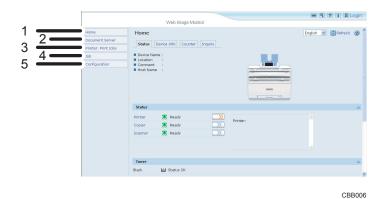
Displayed Items may differ depending on the machine type.

#### **Guest Mode**

In the guest mode, machine status, settings, and print job status can be viewed, but the machine settings cannot be changed.

4





#### 1. Home

The [Status], [Device Info], [Counter], and [Inquiry] tab are displayed. Details of the tab menu are displayed on the work area.

#### 2. Document Server

Display files stored in the Document Server.

#### 3. Printer: Print Jobs

Allows you to display list of Sample Print, Locked Print, Hold Print, and Stored Print jobs.

#### 4. Job

Display all print files.

#### 5. Configuration

Display current machine and network settings.

#### **Administrator Mode**

In the administrator mode, you can configure various machine settings.



CBB007

#### 1. Home

The [Status], [Device Info], [Counter], and [Inquiry] tab are displayed. Details of the tab menu are displayed on the work area.

#### 2. Document Server

Display files stored in the Document Server.

#### 3. Printer: Print Jobs

Allows you to display list of Locked Print, Sample Print, Hold Print, and Stored Print jobs.

#### 4. Job

Display all print files.

#### 5. Address Book

User information can be registered, displayed, changed, and deleted.

#### 6. Configuration

Make system settings for the machine, interface settings, and security.

#### 7. Reset Device

Click to reset the printer. If a print job is being processed, the printer will be reset after the print job is completed. This button is located on Top Page.

#### 8. Reset Printer Job

Click to reset current print jobs and print jobs in queue. This button is located on Top Page.

#### Access in the Administrator Mode

Follow the procedure below to access Web Image Monitor in the administrator mode.

#### 1. On Top Page, click [Login].

The window for entering the login user name and password appears.

#### 2. Enter your login user name and password, and then click [Login].

For details about the login user name and password, consult your network administrator.

Depending on the configuration of your Web browser, the login user name and password might be saved. If you do not want to save them, configure your Web browser's settings so that this information is not saved.

# List of Setting Items

The following tables show Web Image Monitor items that can be viewed or modified depending on the selected mode on the Web browser. Select one of the following modes to log in Web Image Monitor:

- Guest mode: logged in as a user
- Administrator mode: logged in as an administrator

#### 4

#### Home

#### Status

Menu	Guest mode	Administrator mode
Reset Device	None	Modify
Reset Printer Job	None	Modify
Status	Read	Read
Toner	Read	Read
Input Tray	Read	Read
Output Tray	Read	Read

#### Device Info

Menu	Guest mode	Administrator mode
Functions	Read	Read
System	Read	Read
Version	Read	Read
Printer Language	Read	Read

#### Counter

Menu	Guest mode	Administrator mode
Total	Read	Read
Copier	Read	Read
Printer	Read	Read
Send/TX Total	Read	Read
Scanner Send	Read	Read
Coverage	Read	Read

# Inquiry

Menu	Guest mode	Administrator mode
Machine Maintenance/Repair	Read	Read
Sales Representative	Read	Read
Consumables	Read	Read

#### **Document Server**

**Document Server** 

Guest mode	Administrator mode
Read/Modify	Read/Modify

#### **Printer: Print Jobs**

Print Job List

Guest mode	Administrator mode
Read/Modify	Read/Modify

#### Job

Job List

Menu	Guest mode	Administrator mode
Current/Waiting Jobs	Read	Read/Modify
Job History	Read	Read

#### Printer

Menu	Guest mode	Administrator mode
Spool Printing * 1	Read	Read
Job History	Read	Read
Error Log	Read	Read

<sup>\* 1 &</sup>quot;Spool Printing" appears only if the Spool function is enabled. You can enable and disable the Spool setting using the "spoolsw" telnet command.

#### **Document Server**

Menu	Guest mode	Administrator mode
Print Job History	Read/Modify	Read/Modify
Scanner Remote Send History	Read/Modify	Read/Modify

# Address Book

Menu	Guest mode	Administrator mode
Address Book	None	Read/Modify

# ${\bf Configuration}$

# Device Settings

Menu	Guest mode	Administrator mode
System	Read	Read/Modify
Paper	Read	Read/Modify
Date/Time	Read	Read/Modify
Timer	Read	Read/Modify
Logs	None	Read/Modify
Download Logs	None	Read/Modify
E-mail	Read	Read/Modify
Auto E-mail Notification	None	Read/Modify
On-demand E-mail Notification	None	Read/Modify
File Transfer	None	Read/Modify
User Authentication Management	None	Read/Modify
Administrator Authentication Management	None	Read/Modify
Program/Change Administrator	None	Read/Modify

Menu	Guest mode	Administrator mode
LDAP Server	None	Read/Modify
Firmware Update	None	Read/Modify
Program/Change Realm	None	Read/Modify

#### Printer

Menu	Guest mode	Administrator mode
Basic Settings	Read	Read/Modify
Tray Parameters (PS)	None	Read/Modify
PDF Temporary Password	Modify	None
PDF Group Password * 1	None	Modify
PDF Fixed Password	None	Modify

<sup>\* 1</sup> This setting is not available on this machine.

#### Scanner

Menu	Guest mode	Administrator mode
General Settings	Read	Read/Modify
Scan Settings	Read	Read/Modify
Send Settings	Read	Read/Modify
Initial Settings	Read	Read/Modify
Default Settings for Normal Screens on Device	Read	Read/Modify
Default Settings for Simplified Screens on Device	Read	Read/Modify

# Interface

Menu	Guest mode	Administrator mode
Interface Settings	Read	Read/Modify

Menu	Guest mode	Administrator mode
Wireless LAN Settings	Read	Read/Modify

# Network

Menu	Guest mode	Administrator mode
IPv4	Read	Read/Modify
IPv6	Read	Read/Modify
NetWare	Read	Read/Modify
SMB	Read	Read/Modify
SNMP	None	Read/Modify
SNMPv3	None	Read/Modify
SSDP	None	Read/Modify
Bonjour	Read	Read/Modify
System Log	Read	Read

# Security

Menu	Guest mode	Administrator mode
Network Security	None	Read/Modify
Access Control	None	Read/Modify
IPP Authentication	None	Read/Modify
SSL/TLS	None	Read/Modify
ssh	None	Read/Modify
Site Certificate	None	Read/Modify
Device Certificate	None	Read/Modify
IPsec	None	Read/Modify
User Lockout Policy	None	Read/Modify
IEEE 802.1X	None	Read/Modify

Menu	Guest mode	Administrator mode
S/MIME	None	Read/Modify

# RC Gate

Menu	Guest mode	Administrator mode
Setup RC Gate	None	Read/Modify
Update RC Gate Firmware	None	Read
RC Gate Proxy Server	None	Read/Modify

# Webpage

Menu	Guest mode	Administrator mode
Webpage	Read	Read/Modify

# Extended Feature Settings

Menu	Guest mode	Administrator mode
Startup Setting	None	Read/Modify
Extended Feature Info	Read	Read
Install	None	Read/Modify
Uninstall	None	Read/Modify
Change Allocation	None	Read/Modify
Administrator Tools	None	Read/Modify
Additional Program Startup Setting	None	Read/Modify
Install Additional Program	None	Read/Modify
Uninstall Additional Program	None	Read/Modify
Copy Extended Features	None	Read/Modify
Copy Card Save Data	None	Read/Modify





• Some items are not displayed depending on the security settings.

#### Displaying Web Image Monitor Help

When using Help for the first time, clicking the Help button ( ) makes the following screen appear, in which you can view Help in two different ways, as shown below:

#### Viewing Help on our Web site

You can view the latest Help information.

#### **Downloading and Checking Help**

You can download Help to your computer. As the Help URL, you can specify the path to the local file to view the Help without connecting to the Internet.



- By clicking the Help button (2) in the header area, the contents of Help appear.
- By clicking the Help button (?) in the work area, Help for the setting items in the work area appears.

#### **Downloading Help**

- 1. In the [OS] list, select the operating system.
- 2. In the [Language] list, select the language.
- 3. Click [Download].
- Download Help by following the instructions on the screen.
- 5. Store the downloaded compressed file in a given location, and then decompress the file.
  To create a link for the Help button (???), save the downloaded Help files on a Web server.

#### Linking the URL of the downloaded Help

You can link the URL of the Help file on a computer or Web server to the Help button (120).

- 1. Log in to Web Image Monitor in the administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Webpage", click [Webpage].
- 4. In the [Set Help URL Target] box, enter the URL of the help file.

If you saved the help file to "Server\_A\HELP\EN", enter "file://Server\_A/HELP/". For example, if you saved the file to a Web server, and the URL of the index file is "http://a.b.c.d/HELP/EN/index.html", enter "http://a.b.c.d/HELP/".

5. Click [OK].



• If you save the Help files on your hard disk, you must access them directly - you cannot link to them using the Help button (??).

# 4

# When Using IPP with SmartDeviceMonitor for Client

When using IPP with SmartDeviceMonitor for Client, note the following:

To use this function, you must first download SmartDeviceMonitor for Client from the manufacturer's Web site and install it on your computer. Contact your local dealer for information on downloading SmartDeviceMonitor for Client.

- 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.
- When setting SSL, a protocol for encrypted communication, under the environment where the device certificate is installed, enter "https://( machine's IP address or host name)/". Internet Explorer must be installed on your computer. Use the highest version. Internet Explorer 6.0 or higher is recommended.
- If the [Security Alert] dialog box appears when accessing the machine using IPP to create or configure
  an IPP port, or when printing, install the certificate. To select the certificate store location when using
  Certificate Import Wizard, click [Place all certificates in the following store], and then click [Local
  Computer] under [Trusted Root Certification Authorities].



• For details about SSL settings, consult your network administrator.

# Machine Status Notification by E-Mail

Whenever a paper tray becomes empty or paper is jammed, an e-mail alert is issued to the registered addresses to notify the machine status.

For this notification, you can make the e-mail notification settings.

Notification timing and e-mail content can be set.



Depending on your e-mail application, a phishing warning might appear after you receive an e-mail
message. To prevent phishing warnings appearing after you receive e-mail from a specified sender,
you must add the sender to your e-mail application's exclusion list. For details about how to do this,
see your e-mail application's Help.

The e-mail notification functions you can set are as follows:

- Auto e-mail notification
  - Information including the machine status is automatically sent by e-mail. Before you use this function, register the e-mail address to be used.
- On-demand e-mail notification

Information including the machine status is sent by e-mail when a request e-mail from the administrator is received.

The information that can be notified by auto e-mail notification is as follows:

- Call Service
- Out of Toner
- Toner Almost Empty
- · Paper Misfeed
- Cover Open
- · Out of Paper
- · Almost Out of Paper
- Paper Tray Error
- Waste Toner Bottle is Full
- Waste Toner Bottle is Almost Full
- File Storage Memory Full Soon
- Device Access Violation
- Toner Almost Empty (Remaining Level Selectable)
- 1. Log in to Web Image Monitor in administrator mode.
- 2. In the menu area, click [Configuration].

4

- 3. Under "Device Settings", click [E-mail].
- 4. Make the following settings:
  - Items in the Reception column: Make the necessary settings for sending and receiving e-mail.
  - Items in the SMTP column: Configure the SMTP server. Check your mailing environment, and then specify the necessary items. You can also perform mail authentication for the SMTP server.
  - Items in the POP before SMTP column: Configure the POP server. Check your mailing environment, and then specify the necessary items. You can also perform mail authentication for the POP server.
  - Items in the POP3/IMAP4 column: Configure the POP3 or IMAP4 server. Check your mailing environment, and then specify the necessary items.
  - Items in the E-mail Communication Port column: Configure the port to be used for access to the mail server.
  - Items in the E-mail Notification Account column: Specify these items If you want to use e-mail notification.
- 5. Click [OK].
- 6. Click [Logout].
- 7. Quit Web Image Monitor.



- For details about login user name and password, see Security Reference, which is the administrator's manual.
- Depending on the configuration of your Web browser, the login user name and password might be saved. If you do not want to save them, configure your Web browser's settings so that this information is not saved.
- For details about the settings, see Web Image Monitor Help.
- For details about Web Image Monitor, see "Using Web Image Monitor".

# Reference

• p.111 "Using Web Image Monitor"

# Setting the Account for E-mail Notification

Before you use Auto E-mail Notification or On-demand E-mail notification, setup an e-mail account to be used for the function. Perform the following configuration task in Web Image Monitor.

- 1. Log in to Web Image Monitor in administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Device Settings", click [E-mail].

#### 4. Make the following settings in E-mail Notification Account:

- E-mail Notification E-mail Address: Enter the address using alphanumeric characters. This will
  appear as the sender (From:) of the e-mail notification. Send requests for e-mail notification to
  this address.
- Receive E-mail Notification: Specify whether to use on-demand e-mail notification.
- E-mail Notification User Name: Enter the specified user name for the e-mail account in "E-mail Notification E-mail Address".
- E-mail Notification Password: Enter the specified password for the e-mail account in "E-mail Notification E-mail Address".
- 5. Click [OK].
- 6. Click [Logout].
- 7. Quit Web Image Monitor.

#### Mail Authentication

You can configure mail authentication to prevent illegal use of the mail server.

#### **SMTP Authentication**

Specify SMTP authentication.

When mail is sent to the SMTP server, authentication is performed using the SMTP AUTH protocol by prompting the mail originator to enter the user name and password. This prevents illegal use of the SMTP server.

- 1. Log in to Web Image Monitor in administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Device Settings", click [E-mail].
- 4. Make the following settings in SMTP column:
  - SMTP Server Name: Enter the IP address or host name of the SMTP server.
  - SMTP Port No.: Enter the port number used when sending e-mail to the SMTP server.
  - SMTP Authentication: Enable or disable SMTP authentication.
  - SMTP Auth. E-mail Address: Enter the e-mail address.
  - SMTP Auth. User Name: Enter the SMTP account name.
  - SMTP Auth. Password: To set or change the password for SMTP AUTH.
  - SMTP Auth. Encryption: Select whether to encrypt the password or not.

[Auto Select]: If the authentication method is PLAIN, LOGIN, CRAM-MD5, or DIGEST-MD5.

[Active]: If the authentication method is CRAM-MD5 or DIGEST-MD5.

[Inactive]: If the authentication method is PLAIN or LOGIN.

- 5. Click [OK].
- 6. Click [Logout].
- 7. Quit Web Image Monitor.

#### POP before SMTP Authentication

Select whether to log in to the POP3 server before sending e-mail.

- 1. Log in to Web Image Monitor in administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Device Settings", click [E-mail].
- 4. Make the following settings in POP before SMTP column:
  - POP before SMTP: Enable or disable POP before SMTP.
  - POP E-mail Address: Enter the e-mail address.
  - POP User Name: Enter the POP account name.
  - POP Password: To set or change the POP password.
  - Timeout setting after POP Auth.: Enter the time available before connecting to the SMTP server after logging in to the POP server.
- 5. Click [OK].
- 6. Click [Logout].
- 7. Quit Web Image Monitor.

#### **Auto E-mail Notification**

- 1. Log in to Web Image Monitor in administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Device Settings", click [Auto E-mail Notification].

The dialog box for making notification settings appears.

- 4. Make the following settings:
  - Notification Message: You can set this according to your needs, for example, the machine's location, service representative contact information.
  - Items in the Groups to Notify column: E-mail notification addresses can be grouped as required.
  - Items in the Select Groups/Items to Notify column: Select groups for each notification type, such as machine status and error.

To make detailed settings for these items, click [Edit] next to "Detailed Settings of Each Item".

5. Click [OK].

- 6. Click [Logout].
- 7. Quit Web Image Monitor.
- **U** Note
  - For details about Web Image Monitor, see "Using Web Image Monitor".
  - For details about the settings, see Web Image Monitor Help.

## Reference

• p.111 "Using Web Image Monitor"

#### On-demand E-mail Notification

- 1. Log in to Web Image Monitor in administrator mode.
- 2. In the menu area, click [Configuration].
- Under "Device Settings", click [On-demand E-mail Notification].
   The dialog box for making notification settings appears.
- 4. Make the following settings:
  - Notification Subject: Enter a text string to be added to the subject line of return e-mails.
  - Notification Message: You can set this according to your needs, for example, the machine's location, service representative contact information.
  - Restriction to Device Status Info.: Select whether or not to allow access to the information such
    as the machine settings and status.
  - Items in the Receivable E-mail Address/Domain Name Settings column: Enter an e-mail address or domain name to use for requesting information by e-mail and to receive its return e-mail.
- Click [OK].
- 6. Click [Logout].
- 7. Quit Web Image Monitor.

# **U** Note

- For details about Web Image Monitor, see "Using Web Image Monitor".
- For details about the settings, see Web Image Monitor Help.

# Reference

• p.111 "Using Web Image Monitor"

4

# Format of On-demand E-mail Messages

To use "on-demand e-mail notification", you need to send a request e-mail with a particular format to the machine.

Using your mail software, enter the following:

Format of the request e-mail

ltem	Description
То	Enter the specified e-mail address in "E-mail Notification E-mail Address".
Subject	Enter "requeststatus".
From	Specify a valid mail address. The device information will be sent to the address specified here.



- A mail message must be within 1 MB in size.
- E-mail may be incomplete if sent immediately after power on.
- The subject is not case sensitive.
- The body of a request e-mail has no meaning. Any text written in the e-mail body is ignored.

# Remote Maintenance Using telnet

# € Important

- Remote Maintenance should be protected so that access is allowed to administrators only.
- The password is the same as the one of Web Image Monitor administrator. When the password is changed using "telnet", other's change also.

### Using telnet

Follow the procedure below to use telnet.

## Mportant ...

- Only one user at a time can log in to perform remote maintenance.
- If you are using Windows Vista/7, you must enable the telnet server and telnet client beforehand.
- 1. Use the IP address or the host name of the machine to start telnet.

% telnet "IP address"

For example, if the machine's IP address is "192.168.15.16", enter the address as follows:

% telnet 192.168.15.16

2. Enter your user name and password.

For details about the user name and password, consult your network administrator.

- 3. Enter a command.
- 4. Quit telnet.

msh> logout

A message asking you to confirm saving the changes appears.

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. To make further changes, enter "return" at the command line, and then press the [Enter] key.



- If the message "Can not write NVRAM information" appears, the changes are not saved. Repeat the
  procedure above.
- When the changes are saved, the network interface board is reset automatically with that changes.
- When the network interface board resets, the print job in print process will be printed. However, print
  jobs in queue will be canceled.

4

#### access

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

#### View settings

msh> access

#### IPv4 configuration display

```
msh> access "ID" range
```

#### IPv6 configuration display

```
msh> access "ID" range6
```

#### IPv6 access mask configuration display

```
msh> access "ID" mask6
```

#### IPv4 configuration

```
msh> access "ID" range "start-address end-address"

Example: to specify accessible IPv4 addresses between 192.168.0.10 and 192.168.0.20:
```

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

#### **IPv6** configuration

```
msh> access "ID" range6 "start-address end-address"

Example: to specify accessible IPv6 addresses between 2001:DB8::100 and 2001:DB8::200.

msh> access 1 range6 2001:DB8::100 2001:DB8::200
```

#### IPv6 access mask configuration

```
msh> access "ID" mask6 "base-address prefixlen"

Example: to specify accessible IPv6 addresses to 2001:DB8::/32

msh> access 1 mask6 2001:DB8:: 32
```

#### Access control initialization

```
msh> access flush
```

• Use the "flush" command to restore the default settings so that all access ranges become "0.0.0.0" for IPv4, and "::" for IPv6.



- You can specify each IPv6 entry by either range or mask. For the range parameter, you can select "start-address end-address". For the mask parameter, you can select "baseaddress prefixlen".
- The access range restricts computers from use of the machine by IP address. If you do not need to restrict printing, make the setting "0.0.0.0" for IPv4, and "::" for IPv6.
- Valid ranges must be from lower (start address) to higher (end address).

4

- For IPv4 and IPv6, you can select an ID number between 1 and 5.
- IPv6 can register and select the range and the mask for each access ranges.
- IPv6 mask ranges between 1 128 can be selected.
- Up to five access ranges can be specified. The entry is invalid if the target number is omitted.
- You cannot send print jobs, or access Web Image Monitor and diprint from a restricted IP address.

#### authfree

Use the "authfree" command to view and configure authfree parameters.

#### View settings

The following command displays the current authfree settings:

msh> authfree

 If print job authentication exclusion is not set, authentication exclusion control cannot be displayed.

#### IPv4 address settings

```
msh> authfree "ID" range_addr1 range_addr2
```

#### IPv6 address settings

```
msh> authfree "ID" range6_addr1 range6_addr2
```

#### IPv6 address mask configuration

```
msh> authfree "ID" mask6_addr1 masklen
```

#### **USB** settings

msh> authfree usb [on|off]

• To enable authfree, set to on. To disable authfree, set to off. Always specify the interface.

#### Authentication exclusion control initialization

msh> authfree flush

#### autonet

Use the "autonet" command to configure AutoNet parameters.

#### View settings

The following command displays the current AutoNet settings:

msh> autonet

#### Configuration

You can configure AutoNet settings.

4

msh> autonet {on|off}

• {on} means "active" and {off} means "inactive".

#### Current interface priority configuration display

msh> autonet priority

#### Interface priority configuration

msh> autonet priority "interface name"

- You can give interface's AutoNet parameter priority.
- Priority settings are available when multiple interfaces are installed.
- wlan can be specified only when the IEEE 802.11 interface is installed.

Interface	Interface configured
ether	Ethernet interface
wlan	IEEE 802.11 interface



• If an interface is not selected, the current interface connection settings remain in effect.

# bonjour

Use the "bonjour" command to display bonjour-related settings.

#### View settings

Bonjour settings are displayed.

msh> bonjour

#### Bonjour service name setting

You can specify the bonjour service name.

msh> bonjour cname "computer name"

- The computer name can be entered using up to 63 alphanumeric characters.
- If you do not specify a character string, the current setting is displayed.

#### Bonjour Installation location information setting

You can enter information about the location where the printer is installed.

msh> bonjour location "location"

- Information about the location can be entered using up to 32 alphanumeric characters.
- If you do not specify a character string, current setting is displayed.

#### Setting order of priority for each protocol

- msh> bonjour diprint [0-99]
- msh> bonjour lpr [0-99]
- msh> bonjour ipp [0-99]

You can specify the order of priority for "diprint", "lpr", and "ipp". Smaller numbers indicate higher priority.

#### **IP TTL setting**

msh> bonjour ipttl [1-255]

You can specify the IP TTL (the number of routers a packet can pass through).

• The default is 255.

#### Resetting the computer name and location information

You can reset the computer name and location information.

msh> bonjour clear {cname|location}

- cname: Reset the computer name. The default computer name will be displayed when the computer is restarted.
- location: Reset the location information. The previous location information will be deleted.

#### Interface configuration

msh> bonjour linklocal "interface name"

- If you do not specify an interface, the Ethernet interface is selected automatically.
- If many types of interface are installed, configure the interface that communicates with linklocal address.
- If you do not specify an interface, the Ethernet interface is automatically selected.
- wlan can be specified only when the IEEE 802.11 interface is installed.

Interface	Interface configured
ether	Ethernet interface
wlan	IEEE 802.11 interface

#### **Setting IPP-SSL printing**

msh> bonjour ippport {ipp|ssl}

- If IPP-SSL Printing is set to ssl, the IPP port number will appear as 443, and IPP-SSL printing can be performed with higher security.
- If IPP-SSL Printing is set to ipp, the IPP port number will appear as 631. Port 631 is the port for normal IPP printing.

#### devicename

Use the "devicename" command to display and change the printer name.

#### View settings

msh> devicename

#### Printer name configuration

msh> devicename name "string"

- Enter a printer name using up to 31 alphanumeric characters.
- Set single names for each printer.

#### Printer name initialization

msh> devicename clear name

• Reset the printer name to its default.

# dhcp

Use the "dhcp" command to configure DHCP settings.

#### View settings

The following command displays the current DHCP settings.

msh> dhcp

#### Configuration

You can configure DHCP.

msh> dhcp "interface\_name" {on|off}

- Specify "on" to enable dhcp. Specify "off" to disable DHCP.
- If the DNS server address and domain name are obtained from DHCP, be sure to specify "off".
- wlan can be specified only when the IEEE 802.11 interface is installed.

Interface name	Interface configured
ether	Ethernet interface
wlan	IEEE 802.11 interface

#### Current interface priority configuration display

msh> dhcp priority

#### Interface priority configuration

msh> dhcp priority "interface name"

- You can select which interface has DHCP parameter priority.
- Priority settings are available when multiple interfaces are installed.

#### DNS server address selection

msh> dhcp dnsaddr {dhcp|static}

- Specify whether to obtain the DNS server address from the DHCP server or use the address set by a user.
- To obtain the DNS server address from the DHCP server, specify "dhcp". To use the address set by a user, specify "static".

#### Domain name selection

msh> dhcp "interface\_name" domainname {dhcp|static}

- Specify whether to obtain the domain name from the DNS server or use the domain name set by a user.
- To obtain the domain name from the DHCP server, specify "dhcp". To use the domain name set by a user, specify "static".

# Reference

• p.263 "Using DHCP"

# dhcp6

Use the "dhcp6" command to display or configure DHCPv6 settings.

#### View settings

The following command displays the current DHCPv6 settings.

msh> dhcp6

#### DHCPv6-lite configuration and display

msh> dhcp6 "interface\_name" lite {on|off}

# Viewing and specifying DNS server address selection (obtained from the dhcpv6 server/user specified value)

msh> dhcp6 dnsaddr {dhcp|static}

#### DUID(DHCP unique ID) deletion and display

msh> dhcp6 duid clear

#### Viewing and specifying the time required to re-obtain the parameter obtained from dhcpv6

msh> dhcp6 option lifetime [0-65535]

- It can be entered between 0 and 65535 minutes.
- The default is 60 minutes.
- If you specify "0", you cannot re-obtain the value.

### diprint

The direct printing port enables direct printing from a network-connected computer.

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 on

conn multi

apl async

- The "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**

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

- You can specify the timeout interval to use when the printer is expecting data from the network.
- The default is 300 seconds.
- This command functions in conjunction with the "lpr" command.

#### **Bidirectional communication settings**

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

• The default is "on".

#### Specifying the number of concurrent connections

```
msh> diprint conn {multi|single}
```

- The above command specifies the number of concurrent diprint connections. Specify "multi" for multiple connections or "single" for a single connection.
- The default is "multi".

#### dns

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

#### View settings

The following command displays the current DNS settings:

msh> dns

#### IPv4 DNS server configuration

The following command enables or disables the IPv4 DNS server address:

msh> dns "ID" server "server address"

The following command displays a configuration using the IP address 192.168.15.16 on a DNS 1 server:

msh> dns 1 server 192.168.15.16

- You can register IPv4 DNS Server address.
- You can select an ID number between 1 and 3. You can select up to three ID numbers.
- You cannot use "255.255.255.255" as the DNS server address.

#### IPv6 DNS server configuration

The following command enables or disables the IPv4 DNS server address:

msh> dns "ID" server6 "server address"

- You can register IPv6 DNS Server address.
- The selectable ID number is between 1 and 3. You can select up to 3 ID.

#### **Dynamic DNS function setting**

msh> dns "interface\_name" ddns {on|off}

- You can set the dynamic DNS function "active" or "inactive".
- {on} means "active" and {off} means "inactive".
- wlan can be specified only when the IEEE 802.11 interface is installed.

Interface name	Interface configured
ether	Ethernet interface
wlan	IEEE 802.11 interface

#### Specifying the record overlap operation

msh> dns overlap {update|add}

- You can specify operations performed when records overlap.
- update: To delete old records and register new records.
- add: To add new records and store the old records.
- When CNAME overlaps, it is always changed, irrespective of the settings.

#### **CNAME** registration

msh> dns cname {on|off}

You can specify whether to register CNAME.

- {on} means "active" and {off} means "inactive".
- The CNAME registered is the default name beginning with rnp. CNAME cannot be changed.

#### A records registration

msh> dns arecord {dhcp|own}

- dhcp: You can specify the method of registering an A record when the dynamic DNS function is enabled and DHCP is used.
- own: To register an A record using the printer as the DNS client.
   The DNS server address and the domain name already designated are used for the registration.

#### Record updating interval settings

msh> dns interval [1-255]

- You can specify the interval after which records are updated when using the dynamic DNS function.
- The updating interval is specified hourly. It can be entered between 1 and 255 hours.
- The default is 24 hours.

#### resolv.conf display

msh> dns resolv

#### Specifying the protocol when asking names during dual stacking

msh> dns resolv protocol {ipv4|ipv6}

· Appears during dual stacking only.

#### domainname

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

You can configure the Ethernet interface or IEEE 802.11 interface.

#### View settings

The following command displays the current domain name:

msh> domainname

#### Interface domain configuration

msh> domainname "interface\_name"

#### Setting the Domain Name

msh> domainname "interface name" name "domain name"

- A domain name can be entered using up to 63 alphanumeric characters.
- The Ethernet interface and IEEE 802.11 interface will have the same domain name.
- wlan can be specified only when the IEEE 802.11 interface is installed.

#### **Deleting the Domain Name**

msh> domainname "interface\_name" clear name

#### etherauth

Use the "etherauth" command to display or modify the authentication related parameters for Ethernet.

#### View settings

msh> etherauth

#### 802.1x configuration

msh> etherauth 8021x {on|off}

• {on} means "active" and {off} means "inactive".

# etherconfig

Use the "etherconfig" command to view and configure the Ethernet parameters.

#### View settings

msh> etherconfig

#### **Specify Ethernet Speed**

msh> etherconfig speed {auto|10f|10h|100f|100h}

- auto=Auto Select
- 10f=10 Mbps Full Duplex
- 10h=10 Mbps Half Duplex
- 100f=100 Mbps Full Duplex
- 100h=100 Mbps Half Duplex

The default is "auto".

#### help

Use the "help" command to display the available command list and the procedures for using those commands.

4

### 4

### Command list display

msh> help

#### Display of procedure for using commands

msh> help "command\_name"

#### hostname

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

#### View settings

msh> hostname

### **IPv4** Configuration

msh> hostname "interface\_name" "printer\_name"

- Enter the printer name using up to 63 alphanumeric characters.
- You cannot use a printer name beginning "RNP" (in either upper or lower case).
- The Ethernet interface and IEEE 802.11 interface will have the same printer name.
- wlan can be specified only when the IEEE 802.11 interface is installed.
- If you do not specify an interface, the Ethernet interface is selected automatically.

Interface name	Interface configured
ether	Ethernet interface
wlan	IEEE 802.11 interface

#### Initializing the printer name for each interface

msh>hostname "interface\_name" clear name

### ifconfig

Use the "ifconfig" command to view and configure TCP/IP (IP address, subnet mask, broadcast address, default gateway address) for the printer.

### View settings

msh> ifconfig

#### **IPv4** configuration

msh> ifconfig "interface\_name" "parameter" "address"

• If you did not enter an interface name, it is automatically set to the Ethernet interface.

• wlan can be specified only when the IEEE 802.11 interface is installed.

Interface name	Interface configured
ether	Ethernet Interface
wlan	IEEE 802.11 Interface

The following explains how to configure an IPv4 address 192.168.15.16 on the Ethernet interface. msh> ifconfig ether 192.168.15.16

### IPv6 configuration

msh> ifconfig ether inet6 "interface\_name" "printer\_name"

The following explains how to configure an IPv6 address to 2001:DB8::100 with prefix length 64 on the Ethernet interface.

msh> ifconfig ether inet6 2001:DB8::100 64

#### **Netmask configuration**

msh> ifconfig "interface\_name" netmask "address"

The following explains how to configure a subnet mask 255.255.250 on the Ethernet interface.

msh> ifconfig ether netmask 255.255.255.0

#### **Broadcast address configuration**

msh> ifconfig "interface\_name" broadcast "address"

#### Changing the interface

msh> ifconfig "interface" up

 When using the optional IEEE 802.11 interface unit, you can specify either Ethernet or IEEE 802.11 interface.



- To get the above addresses, contact your network administrator.
- Use the default configuration if you cannot obtain setting addresses.
- The IP address, subnet mask and broadcast address are the same as that for the Ethernet interface and IEEE 802.11 interface.
- TCP/IP configuration is the same for both the Ethernet and IEEE 802.11 interface. If interfaces are changed, the new interface inherits the configuration.
- Use "Ox" as the initial two letters of a hexadecimal address.

### 4

#### info

Use the "info" command to display the printer information such as paper tray, output tray, and printer language.

### Printer information display

msh> info



• p.174 "Getting Machine Information over the Network"

#### ipp

Use the "ipp" command to view and configure the IPP settings.

### View settings

The following command displays the current IPP settings:

msh> ipp

#### IPP timeout configuration

Specify how many seconds the computer waits before canceling an interrupted print job. The time can be entered between 30 to 65535 seconds.

```
msh> ipp timeout [30-65535]
```

#### IPP user authorization configuration

Use IPP user authorization to restrict users to print with IPP. The default is "off".

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

- User authorization settings are "basic" and "digest".
- If user authorization is specified, register a user name. You can register up to 10 users.

### IPP user name configuration

Configure IPP users according to the following messages:

```
msh> ipp user
```

The following message appears:

msh> Input user number (1 to 10):

Enter the number, user name, and password.

msh> IPP user name:user1

msh> IPP :\*\*\*\*\*

After configuring the settings, the following message appears:

User configuration changed.

### ipsec

Use the "ipsec" command to view and configure the IPsec settings.

#### View settings

The following command displays the current IPsec settings:

msh> ipsec



• For details about displayed contents, consult your administrator.

### ipv6

Use the "ipv6" command to display and configure the IPv6 settings.

### **View Setting**

msh> ipv6

#### IPv6 stateless address

msh> ipv6 stateless {on|off}

If "on" is selected, IPv6 requests information required for maintaining stateful connection to the router for as long as the printer power is turned on. This setting allows information from the router to be obtained constantly, and periodically refreshes the effective period of the stateless address.

### logout

Use "logout" command to quit telnet.

#### Quit telnet

msh> logout

A confirmation message appears.

{yes|no|return}

Enter [yes], [no] or [return] by typing the word, and then press the [Enter] key.

To save the changes and quit telnet, enter [yes].

To discard the changes and quit telnet, enter [no].

To continue making changes, enter [return]

#### lpr

Use the "lpr" command to view and configure the LPR settings.

#### **View Setting**

msh> lpr

### Checking host name when deleting the job

msh> lpr chkhost {on|off}

• The default is "on".

If "on" is selected, you can delete print jobs only from the IP address of the host that sent the print job. If LPR is disabled, you can also delete print jobs sent from IP addresses other than that of the host.

#### **Printer Error Detection Function**

msh> 1pr prnerrchk {on|off}

• The default is "off".

If you set this to "on", the printer stops receiving data and will wait until the error is resolved before continuing processing a job.

#### netware

Use the "netware" command to view and configure the NetWare settings such as the print server name or file server name. The following commands are available only when the NetWare is installed.

#### **NetWare Printer Server Names**

msh> netware "pnamecharacter string"

• Enter the NetWare print server name using up to 47 characters.

#### NetWare File Server Names

msh> netware "fname character string"

• Enter the NetWare file server name using up to 47 characters.

#### **Encap type**

msh> netware encap {802.3|802.2|snap|ethernet2|auto}

#### Remote Printer Number

msh> netware rnum [0-254]

• The default is 0.

#### **Timeout**

msh> netware timeout [3-255]

• The default is 15.

#### Printer server mode

msh> netware mode pserver
msh> netware mode ps

### Remote printer mode

msh> netware mode rprinter
msh> netware mode rp

#### NDS context name

msh> netware context "character string"

#### **SAP** interval

msh> netware "sap\_interval[0-3600]"

It can be entered between 0 and 3600 seconds.

### Setting login mode for file server

msh> netware login server

#### Setting login mode for NDS tree

msh> netware login tree

### Setting login mode for NDS tree name

msh> netware tree "NDS tree name"

### File transfer protocol

msh> netware trans {ipv4pri|ipxpri|ipv4|ipx}

• If you do not specify the protocol, the current setting is displayed.

Protocol	Set Protocol
ipv4pri	IPv4+IPX(IPv4)
ipxpri	IPv4+IPX(IPX)
ipv4	IPv4
ipx	IPX

### passwd

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

### Changing the password

msh> passwd

- Enter the current password.
- Enter the new password.
- Renter the new password to confirm it.

## 4

### Changing the password of the administrators using the Supervisor

msh> passwd {Administrator ID}

- Enter the new password.
- Renter the new password to confirm it.



- Be sure not to forget or lose the password.
- The password can be entered using up to 32 alphanumeric characters. Passwords are case-sensitive. For example, "R" is not the same as "r".

### pathmtu

Use the "pathmtu" command to display and configure the PathMTU Discovery service function.

#### View settings

msh> pathmtu

#### Configuration

msh> pathmtu {on|off}

- The default is "on".
- If the MTU size of the sent data is larger than the router's MTU, the router will declare it
  impassable, and communication will fail. If this happens, setting "pathmtu" to "on" optimizes the
  MTU size and prevents data output failure.
- Depending on the environment, information might not be obtained from the router, and communication will fail. If this happens, set "pathmtu" to "off".

### prnlog

Use the "prnlog" command to obtain printer log information.

### Print logs display

msh> prnlog

· Display previous print jobs.

msh> prnlog "ID Number"

 Specify the ID number of the displayed print log information to display additional details about a print job.

### Reference

• p.179 "Understanding the Displayed Information"

#### route

Use the "route" command to view and control the routing table.

#### Specified route information display

msh> route get "destination"

• Specify the IPv4 address to destination.

"0.0.0.0" cannot be specified as the destination address.

#### Enabling/disabling specified IPv4 destination

msh> route active {host|net} "destination" {on|off}

• If you do not specify {host | net}, the host setting is automatically selected.

#### Adding IPv4 routing table

msh> route add {host|net} "destination" "gateway"

- Adds a host or network route to "destination", and a gateway address to "gateway" in the table.
- Specify the IPv4 address to destination and gateway.
- If you do not specify {host | net}, the host setting is selected automatically.
- You cannot specify "0.0.0.0" as the destination address.

#### Setting the Default IPv4 gateway

msh> route add default {gateway}

#### Deleting specified IPv4 destination from routing table

msh> route delete {host|net} "destination"

- If you do not specify {host | net}, the host setting is automatically selected.
- IPv4 address of destination can be specified.

#### Setting IPv6 default gateway

msh> route add6 default "gateway"

#### Adding a specified IPv6 destination to routing table

msh> route add6 "destination" "prefixlen[1-128]" "gateway"

- Specify the IPv6 address to destination and gateway.
- If the prefix of the address is between 1 and 127, the network is selected. If the prefix of the address is 128, the host is selected.
- You cannot register a record that has the same destination and prefix as a registered record.
- You cannot register a record that uses "0000:0000:0000:0000:0000:0000:0000" as its destination.

#### Deleting a specified IPv6 destination from routing table

msh> route delete6 "destination" "prefixlen"

• Specify the IPv6 address to destination and gateway.

### Display information about a specified IPv6 route information

```
msh> route get6 "destination"
```

• Specify the IPv6 address to destination and gateway.

### Enabling/disabling a specified IPv6 destination

```
msh> route active6 "destination" "prefixlen[1-128]" {on|off}
```

#### Route initialization

msh> route flush



- The maximum number of IPv4 routing tables is 16.
- The maximum number of IPv6 routing tables is 2.
- Set a gateway address when communicating with devices on an external network.
- The same gateway address is shared by all interfaces.
- "Prefixlen" is a number between 1 and 128.

#### set

Use the "set" command to set the protocol information display "up" or "down".

#### View settings

The following command displays the protocol information (up/down).

```
msh> set ipv4
msh> set ipv6
```

msh> set ipsec

msh> set netware

• This command is available only when the NetWare is installed.

```
msh> set smb
msh> set protocol
```

• When protocol is specified, information about TCP/IP, NetWare and SMB appears.

```
msh> set 1pr
msh> set 1pr6
msh> set ftp
msh> set ftp6
msh> set rsh
```

```
msh> set rsh6
msh> set diprint
msh> set diprint6
msh> set web
msh> set snmp
msh> set ssl
msh> set ss16
msh> set nrs
msh> set rfu
msh> set rfu6
msh> set ipp
msh> set ipp6
msh> set http
msh> set http6
msh> set bonjour
msh> set bonjour6
msh> set nbt
msh> set ssdp
msh> set ssh
msh> set sftp
msh> set sftp6
msh> set wsdev
msh> set wsdev6
msh> set wsprn
msh> set 11td
```

### Configuration

• Enter "up" to enable the protocol, and enter "down" to disable the protocol.

You can set the protocol to "active" or "inactive".

```
msh> set ipv4 {up|down}
```

- If you disable IPv4, you cannot use remote access after logging out. If you did this by mistake, you can use the control panel to enable remote access via IPv4.
- Disabling IPv4 also disables lpr, ftp, rsh, diprint, web, snmp, ssl, ipp, http, bonjour, wsdev, and sftp.

```
msh> set ipv6 {up|down}
```

- If you disable IPv6, you cannot use remote access after logging out. If you did this by mistake, you can use the control panel to enable remote access via IPv6.
- Disabling IPv6 also disables lpr6, ftp6, rsh6, diprint6, ssl6, ipp6, http6, bonjour6, wsdev6, and sftp6.

```
msh> set ipsec {up|down}
msh> set netware {up|down}
```

• This command is available only when the NetWare is installed.

• If Secured Sockets Layer (SSL, an encryption protocol) function is not available for the printer, you cannot use the function by enabling it.

```
msh> set nrs {up|down}
msh> set rfu {up|down}
msh> set rfu6 {up|down}
msh> set ipp {up|down}
msh> set ipp6 {up|down}
msh> set http {up|down}
msh> set http6 {up|down}
msh> set bonjour {up|down}
msh> set bonjour {up|down}
msh> set set bonjour6 {up|down}
msh> set ssh {up|down}
msh> set ssh {up|down}
msh> set ssdp {up|down}
msh> set nbt {up|down}
```

```
msh> set sftp {up|down}
msh> set sftp6 {up|down}
msh> set wsdev {up|down}
msh> set wsdev6 {up|down}
```

• If "wsdev" and "wsdev6" are enabled simultaneously, both appear as "up" on the protocol information display, but both use IPv4 for WSD (Device) and WSD (Printer).

```
msh> set wsprn {up|down}
msh> set lltd {up|down}
```

#### show

Use the "show" command to display the network interface board configuration settings.

#### View settings

msh> show

If "-p" is added, you can view settings one by one.

### **■** Reference

• p.179 "Understanding the Displayed Information"

### slp

Use "slp" command to view and configure the SLP settings.

```
msh> slp ttl "ttl_val[1-255]"
```

- You can search the NetWare server using SLP in the PurelP environment of NetWare 5/5.1. Using
  the "slp" command, you can configure the value of TTL which can be used by SLP multicast packet.
- The default value of TTL is 1. A search is executed only within a local segment. If the router does not support multicast, the settings are not available even if the TTL value is increased.
- The acceptable TTL value is between 1 and 255.
- This command is available only when the NetWare is installed.

### smb

Use the "smb" command to configure or delete a computer or workgroup name for SMB.

#### Computer name settings

```
msh> smb comp "computer name"
```

• Set computer name using up to 15 characters.

• Names beginning with "RNP" or "rnp" cannot be entered.

### Working group name settings

msh> smb group "work group name"

• Set workgroup name using up to 15 characters.

### **Comment settings**

msh> smb comment "comment"

• Set comment using up to 31 characters.

#### Notify print job completion

msh> smb notif {on|off}

• To notify print job completion, specify "on". Otherwise, specify "off".

#### Deleting computer name

msh> smb clear comp

### **Deleting group name**

msh> smb clear group

#### **Deleting comment**

msh> smb clear comment

### View protocol

msh> smb protocol

#### snmp

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

#### View settings

"IPX" is shown only when the NetWare is installed.

msh> snmp

• Default access settings 1 is as follows:

Community name:public

IPv4 address:0.0.0.0

IPv6 address:::

IPX address:00000000:000000000000

Access type:read-only

Effective Protocol: IPv4/IPv6/IPX

• Default access settings 2 is as follows:

Community name:admin

IPv4 address:0.0.0.0

IPv6 address:::

IPX address:00000000:000000000000

Access type:read-write

Effective Protocol: IPv4/IPv6/IPX

- If "-p" is added, you can view settings one by one.
- To display the current community, specify its registration number.

#### Display

msh> snmp ?

### Community name configuration

msh> snmp "number" name "community\_name"

- You can configure ten SNMP access settings numbered 1-10.
- The printer cannot be accessed from SmartDeviceMonitor for Admin or SmartDeviceMonitor for Client if "public" is not registered in numbers 1-10. When changing the community name, use SmartDeviceMonitor for Admin and SNMP Setup Tool to correspond with printer settings.
- The community name can be entered using up to 15 characters.

### Deleting community name

msh> snmp "number" clear name

#### Access type configuration

msh> snmp "number" type "access type"

Access type	Type of access permission
no	not accessible
read	read only
write	read and write
trap	user is notified of trapmessages

#### Protocol configuration

Use the following command to set protocols "active" or "inactive". If you set a protocol "inactive", all access settings for that protocol are disabled.

"IPX" is shown only when the NetWare is installed.

msh> snmp {ipv4|ipv6|ipx} {on|off}

- Specify "ipv4" for IPv4, "ipv6" for IPv6, or "ipx" for IPX/SPX.
- {on} means "active" and {off} means "inactive".

• All protocols cannot be turned off concurrently.

### Configuration of protocol for each registration number

"IPX" is shown only when the NetWare is installed.

```
msh> snmp "number" active {ipv4|ipv6|ipx} {on|off}
```

• To change the protocol of access settings, use the following command. However, if you have disabled a protocol with the above command, activating it here has no effect.

### Access configuration

"IPX" is shown only when the NetWare is installed.

```
msh> snmp "number" {ipv4|ipv6|ipx} "address"
```

- You can configure a host address according to the protocol used.
- The network interface board accepts requests only from hosts that have IPv4, IPv6, and IPX
  addresses with access types of "read-only" or "read-write". Enter "0" to have the network
  interface board accept requests from any host without requiring a specific type of access.
- Enter a host address to deliver "trap" access type information to.
- To specify IPv4 or IPv6, enter "ipv4" or "ipv6" followed by a space, and then the IPv4 or IPv6
  address.
- To specify IPX/SPX, enter "ipx" followed by a space, the IPX address followed by a decimal, and then the MAC address of the network interface board.

#### sysLocation configuration

msh> snmp location

#### **Deleting sysLocation**

msh> snmp clear location

#### sysContact setting

msh> snmp contact

### Deleting sysContact

msh> snmp clear contact

### SNMP v1v2 function configuration

msh> snmp v1v2 {on|off}

• Specify "on" to enable, and "off" to disable.

#### SNMP v3 function configuration

msh> snmp v3 {on|off}

• Specify "on" to enable, and "off" to disable.

#### **SNMP TRAP configuration**

 $msh > snmp trap{v1|v2|v3} {on|off}$ 

• Specify "on" to enable, and "off" to disable.

### Remote configuration authorization configuration

msh> snmp remote {on|off}

• Specify "on" to enable, and "off" to disable the SNMP v1v2 setting.

### SNMP v3 TRAP configuration display

```
msh> snmp v3trap
msh> snmp v3trap [1-5]
```

• If a number from 1 to 5 is entered, settings are displayed for that number only.

### Configuring a sending address for SNMP v3 TRAP

"IPX" is shown only when the NetWare is installed.

msh> snmp v3trap [1-5] {ipv4|ipv6|ipx} "address"

### Configuring a sending protocol for SNMP v3 TRAP

"IPX" is shown only when the NetWare is installed.

msh> snmp v3trap [1-5] active {ipv4|ipv6|ipx} {on|off}

#### Configuring a user account for SNMP v3 TRAP

msh> snmp v3trap [1-5] account "account\_name"

• Enter an account name using up to 32 alphanumeric characters.

### Deleting an SNMP v3 TRAP user account

msh> snmp v3trap [1-5] clear account

#### Configuring an SNMP v3 encryption algorithm

msh> snmp v3auth {md5|sha1}

### Configuring SNMP v3 encryption

msh> snmp v3priv {auto|on}

- Set "auto" for automatic encryption configuration.
- If you select "on", plain-text communication becomes impossible only encrypted communication is possible.



- "Encrypted communication" means an encrypted password is set on the machine.
- To use SNMP Setup Tool, you must first download SmartDeviceMonitor for Admin from the manufacturer's Web site and install it on your computer. Contact your local dealer for information on downloading SmartDeviceMonitor for Admin.

### 4

#### sntp

The printer clock can be synchronized with a NTP server clock using Simple Network Time Protocol (SNTP). Use the "sntp" command to change the SNTP settings.

### View settings

msh> sntp

### NTP IPv4 server address configuration

You can specify the IPv4 address of the NTP server.

msh> sntp server "IPv4\_address"

#### NTP hostname configuration

You can specify the hostname of the NTP server.

msh> sntp server "hostname"

### **Deleting NTP server configuration**

msh> sntp server clear

#### Interval configuration

msh> sntp interval "polling\_time"

- You can specify the interval at which the printer synchronizes with the operator-specified NTP server. The default is 60 minutes.
- The interval can be entered from 0, or between 15 and 10,080 minutes.
- If you set 0, the printer synchronizes with the NTP server only when you turn the printer on. After that, the printer does not synchronize with the NTP server.

#### Time-zone configuration

msh> sntp timezone "±hour\_time"

 You can specify the time difference between the printer clock and NTP server clock. The values are between -12:00 and +13:00.



• You can only select either the address or host name for the ntp server.

### spoolsw

Use the "spoolsw" command to view and configure the Job Spool settings.

You can only specify diprint, trap, lpr, ipp, ftp, sftp, wsprn, and smb (TCP/IP) protocol.

 The "spoolsw" command for configuring Job Spool settings is available only when the optional hard disk is installed.

### View settings

The Job Spool setting appears.

msh> spoolsw

#### Job Spool setting

```
msh> spoolsw spool {on|off}
```

• Specify "on" to enable Job Spool, or "off" to disable it.

### Resetting Job spool setting

```
msh> spoolsw clear job {on|off}
```

When the printer power is cut during job spooling, this determines whether to reprint the spooled
job.

### Protocol configuration

```
msh> spoolsw diprint {on|off}
msh> spoolsw lpr {on|off}
msh> spoolsw ipp {on|off}
msh> spoolsw smb {on|off}
msh> spoolsw ftp {on|off}
msh> spoolsw ftp {on|off}
msh> spoolsw sftp {on|off}
msh> spoolsw wsprn {on|off}
```

### ssdp

Use the "ssdp" command to view and configure the SSDP settings.

#### View settings

msh> ssdp

#### Setting effective time

```
msh> ssdp profile [1801-86400]
```

The default is 10800 seconds.

#### Advertise packet TTL settings

```
msh> ssdp ttl [1-255]
```

The default is 4.

#### ssh

Use the "ssh" command to view and configure the SSH settings.

### View settings

msh> ssh

#### **Data compression communication settings**

msh> ssh compression {on|off}
The default is "on".

### SSH/SFTP communication port setting

msh> ssh port [22, 1024-65535]

The default is 22.

### SSH/SFTP communication timeout setting

msh> ssh timeout [0-65535]

The default is 300.

### SSH/SFTP communication login timeout setting

msh> ssh logintimeout [0-65535]

The default is 300.

#### Setting an open key for SSH/SFTP

msh> ssh genkey {512|768|1024} "character string"

Create an open key for SSH/SFTP communication.

Usable characters are ASCII 0x20-0x7e (32 bytes) other than "0".

The default key length is 1024, and the character string is blank.

If you do not specify this parameter, an open key with the default value will be created.

### Deleting open key for ssh/sftp communication

msh> ssh delkey



- If you do not specify a character string, current setting is displayed.
- ssh can be used only with sftp.

#### status

Use the "status" command to display the printer status.

#### View messages

msh> status

■ Reference

• p.174 "Getting Machine Information over the Network"

### syslog

Use the "syslog" command to display the information stored in the printer's system log.

### View message

msh> syslog



• p.186 "Message List"

### upnp

Use the "upnp" command to display and configure the universal plug and play.

### **Public URL display**

msh> upnp url

### **Public URL configuration**

msh> upnp url "string"

• Enter the URL string in the character string.

### web

Use the "web" command to display and configure parameters on Web Image Monitor.

#### View settings

msh> web

### **URL** configuration

You can set URLs linked by clicking [URL] on Web Image Monitor.

msh> web "ID" url http://"The URL or IP address you want to register"/

Specify "1" or "2" for ID as the number corresponding to the URL. Up to two URLs can be registered and specified.

### Resetting URLs registered as link destinations

```
msh> web "ID" clear url
```

Specify "1" or "2" for ID as the corresponding number to the URL.

#### Link name configuration

You can enter the name for URL that appears on Web Image Monitor.

```
msh> web "ID" name "Name you want to display"
```

Specify "1" or "2" for ID the corresponding number to the link name.

### 4

### Resetting URL names registered as link destinations

msh> web "ID" clear name

Specify "1" or "2" for ID as the number corresponding to the link name.

### Help URL configuration

You can set URLs linked by clicking "?" on Web Image Monitor.

msh> web help http://"Help URL or IP address"/help/

### **Resetting Help URL**

msh> web clear help

### wiconfig

Use the "wiconfig" command to make settings for IEEE 802.11.

### View settings

msh> wiconfig

### View IEEE 802.11 information

msh> wiconfig cardinfo

If IEEE 802.11 is disabled or unavailable, information about it will not appear.

### Configuration

msh> wiconfig "parameter"

Parameter	Value configured
mode {ap 802.11adhoc}	You can set the infrastructure mode (ap) or the 802.11 Ad hoc mode (802.11 adhoc).
	The default is the infrastructure mode.
ssid "ID value"	You can specify an SSID in infrastructure mode. The characters you can enter in the SSID string are ASCII 0x20-0x7e (32 bytes). If you do not specify a character string, the machine will connect to the nearest access point.  The default SSID is blank.

Parameter	Value configured
channel frequency "channel no."	In 802.11 ad hoc mode, you can select a channel between 1 and 13, or 36, 40, 44, or 48.
	Be sure to set the same channel for all ports that will transmit and receive data.
	The default is "11".
	The channel in use might differ depending on the country. For details, see "Wireless LAN".
key "key value" val [1   2   3   4]	You can specify the WEP key by entering in hexadecimal.
	With a 64-bit WEP, you can use 10 digit hexadecimals. With a 128-bit WEP, you can use 26 digit hexadecimals.
	Up to four WEP keys can be registered. Specify the number to be registered with "val".
	When a WEP is specified by key, the WEP specified by key phrase is overwritten.
	To use this function, set the same key number and WEP key for all ports that transmit data to each other. Put "Ox"on the front of WEP key.
	You can omit the numbers with "val". The key number is set to 1 when making these omissions. The default is blank.

Parameter	Value configured
keyphrase "phrase" val [1 2 3 4]	You can specify the WEP key by entering in ASCII.
	With a 64-bit WEP, you can use 5 digit hexadecimals. With a 128-bit WEP, you can use 13 digit hexadecimals.
	Up to four WEP keys can be registered. Specify the number to be registered with "val".
	When a WEP is specified by key phrase, the WEP specified by key is overwritten.
	To use this function, set the same key number and WEP key for all ports that transmit data to each other.
	You can omit the numbers with "val". The key number is set to 1 when making these omissions. The default is blank.
encval [1 2 3 4]	You can specify which of the four WEP keys is used for packet encoding. "1" is set if a number is not specified.
wepauth {open shared}	You can set an authorization mode when using WEP. The specified value and authorized mode are as follows:
	open: open system authorization (default) shared: shared key authorization
security {none wep wpa}	You can specify the Security Mode.
	none: No encryption (default) wep: WEP encryption
	wpa: WPA encryption
wpaenc {tkip ccmp}	You can specify WPA encryption key when using WPA encryption. tkip: TKIP
	ccmp: CCMP (AES) (default)

Parameter	Value configured
wpaauth {wpapsk wpa wpa2psk wpa2}	You can specify the WPA authentication mode when using WPA encryption.
	wpapsk: WPA-PSK authentication (default)
	wpa: WPA authentication
	wpa2psk: WPA2-PSK authentication
	wpa2: WPA2 authentication
psk "character string"	You can specify the Pre-Shared key.
	Usable characters: ASCII 0x20-0x7e (8 to 63 bytes).
	The default is blank.
eap {tls ttls leap peap} {chap mschap	You can specify the EAP authentication type.
mschapv2 pap md5 tls}	tls: EAP-TLS (default)
	ttls: EAP-TTLS
	leap: LEAP
	peap: PEAP
	chap, mschap, mschapv2, pap, md5, and tls are settings for the phase 2 method, and one of these must be specified if EAP-TTLS or PEAP is selected.
	Do not make these settings when using other EAP authentication types.
	If you select EAP-TTLS, you can select chap, mschap, mschapv2, pap, or md5.
	If you select PEAP, you can select mschapv2 or tls.
username "character string"	You can specify the login user name for the Radius server.
	Usable characters: ASCII 0x20-0x7e (31 bytes).
	The default is blank.

Parameter	Value configured
username2 "character string"	You can specify the phase 2 username for EAP-TTLS/PEAP phase 2 authentication.
	Usable characters: ASCII 0x20-0x7e (31 bytes).
	The default is blank.
domain "character string"	You can specify the login domain name for the Radius server.
	The characters you can enter are ASCII 0x20-0x7e (31 bytes), but not "@" or "\".
	The default is blank.
password "character string"	You can specify the login for the Radius server.
	Usable characters: ASCII 0x20-0x7e (128 bytes). The default is blank.
srvcert {on   off}	You can set the server certificate.
	The default is "off".
imca {on off}	You can enable or disable the certificate when the intermediate certificate authority is present. The default is "off".
srvid "character string"	You can set the server ID and sub domain of the certificate server.
	Usable characters: ASCII 0x20-0x7e (128 bytes). The default is blank.
sub domain {on off}	You can specify whether or not to permit access to the machine by users in subdomains use.
	The default is "off".
Connectinfo	Obtains connection information.
clear {a each command all}	Returns the selected setting to its default value.
	If you specify "all", all settings will be restored to their default values.

Parameter	Value configured
miccheck {on off}	You can enable or disable the MIC check function.
	The default setting is "On" (enabled).
	If you specify "Off", you cannot perform MIC checks. We recommend you specify "On" for the MIC check function when using this machine.

### Reference

• p.35 "Wireless LAN"

#### wins

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

#### Viewing settings

msh> wins

• If the IPv4 address obtained from DHCP differs from the WINS IPv4 address, the DHCP address is the valid address.

### Configuration

msh> wins "interface\_name" {on|off}

- {on} means "active" and {off} means "inactive".
- Be sure to specify the interface.
- wlan can be specified only when the IEEE 802.11 interface is installed.

Interface name	Interface configured
ether	Ethernet interface
wlan	IEEE 802.11 interface

### Address configuration

Use the following command to configure a WINS server IP address:

msh> wins "interface\_name" {primary|secondary} "IP address"

- Use the "primary" command to configure the primary WINS server IP address.
- Use the "secondary" command to configure the secondary WINS server IP address.
- Do not use "255.255.255.255" as the IP address.

### NBT (NetBIOS over TCP/IP) scope ID selection

You can specify the NBT scope ID.

msh> wins "interface\_name" scope "ScopeID"

- The scope ID can be entered using up to 31 alphanumeric characters.
- Be sure to specify the interface.
- wlan can be specified only when the IEEE 802.11 interface is installed.

Interface name	Interface configured
ether	Ethernet interface
wlan	IEEE 802.11 interface

### wsmfp

Use the "wsmfp" command to view and configure the WSD (Device) and WSD (Printer).

#### View settings

msh> wsmfp

#### **Comment settings**

msh> wsmfp comments "comment"

• If you do not specify a comment, current setting is displayed.

#### Location configuration

mah> wsmfp location "location"

• If you do not specify a comment, current setting is displayed.

### **Presentation URL configuration**

msh> wsmfp url "URL"

• Enter the URL string in the "URL".

### WSD (Device) TCP port configuration

msh> wsmfp devport "port\_number"

• The Default is 53000.

### WSD (Printer) TCP port configuration

msh> wsmfp prnport "port\_number"

• The Default is 53001.

#### WSD (Printer) timeout configuration

msh> wsmfp prntimeout [30-65535]

• The default is 900 seconds.

### **Comment initialization**

msh> wsmfp clear comments

### Location initialization

msh> wsmfp clear location

### **Presentation URL initialization**

msh> wsmfp clear url

### 8021x

Use "8021x" command to display IEEE 802.1x related information.

### View settings

msh> 8021x

### Configuration

msh> 8021x "parameter"

Parameter	Value configured
eap {tls ttls leap peap} {chap mschap  mschapv2 pap md5 tls}	You can specify the EAP authentication type.
	tls: EAP-TLS (default)
	ttls: EAP-TTLS
	leap: LEAP
	peap: PEAP
	chap, mschap, mschapv2, pap, md5, and tls are settings for the phase 2 method, and one of these must be specified if EAP-TTLS or PEAP is selected.
	Do not make these settings when using other EAP authentication types.
	If you select EAP-TTLS, you can select chap, mschap, mschapv2, pap, or md5.
	If you select PEAP, you can select mschapv2 or tls.

Parameter	Value configured
Username "character string"	You can specify the login user name for the Radius server.
	Usable characters: ASCII 0x20-0x7e (31 bytes).
	The default is blank.
Username2 "character string"	You can specify the phase 2 username for EAP-TTLS/PEAP phase 2 authentication.
	Usable characters: ASCII 0x20-0x7e (31 bytes).
	The default is blank.
domain "character string"	You can specify the login domain name for the Radius server.
	The characters you can enter are ASCII 0x20-0x7e (64 bytes), but not "@" or "\".
	The default is blank.
password "character string"	You can specify the login password for the Radius server.
	Usable characters: ASCII 0x20-0x7e (128 bytes). The default is blank.
srvcert {on   off}	You can set the server certificate.
	The default is "off".
imca {on off}	You can enable or disable the certificate when the intermediate certificate authority is present.  The default is "off".
srvid "character string"	You can set the server ID and sub domain of the certificate server.
	Usable characters: ASCII 0x20-0x7e (128 bytes). The default is blank.
sub domain {on   off}	You can specify whether or not to permit access to the machine by users in subdomains use.
	The default is "off".

Parameter	Value configured
claer {a each command all}	Returns the selected setting to its default value.
	If you specify "all", all settings will be restored to their default values. However, IEEE 802.1x Auth. status (enable or disable) for Ethernet and wireless LAN will not be initialized.

### **SNMP**

Using the SNMP manager, you can get information about the machine.

The SNMP agent operating on UDP and IPX is incorporated into the built-in Ethernet board and optional IEEE 802.11 interface unit of this machine.

This machine also supports SNMPv3, which increases user authentication, data encryption, and access control security.

To encrypt communication by SNMPv3, you must specify the machine's encrypted password.

### Mportant (

- If you changed the machine's community name, change the configuration of the connected computer accordingly, using SNMP Setup Tool. For details, see SNMP Setup Tool Help.
- To use SNMP Setup Tool, you must first download SmartDeviceMonitor for Admin from the manufacturer's Web site and install it on your computer. Contact your local dealer for information on downloading SmartDeviceMonitor for Admin.

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

#### Start SNMP Setup Tool

• Windows 2000:

Click the [Start] button.

Point to [SmartDeviceMonitor for Admin] on the [Programs] menu.

Click [SNMP Setup Tool].

Windows XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2

Click the [Start] button.

Point to [SmartDeviceMonitor for Admin] on the [All Programs] menu.

Click [SNMP Setup Tool].

# Getting Machine Information over the Network

This section explains details of each item displayed in the machine status and information.

### **Current Machine Status**

This section explains how you can check the machine's status and the items displayed. Depending on the options installed on the machine, some items might not be displayed.

- UNIX: Use the "stat" parameter and the "rsh", "rcp", "ftp", and "sftp" commands. "rsh" and "rcp" cannot be used in a Windows environment.
- telnet: Use the "status" command.

Messages	Description
Access Restricted	The job was canceled because user have no authority.
Call Service Center	There is a malfunction in the machine.
Canceling Job	The job is being reset.
Card/Counter not inserted	The machine is waiting for prepaid card or key.
Configuring	Setting is being changed.
Cover Open: Front Cover	The front cover is open.
Cover Open: Upper Exit	Upper Exit is open.
Cover Open: Mainframe	The mainframe cover is open.
Empty: Black Toner	The black toner cartridge is almost empty.
Energy Saver Mode	The machine is in Energy Saver Mode.
Error: Ethernet Board	An Ethernet board error has occurred.
Error: HDD Board	A hard disk drive board error has occurred.
Error: Optional Font	An error has occurred in the font file of the machine.
Error: PDL	An error has occurred in the page description language.
Error: Rem. Certificate Renewal	An error has occurred in the remote server renewal.

Messages	Description
Error: USB Interface	An error has occurred in the USB interface.
Error: Wireless Card	Wireless card is not inserted during start up, or the IEEE 802.11 interface unit or the wireless card is taken out after start up.
Full: Waste Toner	The waste toner is full.
Hex Dump Mode	It is a hex dump mode.
In Use: Input Tray	Other function is using the input tray.
Jobs Suspended	All jobs are suspended.
Key Card not inserted	The machine is waiting for key card to be inserted.
Key Card/Counter not inserted	The machine is waiting for key card or key counter to be inserted.
Key Counter not inserted	The machine is waiting for key counter to be left in it.
Loading Toner	Toner is being supplied.
Low: Toner	The black toner cartridge is not set correctly, or toner is almost running out.
Malfunction: Ext. Charge Unit	There is a problem with the external charge unit.
Malfunction: Tray 1	There is a problem with tray 1.
Malfunction: Tray 2	There is a problem with tray 2.
Malfunction: Tray 3	There is a problem with tray 3.
Mismatch: Paper Size	Indicated paper tray does not contain paper of selected size.
Mismatch: Paper Size and Type	Indicated paper tray does not contain paper of selected size and type.
Mismatch: Paper Type	Indicated paper tray does not contain paper of selected type.
Nearly Full: Waste Toner	Waste toner bottle is nearly full.
No Paper: Selected Tray	There is no paper in specified tray.

Messages	Description
No Paper: Tray 1	There is no paper in tray 1.
No Paper: Tray 2	There is no paper in tray 2.
No Paper: Tray 3	There is no paper in tray 3.
Not Detected: Input Tray	The paper feed tray is not correctly set.
Offline	Machine is offline.
Panel Off Mode	The machine is in Panel-Off mode.
Paper Error: Remaining in Bypass	The paper remains in Bypass tray.
Paper Misfeed: Paper Tray	The paper has jammed in Paper tray.
Paper Misfeed: Internal/Output	The paper has jammed in the internal or output tray.
Prepaid Card not inserted	The prepaid card is not inserted, or has insufficient credit.
Printing	Printing is in progress.
Proxy User/Password Incorrect	The proxy user name and password setting is incorrect.
RC Gate Connection Error	Failed connect with RC Gate (Basil).
Ready	The machine is ready to print.
Renewing Remote Certificate	The remote certificate is being renewed.
SD Card Authentication failed	SD card authentication failed.
Supplies Order Call failed	The supply order call has failed.
Warming Up	The machine is warming up.



- For details about UNIX commands, see UNIX Supplement.
- Check the error contents that may be printed in the configuration page.

### Printer configuration

You can check the printer configuration using telnet.

This section explains the checking procedure for input/output tray and printer language.

- UNIX: Use the "info" command and the "rsh", "rcp", "ftp", and "sftp" commands. "rsh" and "rcp" cannot be used in a Windows environment.
- telnet: Use the "info" command.

#### Input Tray

ltem	Description
No.	ID number of the paper tray
Name	Name of the paper tray
PaperSize	Size of paper loaded in the paper tray
Status	Current status of the paper tray  Normal: Normal  NolnputTray: No tray  PaperEnd: No paper

### **Output Tray**

ltem	Description
No.	ID number of the output tray
Name	Name of the output tray
Status	Current status of the output tray
	Normal: Normal
	PaperExist: Paper exist
	OverFlow: Paper is full
	Error: Other errors

### **Printer Language**

Thire Language	
ltem	Description
No.	ID number of the printer language used by the machine
Name	Name of the printer language used in the machine
Version	Version of the printer language



• For details about UNIX commands and parameters, see UNIX Supplement.

# **Understanding the Displayed Information**

This section explains how to read status information returned by the network interface board.

### Print Job Information

Use the following command to display print job information:

- UNIX: Use the "stat" parameter and the "rsh", "rcp", "ftp", and "sftp" commands. "rsh" and "rcp" cannot be used in a Windows environment.
- telnet: Use the "status" command.

ltem	Description
Rank	Print job status.
	Active
	Printing or preparing for printing.
	• 1st, 2nd, 3rd, 4th
	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.



• For details about UNIX commands and parameters, see UNIX Supplement.

### **Print Log Information**

This is a record of the most recent jobs printed.

Use the following command to display print log information:

- UNIX: Use the "prnlog" parameter and the "rsh", "rcp", "ftp", and "sftp" commands.
- telnet: Use the "prnlog" command.

Item	Description
ID	Print request ID.
User	Print request user name.
Page	Number of pages printed
Result	Print Request Result  OK  Print was completed normally. However, the print result may not be as required due to printer problems.  NG  Printing was not completed normally.  Canceled  An "rcp", "rsh", or "lpr" command print request was canceled, possibly due to the printing application. Not applicable to the "ftp" or "rprinter" command.
Time	Time the print requested was received.  Time of print request reception
User ID (when designating Job ID on telnet)	Printer driver-configured User ID.  Appears when the print request ID is specified.
JobName (when designating Job ID on telnet)	Name of the document for printing  Appears when the print request ID is specified.



• For details about UNIX commands and parameters, see UNIX Supplement.

### Configuring the Network Interface Board

Use the following command to display network interface board settings:

• telnet: Use the "show" command.

### Protocol Up/Down

The following protocols are displayed ("Up" indicates enabled; "Down" indicates disabled):.

IPv4, IPv6, IPsec, NetWare, SMB

#### Device Up/Down

The following devices are displayed ("Up" indicates enabled; "Down", indicates disabled):.

USB

#### Ethernet interface

Displays the Ethernet speed.

#### Syslog priority

"LOG\_INFO" is displayed.

#### **NVRAM** version

Displays the NVRAM version.

#### **Device name**

Displays the device name.

#### Comment

Displays the comment(s).

#### Location

Displays the location of the device.

#### Contact

Displays the contact details.

#### Soft switch

Displays the soft switch.

#### TCP/IP

The following items are displayed: ("Up" indicates enabled; "Down", indicates disabled):.

- Mode (IPv4)
- Mode (IPv6)

ftp, lpr, rsh, diprint, web, http, ftpc, snmp, ipp, autonet, Bonjour, ssl, nrs, rfu, nbt, ssdp, ssh, sftp, WSD (Device), WSD (Printer)

IPv4

DHCP, Address, Netmask, Broadcast, Gateway

IPv6

Stateless, Manual, Gateway, DHCPv6-lite, DUID, DHCPv6 option lifetime

IPsec

Manual Mode, Excluded Protocol (https, dns, dhcp, wins)

EncapType

- Host name
- DNS Domain
- Access Control

IPv4: Access Entry [1] - [5]

IPv6: Access Entry [1] - [5]

- SNTP Server
- Time Zone
- SNTP Server polling time
- SYSLOG server
- Home page URL1
- Home page link name 1
- Home page URL2
- Home page link name2
- Help page URL

#### NetWare

The following items are displayed:

- EncapType
- RPRINTER number
- Print server name
- File server name
- Context name
- Switch

Mode, NDS/Bindery, Packet negotiation, Login Mode

- Print job timeout
- Protocol
- SAP interval time
- NDS Tree Name
- Transfer Protocol

#### **SMB**

The following items are displayed:

• Switch

Mode, Direct print, Notification

• Workgroup name

- Computer name
- Comment
- Share name [1]
- Protocol

#### Wireless LAN

The following items are displayed:

Host name, Communication Mode, SSID, Channel, Security, WEP Authentication, WEP Encryption key number, WEP Encryption keys [1] - [4], WPA Encryption, WPA Authentication, Pre-Shared Key, User name, Domain name, EAP Type, Password, Phase 2 user name, Phase 2 Method TTLS, Phase 2 Method PEAP, Server cert., Intermediate CA, Server ID, Sub domain, Mic check

#### **Ethernet**

The following item is displayed:

802.1X Authentication

#### **DNS**

The following items are displayed:

IPv4

Server [1] - [3], Selected IPv4 DNS Server

IPv6

Server [1] - [3], Selected IPv6 Dns Server, Resolver Protocol

#### Domain name

The following items are displayed:

ether, wlan

#### **DDNS**

The following items are displayed:

ether, wlan

#### **WINS**

The following items are displayed:

ether

Primary WINS, Secondary WINS

wlan

Primary WINS, Secondary WINS

#### **SSDP**

The following items are displayed:

UUID, Profile, TTL

#### **UPnP**

The following item is displayed:

URL

#### **Bonjour**

The following items are displayed:

Computer Name (cname), Local Hostname (ether), Local Hostname (wlan), Location, Priority (diprint), Priority (lpr), Priority (ipp), IP TTL, LinkLocal Route for Multi I/F, IPP Port

#### **SNMP**

The following items are displayed:

SNMPv1v2, SNMPv3, protocol, v1Trap, v2Trap, v3Trap, SNMPv1v2 Remote Setting, SNMPv3 Privacy

#### ssh

The following items are displayed:

Compression, Port, TimeOut, LoginTimeOut

#### **AuthFree**

The following items are displayed:

IPv4

AuthFree Entry[1-5]

IPv6

AuthFree Entry[1-5]

USB

#### LPR

The following items are displayed:

Iprm check host, Ipr prnerrchk

#### Certificate

The following item is displayed:

Verification

#### WS-MFP

The following items are displayed:

Network Device Name, Comments, Location, Presentation URL, WSD (Device) TCP Port, WSD (Printer) TCP Port, WSD (Printer) Job Timeout, MetadataVersion, UUID

#### **IEEE 802.1X**

The following items are displayed:

User name, Domain name, EAP Type, Password, Phase 2 user name, Phase 2 Method TTLS, Phase 2 Method PEAP, Server cert, Intermediate CA, Server ID, Sub domain

#### Shell mode

"User mode" is displayed.

This is a list of messages that appear in the machine's system log. The system log can be viewed using the "syslog" command.

### System Log Information

Use the following command to display the system log information:

- UNIX: Use the "syslog" parameter and the "rsh", "rcp", "ftp", and "sftp" commands. "rsh" and "rcp" cannot be used in a Windows environment.
- telnet: Use the "syslog" command.

Message	Problem and solutions
Access to NetWare server <file name="" server=""> denied. Either there is no account for this print server on the NetWare server on password was incorrect.</file>	Login to the file server failed when the print server was online. Make sure the print server is registered in <file name="" server="">. If a password is specified for the print server, delete the password.</file>
account is unavailable: same account name be used.	User account is disabled. This could be because it use the same account name as the administrator account.
account is unavailable: The authentication password is not set up.	User account is disabled. This could be because the authentication password is not set, and only the encryption account is set.
account is unavailable: encryption is impossible.	Encryption is not possible and account is disabled. This could be because:  • Security option is not installed.  • Encryption password has not been specified.
add_sess_IPv4: bad trap addr: <ipv4 address="">, community: <community name=""></community></ipv4>	The IPv4 address (0.0.0.0.) is unavailable when the community access type is TRAP. Specify the host IPv4 address for the TRAP destination.
add_sess_IPv6: bad trap addr: <ipv6 address="">, community: <community name=""></community></ipv6>	The IPv6 address [::] is unavailable when the community access type is TRAP. Specify the host IPv6 address for the TRAP destination.
add_sess_IPv4: community <community name=""> already defined.</community>	The same community name already exists. Use another community name.

Message	Problem and solutions
add_sess_IPv6: community <community name=""> already defined.</community>	The same community name already exists. Use another community name.
add_sess_IPX: bad trap addr: <ipx address=""> community <community name=""></community></ipx>	The IPX address (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 <communityname> already defined.</communityname>	The same community name already exists. Use another community name.
adjust time server < NTP server name> offset: xx sec.	ncsd tells you the timing of the NTP server and whether or not the time system clock is set.  NTP Server: NTP server name offset: number of seconds of delay (minus number if a time in advance is specified)
Attach FileServer= <file server=""></file>	Connection to the file server as the nearest server has been established.
Attach to print queue <print name="" queue=""></print>	The system connects to the print queue when the print server goes online.
authenticated	The supplicant has been authenticated.  Authentication was successful. When authentication is successful, this message always appears at the end of the process.
authenticating	The supplicant is authenticating with the access point (EAP or WPA).
authentication mode mismatch	The authentication mode of the access point is different from the authentication mode of the supplicant.  Use the same authentication mode between the
	access point and the supplicant.
child process exec error !	The network service failed to start. Turn the machine off and then on. If this does not work, contact your service or sales representative.

Message	Problem and solutions
cipher suite mismatch	The uni-cast / multi-cast suite (TKIP/AES/WEP) of the access point is different from the suite used by the supplicant.
client EAP method rejected	The authentication mode of the access point is different with the authentication mode of the supplicant.  Use the same authentication mode between the
	access point and the supplicant.
Client password rejected	The client's password was rejected. Check the client password.
Client TLS certificate rejected	The client's TLS certificate was rejected. Check the certificate.
connected DHCP server <dhcp address="" server=""></dhcp>	The IP address was successfully received from the DHCP server.
connected DHCPv6 server <ipv6 address=""></ipv6>	The IP address was successfully received from the DHCPv6 server.
connecting	The supplicant is establishing a Wireless LAN connection with the access point.
Could not attach to FileServer <error number=""></error>	Connection to the file server could not be established when the remote printer went online. The file server refused the connection for unknown reason. Check the file server's configuration.
Could not attach to PServer <print server=""></print>	Connection to the print server has not been established when the remote printer is turned on. The print server has refused the connection. Check the print server configuration.
connection from <ip address=""></ip>	A user logged in from the host <ip address="">.</ip>
Current Interface Speed: xxx Mbps	Speed of the network (10Mbps, 100 Mbps, or 1Gbps).
Current IP address ( <current address="" ip="">)</current>	The IP address <current address="" ip=""> was acquired from the DHCP server.</current>
Current IPX address <ipx address=""></ipx>	The current IP address is <ipx address="">.</ipx>

Message	Problem and solutions
DHCP lease time expired.	The DHCP lease time has expired. Perform the DHCP discover again. The IP address you have been using is no longer available.
DHCP server not found.	The DHCP server was not found. Make sure that the DHCP is on the network.
DHCPv6 server not found.	The DHCPv6 server was not found. Make sure that the DHCPv6 is on the network.
disconnected	The supplicant has no connection.
Duplicate IP= <ip address="">(from <mac address="">).</mac></ip>	A conflicting IPv4 or IPv6 address was used. Each IPv4 or IPv6 address must be unique.
	Check the device address in [MAC address].
Established SPX Connection with PServer, (RPSocket= <socket number="">, connID=<connection id="">)</connection></socket>	Connection to the print server was established when the remote printer went online.
exiting	The LPD service has completed and the process is exiting.
Exit pserver	(In the print server mode) The print server function is disabled because the necessary print server settings have not been made.
Frametype= <frametype name=""></frametype>	The specified frame type name <frame name="" type=""/> is for NetWare use.
httpd start.	The httpd has started.
IEEE 802.11 Card does NOT support WPA.	A wireless card that does not support WPA is installed. Install a wireless card that supports WPA.
IEEE 802.11 Card Firmware REV. <version></version>	Displays the version number of the 802.11 card's firmware.
IEEE 802.11 current channel <channel number=""></channel>	Displays the current channel number of the active wireless card (in ad hoc and infrastructure mode).
IEEE 802.11 MAC Address = <mac address=""></mac>	Displays the MAC address of the wireless interface.
IEEE 802.11 SSID <ssid> (AP MAC Address <mac address="">)</mac></ssid>	The MAC address and SSID of the access point are connected in infrastructure mode.

Message	Problem and solutions
IEEE 802.11 <communication mode=""> mode</communication>	Displays the IEEE 802.11 communication mode.
(IKE phase-1) mismatched authentication type: local= <authentication 1="" type=""> remote=<authentication 2="" type=""></authentication></authentication>	This machine's <authentication 1="" type=""> in IKE phase 1 does not match the communicating host's <authentication 2="" type="">, Make sure this machine's ISAKMP SA authentication type matches that of the communicating host.</authentication></authentication>
(IKE phase-1) mismatched encryption type: local= <encryption 1="" algorithm=""> remote=<encryption 2="" algorithm=""></encryption></encryption>	This machine's ISAKMP SA Oakley group <encryption 1="" algorithm=""> in IKE phase 1 does not match the communicating host's ISAKMP SA Oakley group &lt; encryption algorithm 2&gt;, Make sure this machine's ISAKMP SA Oakley group matches that of the communicating host.</encryption>
(IKE phase-1) mismatched DH group: local= <dh 1="" group="" number=""> remote=<dh 2="" group="" number=""></dh></dh>	This machine's ISAKMP SA Oakley group <dh 1="" group="" number=""> in IKE phase 1 does not match the communicating host's ISAKMP SA Oakley group <dh 2="" group="" number="">, Make sure this machine's ISAKMP SA Oakley group matches that of the communicating host.</dh></dh>
(IKE phase-1) mismatched hash type: local= <hash Algorithm 1&gt; remote=<hash 2="" algorithm=""></hash></hash 	This machine's ISAKMP SA <hash 1="" algorithm=""> in IKE phase 1 does not match the communicating host's ISAKMP SA <hash 2="" algorithm="">, Make sure this machine's ISAKMP SA Hash Algorithm matches that of the communicating host.</hash></hash>
IKE [% s] is disable, set PSK text.	The specified IKE entry invalid. Enter the PSK text.
inetd start.	The inetd service has started.
Interface (interface name): Duplicate IP Address ( <ip address="">).</ip>	The same IP (IPv4 or IPv6) address was used. Each IP address must be unique. Check the address of the device indicated in [IP address].
<interface name=""> card removed</interface>	The interface managed by the supplicant has been removed.
<interface name=""> interface down</interface>	The interface managed by the supplicant is disabled, or cannot connect to the access point.
<interface name=""> interface up</interface>	The interface managed by the supplicant is enabled, or is connected to the access point.

Message	Problem and solutions
< Interface > started with IP: < IP address >	IP address (IPv4 or IPv6 address) has been set for the interface and is operating.
< Interface >: Subnet overlap.	The same IP address (IPv4, or IPv6 address) and the subnet mask is used with other device.
IPP cancel -job: permission denied.	User name authentication failed when the spooled job was being canceled.
IPP job canceled. jobid=%d.	The spooled job was canceled due to error or user request.
job canceled. jobid=< job ID >	The spooled job was canceled due to error or user request.
LEAP challenge to access point failed	The LEAP challenge to the access point has failed.
LeaseTime= <lease time="">(sec), RenewTime=<renew time="">(sec).</renew></lease>	The resource lease time received from the DHCP server is displayed in [lease time] in seconds. The renewal time is displayed in [renew time] in seconds.
Login to fileserver <file name="" server=""> (<ipx ip=""  ="">), <nds bindery=""  =""></nds></ipx></file>	When the print server was online, the system logged in to <file server=""> in NDS or BINDERY mode. The transfer protocol in use is also displayed.</file>
Manual [%s] is disable, set authentication key.	The specified manual SA entry is invalid. Set the authentication key.
Manual [%s] is disable, set encryption key.	The specified manual SA entry is invalid. Set the authentication key.
Memory allocate error.	Date cannot be obtained. Disconnect the USB cable, and then connect it.
MIC failure TKIP counter measures started	The supplicant using TKIP has detected two instances of tampering within 60 seconds and has started counter measures.
MIC failure TKIP counter measures stopped	Counter measures have stopped after 60 seconds (since the supplicant using TKIP started counter measures against tampering).
Name registration failed. name= <netbios name=""></netbios>	Name registration of <netbios name=""> failed. Change to a different NetBIOS name.</netbios>

Message	Problem and solutions
Name registration success in Broadcast name= <netbios name=""></netbios>	Name registration by <netbios name=""> broadcast was successful.</netbios>
Name registration success. WINS server= <wins address="" server=""> NetBIOS Name=<netbios name=""></netbios></wins>	Name registration of <netbios name=""> to <wins address="" server=""> was successful.</wins></netbios>
nbtd start.	The nbtd (NetBIOS over TCP/IP Daemon) has started.
npriter start. (NetWare)	(In the remote printer mode) The NetWare service has started.
no RADIUS/authentication server	The supplicant has received a message reporting that a usable RADIUS server cannot be found.
no smart card detected on device	PEAP/GTC (Generic Token Card) is selected, but a smart card using GTC authentication cannot be found.
no SSID in scan result	A network with the SSID you specified was not found.  The specified SSID might not be available, or the signal from the access point/multi-channel might be weak.
no WPA information element in probe response, rescanning	There is no WPA information on the response from the SSID probe of the access point you want to use. The supplicant is rescanning.
nwstart start. (NetWare)	The NetWare protocol stack setup server has started.
Open log file <file name=""></file>	The specified log file was opened when the print server was online.
permission denied.	When canceling a job, it was determined after checking the user name and host address that the user's privileges were insufficient. (Does not apply to root privileges.)

Message	Problem and solutions
Printer <printer name=""> has no queue</printer>	The print queue is not assigned to the printer when the print server was online. Assign the print queue to the printer using NetWare administrator account, and then restart the printer.
Print queue <print name="" queue=""> cannot be serviced by printer 0, <print name="" server=""></print></print>	The print queue cannot be established when the print server is online. Make sure that the print queue exists on the specified file server.
Print server <print name="" server=""> has no printer</print>	The printer was not assigned to the print server when the print server was online. Use the NetWare administrator account to assign the printer, and then restart the printer.
Print sessions full	No more print jobs can be accepted. Wait a while before sending any more print jobs.
pserver start. (NetWare)	NetWare service has started in print server mode at the print server operation.
Required file server ( <file name="" server="">) not found</file>	The required file server <file name="" server=""> could not be found.</file>
restarted.	The LPD has started.
sap enable. saptype= <sap type="">, sapname=<sap name=""></sap></sap>	The SAP function was started. The SAP packet is issued to advertise the service in the SAP table on the NetWare server.
server certificate invalid	The server ID is disabled. Check the server authentication.
server identity invalid	The server ID is disabled. Check the server authentication.
server not trusted	The RADIUS server cannot be trusted.
session_IPv4 <community name=""> not defined.</community>	The requested community name is not defined.
session_IPv6 <community name=""> not defined.</community>	The requested community name is not defined.
session_IPX <community name=""> not defined.</community>	The requested community name is not defined.
Set context to <nds context="" name=""></nds>	The NDS context name <nds context="" name=""> has been set.</nds>

Message	Problem and solutions
shutdown signal received. network service rebooting	The smbd service has started.
smbd start. (NetBIOS)	SMBD (Server Message Block Daemon) has been started.
SMTPC: failed to get smtp server ip-address.	<ul> <li>The SMTP server IP address could not be obtained.</li> <li>This could be because:</li> <li>The specified DNS server could not be found.</li> <li>No connection to the network has been established.</li> <li>The specified DNS server could not be found.</li> </ul>
	<ul> <li>An incorrect DNS server is specified.</li> <li>The specified SMTP server IP address could not be found in the DNS server.</li> </ul>
SMTPC: failed to connect smtp server. timeout.	Connection to the SMTP server failed due to timeout. This could be because the specified SMTP server name is incorrect, or no connection to the network has been established, or the network configuration is incorrect, so there is no response from the SMTP server. Check the SMTP server name, or the network connection and configuration.
SMTPC: refused connect by smtp server.	Connection to the SMTP server is denied. This could be because server other than the SMTP server has been specified, or the specified SMTP server port number is incorrect. Check the SMTP server name, port number, or the SMTP server port number.
SMTPC: no smtp server. connection close.	Connection to the SMTP server failed due to no response from SMTP. This could be because a server other than the SMTP server has been specified, or the specified SMTP server port number is incorrect. Check the SMTP server name, port number, or the SMTP server port number.

Message	Problem and solutions
SMTPC: failed to connect smtp server.	Connection to the SMTP server failed. This could be because no connection to the network has been established, or the network configuration is incorrect, so there is no response from the SMTP server, or the specified SMTP server name is incorrect, or the specified SMTP server IP address could not be found in the DNS server, or a server other than the SMTP server has been specified, or the specified SMTP server port number is incorrect. Check the DNS Server's IP address and SMTP server's IP address, or the SMTP server name and SMTP port number, or the SMTP server's SMTP port number, or the network connection and configuration.
SMTPC: username or password wasn't correct. [response code] (information)	Connection to the SMTP server failed, because the specified SMTP user name is incorrect, or the specified SMTP password is incorrect. Check the SMTP user name and password.
Snmp over IPv4 is ready.	Communication over IPv4 with snmp is available.
Snmp over IPv6 is ready.	Communication over IPv6 with snmp is available.
Snmp over IPX is ready.	Communication over IPX with snmp is available.
Snmpd Start.	The snmpd has started. This message is displayed only when the power is turned on.
started.	The direct printing service has started.
started.	The IKE service has started.
Started.	The bonjour (rendezvous) function has started.
stopped	The supplicant has just stopped.
success key received	The supplicant received the EAP-Success key.
success but invalid key	The supplicant received a message reporting that EAP authentication was successful, but the EAPOL key was invalid.
supplicant started	The supplicant has just started.

Message	Problem and solutions
supplicant unbound	The supplicant is not connected to the unbound access point.
terminated.	The IKE service has stopped because no configurations for manual SA or IKE exist.
terminated.	The bonjour (rendezvous) function is disabled.
There is problem in dhcp server operation.	There is a problem with the DHCP server.
	If multiple DHCP servers are active on the network, check that they are assigning unique IP addresses to each machine.
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.</error>	Login to the file server failed when the print server was online. The print server is not registered or a password is specified. Register the print server without specifying a password.
trap account is unavailable.	v3Trap cannot be sent. This could be because the Trap destination account is different from the account specified by the machine.
unauthenticated	The authentication failed. The supplicant was denied access to the access point, or was not authenticated.
Updated (option name)(value) via DHCPv6 Server	The parameter obtained from the DHCP server has been updated.
usbd is disabled.	Plug and Play is unavailable because the machine is in Security Mode. Enable USBD in Security Mode.
waiting for keys	The supplicant is waiting for the session key.
WINS name registration: No response to server (WINS server address)	There was no response from the WINS server. Check that the correct WINS server address is entered. Also, check that the WINS server is functioning properly.
WINS wrong scopeID= <scope id=""></scope>	The scope ID is invalid. Use a valid scope ID.

Message	Problem and solutions
write error occurred. (diskfull)	A "diskfull" error occurred while the machine was writing to the spool file. Wait for the current print job to finish, When it finishes, more HDD space will be available. Only pages that were spooled when the error occurred will be printed.
write error occurred. (fatal)	A "fatal" error occurred while the machine was writing to the spool file. Wait for the current print job to finish, When it finishes, more HDD space will be available. Only pages that were spooled when the error occurred will be printed.
WSD (Device) started.	WSD (Device) has started.
WSD (Printer) started.	WSD (Printer) has started.



• For details about UNIX commands and parameters, see UNIX Supplement.

# 5. Registering Addresses and Users for Scanner Functions

This chapter describes how to register destinations and users in the Address Book. For details on how to access System Settings, see "Accessing User Tools".

### **Address Book**

This section describes Address Book settings.

Registering information such as the names of users and their e-mail addresses in the Address Book allows you to manage them easily.

We recommend you back up the Address Book regularly.

For details about backing up/restoring the Address Book, see "Administrator Tools".



- Address Book data is stored on the hard disk. It can be lost if there is some kind of hard disk failure.
- The manufacturer shall not be held responsible for any damages resulting in data loss.

You can register and manage the following items in the Address Book:

#### **Names**

You can register the name of the user and the key display. This is the basic information required for managing users of the machine.

To register an e-mail address in the Address Book, you must register information such as the user name and destination name in advance.



#### Auth. Info

You can register user codes in order to restrict particular functions to certain users, and to check their use of each function. You can also register login user names and login passwords to be used when sending e-mail, sending to folders, or accessing an LDAP server.



#### **Protection**

You can set protection codes to stop sender's name from being used or folders from being accessed without authorization.



#### E-mail

You can register e-mail destinations in the Address Book.



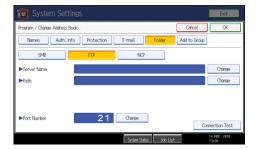
#### Folder

You can register the protocol, path name and server name.

• SMB



FTP



NCP



### Add to Group

You can put registered e-mail and folder destinations into a group for easier management.



- **U**Note
  - You can also use Web Image Monitor to register names in the Address Book.
  - For details about using Web Image Monitor, see Web Image Monitor Help.

### ■ Reference

• p.45 "Administrator Tools"

### Managing names in the Address Book

By registering a name and key display beforehand, you can specify e-mail and folder destinations simply by selecting the name key.

### **■** Reference

• p.204 "Registering Names"

### Sending e-mail by Quick Dial

You can also specify an e-mail address by selecting the destination shown on the initial scanner display when sending a document using the scanner function. A registered e-mail address can be used as the sender's address, and the sender's addresses are automatically entered in the "From" field of an e-mail header.

### Reference

• p.217 "E-mail Destination"

### Sending scanned files to a shared folder directly

After registering the path name, user name and password, you can connect to a shared folder simply by selecting the destination shown on the initial scanner display whenever sending files using the scanner function to a shared folder. You can also connect to a shared folder by selecting the destination shown on the initial scanner display whenever sending files using the scanner function.

To share the folder using Windows, select the SMB protocol.

To register the folder to the FTP server, select the FTP protocol.

To register the folder to the NetWare server, select the NCP protocol.

### **Reference**

• p.221 "Registering Folders"

### 5

### Preventing unauthorized user access to shared folders from the machine

After registering a protection code, you can specify the object of protection to prevent an e-mail destination from being used without permission.

You can prevent unauthorized access to registered folders.

### Reference

• p.249 "Registering a Protection Code"

### Managing users and machine usage

Register user codes to limit users to the following functions and check their use of each function:

- Copier
- Document Server
- Printer
- Scanner

### Reference

• p.208 "Authentication Information"

## **Registering Names**

Register user information including their names.

The user name is useful for selecting a destination when sending e-mail.

You can also use it as a folder destination.

You can register up to 2000 names.

### **Registering Names**

This section describes how to register names.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].

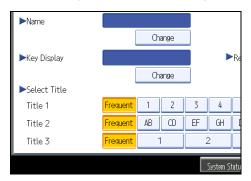


- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Press [New Program].
- 7. Press [Change] under "Name".

The name entry display appears.

8. Enter the name, and then press [OK].

9. Press the key for the classification you want to use under "Select Title".



The keys you can select are as follows:

- [Frequent]: Added to the page that is displayed first.
- [AB], [CD], [EF], [GH], [IJK], [LMN], [OPQ], [RST], [UVW], [XYZ], [1] to [10]: Added to the list
  of items in the selected title.

You can select [Frequent] and one more page for each title.

- 10. Press [OK].
- 11. Press [Exit].
- 12. Press the [User Tools/Counter] key.



 The name can be used for documents in the Document Server. For details about the Document Server, see "Using the Document Server", Copy and Document Server Reference.

### Changing a Registered Name

This section describes how to change a name.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the registered name you want to change.
  Press the name key, or enter the registered number using the number keys.
- 7. To change the name or key display, press [Change] under "Name" or "Key Display".
- 8. Enter the name or key display, and then press [OK].
- 9. To change the title, press the key for the classification you want to use from "Select Title".
- 10. To change the registration number, press [Change] under "Registration No.".
- 11. Enter a new registration number using the number keys, and then press the  $[^{\sharp}]$  key.
- 12. Press [OK].
- 13. Press [Exit].
- 14. Press the [User Tools/Counter] key.

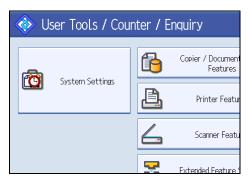


• You can search by the registered name, folder name, or e-mail address.

### Deleting a Registered Name

This section describes how to delete a name.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Press [Delete].
- 6. Select the name you want to delete.

Press the name key, or enter the registered number using the number keys.

- 7. Press [Yes].
- 8. Press [Exit].
- 9. Press the [User Tools/Counter] key.

Following describes the procedure for authenticating a user code.



 The functions associated with each user code are the same. If you change or delete user codes, management data and limits associated with that code become invalid.

Register user codes to limit users to the following functions and check their use of each function:

- Copier
- Document Server
- Printer
- Scanner



- You can register up to 500 user codes.
- The number of copies scanned using the scanner function is counted for each user code. This allows
  you to check each user's usage.
- To automatically register the printer driver user code, select [Printer: PC Control] in User Code
  Authentication. To use the user code set in User Tools, set the user codes registered in User Tools for
  the printer driver.
- For details about setting user codes for the printer driver, see the printer driver Help.

### ■ Reference

• p.45 "Administrator Tools"

### Registering a User Code

This section describes how to register a user code.

1. Press the [User Tools/Counter] key.

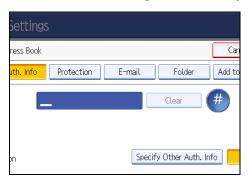
2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- Press the name whose code is to be registered, or enter the registered number using the number key.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Auth. Info].
- 8. Enter the user code using the number keys, and then press the [#] key.



If you make a mistake, press [Clear] or the [Clear/Stop] key.

- 9. Press [Vext] twice.
- 10. Select the functions to be used with the user code from "Available Functions".



- 12. Press [Exit].
- 13. Press the [User Tools/Counter] key.



- You can enter a one-to eight-digit user code.
- To register the name, see "Registering Names".

### Reference

• p.204 "Registering Names"

### Changing a User Code

This section describes how to change a user code.

**☆ Important** 

- Even if you change a user code, the counter value will not be cleared.
- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the user whose user code you want to change.
  Press the name key, or enter the registered number using the number keys. You can search by the registered name, folder name, or e-mail address.
- 7. Press [Auth. Info].

8. Press [Change], and then enter the new user code using the number keys.



- 9. Press the [#] key.
- 10. To change the available functions, press [▼Next] twice.
- 11. Press the key to select the functions to enable them.
  Press the key to highlight it, and then the function is enabled. To cancel a selection, press the highlighted key.
- 12. Press [OK].
- 13. Press [Exit].
- 14. Press the [User Tools/Counter] key.
- **U** Note
  - To change the name, key display and title, see "Registering Names".

### Reference

• p.204 "Registering Names"

### Deleting a User Code

This section describes how to delete a user code.



- After clearing the user code, the counter is automatically cleared.
- 1. Press the [User Tools/Counter] key.



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Press [Program / Change].
- 6. Select the name whose code is to be deleted.

Press the name key, or enter the registered number using the number keys. You can search by the registered name, folder name, or e-mail address.

- 7. Press [Auth. Info].
- 8. Press [Change] to delete the user code, and then press the  $[^{\sharp}]$  key.



- 9. Press [OK].
- 10. Press [Exit].
- 11. Press the [User Tools/Counter] key.
- UNote
  - To delete a name from the Address Book entirely, see "Registering Names".
- Reference
  - p.204 "Registering Names"

### 5

### Displaying the Counter for Each User

This section describes how to display the counter for each user.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Display / Clear / Print Counter per User].
- 5. Select the function usage you want to print from [Print Counter] or [Scanner Counter].
  Counters for individual function usage under each user code appear.

### Printing the Counter for Each User

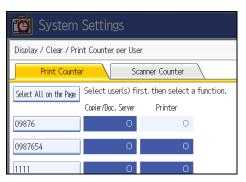
This section describes how to print the counter for each user.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



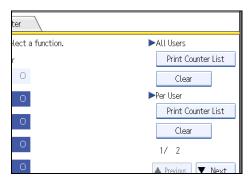
- 3. Press [Administrator Tools].
- 4. Press [Display / Clear / Print Counter per User].

5. Select a user code from the left side of the display.



Press [Select All on the Page] to select all user codes on the page.

6. Press [Print Counter List] under "Per User".



Enter the user code, and then press the [#] key if the user code is registered.

- 7. Select the function usage you want to print from [Copier Counter], [Printer Counter], [Scanner Counter], and [Total Prints].
- 8. Press [Print].
- 9. Press [Exit].
- 10. Press the [User Tools/Counter] key.

### **Printing the Counter for All Users**

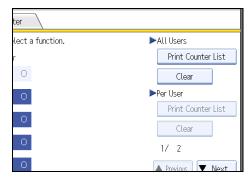
This section describes how to print the counter for all users.

1. Press the [User Tools/Counter] key.

#### 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Display / Clear / Print Counter per User].
- 5. Press [Print Counter List] under "All Users".



Enter the user code, and then press the  $[^{\sharp}]$  key if the user code is registered.

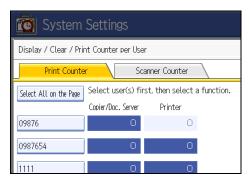
- 6. Select the function usage you want to print from [Copier Counter], [Printer Counter], [Scanner Counter], and [Total Prints].
- 7. Press [Print].
- 8. Press [Exit].
- 9. Press the [User Tools/Counter] key.

### **Clearing the Number of Prints**

This section describes how to clear the counter.



- 3. Press [Administrator Tools].
- 4. Press [Display / Clear / Print Counter per User].
- 5. Select the user code to clear.
- To clear the number of prints made under a user code, select the user code from the left side of the display.



Press [Select All on the Page] to select all user codes on the page.

- 7. Press [Clear] under "Per User".
- Select the function usage you want to clear from [Copier Counter], [Printer Counter], [Scanner Counter], and [All Counters].
- 9. Press [OK].
- 10. To clear the number of prints for all user codes, press [Clear] under "All Users".
- Select the function usage you want to clear from [Copier Counter], [Printer Counter],
   [Scanner Counter], and [All Counters].
- 12. Press [OK].
- 13. Press [Exit].
- 14. Press the [User Tools/Counter] key.

5

# **E-mail Destination**

This section describes the procedure for registering, changing, and deleting E-mail Destination.

Register e-mail destinations so you do not need to enter an e-mail address every time, and can send scan files from scanner function by e-mail.

- It is easy to select the e-mail destination if you register "Name" and "Key Display" as the e-mail destination.
- You can register e-mail destinations as a group.
- You can use the e-mail address as the sender's address when sending scan files in scanner mode. If
  you want to do this, set a protection code on the sender address to prevent unauthorized access.



 You can select an e-mail address from an LDAP server, and then register it in the Address Book. See "Sending Scan Files by E-mail", Scanner Reference.

### Registering an E-mail Destination

This section describes how to register an e-mail destination.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose e-mail address you want to register.
  Press the name key, or enter the registered number using the number keys.
- 7. Press [E-mail].

### 8. Press [Change].



#### 9. Enter the e-mail address.



- 10. Press [OK].
- 11. Press [OK].
- 12. Press [Exit].
- 13. Press the [User Tools/Counter] key.



- You can enter up to 128 characters for the e-mail address.
- To register the name, see "Registering Names".

# **■** Reference

• p.204 "Registering Names"

# Changing an E-mail Destination

This section describes how to change an e-mail destination.

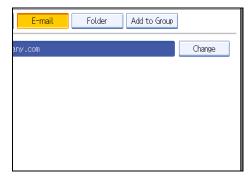
1. Press the [User Tools/Counter] key.

5

#### 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose e-mail address you want to change.
  Press the name key, or enter the registered number using the number keys.
  You can search by the registered name, folder name, or e-mail address.
- 7. Press [E-mail].
- 8. Press [Change] under "E-mail Address".



- 9. Enter the e-mail address, and then press [OK].
- 10. Press [OK].
- 11. Press [Exit].
- 12. Press the [User Tools/Counter] key.



• To change the name, key display and title, see "Registering Names".

# Reference

• p.204 "Registering Names"

# **Deleting an E-mail Destination**

This section describes how to delete an e-mail destination.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose e-mail address you want to delete.

Press the name key, or enter the registered number using the number keys. You can search by the registered name, folder name, or e-mail address.

- 7. Press [E-mail].
- 8. Press [Change] under "E-mail Address".
- 9. Press [Delete All], and then press [OK].
- 10. Press [OK].
- 11. Press [Exit].
- 12. Press the [User Tools/Counter] key.



• To delete the name, key display and title, see "Registering Names".

# Reference

• p.204 "Registering Names"

5

# **Registering Folders**

This section describes the procedure for registering, changing, and deleting folders.

By registering a shared folder, you can send scan files to it directly.

There are three types of protocol you can use:

• SMB

For sending files to shared folders on Windows and Mac OS X.

FTP

Use when sending files to an FTP server.

NCP

Use when sending files to a NetWare server.



- For details about protocols, server names, and folder levels, consult your network administrator.
- You can prevent unauthorized users from accessing folders from the machine. See "Registering a Protection Code".
- You can only select either SMB, FTP, or NCP. If you change protocol after finishing your settings, all
  previous entries are cleared.

# Reference

• p.249 "Registering a Protection Code"

# Registering an SMB Folder

This section describes how to register an SMB folder.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



3. Press [Administrator Tools].

- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose folder you want to register.

Press the name key, or enter the registered number using the number keys.

7. Press [Auth. Info], and then press [▼Next].

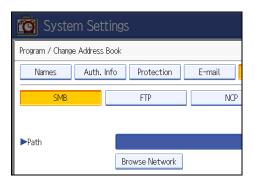


8. Press [Specify Other Auth. Info] on the right side of "Folder Authentication".

When [Do not Specify] is selected, the SMB User Name and SMB Password that you have specified in "Default User Name / Password (Send)" of File Transfer settings applies.

- 9. Press [Change] under "Login User Name".
- 10. Enter the login user name of the destination computer, and then press [OK].
- 11. Press [Change] under "Login Password".
- 12. Enter the password of the destination computer, and then press [OK].
- 13. Enter the password again to confirm, and then press [OK].
- 14. Press [Folder].
- 15. Check that [SMB] is selected.

To specify a folder, you can either enter the path manually or locate the folder by browsing the network.



16. Press [Change] or [Browse Network], and then specify the folder.

To specify a folder, you can enter the path to it manually or select it by browsing the network.

For details about how to specify the path manually, see "Locating the SMB folder manually".

For details about how to specify the path using Browse Network, see "Locating the SMB folder using Browse Network".

- 17. Press [Connection Test] to check the path is set correctly.
- 18. Press [Exit].

If the connection test fails, check the settings, and then try again.

- 19. Press [OK].
- 20. Press [Exit].
- 21. Press the [User Tools/Counter] key.



- To register the name, see "Registering Names".
- You can enter up to 64 characters for the user name.
- You can enter up to 64 characters for the password.
- You can enter a path using up to 128 characters.
- If User Authentication is specified, contact your administrator.

### Reference

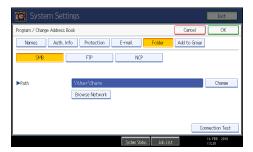
• p.204 "Registering Names"

#### Locating the SMB folder manually

This section describes how to locate the SMB folder manually.

- 1. Press [Change] under "Path".
- 2. Enter the path where the folder is located.

For example: if the name of the destination computer is "User", and the folder name is "Share", the path will be \\User\Share.



If the network does not allow automatic obtaining of IP addresses, include the destination computer's IP address in the path. For example: if the IP address of the destination computer is "192.168.0.191", and the folder name is "Share", the path will be  $\192.168.0.191\$  Share.

#### 3. Press [OK].

If the format of the entered path is not correct, a message appears. Press [Exit], and then enter the path again.



- Enter the path using this format: "\\ServerName\\Share- \Name\\Path\Name".
- You can also enter an IPv4 address.
- You can enter a path using up to 128 characters.

#### Locating the SMB folder using Browse Network

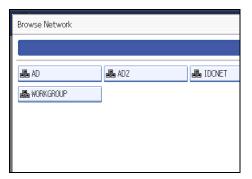
This section describes how to locate the SMB folder using Browse Network.

1. Press [Browse Network].

The client computers sharing the same network as the machine appear.

Network display only lists client computers you are authorized to access.

- 2. Select the group that contains the destination computer.
- Select the computer name of the destination computer.Shared folders under it appear.



You can press [Up One Level] to switch between levels.

- 4. Select the folder you want to register.
- 5. Press [OK].

#### If a Login Screen Appears

This section describes how to log in to the machine if the login screen appears when you try to access a folder by browsing the network.

If you have not specified folder authentication, or if an incorrect user name or password has been entered for folder authentication, the login screen appears.

1. Enter the login user name, and then press [OK].

Enter the login user name specified for folder authentication.

2. Enter the password, and then press [OK].

The path to the selected folder appears.

If a message appears, press [Exit], and then enter the login user name and password again.

## Changing an SMB Folder

This section describes how to change settings of the registered SMB folder.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose folder you want to change.

Press the name key, or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Folder].
- 8. Select the items you want to change.

When specifying a folder, enter the path directly or select it by referencing the network. For more information, see "Locating the SMB folder manually" and "Locating the SMB folder using Browse Network".

- 9. Press [Connection Test] to check the path is set correctly.
- 10. Press [Exit].
- 11. Press [OK].
- 12. Press [Exit].

13. Press the [User Tools/Counter] key.



• To change the name, key display and title, see "Registering Names".

### Reference

• p.204 "Registering Names"

### Changing the protocol

This section describes how to change the protocol.

1. Press [FTP] or [NCP].



A confirmation message appears.

2. Press [Yes].

Changing the protocol will clear all settings made under the previous protocol.

3. Enter each item again.

# Deleting an SMB Registered Folder

This section describes how to delete the registered SMB folder.

#### 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose folder you want to delete.

Press the name key, or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Folder].
- 8. Press the protocol which is not currently selected.

A confirmation message appears.

- 9. Press [Yes].
- 10. Press [OK].
- 11. Press [Exit].
- 12. Press the [User Tools/Counter] key.



• To delete the name, key display and title, see "Registering Names".

# Reference

• p.204 "Registering Names"

# Registering an FTP Folder

This section describes how to register an FTP folder.

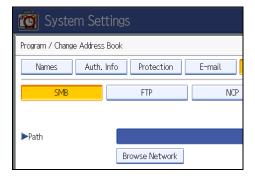
#### 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose folder you want to register.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Folder].
- 8. Press [FTP].



- 9. Press [Change] under "Server Name".
- 10. Enter the server name, and then press [OK].
- 11. Press [Change] under "Path".
- 12. Enter the path, and then press [OK].

You can enter an absolute path, using this format: "\user\ home\username"; or a relative path, using this format: "directory\sub-directory".

If you leave the path blank, the login directory is assumed to be the current working directory.

You can also enter an IPv4 address.

You can enter a path using up to 256 characters.

13. To change the port number, press [Change] under "Port Number".

14. Enter the port number using the number keys, and then press the [#] key.

You can enter 1 to 65535.

- 15. Press [Connection Test] to check the path is set correctly.
- 16. Press [Exit].

If the connection test fails, check the settings, and then try again.

17. Press [Auth. Info], and then press [▼Next].



18. Press [Specify Other Auth. Info] on the right side of "Folder Authentication".

When [Do not Specify] is selected, the FTP User Name and FTP Password that you have specified in "Default User Name / Password (Send)" of File Transfer settings applies. For details, see "File Transfer".

- 19. Press [Change] under "Login User Name".
- 20. Enter the login user name, and then press [OK].
- 21. Press [Change] under "Login Password".
- 22. Enter the password, and then press [OK].
- 23. Enter the password again to confirm, and then press [OK].
- 24. Press [OK].
- 25. Press [Exit].
- 26. Press the [User Tools/Counter] key.



- To register the name, see "Registering Names".
- You can enter up to 191 characters for the user name.
- You can enter up to 128 characters for the password.
- You can enter a server name using up to 64 characters.
- If User Authentication is specified, contact your administrator.

### Reference

- p.39 "File Transfer"
- p.204 "Registering Names"

### **Changing an FTP Folder**

This section describes how to change the registered FTP folder.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose folder you want to change.

Press the name key, or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Folder].
- 8. Select the items you want to change.
- 9. Press [Connection Test] to check the path is set correctly.
- 10. Press [Exit].
- 11. Press [OK].
- 12. Press [Exit].
- 13. Press the [User Tools/Counter] key.



• To change the name, key display and title, see "Registering Names".

# Reference

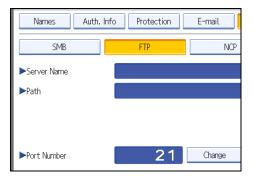
• p.204 "Registering Names"

### Changing the protocol

This section describes how to change the protocol.

5

### 1. Press [SMB] or [NCP].



A confirmation message appears.

2. Press [Yes].

Changing the protocol will clear all settings made under the previous protocol.

3. Enter each item again.

#### Changing the registered FTP folder

This section describes how to change the registered FTP folder.

- 1. Press [Change] under "Port Number".
- 2. Enter the new port number, and then press the [#] key.
- 3. Press [Change] under "Server Name".
- 4. Enter the new server name, and then press [OK].
- 5. Press [Change] under "Path".
- 6. Enter the new path, and then press [OK].

# **Deleting an FTP Folder**

This section describes how to delete the registered FTP folder.

#### 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose folder you want to delete.

Press the name key, or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Folder].
- 8. Press the protocol which is not currently selected.

A confirmation message appears.

- 9. Press [Yes].
- 10. Press [OK].
- 11. Press [Exit].
- 12. Press the [User Tools/Counter] key.



• To delete a name entirely, see "Registering Names".

# Reference

• p.204 "Registering Names"

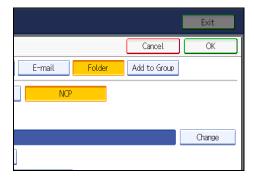
# Registering an NCP Folder

This section describes how to register an NCP folder.

#### 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Press the name you want to register or enter the registered number using the number keys.
  You can search by the registered name, folder name, or e-mail address.
- 7. Press [Folder].
- 8. Press [NCP].



#### 9. Select "Connection Type".

If you want to specify a folder in an NDS tree, press [NDS]. If you want to specify a folder on a NetWare server, press [Bindery].

If you have set "Connection Type" to [NDS], enter the user name followed by the name of the context where the user object is located. If the user name is "user" and the context name is "context", enter "user.context".

#### 10. Specify the path.

For details about how to specify the path manually, see "Locating the NCP folder manually".

For details about how to specify the path using Browse Network, see "Locating the NCP folder using Browse Network".

11. Press [Connection Test] to check the path is set correctly.

#### 12. Press [Exit].

If the connection test fails, check the settings, and then try again.

13. Press [Auth. Info], and then press [▼Next].



14. Press [Specify Other Auth. Info] on the right side of "Folder Authentication".

When [Do not Specify] is selected, the NCP User Name and NCP Password that you have specified in "Default User Name / Password (Send)" of File Transfer settings applies. For details, see "File Transfer".

- 15. Press [Change] under "Login User Name".
- 16. Enter the login user name, and then press [OK].
- 17. Press [Change] under "Login Password".
- 18. Enter the password, and then press [OK].
- 19. Enter the password again to confirm, and then press [OK].
- 20. Press [OK].
- 21. Press [Exit].
- 22. Press the [User Tools/Counter] key.



- To register the name, see "Registering Names".
- You can enter up to 128 characters for the user name.
- You can enter up to 64 characters for the password.
- To specify a folder, you can either enter the path manually or locate the folder by browsing the network.
- If User Authentication is specified, contact your administrator.

### Reference

- p.39 "File Transfer"
- p.204 "Registering Names"

### Locating the NCP folder manually

This section describes how to locate the NCP folder manually.

- 1. Press [Change] under "Path".
- 2. Enter the path where the folder is located.
- 3. Press [OK].
- 4. Press [Connection Test] to check the path is set correctly.
- 5. Press [Exit].



- If you set "Connection Type" to [NDS], and if the NDS tree name is "tree", the name of the context including the volume is "context", the volume name is "volume" and the folder name is "folder", then the path will be "\\tree\volume\context\folder".
- If you set "Connection Type" to [Bindery], and if the NetWare server name is "server", the volume name is "volume" and the folder name is "folder", then the path will be "\\server\volume\folder".
- You can enter a path using up to 256 characters.
- If the connection test fails, check the settings, and then try again.

### Locating the NCP folder using Browse Network

This section describes how to locate the NCP folder using Browse Network.

- 1. Press [Browse Network].
- 2. If you have set "Connection Type" to [NDS], a list of items in the NDS tree appears. If you have set "Connection Type" to [Bindery], a list of items on the NetWare server appears.
- 3. Search for the destination folder in the NDS tree or NetWare server.

You can press [Up One Level] to switch between levels.

- 4. Select the folder you want to register.
- 5. Press [OK].



- Only the folders you are allowed to access appear in [Browse Network].
- If the languages used on the machine and the destination you want to view differ, the items in the list may not appear correctly.
- Up to 100 items can be displayed in the list.

# Changing an NCP Registered Folder

This section describes how to change the registered NCP folder.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the user of the registered folder you want to change.

Press the name key, or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Folder].
- 8. Select "Connection Type".

If you want to specify a folder in an NDS tree, press [NDS]. If you want to specify a folder on a NetWare server, press [Bindery].

9. Specify the folder.

To specify a folder, you can either enter the path manually or locate the folder by browsing the network

- 10. Press [Connection Test] to check the path is set correctly.
- 11. Press [Exit].
- 12. Press [OK].
- 13. Press [Exit].
- 14. Press the [User Tools/Counter] key.



• To change the name, key display and title, see "Registering Names".

5

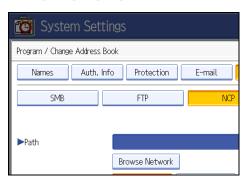


• p.204 "Registering Names"

### Changing the protocol

This section describes how to change the protocol.

1. Press [SMB] or [FTP].



A confirmation message appears. Press [Yes].
 Changing the protocol will clear all settings made under the previous protocol.

3. Enter each item again.

## **Deleting an NCP Folder**

This section describes how to delete the registered NCP folder.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.

Press the name key, or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Folder].
- 8. Press the protocol which is not currently selected.

A confirmation message appears.

- 9. Press [Yes].
- 10. Press [OK].
- 11. Press [Exit].
- 12. Press the [User Tools/Counter] key.



• To delete a name entirely, see "Registering Names".

### **■** Reference

• p.204 "Registering Names"

\_

# Registering Names to a Group

This section describes how to register names to a group.

You can register names to a group to enable easy management of e-mail addresses and folders for each group.

To add names to a group, the groups must be registered beforehand.



- When using Scan to Folder function, you cannot send scan files to a group with over 50 folders registered.
- The maximum number of destinations registerable to a group is 100.



You can set a protection code to prevent unauthorized access to the folders registered in a group.
 For details, see "Registering a Protection Code".

# Reference

• p.249 "Registering a Protection Code"

# Registering a Group

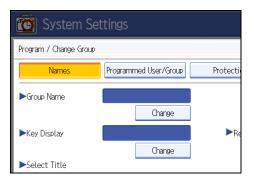
This section describes how to register a group.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book: Program / Change / Delete Group].
- 5. Check that [Program / Change] is selected.
- 6. Press [New Program].

7. Press [Change] under "Group Name".



8. Enter the group name, and then press [OK].

The Key Display name is set automatically.

9. Press the title key under "Select Title", if necessary.

The keys you can select are as follows:

- [Frequent]: Added to the page that is displayed first.
- [AB], [CD], [EF], [GH], [IJK], [LMN], [OPQ], [RST], [UVW], [XYZ], [1] to [10].
   Added to the list of items in the selected title.

You can select [Frequent] and one more page for each title.

- 10. When you want to change the key display, press [Change] under "Key Display".
- 11. Enter the key display, and then press [OK].
- 12. Press [OK].
- 13. Press [Exit].
- 14. Press the [User Tools/Counter] key.

### Registering Names to a Group

This section describes how to register names to a registered group.

You can put names that have been registered in the Address Book into a group.

When registering new names, you can also register groups at the same time.

#### 2. Press [System Settings].

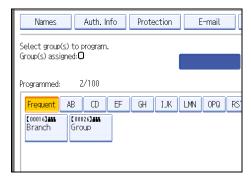


- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name to register in a group.

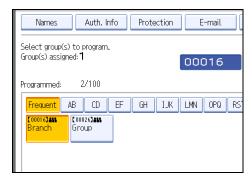
Press the name key, or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Add to Group].
- 8. Select a group to which you want to add the name.



The group key that you have selected becomes highlighted, and the name is added to it.

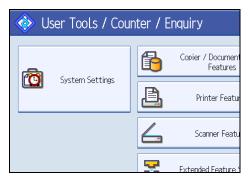


- 9. Press [OK].
- 10. Press [Exit].
- 11. Press the [User Tools/Counter] key.

### Adding a Group to Another Group

This section describes how to add a group to another group.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].

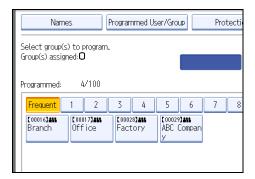


- 3. Press [Administrator Tools].
- 4. Press [Address Book: Program / Change / Delete Group].
- 5. Check that [Program / Change] is selected.
- 6. Select the group that you want to put into another group.

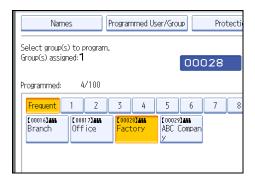
Press the group key, or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Add to Group].
- 8. Select the group to which you want to add.



The group key that you have selected becomes highlighted, and the group is added to it.



- 9. Press [OK].
- 10. Press [Exit].
- 11. Press the [User Tools/Counter] key.

## Displaying Names Registered in a Group

This section describes how to display names registered in a group.

You can check the names or groups registered in each group.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book: Program / Change / Delete Group].
- 5. Check that [Program / Change] is selected.
- 6. Select the group where the members you want to check is registered.

You can search by the registered name, folder name, or e-mail address.

7. Press [Programmed User/Group].

All the names registered will be displayed.

8. Press [OK].

- 9. Press [Exit].
- 10. Press the [User Tools/Counter] key.

# Removing a Name from a Group

This section describes how to remove a name from a group.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].

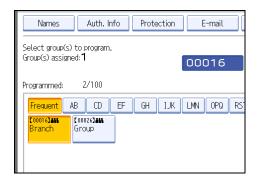


- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name to remove from a group.

Press the name key, or enter the registered number using the number keys.

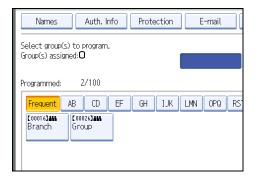
You can search by the registered name, folder name, or e-mail address.

- 7. Press [Add to Group].
- 8. Select the group from which you want to remove the name.



The group key is deselected and the name is removed from it.

#### 9. Press [OK].



- 10. Press [Exit].
- 11. Press the [User Tools/Counter] key.

### Deleting a Group Within Another Group

This section describes how to delete a group within another group.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



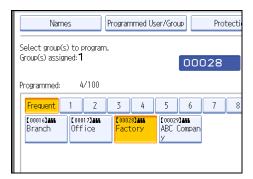
- 3. Press [Administrator Tools].
- 4. Press [Address Book: Program / Change / Delete Group].
- 5. Check that [Program / Change] is selected.
- 6. Select the group that you want to delete from.

Press the group key, or enter the registered number during the number keys.

You can search by the registered name, folder name, or e-mail address.

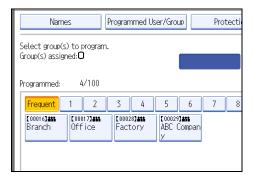
7. Press [Add to Group].

The keys of groups in which the group is registered appear highlighted.



The group key is deselected and the group is deleted from it.

9. Press [OK].



- 10. Press [Exit].
- 11. Press the [User Tools/Counter] key.

# **Changing a Group Name**

This section describes how to change a group name.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



5

- 3. Press [Administrator Tools].
- 4. Press [Address Book: Program / Change / Delete Group].
- 5. Check that [Program / Change] is selected.
- 6. Press the group key you want to change.

You can search by the registered name, folder name, or e-mail address.

7. To change the group name and key display, press [Change] under "Group Name" or "Key Display".



- 8. Enter the new group name or key display, and then press [OK].
- 9. To change the title, press the title key under "Select Title".
- 10. To change the registration number, press [Change] under "Registration No.".
- 11. Enter the new registration number using the number keys.
- 12. Press the [#] key.
- 13. Press [OK].
- 14. Press [Exit].
- 15. Press the [User Tools/Counter] key.

### **Deleting a Group**

This section describes how to delete a group.

### 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book: Program / Change / Delete Group].
- 5. Press [Delete].
- 6. Press a group key you want to delete.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Yes].
- 8. Press [Exit].
- 9. Press the [User Tools/Counter] key.

E

# Registering a Protection Code

This section describes how to register a Protection Code.

You can stop sender's names or folders being accessed by setting a protection code.

You can use this function to protect the following:

Folders

You can prevent unauthorized access to folders.

• Sender's names

You can prevent misuse of sender's names.

### Registering a Protection Code to a Single User

This section describes how to register a Protection code to a single user.

- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



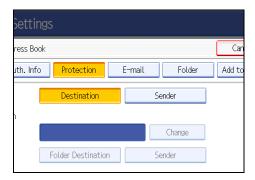
- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Select the name whose protection code you want to register.

You can search by the registered name, folder name, or e-mail address.

#### 7. Press [Protection].



8. Press [Destination] or [Sender] under "Use Name as".



Both [Destination] and [Sender] can be selected at the same time.

- 9. Press [Folder Destination] under "Protection Object".
- 10. Press [Change] under "Protection Code".
- 11. Enter a protection code using the number keys, and then press the [#] key.
- 12. Press [OK].
- 13. Press [Exit].
- 14. Press the [User Tools/Counter] key.



- Specify a protection code of up to eight digits. You can also specify "Protection" without specifying a
  protection code.
- To change the protection code settings, repeat step 3 to 11.

# Registering a Protection Code to a Group User

This section describes how to register a Protection Code to a Group User.

# 5

#### 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book: Program / Change / Delete Group].
- 5. Check that [Program / Change] is selected.
- 6. Press the group key you want to register or enter the registered number using the number keys.

You can search by the registered name, folder name, or e-mail address.

- 7. Press [Protection].
- 8. Press [Folder Destination] under "Protection Object".
- 9. Press [Change] under "Protection Code".
- 10. Enter a protection code using the number keys, and then press the  $[^{\sharp}]$  key.
- 11. Press [OK].
- 12. Press [Exit].
- 13. Press the [User Tools/Counter] key.



- Specify a protection code of up to eight digits. You can also specify "Protection" without specifying a
  protection code.
- To change the protection code settings, repeat step 3 to 11.

# Registering SMTP and LDAP Authentication

This section describes how to register SMTP and LDAP Authentication.

#### **SMTP Authentication**

This section describes how to register SMTP Authentication.

For each user registered in the Address Book, you can register a login user name and login password to be used when accessing an SMTP server.

To use an SMTP server, you need to program it beforehand.



- When [Do not Specify] is selected for SMTP Authentication the User Name and Password that you
  have specified in SMTP Authentication of File Transfer settings applies. For details, see "File Transfer".
- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Press the name you want to register or enter the registered number using the number keys.

  You can search by the registered name, folder name, or e-mail address.
- 7. Press [Auth. Info].
- 8. Press [Specify Other Auth. Info] under "SMTP Authentication".

F



9. Press [Change] under "Login User Name".



- 10. Enter the login user name, and then press [OK].
- 11. Press [Change] under "Login Password".
- 12. Enter the password, and then press [OK].
- 13. Enter the password again to confirm, and then press [OK].
- 14. Press [OK].
- 15. Press [Exit].
- 16. Press the [User Tools/Counter] key.

# UNote

- To register the name, see "Registering Names".
- You can enter up to 191 characters for the user name.
- You can enter up to 128 characters for the password.
- To change the SMTP Authentication settings, repeat step 3 to 14.

### ■ Reference

- p.39 "File Transfer"
- p.204 "Registering Names"

#### LDAP Authentication

This section describes how to register LDAP Authentication.

For each user registered in the Address Book, you can register a login user name and login password to be used when accessing an LDAP server.

To use an LDAP server, you need to program it beforehand. For details, see "Programming the LDAP server".

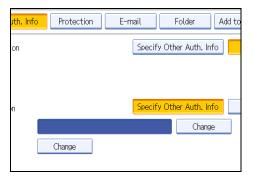


- When [Do not Specify] is selected for LDAP Authentication, the User Name and Password that you
  have specified in Program / Change LDAP Server of Administrator Tools settings applies. For details,
  see "Programming the LDAP server".
- 1. Press the [User Tools/Counter] key.
- 2. Press [System Settings].



- 3. Press [Administrator Tools].
- 4. Press [Address Book Management].
- 5. Check that [Program / Change] is selected.
- 6. Press the name you want to register or enter the registered number using the number keys.

  You can search by the registered name, folder name, or e-mail address.
- 7. Press [Auth. Info], and then press [▼Next].
- 8. Press [Specify Other Auth. Info] under "LDAP Authentication".
- 9. Press [Change] under "Login User Name".



- 10. Enter the login user name, and then press [OK].
- 11. Press [Change] under "Login Password".
- 12. Enter the password, and then press [OK].
- 13. Enter the password again to confirm, and then press [OK].

5

- 14. Press [OK].
- 15. Press [Exit].
- 16. Press the [User Tools/Counter] key.

# **U** Note

- To register the name, see "Registering Names".
- You can enter up to 128 characters for the user name.
- You can enter up to 128 characters for the password.
- To change the LDAP Authentication settings, repeat step 3 to 14.

# **■** Reference

- p.56 "Programming the LDAP server"
- p.204 "Registering Names"

# 6. Special Operations under Windows

This chapter describes how to print files directly from Windows.

# **Printing Files Directly from Windows**

You can print files directly using Windows commands (lpr, ftp, sftp). For example, you can print PostScript files for PostScript 3.

#### Setup

Follow the procedure below to make network environment settings.

- Enable TCP/IP with the control panel, and then set up the printer's network environment about TCP/IP including IP addresses.
  - TCP/IP of the machine is set as default.
- 2. Install a TCP/IP in Windows to set up the network environment.
  - Consult the network administrator for the local setting information.
- 3. To print under Windows 2000/XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, install "Printing service for UNIX" as the network application.

# Reference

p.263 "Using DHCP"

# Using a Host Name Instead of an IPv4 Address

When a host name is defined, you can specify a printer by host name instead of IP address. The host names vary depending on the network environment.

#### When using DNS

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

#### When setting the IPv4 address of a printer using DHCP

Use the printer name on the configuration page as the host name.

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 depending on operating systems.

1. Open the hosts file using memo pad files, for instance.

On computers running Windows 2000, the hosts file can be found in the following folder:

\WINNT\SYSTEM32\DRIVERS\ETC\HOSTS

On computers running Windows XP/Vista/7 and Windows Server 2003/2003 R2/2008/2008 R2, the hosts file can be found in the following folder:

\WINDOWS\SYSTEM32\DRIVERS\ETC\HOSTS

2. Add an IPv4 or IPv6 address and host name to the hosts file using the following format:

192.168.15.16 host # NP

"192.168.15.16" is the IPv4 address, "host" is the printer's host name, and "#NP" is replaced by comments. Insert a space or tab between "192.168.15.16" and "host", between "host" and "#NP" respectively, using one line for this format.

2001:DB::100 host # NP

"2001:DB::100" is the IPv6 address, "host" is the printer's host name, and "#NP" is replaced by comments. Insert a space or tab between "2001:DB::100" and "host", between "host" and "#NP" respectively, using one line for this format.

3. Save the file.



When using a host name under Windows Server 2003/2003 R2/2008/2008 R2, with IPv6
protocol, perform host name resolution using an external DNS server. The host file cannot be used.

# **Printing Commands**

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

Enter commands using the command prompt window. The location of the command prompts varies depending on operating systems:

• Windows 2000

[Start] - [Programs] - [Accessories] - [Command Prompt]

Windows XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2

[Start] - [All Programs] - [Accessories] - [Command Prompt]



• Match the data format of the file to be printed with the emulation mode of the printer.

- If the message "print requests full" appears, no print jobs can be accepted. Try again when sessions end. For each command, the amount of possible sessions is indicated as follows:
  - lpr: 5 (When the spool printing function is available: 10)
  - ftp: 3
  - sftp: 3
- Enter the file name in a format including the path from the directory executing commands.
- The "option" specified in a command is an intrinsic printer option and its syntax is similar to printing from UNIX. For details, see UNIX Supplement.

#### lpr

#### When specifying a printer by IP address

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

#### When using a host name instead of an IP address

```
c:> lpr -Sprinter's host name [-Poption] [-ol] \path\file name
```

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 "file 1" located in the "C:\PRINT" directory, the command line is as follows:

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

### ftp / sftp

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

#### When one file is printed

```
ftp> put \path\file name [option]
```

#### When multiple files are printed

```
ftp> mput \path\file name [\path\file name...] [option]
```

Follow the procedure below to print using the "ftp" command.

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

```
% ftp "printer's IP address"
```

2. Enter the user name and password, and then press the [Enter] key.

For details about the user name and password, consult your network administrator.

User:

Password:

3. When printing a binary file, set the file mode to binary.

ftp> bin

When printing a binary file in ASCII mode, print may not come out correctly.

4. Specify files to be printed.

The following shows the examples of printing a PostScript file named "file 1" in the "C:\PRINT" directory and printing file 1 and file 2.

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

5. Quit ftp.

ftp> bye



- "=", ",", "\_", and ";" cannot be used for filenames. File names will be read as option strings.
- If you are using ftp, you cannot specify an option using the "mput" command.
- If you are using ftp, you cannot specify an option using the "pwd" command.
- If you are using sftp, you cannot specify an option using the "cd" command.
- If you are using sftp, you cannot specify an option using the "pwd" command.
- To use SFTP, you must create an open key for SSH communication. Use Web Image Monitor to create an open key. For details, see Web Image Monitor help.
- If personal authentication (Basic, Windows, LDAP, or Integrated Server Authentication) is enabled, only authenticated users (users authenticated by login user name and password) can log in.
- For "mput" command, "\*" and "?" can be used as wild cards in file names.
- When printing a binary file in ASCII mode, print may not come out correctly.
- For details about login user name and password, see Security Reference, which is the administrator's manual.

# 7. Appendix

# When Using Windows Terminal Service/Citrix Presentation Server/Citrix XenApp

The following explains how to use Windows Terminal Service and Maintenance.

### **Operating Environment**

The following operating systems and Citrix Presentation Server/Citrix XenApp versions are supported.

#### Citrix Presentation Server 4.0/Citrix XenApp 4.5

- Windows 2000 Server / Advanced Server
- Windows Server 2003/2003 R2
- Windows Server 2008

#### **Supported Printer Drivers**

#### When Windows Terminal Service is operating

• PostScript 3

#### Limitations

The following limitations apply to the Windows Terminal Service environment.

These limitations are built in Windows Terminal Service or MetaFrame.

#### **Windows Terminal Service**

In the Windows Terminal Service environment, some of the printer driver's functions is unavailable. In an environment where Windows Terminal Service is installed, some of the printer driver's functions is unavailable, even if any function of Windows Terminal Service is not used. When you install SmartDeviceMonitor for Client in an environment where the Terminal Service is running on the Windows 2000 Server family computer, be sure to install it using the install mode. The following are the two methods of installation using the install mode:

- 1. Use [Add/Remove Programs] in [Control Panel] to install SmartDeviceMonitor for Client.
- Enter the following command in the MS-DOS command prompt: CHANGE USER /INSTALL

To quit the install mode, enter the following command in the MS-DOS command prompt.

#### Citrix Presentation Server/Citrix XenApp Auto-creating client printers

Using Auto-creating client printers can select a logical printer created by copying the client's local printer data to the MetaFrame server. We strongly recommend testing this function in your network environment before using it for your work.

- The settings for optional equipment will not be stored in the server after the equipment is
  disconnected. The settings for optional equipment will be restored to its defaults each time the
  client computer logs on to the server.
- When printing a large number of bitmap images or using the server in a WAN environment over dial-up lines such as ISDN, printing may not be possible or errors may occur, depending on data transfer rates.

#### Citrix Presentation Server/Citrix XenApp Printer driver replication

Using Printer driver replication can distribute printer drivers across all servers in a server farm. We strongly recommend testing this function in your network environment before using it for your work.

• If the printer drivers are not properly copied, install them directly onto each server.

# **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.

- Printers that register the printer NetBIOS name on a WINS server must be configured for the WINS server
- Supported DHCP servers are Microsoft DHCP Server included with Windows 2000 Server, and Windows Server 2003/2003 R2/2008/2008 R2, and the DHCP server included with NetWare and UNIX.
- 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 machine operates using data from the DHCP server that responds first.
- DHCP servers can operate in an IPv6 environment, but they cannot be configured to allocate IPv6 addresses or obtain host names.

#### **Using AutoNet**

If the machine IPv4 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 machine.



- The IP address assigned by the DHCP server is given priority over that selected by AutoNet.
- You can confirm the current IPv4 address on the configuration page.
- When AutoNet is running, the NetBIOS name is not registered on the WINS server.
- The machine cannot communicate with devices that do not have the AutoNet function. However, this
  machine can communicate with Macintosh computers running Mac OS X 10.2.3. or higher.

# Configuring the WINS Server

This section explains configuring the WINS server.

The printer can be configured to register its NetBIOS name with a WINS server when the power is turned on. This enables the NetBIOS name of the printer to be specified from SmartDeviceMonitor for Admin even in a DHCP environment.



- The WINS server is supported with Windows 2000 Servers WINS Manager.
- For details about the WINS server settings, see Windows Help.
- If there is no reply from the WINS server, the NetBIOS name is registered by broadcast.
- The NetBIOS name can be entered using up to 15 alphanumeric characters.

#### Using Web Image Monitor

- 1. Start a Web browser.
- 2. Enter "http://(machine's IP address or host name) /" in the address bar to access the printer whose settings you want to change.

Top Page of Web Image Monitor appears.

3. Click [Login].

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

4. Enter the user name and password, and then click [Login].

Contact your administrator for information about the settings.

Depending on the configuration of your Web browser, the login user name and password might be saved. If you do not want to save them, configure your Web browser's settings so that this information is not saved.

- 5. In the menu area, click [Configuration].
- 6. Under "Network", click [IPv4].
- Check that [Active] is selected for [WINS] in the [Ethernet + Wireless LAN] column, and then
  enter the WINS server IPv4 address in [Primary WINS Server] and [Secondary WINS
  Server].
- 8. Click [OK].
- 9. Quit Web Image Monitor.

# Reference

• p.111 "Using Web Image Monitor"

# **Using telnet**

You can also use telnet to configure WINS.

Use the "wins" command to make the setting with telnet.

### **■** Reference

• p.132 "Remote Maintenance Using telnet"

# **Using the Dynamic DNS Function**

Dynamic DNS is a function which dynamically updates (registers and deletes) records (A record, AAAA record, CNAME, and PTR record) managed by the DNS server. When a DNS server is part of the network environment to which this machine, a DNS client, is connected, records can be dynamically updated using this function.

#### **Updating**

Updating procedure varies depending on whether the machine IP address is static or acquired by DHCP.



• Dynamic update using message authentication (TSIG, SIG(0)) is not supported.

#### For a static IPv4 setting

If the IP address or host name is changed, the A and PTR records are updated. If the A record is registered, CNAME is also registered. CNAMEs that can be registered are as follows:

Ethernet and IEEE 802.11
 RNPXXXXXX (XXXXXX represents the last 3 hexadecimal bytes of the MAC address)
 However, if CNAME (PRNXXXXXX) overlaps with the host name, CNAME will not be registered.

#### For DHCPv4 settings

As a substitute for the machine, the DHCP server updates the record, and one of the following occurs:

- When the machine acquires the IP address from the DHCP server, the DHCP server updates the A and PTR records.
- When the machine acquires the IP address from the DHCP server, the machine updates the A
  record, and the DHCP server updates the PTR record.

If the A record is registered, CNAME is also registered. CNAMEs that can be registered are as follows:

Ethernet and IEEE 802.11
 RNPXXXXXX (XXXXXX represents the last 3 hexadecimal bytes of the MAC address)

#### For IPv6 settings

This machine updates the AAAA record and PTR record.

It also updates CNAME when the AAAA record is updated.

When a stateless address is newly set, it is automatically registered on the DNS server also.



- When the dynamic DNS function is not used, records managed by the DNS server must be updated manually, if the machine's IP address is changed.
- To update the record using the machine, the DNS server has to have one of the following:

- No security settings are made.
- If security settings are made, an IP-specified client (this machine) permits updating.

### DNS servers targeted for operation

#### For static IP setting

- Microsoft DNS servers with standard Windows 2000 Server/Windows Server 2003/2003 R2/2008/2008 R2 features
- BIND 8.2.3 or higher

#### For DHCP setup, when the machine updates the A record

- Microsoft DNS servers with standard Windows 2000 Server/Windows Server 2003/2003 R2/2008/2008 R2 features
- BIND 8.2.3 or higher

#### For DHCP setup, when the DHCP server updates records

- Microsoft DNS servers with standard Windows 2000 Server/Windows Server 2003/2003 R2/2008/2008 R2 features
- BIND 8.2.3 or higher
- DNS servers with standard NetWare 5 (or a higher version) features

#### For IPv6 setting

- Microsoft DNS servers with standard Windows Server 2003/2003 R2/2008/2008 R2 features
- BIND 9.2.3 or higher

# DHCPv4 servers targeted for operation

As a substitute for the machine, DHCP servers capable of updating the A record and PTR record are as follows:

- Microsoft DHCP servers with standard Windows 2000 Server (Service Pack 3 or higher versions)/ Windows Server 2003/2003 R2/ 2008 features
- ISC DHCP 3.0 or higher
- DHCP server with standard NetWare 5 (or a higher version) features

#### Setting the dynamic DNS function

Make settings with telnet using the "dns" command.

- For details, see "Remote Maintenance Using telnet".
- Reference
  - p.132 "Remote Maintenance Using telnet"

#### 7

# **Precautions**

Please pay attention to the following when using the network interface board. 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 machine instead.

#### Configuring the router

Filter packets so they do not pass over the dial-up router.



- The MAC address of the filtering printer is printed on the printer configuration page.
- 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.



• For more information about selecting a frame type, see "Interface Settings".

# Reference

• p.31 "Interface Settings"

#### Configuring the printer without NetWare

 When not printing, the network interface board sends packets over the network. Set NetWare to "inactive".



• For more information about selecting a protocol, see "Interface Settings".

# Reference

• p.31 "Interface Settings"

If the machine is connected to a network, observe the following points when setting up the machine or changing settings:

For more details, see the operating instructions and Help for the ScanRouter delivery software and DeskTopBinder.

#### 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 machine with the ScanRouter delivery software, Auto Document Link, or DeskTopBinder. In addition, set up connected devices using the I/O settings of the ScanRouter delivery software administration utility.

If the network environment changes, make the necessary changes for the delivery server using the machine, the administration utility of client computers, Auto Document Link, and DeskTopBinder. Also, set the correct information for the connected devices using the I/O settings of the ScanRouter delivery software administration utility.



If the machine 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

- Do not install the ScanRouter delivery software on a computer which uses dial-up access.
- When using the ScanRouter delivery software, DeskTopBinder, Auto Document Link, or a TWAIN driver 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



IPv6 cannot be used on this function.

#### 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 2000/XP and Windows Server 2003/2003 R2, 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 2000/XP and Windows Server 2003/2003 R2, clear the [Enable banner] check box on the [NetWare Settings] tab in the printer properties dialog box.

#### Printing after resetting the machine

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 machine as a remote printer, wait about two minutes after resetting before attempting to print.

# When the IEEE 802.11 Interface Unit is Installed

Please pay attention to the following when using the IEEE 802.11 interface on the network.

When using the wireless LAN interface on the network, note the following:

#### When moving the machine

Detach the antennas when relocating the machine locally.

After moving the machine, reattach the antennas, ensuring that:

- The antennas are positioned clear of obstacles.
- Region A (mainly Europe and Asia):

There is 40 to 60 mm between the antennas, so that they do not touch.

• Region B (mainly North America):

There is 1.6 to 2.4 inch between the antennas, so that they do not touch.

• The exposure glass cover and the ADF do not knock the antennas.

#### If the network area provides poor radio environment

Where radio wave conditions are bad, the network may not function due to interrupted or failed connections. When checking the wireless LAN signal and the access point, follow the procedure below to improve the situation:

- Position the access point nearer to the machine.
- Clear the space between access point and machine of obstructions.
- Move radio wave generating appliances, such as microwaves, away from the machine and access point.



• For more information about access point radio wave conditions, refer to the access point manual.

# Configuring IEEE 802.1X

IEEE 802.1X can be configured using Web Image Monitor's administrator mode. You can select four types of EAP authentication method: EAP-TLS, LEAP, EAP-TTLS and PEAP. Note that each EAP authentication method has different configuration settings and authentication procedures.

Types and requirements of certificates are as follows:

#### **EAP Types Requiring a "Site Certificate"**

EAP-TLS, EAP-TTLS, PEAP (Necessary except LEAP)

#### EAP Types Requiring a "Site Certificate" and a "Device Certificate"

EAP-TLS, PEAP (Phase 2 is for TLS only)

If a certificate is required, configure all settings after installing the certificate.

#### Installing a Site Certificate

Access the authentication server and obtain the CA certificate.

Methods of obtaining certificates differ according to the operating system you are using.

- 1. Log in to Web Image Monitor in the administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Security", click [Site Certificate].
- Click [Browse] on the "Site Certificate to Import" window, and then select the CA certificate you obtained.
- 5. Click [Import].
- 6. Check that the imported certificate's [Status] shows "Trustworthy".

If [Site Certificate Check] shows [Active], and the [Status] of the certificate shows [Untrustworthy], communication might not be possible.

- 7. Click [OK].
- Click [Logout].
- Quit the Web Image Monitor.

### **Installing Device Certificate**

- 1. Log in to Web Image Monitor in the administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Security", click [Device Certificate].
- Click [Certificate 2] on the "Device Certificate" window, and then click [Request].

- Enter appropriate "Common Name" and "Country Code" on "Certificate Information" page, and then click [OK].
- 6. "Updating..." appears. Wait for about 2 minutes, and then click [OK].
- Click [Details], shown in the "Device Certificate" window as the memo pad icon for "Requesting".
- 8. Select all, and then copy the entire "Text for Requested Certificate" text that is displayed in the "Certificate Status" window.
- Access the certificate authority server, and then obtain the CA signified certificate using the text copied into "Text for Requested Certificate" windows.
  - Obtaining the certificate differs depending on the environment you want to use.
- 10. Click [Certificate 2] on "Device Certificate" window, and then click [Install].
- Using a text editor, open the CA signified certificate downloaded in step 9, and then copy over all the text.
- 12. In the "Enter Certificate Request" window, paste all the text copied into the CA signified certificate.
- 13. Click [OK].
- 14. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
- 15. Check that the "Device Certificate" shows "Installed".
- 16. Click [Certificate 2] on "Certification", and then click [OK].
- 17. Click [Logout].
- 18. Quit Web Image Monitor.

# **U** Note

- If you request two certificates simultaneously, the certificate authority might not display either certificate. Click [Cancel Request] to cancel the request.
- You can select [Certificate 1-4] in the "Device Certificate" window. Note that if you select [Certificate 1] in the "Device Certificate" window, you must select "Certificate 1" in the "IEEE 802.1X" drop down menu in the "Certification" window.
- Click [Cancel Request] to cancel the request for the server certificate.
- If "Not found" appears after clicking [OK] in steps 6 and 14, wait one or two minutes, and then click [Refresh].

# **Enabling SSL**

After installing the device certificate in the machine, enable the SSL setting.

This procedure is used for a self-signed certificate or a certificate issued by a certificate authority.

- 1. Log in to Web Image Monitor in the administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Security", click [SSL/TLS].
- 4. Click [Active] for the protocol version used in "SSL/TLS".
- 5. Select the encryption communication mode for "Permit SSL/TLS Communication".
- 6. Click [OK].

The SSL setting is enabled.

- 7. Click [OK].
- 8. Click [Logout].
- 9. Quit the Web Image Monitor.



• If you set "Permit SSL/TLS Communication" to [Ciphertext Only], enter " https://(the machine's IP address or host name)/" to access the machine.

# Setting Items of IEEE 802.1X for Ethernet

- 1. Log in to Web Image Monitor in the administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Security", click [IEEE 802.1X].
- 4. In "User Name", enter the user name set in the RADIUS server.
- 5. Enter the domain name in "Domain Name".
- 6. Select "EAP Type". Configurations differ according to the EAP Type.

#### EAP-TLS

- Make the following settings according to the operating system you are using:
  - Select [On] or [Off] in "Authenticate Server Certificate".
  - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
  - Enter the host name of the RADIUS server on "Server ID".
  - Select [On] or [Off] in "Permit Sub-domain".

#### **LEAP**

• Click [Change] in "Password", and then enter the password set in the RADIUS server.

#### **EAP-TTLS**

- Click [Change] in "Password", and then enter the password set in the RADIUS server.
- Click [Change] in "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- Select [CHAP], [MSCHAP], [MSCHAPv2], [PAP], or [MD5] in "Phase 2 Method".

Certain methods might not be available, depending on the RADIUS server you want to use.

- Make the following settings according to the operating system you are using:
  - Select [On] or [Off] in "Authenticate Server Certificate".
  - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
  - Enter the host name of the RADIUS server in "Server ID".
  - Select [On] or [Off] in "Permit Sub-domain".

#### **PEAP**

- Click [Change] in "Password", and then enter the password set in the RADIUS server.
   If [TLS] is selected for "Phase 2 Method", you do not need to specify a password.
- Click [Change] on "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- Select [MSCHAPv2] or [TLS] in "Phase 2 Method".
   When you select [TLS], you must install "IEEE 802.1X Client Certificate".
- · Make the following settings according to the operating system you are using:
  - Select [On] or [Off] in "Authenticate Server Certificate".
  - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
  - Enter the host name of the RADIUS server on "Server ID".
  - Select [On] or [Off] in "Permit Sub-domain".
- 7. Click [OK].
- 8. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
- 9. In the menu area, click [Configuration].
- 10. Under "Interface", click [Interface Settings].
- 11. Select [Active] in "Ethernet Security".
- 12. Click [OK].
- 13. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
- 14. Click [Logout].
- 15. Quit the Web Image Monitor.



- If there is a problem with settings, you might not be able to communicate with the printer. To identify the problem, print a network summary.
- If you cannot identify the problem, reset the printer interface to normal, and then repeat the procedure from the beginning.

### Setting Items of IEEE 802.1X for Wireless LAN

- 1. Log in to Web Image Monitor in the administrator mode.
- 2. In the menu area, click [Configuration].
- 3. Under "Security", click [IEEE 802.1X].
- 4. In "User Name", enter the user name set in the RADIUS server.
- 5. Enter the domain name in "Domain Name".
- 6. Select "EAP Type". Configurations differ according to the EAP Type.

#### FAP-TIS

- Make the following settings according to the operating system you are using:
  - Select [On] or [Off] in "Authenticate Server Certificate".
  - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
  - Enter the host name of the RADIUS server on "Server ID".
  - Select [On] or [Off] in "Permit Sub-domain".

#### **LEAP**

• Click [Change] in "Password", and then enter the password set in the RADIUS server.

#### **EAP-TTLS**

- Click [Change] in "Password", and then enter the password set in the RADIUS server.
- Click [Change] in "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- Select [CHAP], [MSCHAP], [MSCHAPv2], [PAP], or [MD5] in "Phase 2 Method".
   Certain methods might not be available, depending on the RADIUS server you want to use.
- Make the following settings according to the operating system you are using:
  - Select [On] or [Off] in "Authenticate Server Certificate".
  - Select [On] or [Off] in "Trust Intermediate Certificate Authority".
  - Enter the host name of the RADIUS server in "Server ID".
  - Select [On] or [Off] in "Permit Sub-domain".

#### **PEAP**

- Click [Change] in "Password", and then enter the password set in the RADIUS server.
   If [TLS] is selected for "Phase 2 Method", you do not need to specify a password.
- Click [Change] on "Phase 2 User Name", and then enter the user name set in the RADIUS server.
- Select [MSCHAPv2] or [TLS] in "Phase 2 Method".
   When you select [TLS], you must install "IEEE 802.1X Client Certificate".
- Make the following settings according to the operating system you are using:

- Select [On] or [Off] in "Authenticate Server Certificate".
- Select [On] or [Off] in "Trust Intermediate Certificate Authority".
- Enter the host name of the RADIUS server on "Server ID".
- Select [On] or [Off] in "Permit Sub-domain".
- 7. Click [OK].
- 8. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
- 9. In the menu area, click [Configuration].
- 10. Under "Interface", click [Wireless LAN Settings].
- 11. Select [Wireless LAN] in "LAN Type".
- 12. Select [Infrastructure Mode] in "Communication Mode".
- Enter the alphanumeric characters (a-z, A-Z, or 0-9) in [SSID] according to the access point you want to use.
- 14. Select [WPA] in "Security Method".
- 15. Select [TKIP] or [CCMP (AES)] in "WPA Encryption Method" according to the access point you want to use.
- 16. Select [WPA] or [WPA2] in "WPA Authentication Method".
- 17. Click [OK].
- 18. "Updating..." appears. Wait for about one or two minutes, and then click [OK].
- 19. Click [Logout].
- 20. Quit the Web Image Monitor.

### **U** Note

- If there is a problem with settings, you might not be able to communicate with the printer. To identify the problem, print a network summary.
- If you cannot identify the problem, reset the printer interface to normal, and then repeat the procedure from the beginning.

# **Specifications**

Interface	1000BASE-T, 100BASE-TX, 10BASE-T, IEEE 802.11 a/b/g	
Frame type	Ethernet II, IEEE 802.2, IEEE 802.3, SNAP	
Printer	TCP/IP (IPv4/IPv6)	
	LPR	
	RSH	
	RCP	
	DIPRINT	
	FTP	
	IPP	
	IPP-SSL	
	IPX/SPX (NetWare)	
	SMB	
	WSD (Printer)	
Network Scanner	IPv4	
	RSH	
	FTP	
	FTP-C	
	SMTP	
	SMTP-C	
	POP3	
	SMB	
	NCP	
Document Server	TCP/IP (IPv4/IPv6)	

	FTP	
	FTP-C	
	НТТР	
	HTTPS	
Management Function	TCP/IP (IPv4/IPv6)	
	RSH	
	RCP	
	FTP	
	FTP-C	
	SNMP	
	SNMP-C	
	НТТР	
	HTTPS	
	TELNET	
	NBT	
	DHCP	
	DNS	
	DNS-C	
	LDAP	

To use IPP and SMB, use the SmartDeviceMonitor for Client port.

To use IPP under Windows XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, use the Standard IPP port.

To use IPP under Windows 2000, use SmartDeviceMonitor for Client.

Under Windows Vista/7, or Windows Server 2008/2008R2, WSD (Printer), uses the WSD Port.

# Copyrights

#### expat

Copyright (c) 1998, 1999, 2000 Thai Open Source Software Centre, Ltd. and Clark Cooper.

Copyright (c) 2001, 2002 Expat maintainers.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

#### FreeBSD 4.6.2/netipx

Copyright (c) 1984, 1985, 1986, 1987, 1993

The Regents of the University of California. All rights reserved.

Modifications Copyright (c) 1995, Mike Mitchell

Modifications Copyright (c) 1995, John Hay

#### Heimdal

Copyright (c) 1997-2005 Kungliga Tekniska Högskolan (Royal Institute of Technology, Stockholm, Sweden). All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of the Institute nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE INSTITUTE AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE INSTITUTE OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

#### ILU

Copyright (c) 1991-1999 Xerox Corporation. All Rights Reserved.

Unlimited use, reproduction, modification, and distribution of this software and modified versions thereof is permitted. Permission is granted to make derivative works from this software or a modified version thereof. Any copy of this software, a modified version thereof, or a derivative work must include both the above copyright notice of Xerox Corporation and this paragraph. Any distribution of this software, a modified version thereof, or a derivative work must comply with all applicable United States export control laws. This software is made available AS IS, and XEROX CORPORATION DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND NOTWITHSTANDING ANY OTHER PROVISION CONTAINED HEREIN, ANY LIABILITY FOR DAMAGES RESULTING FROM THE SOFTWARE OR ITS USE IS EXPRESSLY DISCLAIMED, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR STRICT LIABILITY, EVEN IF XEROX CORPORATION IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

# IPS<sup>TM</sup> print language emulations

Copyright (c) 1987-2006 Zoran Corporation. All rights reserved.

#### JPEG LIBRARY

• The software installed on this product is based in part on the work of the Independent JPEG Group.

I

#### LibTIFF

TIFF emulation software includes freeware TIFF libraries developed by Sam Leffler and Silicon Graphics, Inc.. In accordance with the conditions of distribution, the copyright notice concerning the TIFF library part is shown below.

Copyright © 1988, 1989, 1990, 1991 Sam Leffler

Copyright © 1991 Silicon Graphics, Inc.

Permission to use, copy, modify, distribute, and sell this software and its documentation for any purpose is hereby granted without fee, provided that (i) the above copyright notices and this permission notice appear in all copies of the software and related documentation, and (ii) the names of Sam Leffler and Silicon Graphics may not be used in any advertising or publicity relating to the software without the specific, prior written permission of Stanford and Silicon Graphics.

THE SOFTWARE IS PROVIDED "AS IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

# The m17n library

http://www.m17n.org/index.html

The m17n library 1.2.0 release

Copyright (C) 2003, 2004

National Institute of Advanced Industrial Science and Technology (AIST)

Registration Number H15PRO112

The m17n library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

The m17n library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with the m17n library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307, USA.

#### MD4

Copyright (c) 1990-2, RSA Data Security, Inc. All rights reserved.

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD4 Message-Digest Algorithm" in all material mentioning or referencing this software or this function.

License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA Data Security, Inc. MD4 Message-Digest Algorithm" in all material mentioning or referencing the derived work.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

#### MD5

Copyright (c) 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved.

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing this software or this function.

License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

#### nana

Copyright (c) 1995, 1996, 1997, 1998 Phil Maker All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF

MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

#### **NetBSD**

#### 1. Copyright Notice of NetBSD

For all users to use this product: This product contains NetBSD operating system:

For the most part, the software constituting the NetBSD operating system is not in the public domain; its authors retain their copyright.

The following text shows the copyright notice used for many of the NetBSD source code. For exact copyright notice applicable for each of the files/binaries, the source code tree must be consulted.

A full source code can be found at http://www.netbsd.org/.

Copyright (c) 1996-2005 The NetBSD Foundation, Inc.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. All advertising materials mentioning features or use of this software must display the following acknowledgement:
  - This product includes software developed by the NetBSD Foundation, Inc. and its contributors.
- Neither the name of The NetBSD Foundation nor the names of its contributors may be used to endorse
  or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE NETBSD FOUNDATION, INC. AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE FOUNDATION OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY,

WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

#### 2. Authors Name List

All product names mentioned herein are trademarks or registered trade-marks of their respective owners.

The following notices are required to satisfy the license terms of the software that we have mentioned in this document:

- This product includes software developed by the University of California, Berkeley and its contributors.
- This product includes software developed by the NetBSD Foundation.
- This product includes software developed by The NetBSD Foundation, Inc. and its contributors.
- This product includes software developed for the NetBSD Project. See http://www.netbsd.org/ for information about NetBSD.
- This product contains software developed by Ignatios Souvatzis for the NetBSD project.
- This product contains software written by Ignatios Souvatzis and Michaell. Hitch for the NetBSD project.
- This product contains software written by Michael L. Hitch for the NetBSD project.
- This product includes cryptographic software written by Eric Young(eay@cryptsoft.com)
- This product includes cryptographic software written by Eric Young(eay@mincom.oz.au)
- This product includes software designed by William Allen Simpson.
- This product includes software developed at Ludd, University of Lulea, Sweden and its contributors.
- This product includes software developed at Ludd, University of Lulea.
- This product includes software developed at the Information Technology Division, US Naval Research Laboratory.
- This product includes software developed by Berkeley Software Design, Inc.
- This product includes software developed by David Jones and Gordon Ross.
- This product includes software developed by Gordon W. Ross and Leo Weppelman.
- This product includes software developed by Hellmuth Michaelis and Joerg Wunsch.
- This product includes software developed by Internet Research Institute, Inc.
- This product includes software developed by Leo Weppelman and Waldi Ravens.
- This product includes software developed by Mika Kortelainen.
- This product includes software developed by Aaron Brown and Harvard University.
- This product includes software developed by Adam Ciarcinski for the NetBSD project.
- This product includes software developed by Adam Glass and Charles M. Hannum.
- This product includes software developed by Adam Glass.
- This product includes software developed by Advanced Risc Machines Ltd.

- This product includes software developed by Alex Zepeda, and Colin Wood for the NetBSD Projet.
- This product includes software developed by Alex Zepeda.
- This product includes software developed by Alistair G. Crooks.
- This product includes software developed by Alistair G. Crooks. for the NetBSD project.
- This product includes software developed by Allen Briggs.
- This product includes software developed by Amancio Hasty and Roger Hardiman.
- This product includes software developed by Berkeley Software Design, Inc.
- This product includes software developed by Berkeley Software Design, Inc.
- This product includes software developed by Bill Paul.
- This product includes software developed by Bodo Moeller. (If available, substitute umlauted o for oe)
- This product includes software developed by Boris Popov.
- This product includes software developed by Brad Pepers
- This product includes software developed by Bradley A. Grantham.
- This product includes software developed by Brini.
- This product includes software developed by Causality Limited.
- This product includes software developed by Charles D. Cranor and Seth Widoff.
- This product includes software developed by Charles D. Cranor and Washington University.
- This product includes software developed by Charles D. Cranor, Washington University, and the University of California, Berkeley and its contributors.
- This product includes software developed by Charles D. Cranor, Washington University, the University of California, Berkeley and its contributors.
- This product includes software developed by Charles D. Cranor.
- This product includes software developed by Charles Hannum.
- This product includes software developed by Charles M. Hannum, by the University of Vermont and State Agricultural College and Garrett A.Wollman, by William F. Jolitz, and by the University of California, Berkeley, Lawrence Berkeley Laboratory, and its contributors.
- This product includes software developed by Charles M. Hannum.
- This product includes software developed by Christian E. Hopps, Ezra Story, Kari Mettinen, Markus Wild, Lutz Vieweg and Michael Teske.
- This product includes software developed by Christian E. Hopps.
- This product includes software developed by Christian Limpach
- This product includes software developed by Christopher G. Demetriou for the NetBSD Project.
- This product includes software developed by Christopher G. Demetriou.
- This product includes software developed by Christos Zoulas.

- This product includes software developed by Chuck Silvers.
- This product includes software developed by Colin Wood for the NetBSD Project.
- This product includes software developed by Colin Wood.
- This product includes software developed by Cybernet Corporation and Nan Yang Computer Services Limited
- This product includes software developed by Daishi Kato
- This product includes software developed by Dale Rahn.
- This product includes software developed by Daniel Widenfalk and Michael L. Hitch.
- This product includes software developed by Daniel Widenfalk for the NetBSD Project.
- This product includes software developed by Darrin B. Jewell
- This product includes software developed by David Miller.
- This product includes software developed by Dean Huxley.
- This product includes software developed by Eduardo Horvath.
- This product includes software developed by Eric S. Hvozda.
- This product includes software developed by Eric S. Raymond
- This product includes software developed by Eric Young (eay@@mincom.oz.au)
- This product includes software developed by Eric Young (eay@cryptsoft.com)
- This product includes software developed by Eric Young (eay@mincom.oz.au)
- This product includes software developed by Ezra Story and by Kari Mettinen.
- This product includes software developed by Ezra Story, by Kari Mettinen and by Bernd Ernesti.
- This product includes software developed by Ezra Story, by Kari Mettinen, Michael Teske and by Bernd Ernesti.
- This product includes software developed by Ezra Story, by Kari Mettinen, and Michael Teske.
- This product includes software developed by Ezra Story.
- This product includes software developed by Frank van der Linden for the NetBSD Project.
- This product includes software developed by Gardner Buchanan.
- This product includes software developed by Gary Thomas.
- This product includes software developed by Gordon Ross
- This product includes software developed by Gordon W. Ross
- This product includes software developed by HAYAKAWA Koichi.
- This product includes software developed by Harvard University and its contributors.
- This product includes software developed by Harvard University.
- This product includes software developed by Herb Peyerl.
- This product includes software developed by Hubert Feyrer for the NetBSD Project.

- This product includes software developed by Iain Hibbert
- This product includes software developed by Ian F. Darwin and others.
- This product includes software developed by Ian W. Dall.
- This product includes software developed by Ichiro FUKUHARA.
- This product includes software developed by Ignatios Souvatzis for the NetBSD Project.
- This product includes software developed by Internet Initiative Japan Inc.
- This product includes software developed by James R. Maynard III.
- This product includes software developed by Jared D. McNeill.
- This product includes software developed by Jason L. Wright
- This product includes software developed by Jason R. Thorpe for And Communications, http://www.and.com/
- This product includes software developed by Joachim Koenig-Baltes.
- This product includes software developed by Jochen Pohl for The NetBSD Project.
- This product includes software developed by Joerg Wunsch
- This product includes software developed by John Birrell.
- This product includes software developed by John P. Wittkoski.
- This product includes software developed by John Polstra.
- This product includes software developed by Jonathan R. Stone for the NetBSD Project.
- This product includes software developed by Jonathan Stone and Jason R. Thorpe for the NetBSD Project.
- This product includes software developed by Jonathan Stone.
- This product includes software developed by Jukka Marin.
- This product includes software developed by Julian Highfield.
- This product includes software developed by Kazuhisa Shimizu.
- This product includes software developed by Kazuki Sakamoto.
- This product includes software developed by Kenneth Stailey.
- This product includes software developed by Kiyoshi Ikehara.
- This product includes software developed by Klaus Burkert, by Bernd Ernesti, by Michael van Elst, and by the University of California, Berkeley and its contributors.
- This product includes software developed by LAN Media Corporation and its contributors.
- This product includes software developed by Leo Weppelman for the NetBSD Project.
- This product includes software developed by Leo Weppelman.
- This product includes software developed by Lloyd Parkes.
- This product includes software developed by Luke Mewburn.

- This product includes software developed by Lutz Vieweg.
- This product includes software developed by MINOURA Makoto, Takuya Harakawa.
- This product includes software developed by Manuel Bouyer.
- This product includes software developed by Marc Horowitz.
- This product includes software developed by Marcus Comstedt.
- This product includes software developed by Mark Brinicombe for the NetBSD project.
- This product includes software developed by Mark Brinicombe.
- This product includes software developed by Mark Murray
- This product includes software developed by Mark Tinguely and Jim Lowe
- This product includes software developed by Markus Wild.
- This product includes software developed by Martin Husemann and Wolfgang Solfrank.
- This product includes software developed by Masanobu Saitoh.
- This product includes software developed by Masaru Oki.
- This product includes software developed by Mats O Jansson and Charles D.Cranor.
- This product includes software developed by Mats O Jansson.
- This product includes software developed by Matt DeBergalis
- This product includes software developed by Matthew Fredette.
- This product includes software developed by Matthias Pfaller.
- This product includes software developed by Michael Graff for the NetBSD Project.
- This product includes software developed by Michael Graff.
- This product includes software developed by Michael L. Hitch.
- This product includes software developed by Michael Shalayeff.
- This product includes software developed by Michael Smith.
- This product includes software developed by Mike Glover and contributors.
- This product includes software developed by Mike Pritchard.
- This product includes software developed by Minoura Makoto.
- This product includes software developed by Nan Yang Computer Services Limited.
- This product includes software developed by Niels Provos.
- This product includes software developed by Niklas Hallqvist, Brandon Creighton and Job de Haas.
- This product includes software developed by Niklas Hallqvist.
- This product includes software developed by Onno van der Linden.
- This product includes software developed by Paul Kranenburg.
- This product includes software developed by Paul Mackerras.

- This product includes software developed by Per Fogelstrom
- This product includes software developed by Peter Galbavy.
- This product includes software developed by Phase One, Inc.
- This product includes software developed by Philip A. Nelson.
- This product includes software developed by Philip L. Budne.
- This product includes software developed by RiscBSD.
- This product includes software developed by Roar Thronaes.
- This product includes software developed by Rodney W. Grimes.
- This product includes software developed by Roger Hardiman
- This product includes software developed by Roland C. Dowdeswell.
- This product includes software developed by Rolf Grossmann.
- This product includes software developed by Ross Harvey for the NetBSD Project.
- This product includes software developed by Ross Harvey.
- This product includes software developed by Scott Bartram.
- This product includes software developed by Scott Stevens.
- This product includes software developed by Shingo WATANABE.
- This product includes software developed by Softweyr LLC, the University of California, Berkeley, and
  its contributors.
- This product includes software developed by Soren S. Jorvang.
- This product includes software developed by Stephan Thesing.
- This product includes software developed by Steve Woodford.
- This product includes software developed by Takashi Hamada
- This product includes software developed by Takumi Nakamura.
- This product includes software developed by Tatoku Ogaito for the NetBSD Project.
- This product includes software developed by Terrence R. Lambert.
- This product includes software developed by Tetsuya Isaki.
- This product includes software developed by Thomas Gerner
- This product includes software developed by Thomas Klausner for the NetBSD Project.
- This product includes software developed by Tobias Weingartner.
- This product includes software developed by Todd C. Miller.
- This product includes software developed by Tohru Nishimura and Reinoud Zandijk for the NetBSD Project.
- This product includes software developed by Tohru Nishimura for the NetBSD Project.
- This product includes software developed by Tohru Nishimura. for the NetBSD Project.

- This product includes software developed by TooLs GmbH.
- This product includes software developed by Toru Nishimura.
- This product includes software developed by Trimble Navigation, Ltd.
- This product includes software developed by WIDE Project and its contributors.
- This product includes software developed by Waldi Ravens.
- This product includes software developed by Wasabi Systems for Zembu Labs, Inc. http://www.zembu.com/
- This product includes software developed by Winning Strategies, Inc.
- This product includes software developed by Wolfgang Solfrank.
- This product includes software developed by Yasushi Yamasaki
- This product includes software developed by Zembu Labs, Inc.
- This product includes software developed by the Alice Group.
- This product includes software developed by the Center for Software Science at the University of Utah.
- This product includes software developed by the Charles D. Cranor, Washington University, University
  of California, Berkeley and its contributors.
- This product includes software developed by the Computer Systems Engineering Group at Lawrence Berkeley Laboratory.
- This product includes software developed by the David Muir Sharnoff.
- This product includes software developed by the Harvard University and its contributors.
- This product includes software developed by the Kungliga Tekniska Hogskolan and its contributors.
- This product includes software developed by the Network Research Group at Lawrence Berkeley Laboratory.
- This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.OpenSSL.org/)
- This product includes software developed by the PocketBSD project and its contributors.
- This product includes software developed by the RiscBSD kernel team
- This product includes software developed by the RiscBSD team.
- This product includes software developed by the SMCC Technology Development Group at Sun Microsystems, Inc.
- This product includes software developed by the University of California, Berkeley and its contributors, as well as the Trustees of Columbia University.
- This product includes software developed by the University of California, Lawrence Berkeley Laboratory and its contributors.
- This product includes software developed by the University of California, Lawrence Berkeley Laboratory.

- This product includes software developed by the University of Illinois at Urbana and their contributors.
- This product includes software developed by the University of Vermont and State Agricultural College and Garrett A. Wollman.
- This product includes software developed by the University of Vermont and State Agricultural College and Garrett A. Wollman, by William F. Jolitz, and by the University of California, Berkeley, Lawrence Berkeley Laboratory, and its contributors.
- This product includes software developed for the FreeBSD project
- This product includes software developed for the NetBSD Project by Bernd Ernesti.
- This product includes software developed for the NetBSD Project by Christopher G. Demetriou.
- This product includes software developed for the NetBSD Project by Christos Zoulas
- This product includes software developed for the NetBSD Project by Emmanuel Dreyfus.
- This product includes software developed for the NetBSD Project by Frank van der Linden
- This product includes software developed for the NetBSD Project by Ignatios Souvatzis.
- This product includes software developed for the NetBSD Project by Jason R. Thorpe.
- This product includes software developed for the NetBSD Project by John M. Vinopal.
- This product includes software developed for the NetBSD Project by Matthias Drochner.
- This product includes software developed for the NetBSD Project by Michael L. Hitch.
- This product includes software developed for the NetBSD Project by Perry E. Metzger.
- This product includes software developed for the NetBSD Project by Scott Bartram and Frank van der Linden
- This product includes software developed for the NetBSD Project by Allegro Networks, Inc., and Wasabi Systems, Inc.
- This product includes software developed for the NetBSD Project by Genetec Corporation.
- This product includes software developed for the NetBSD Project by Jonathan Stone.
- This product includes software developed for the NetBSD Project by Piermont Information Systems Inc.
- This product includes software developed for the NetBSD Project by SUNET, Swedish University Computer Network.
- This product includes software developed for the NetBSD Project by Shigeyuki Fukushima.
- This product includes software developed for the NetBSD Project by Wasabi Systems, Inc.
- This product includes software developed under OpenBSD by Per Fogelstrom Opsycon AB for RTMX Inc, North Carolina, USA.
- This product includes software developed under OpenBSD by Per Fogelstrom.
- This software is a component of "386BSD" developed by William F. Jolitz, TeleMuse.

- This software was developed by Holger Veit and Brian Moore for use with "386BSD" and similar operating systems. "Similar operating systems" includes mainly non-profit oriented systems for research and education, including but not restricted to "NetBSD", "FreeBSD", "Mach" (by CMU).
- This software includes software developed by the Computer Systems Labora-tory at the University of Utah.
- This product includes software developed by Computing Services at Carnegie Mellon University (http://www.cmu.edu/computing/).
- This product includes software developed by Allen Briggs.
- In the following statement, "This software" refers to the Mitsumi CD-ROM driver:
- This software was developed by Holger Veit and Brian Moore for use with "386BSD" and similar operating systems. "Similar operating systems" includes mainly non-profit oriented systems for research and education, including but not restricted to "NetBSD", "FreeBSD", "Mach" (by CMU).
- In the following statement, "This software" refers to the parallel port driver:
- This software is a component of "386BSD" developed by William F. Jolitz, TeleMuse.

## Open LDAP

Copyright (c) 1999-2003 The OpenLDAP Foundation, Redwood City, California, USA. All Rights Reserved. Permission to copy and distribute verbatim copies of this document is granted.

The OpenLDAP Public License Version 2.8, 17 August 2003.

Redistribution and use of this software and associated documentation ("Software"), with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions in source form must retain copyright statements and notices,
- 2. Redistributions in binary form must reproduce applicable copyright statements and notices, this list of conditions, and the following disclaimer in the documentation and/or other materials provided with the distribution, and
- 3. Redistributions must contain a verbatim copy of this document.

The OpenLDAP Foundation may revise this license from time to time. Each revision is distinguished by a version number. You may use this Software under terms of this license revision or under the terms of any subsequent revision of the license.

THIS SOFTWARE IS PROVIDED BY THE OPENLDAP FOUNDATION AND ITS CONTRIBUTORS "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OPENLDAP FOUNDATION, ITS CONTRIBUTORS, OR THE AUTHOR(S) OR OWNER(S) OF THE SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT,

STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The names of the authors and copyright holders must not be used in advertising or otherwise to promote the sale, use or other dealing in this Software without specific, written prior permission. Title to copyright in this Software shall at all times remain with copyright holders.

## **Open SSH**

The licences which components of this software fall under are as follows. First, we will summarize and say that all components are under a BSD licence, or a licence more free than that.

OpenSSH contains no GPL code.

1)

Copyright (c) 1995 Tatu Ylonen <ylo@cs.hut.fi>, Espoo, Finland All rights reserved

As far as I am concerned, the code I have written for this software can be used freely for any purpose. Any derived versions of this software must be clearly marked as such, and if the derived work is incompatible with the protocol description in the RFC file, it must be called by a name other than "ssh" or "Secure Shell".

#### [Tatu continues]

However, I am not implying to give any licenses to any patents or copyrights held by third parties, and the software includes parts that are not under my direct control. As far as I know, all included source code is used in accordance with the relevant license agreements and can be used freely for any purpose (the GNU license being the most restrictive); see below for details.

[However, none of that term is relevant at this point in time. All of these restrictively licenced software components which he talks about have been removed from OpenSSH, i.e.,

- RSA is no longer included, found in the OpenSSL library
- IDEA is no longer included, its use is deprecated
- DES is now external, in the OpenSSL library
- GMP is no longer used, and instead we call BN code from OpenSSL
- Zlib is now external, in a library
- The make-ssh-known-hosts script is no longer included
- TSS has been removed
- MD5 is now external, in the OpenSSL library
- RC4 support has been replaced with ARC4 support from OpenSSL
- Blowfish is now external, in the OpenSSL library

[The licence continues]

Note that any information and cryptographic algorithms used in this software are publicly available on the Internet and at any major bookstore, scientific library, and patent office worldwide. More information can be found e.g. at "http://www.cs.hut.fi/crypto".

The legal status of this program is some combination of all these permissions and restrictions. Use only at your own responsibility. You will be responsible for any legal consequences yourself; I am not making any claims whether possessing or using this is legal or not in your country, and I am not taking any responsibility on your behalf.

#### **NO WARRANTY**

BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

2)

The 32-bit CRC compensation attack detector in deattack.c was contributed by CORE SDI S.A. under a BSD-style license.

Cryptographic attack detector for ssh - source code

Copyright (c) 1998 CORE SDI S.A., Buenos Aires, Argentina. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that this copyright notice is retained.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES ARE DISCLAIMED. IN NO EVENT SHALL CORE SDI S.A. BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR MISUSE OF THIS SOFTWARE.

Ariel Futoransky <futo@core-sdi.com>

<a href="http://www.core-sdi.com">http://www.core-sdi.com</a>

3)

One component of the ssh source code is under a 3-clause BSD license, held by the University of California, since we pulled these parts from original Berkeley code.

7

Copyright (c) 1983, 1990, 1992, 1993, 1995

The Regents of the University of California. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

4)

Remaining components of the software are provided under a standard 2-term BSD licence with the following names as copyright holders:

Markus Friedl

Theo de Raadt

Niels Provos

Dug Song

Kevin Steves

Daniel Kouril

Wesley Griffin

Per Allansson

Jason Downs

Solar Designer

Todd C. Miller

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

5)

Portable OpenSSH contains the following additional licenses:

c) Compatibility code (openbsd-compat)

Apart from the previously mentioned licenses, various pieces of code in the openbsd-compat/subdirectory are licensed as follows:

Some code is licensed under a 3-term BSD license, to the following copyright holders:

Todd C. Miller

Theo de Raadt

Damien Miller

Eric P. Allman

The Regents of the University of California

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. Neither the name of the University nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE REGENTS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR

1

BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

## **Open SSL**

Copyright (c) 1998-2004 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. All advertising materials mentioning features or use of this software must display the following acknowledgment:
- "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)"
- 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.
- 5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.
- 6. Redistributions of any form whatsoever must retain the following acknowledgment:

"This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Original SSLeay License

Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com) All rights reserved.

This package is an SSL implementation written by Eric Young (eay@cryptsoft.com). The implementation was written so as to conform with Netscapes SSL.

This library is free for commercial and non-commercial use as long as the following conditions are aheared to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed. If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used. This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. All advertising materials mentioning features or use of this software must display the following acknowledgement: "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)" The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related :-).
- 4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement: "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The licence and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution licence.

[including the GNU Public Licence.]

#### racoon

Copyright (C) 1995, 1996, 1997, and 1998 WIDE Project.

All rights reserved.

## RSA BSAFE®



- This product includes RSA BSAFE (c) cryptographic software from RSA Security Inc.
- RSA, BSAFE are either registered trademarks or trademarks of RSA Security Inc. in the United States and/or other countries.
- RSA Security Inc. All rights reserved.

## Sablotron (Version 0.82)

Copyright (c) 2000 Ginger Alliance Ltd. All Rights Reserved.

- a) The application software installed on this product includes the Sablotron software Version 0.82 (hereinafter, "Sablotron 0.82"), with modifications made by the product manufacturer. The original code of the Sablotron 0.82 is provided by Ginger Alliance Ltd., the initial developer, and the modified code of the Sablotron 0.82 has been derived from such original code provided by Ginger Alliance Ltd.
- b) The product manufacturer provides warranty and support to the application software of this product including the Sablotron 0.82 as modified, and the product manufacturer makes Ginger Alliance Ltd., the initial developer of the Sablotron 0.82, free from these obligations.
- c) The Sablotron 0.82 and the modifications thereof are made available under the terms of Mozilla Public License Version 1.1 (hereinafter, "MPL 1.1"), and the application software of this product constitutes the "Larger Work" as defined in MPL 1.1. The application software of this product except for the Sablotron 0.82 as modified is licensed by the product manufacturer under separate agreement (s).
- d) The source code of the modified code of the Sablotron 0.82 is available at: http://support-download.com/services/device/sablot/notice082.html
- e) The source code of the Sablotron software is available at: http://www.gingerall.com

f) MPL 1.1 is available at: http://www.mozilla.org/MPL/MPL-1.1.html

## Samba

For SMB transmission, this machine uses Samba.

Copyright (c) Andrew Tridgell 1994-1998.

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 675 Mass Ave, Cambridge, MA 02139, USA.



 The source code for SMB transmission by this machine can be downloaded from the following website: http://support-download.com/services/scbs

Copyright (C) 1989, 1991 Free Software Foundation, Inc.59 Temple Place, Suite 330, Boston, MA 02111-1307 USAEveryone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

#### Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software-to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

## TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

O. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

- 2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the

user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

- 3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or

7

rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

- 5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
- 6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.
- 7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- 8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program

does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### **NO WARRANTY**

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND /OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

one line to give the program's name and a brief idea of what it does. Copyright (C)

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA

02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989

Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

## **SASL**

Copyright (c) 2001 Carnegie Mellon University. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- 3. The name "Carnegie Mellon University" must not be used to endorse or promote products derived from this software without prior written permission.

For permission or any other legal details, please contact:

Office of Technology Transfer

Carnegie Mellon University

5000 Forbes Avenue

7

Pittsburgh, PA 15213-3890

(412) 268-4387, fax: (412) 268-7395

tech-transfer@andrew.cmu.edu

 Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by Computing Services at Carnegie Mellon University (http://www.cmu.edu/computing/)."

CARNEGIE MELLON UNIVERSITY DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL CARNEGIE MELLON UNIVERSITY BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

## SPX/IPX

Copyright (c) 1984, 1985, 1986, 1987, 1993

The Regents of the University of California. All rights reserved.

Modifications Copyright (c) 1995, Mike Mitchell

Modifications Copyright (c) 1995, John Hay

## TrouSerS

THE ACCOMPANYING PROGRAM IS PROVIDED UNDER THE TERMS OF THIS COMMON PUBLIC LICENSE ("AGREEMENT"). ANY USE, REPRODUCTION OR DISTRIBUTION OF THE PROGRAM CONSTITUTES RECIPIENT'S ACCEPTANCE OF THIS AGREEMENT.

#### 1. DEFINITIONS

"Contribution" means:

- a) in the case of the initial Contributor, the initial code and documentation distributed under this Agreement, and
- b) in the case of each subsequent Contributor:
- i) changes to the Program, and
- ii) additions to the Program;

where such changes and/or additions to the Program originate from and are distributed by that particular Contributor. A Contribution 'originates' from a Contributor if it was added to the Program by such Contributor itself or anyone acting on such Contributor's behalf. Contributions do not include additions to the Program which: (i) are separate modules of software distributed in conjunction with the Program under their own license agreement, and (ii) are not derivative works of the Program.

"Contributor" means any person or entity that distributes the Program.

"Licensed Patents" mean patent claims licensable by a Contributor which are necessarily infringed by the use or sale of its Contribution alone or when combined with the Program.

"Program" means the Contributions distributed in accordance with this Agreement.

"Recipient" means anyone who receives the Program under this Agreement, including all Contributors.

#### 2. GRANT OF RIGHTS

- a) Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free copyright license to reproduce, prepare derivative works of, publicly display, publicly perform, distribute and sublicense the Contribution of such Contributor, if any, and such derivative works, in source code and object code form.
- b) Subject to the terms of this Agreement, each Contributor hereby grants Recipient a non-exclusive, worldwide, royalty-free patent license under Licensed Patents to make, use, sell, offer to sell, import and otherwise transfer the Contribution of such Contributor, if any, in source code and object code form. This patent license shall apply to the combination of the Contribution and the Program if, at the time the Contribution is added by the Contributor, such addition of the Contribution causes such combination to be covered by the Licensed Patents. The patent license shall not apply to any other combinations which include the Contribution. No hardware per se is licensed hereunder.
- c) Recipient understands that although each Contributor grants the licenses to its Contributions set forth herein, no assurances are provided by any Contributor that the Program does not infringe the patent or other intellectual property rights of any other entity. Each Contributor disclaims any liability to Recipient for claims brought by any other entity based on infringement of intellectual property rights or otherwise. As a condition to exercising the rights and licenses granted hereunder, each Recipient hereby assumes sole responsibility to secure any other intellectual property rights needed, if any. For example, if a third party patent license is required to allow Recipient to distribute the Program, it is Recipient's responsibility to acquire that license before distributing the Program.
- d) Each Contributor represents that to its knowledge it has sufficient copyright rights in its Contribution, if any, to grant the copyright license set forth in this Agreement.

#### 3. REQUIREMENTS

A Contributor may choose to distribute the Program in object code form under its own license agreement, provided that:

- a) it complies with the terms and conditions of this Agreement; and
- b) its license agreement:
- i) effectively disclaims on behalf of all Contributors all warranties and conditions, express and implied, including warranties or conditions of title and non-infringement, and implied warranties or conditions of merchantability and fitness for a particular purpose;
- ii) effectively excludes on behalf of all Contributors all liability for damages, including direct, indirect, special, incidental and consequential damages, such as lost profits;
- iii) states that any provisions which differ from this Agreement are offered by that Contributor alone and not by any other party; and

1

iv) states that source code for the Program is available from such Contributor, and informs licensees how to obtain it in a reasonable manner on or through a medium customarily used for software exchange.

When the Program is made available in source code form:

- a) it must be made available under this Agreement; and
- b) a copy of this Agreement must be included with each copy of the Program.

Contributors may not remove or alter any copyright notices contained within the Program.

Each Contributor must identify itself as the originator of its Contribution, if any, in a manner that reasonably allows subsequent Recipients to identify the originator of the Contribution.

#### 4. COMMERCIAL DISTRIBUTION

Commercial distributors of software may accept certain responsibilities with respect to end users, business partners and the like. While this license is intended to facilitate the commercial use of the Program, the Contributor who includes the Program in a commercial product offering should do so in a manner which does not create potential liability for other Contributors. Therefore, if a Contributor includes the Program in a commercial product offering, such Contributor ("Commercial Contributor") hereby agrees to defend and indemnify every other Contributor ("Indemnified Contributor") against any losses, damages and costs (collectively "Losses") arising from claims, lawsuits and other legal actions brought by a third party against the Indemnified Contributor to the extent caused by the acts or omissions of such Commercial Contributor in connection with its distribution of the Program in a commercial product offering. The obligations in this section do not apply to any claims or Losses relating to any actual or alleged intellectual property infringement. In order to qualify, an Indemnified Contributor must: a) promptly notify the Commercial Contributor in writing of such claim, and b) allow the Commercial Contributor to control, and cooperate with the Commercial Contributor in, the defense and any related settlement negotiations. The Indemnified Contributor may participate in any such claim at its own expense.

For example, a Contributor might include the Program in a commercial product offering, Product X. That Contributor is then a Commercial Contributor. If that Commercial Contributor then makes performance claims, or offers warranties related to Product X, those performance claims and warranties are such Commercial Contributor's responsibility alone. Under this section, the Commercial Contributor would have to defend claims against the other Contributors related to those performance claims and warranties, and if a court requires any other Contributor to pay any damages as a result, the Commercial Contributor must pay those damages.

## 5. NO WARRANTY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, THE PROGRAM IS PROVIDED ON AN "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Each Recipient is solely responsible for determining the appropriateness of using and distributing the Program and assumes all risks associated with its exercise of rights under this Agreement, including but not limited to the risks and costs of program errors, compliance with applicable laws, damage to or loss of data, programs or equipment, and unavailability or interruption of operations.

#### 6. DISCLAIMER OF LIABILITY

EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER RECIPIENT NOR ANY CONTRIBUTORS SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION OF THE PROGRAM OR THE EXERCISE OF ANY RIGHTS GRANTED HEREUNDER, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### 7. GENERAL

If any provision of this Agreement is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this Agreement, and without further action by the parties hereto, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

If Recipient institutes patent litigation against a Contributor with respect to a patent applicable to software (including a cross-claim or counterclaim in a lawsuit), then any patent licenses granted by that Contributor to such Recipient under this Agreement shall terminate as of the date such litigation is filed. In addition, if Recipient institutes patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Program itself (excluding combinations of the Program with other software or hardware) infringes such Recipient's patent(s), then such Recipient's rights granted under Section 2(b) shall terminate as of the date such litigation is filed.

All Recipient's rights under this Agreement shall terminate if it fails to comply with any of the material terms or conditions of this Agreement and does not cure such failure in a reasonable period of time after becoming aware of such noncompliance. If all Recipient's rights under this Agreement terminate, Recipient agrees to cease use and distribution of the Program as soon as reasonably practicable. However, Recipient's obligations under this Agreement and any licenses granted by Recipient relating to the Program shall continue and survive.

Everyone is permitted to copy and distribute copies of this Agreement, but in order to avoid inconsistency the Agreement is copyrighted and may only be modified in the following manner. The Agreement Steward reserves the right to publish new versions (including revisions) of this Agreement from time to time. No one other than the Agreement Steward has the right to modify this Agreement. IBM is the initial Agreement Steward. IBM may assign the responsibility to serve as the Agreement Steward to a suitable separate entity. Each new version of the Agreement will be given a distinguishing version number. The Program (including Contributions) may always be distributed subject to the version of the Agreement under which it was received. In addition, after a new version of the Agreement is published, Contributor may elect to distribute the Program (including its Contributions) under the new version. Except as expressly stated in Sections 2 (a) and 2(b) above, Recipient receives no rights or licenses to the intellectual property of any Contributor under this Agreement, whether expressly, by implication, estoppel or otherwise. All rights in the Program not expressly granted under this Agreement are reserved.

This Agreement is governed by the laws of the State of New York and the intellectual property laws of the United States of America. No party to this Agreement will bring a legal action under this Agreement more than one year after the cause of action arose. Each party waives its rights to a jury trial in any resulting litigation.

- To obtain the source code for opening TrouSerS (Version 0.27), which is provided with this machine, access the Web site at the following URL: http://www.ricoh.com/support/trousers/index.html
- TrouSerS version control is by SourceForge CVS. For methods of obtaining the source code, access
  the Web site at the following URL: http://sourceforge.net/cvs/?group\_id=126012

## **WPA Supplicant**

Copyright (c) 2003-2009, Jouni Malinen <j@w1.fi> and contributors All Rights Reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and /or other materials provided with the distribution.
- 3. Neither the name (s) of the above-listed copyright holder (s) nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

7

## **Trademarks**

Adobe, Acrobat, Acrobat Reader, PostScript, and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Apple, Bonjour, Macintosh, Mac OS, and TrueType are registered trademarks of Apple Inc, registered in the U.S. and other countries.

Citrix, Citrix Presentation Server, Citrix XenApp and MetaFrame are either registered trademarks or trademarks of Citrix Systems, Inc.

Firefox is trademarks or registered trademarks of the Mozilla Foundation in the U.S. and other countries.

IPS is a trademark or registered trademark of Zoran Corporation and/or its subsidiaries in the United States or other countries.

 $\mathsf{JAWS}^{\circledR} \text{ is a registered trademark of Freedom Scientific, Inc., St. Petersburg, Florida and/or other countries.}$ 

Linux<sup>®</sup> is the registered trademark of Linus Torvalds in the U.S. and other countries.

Microsoft<sup>®</sup>, Windows<sup>®</sup>, Windows Server<sup>®</sup>, and Windows Vista<sup>®</sup> are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Monotype is a registered trademark of Monotype Imaging Inc.

NetWare, IPX, IPX/SPX are either registered trademarks or trademarks of Novell, Inc.

OpenLDAP is a registered trademark of the OpenLDAP Foundation.

UNIX is a registered trademark in the United States and other countries, licensed exclusively through, X/Open Company Limited.

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights to those marks.

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

• The product names of Windows 2000 are as follows:

Microsoft® Windows® 2000 Professional

Microsoft® Windows® 2000 Server

Microsoft® Windows® 2000 Advanced Server

• The product names of Windows XP are as follows:

Microsoft® Windows® XP Professional Edition

Microsoft® Windows® XP Home Edition

Microsoft® Windows® XP Media Center Edition

Microsoft® Windows® XP Tablet PC Edition

• The product names of Windows Vista are as follows:

Microsoft® Windows Vista® Ultimate

Microsoft® Windows Vista® Business

7

Microsoft® Windows Vista® Home Premium

Microsoft® Windows Vista® Home Basic

Microsoft® Windows Vista® Enterprise

• The product names of Windows 7 are as follows:

Microsoft® Windows® 7 Home Premium

Microsoft® Windows® 7 Professional

Microsoft® Windows® 7 Ultimate

Microsoft® Windows® 7 Enterprise

• The product names of Windows Server 2003 are as follows:

Microsoft® Windows Server® 2003 Standard Edition

Microsoft® Windows Server® 2003 Enterprise Edition

• The product names of Windows Server 2003 R2 are as follows:

Microsoft® Windows Server® 2003 R2 Standard Edition

Microsoft® Windows Server® 2003 R2 Enterprise Edition

• The product names of Windows Server 2008 are as follows:

Microsoft® Windows Server® 2008 Standard

Microsoft® Windows Server® 2008 Enterprise

• The product names of Windows Server 2008 R2 are as follows:

Microsoft® Windows Server® 2008 R2 Standard

Microsoft® Windows Server® 2008 R2 Enterprise

# **INDEX**

A		Connecting to the interfaces	6
Account for e-mail notification	107	Copier / Document Server Auto Reset Timer.	3
Ad-hoc Channel		Copy Count Display	2
		Copy speed	12
Adding a group to another group		Copyrights	28
Address book	199	D	
Address Book Change Order	16		
Edit Title		Data Carry-over Setting for Address Book	
Program / Change / Delete Group		Program	
Switch Title		DDNS Configuration	
Address Book Management	45	Default User Name / Password (Send) Delete all files in Document Server	
Adjust Scan Position			
Administrator Authentication Management		Delete All Logs	
Administrator mode		Deleting a group	
Administrator tools		Deleting a group within another group	
Administrator's E-mail Address		Deleting a registered name	
Authentication information		Deleting a user code	
Auto Delete File in Document Server		Deleting an e-mail destination	
Auto Erase Memory Setting		Deleting an FTP Folder	
Auto Logout Timer		Deleting an NCP Folder	
Auto Off Timer		Deleting an SMB Registered Folder	
Auto Specify Sender Name		Delivery Option	
AutoNet		DHCP	
_	200	DHCPv6	
В		Dial-up router	
Back Up / Restore Address Book	49	Direct printing	
C		Display / Clear / Print Counter per User	
		Display / Print Counter	
Capture	<i>-</i>	Display Panel	
Delete All Unsent Files Owner Defaults		Displayed information	
Ownership		Displaying names registered in a group	
Public Priority		Displaying the counter for each user	
Capture Priority		DNS Configuration	3
Capture Server IPv4 Address		Document server	0.0
Changing a group name		Ethernetwireless LAN	
Changing a registered name		Domain Name	
Changing a user code		Dynamic DNS	
Changing a e-mail destination			200
Changing an FTP Folder		E	
Changing an NCP Registered Folder		E-mail	
Changing an SMB folder		ethernet	7
Clearing the number of prints		wireless LAN	7
Communication Mode		E-mail Communication Port	4

E-mail destination	217	Enabling SSL	274
E-mail Reception Interval	41	Ethernet	275
E-mail Storage in Server		site certificate	273
Effective Protocol		wireless LAN	
Energy Saver Timer		IEEE 802.1X Authentication for Ethernet	34
Enhanced Authentication Management.		info	176, 179
Enhanced External Charge Unit Manag		Interface settings	31
		Interleave Print	21
Erase All Memory	54	IP address	13
Ethernet interface		IPsec	32
connecting	66	IPv4 Gateway Address	31
Ethernet Speed	33	IPv6 Gateway Address	31
Extended Security	52	IPv6 Stateless Address Autoconfiguration.	
External Charge Unit Management	51	K	
F		Key Counter Management	51
Feed Start Method	21	Key Repeat	
File transfer	39	, ,	
Fine Ratio Adjustment		L	
Copier	21	LAN Type	33
Printer	22	Laws and regulations	14
Firmware Version	54	LDAP	56
Fixed USB Port	54	changing	60
Format of on-demand e-mail messages.	131	deleting	
ftp174, 176, 179		programming	
Function Priority		LDAP authentication	
Function Reset Timer		LDAP Search	53
		Legal prohibition	14
G		Limitations	261
General features	19	Locating the NCP folder manually	235
Gigabit Ethernet interface		Locating the NCP folder using browse net	
connecting	67		
Guest mode	114	Locating the SMB folder manually	
Н		Locating the SMB folder using Browse Ne	
Host name	257	Login	
Host Name		administrator mode	116
_		Web Image Monitor	114
		lpr	174, 258
IEEE 802.11 a/b/g interface		M	
checking the signal			
connecting		Machine Data Encryption Settings	
setup procedure	71	Machine IPv4 Address	
IEEE 802.11 interface	272	Machine IPv6 Address	31
IEEE 802.1X	273	Machine Name	34
device certificate	273	Machine status	

ftp174	0
rcp	Original Feed Delay 121
rsh	Original Feed Delay 221
stat	Output Printer20
Managing names in the Address Book202	P
Managing users and machine usage203	P
Manuals for this machine9	Panel Key Sound19
Max. Reception E-mail Size42	Panel Off Timer29
Message186	Paper Thickness
Model-specific information15	Paper Bypass28
Models	Paper Tray27
	Paper Tray Priority
N	Copier24
Names of Major Items13	Printer
NCP Delivery Protocol32	Paper Type
NetWare100	Bypass Tray
banner page271	Tray 1-3
form feed270	Paper Volume
printing270	Permit SNMPv3 Communication34
NetWare 3.x100, 105	Permit SSL / TLS Communication34
NetWare 4.x102, 107	Ping Command
NetWare 5102, 103, 107	POP before SMTP40
NetWare 5.1102, 103, 107	POP3 / IMAP4 Settings40
NetWare 6102, 103, 107	Preventing unauthorized user access to shared folders from the machine203
NetWare 6.5102, 103, 107	
Network31	Preview Area Settings22
Network delivery scanner	Print Address Book  Destination List
Ethernet83	
wireless LAN84	Print Image Priority23
Network interface board configuration180	Print job information ftp179
Network Security Level54	info
Network settings	rcp179
file transfer97	rsh179
interface settings92	sftp179
Network TWAIN scanner	Print List37
Ethernet86	Print log information
wireless LAN87	ftp179
Notes	prnlog179
Notice11	rcp179
Notify Machine Status54	rsh
Number of Scanner Resends43	sftp179
NW Frame Type32	Print Priority20
	Print server
	NetWare 3 v

NetWare 4.x	102	Registering a protection code	249
NetWare 5	102	Registering a protection code to a grou	p user
NetWare 5.1	102		
NetWare 6	102	Registering a protection code to a singl	
NetWare 6.5	102		
Print speed	12	Registering a user code	208
Printer		Registering an e-mail destination	217
Ethernet	73	Registering an NCP Folder	232
wireless LAN	74	Registering an SMB folder	221
Printer Auto Reset Timer	30	Registering folders	
Printer Bypass Paper Size	26	Registering names	
Printer configuration		Registering names to a group	
ftp	176	Registering Names to a Group	
info	176	Remote maintenance	
rcp	176	Remote printer	102
rsh		NetWare 3.x	105
sftp	176	NetWare 4.x	
Printer server	99	NetWare 5	
Printing commands		NetWare 5.1	
ftp		NetWare 6	107
lpr		NetWare 6.5	107
sftp	258	Removing a name from a group	244
Printing the counter for all users	214	Restore Factory Defaults	
Printing the counter for each user	213	Restore IEEE 802.1X Authentication to	
prnlog	179		
Program / Change / Delete E-mail Mess		rsh174, 176	5, 1 <i>7</i> 9, 186
Program / Change / Delete LDAP Serve	r53	<u>S</u>	
Program / Change / Delete Realm	54	Scan to folder function	
Program / Change Administrator		Ethernet	80
Program/Change/Delete User Text		wireless LAN	81
Pure IP environment		Scanner Auto Reset Timer	30
NetWare 5	103	Scanner Resend Interval Time	43
NetWare 5.1	103	Security Method	36
NetWare 6	103	Sending e-mail by quick dial	
NetWare 6.5	103	Sending scanned files to a shared folde	r directly
R		Service Mode Lock	
rcp174, 176,	179, 186		
Realm		Service Test Call	
changing		Set Date	
deleting		Set Time	
programming	62	sftp174, 176, 179	
Reception Protocol		SMB Computer Name	
Registering a FTP folder		SMB Work Group	
Registering a Group		SMTP authentication	252

SMTP Authentication	39	show	
SMTP Server	39	slp	
	173	smb	154
	35 261 12 186 29	snmp	
		sntp	
		spoolsw	
		ssdp	
•		ssh	
syslog		status	
System Auto Reset Timer		syslogupnpweb	
		wiconfig	
		wins	
rsh		wsmfp	169 29 113
sftp	186	,	
syslog		Timer settings	
System Status/Job List Display Time	21	Top Page	
T		Trademarks	
talnat	122	Transfer Log Setting	
telnet	170	Tray paper settings	24
		Tray Paper Size	
		Tray 2 Tray 3	
	134 135 137		25
			26
		U	
dhcp6		USB interface	
diprint		connecting	
dns		User Authentication Management	50
domainname		User tools	17
etherauth	142	change the settings	17
etherconfig	142	quit the settings	18
help	142	W	
hostname	143	**	
ifconfig	143	Warm-up Beeper	20
info	145	Web Image Monitor	114
ipp	145	administrator mode	
ipsec	146	auto e-mail notification	
ipv6	146	e-mail notification	126
logout	146	guest mode	114
lpr netware	146	help	123
	147	log out	114
passwd	148	login	128
pathmtu	149	mail authentication	
prnlog	149	menu	
route	150	mode	
set	151	on-demand e-mail notification	130

setting items	116
top page	112
When Using IPP with SmartDeviceMor	nitor for Clien
IPP	125
SmartDeviceMonitor for Client	125
WINS Configuration	32
WINS server	264
telnet	265
Web Image Monitor	264
Wireless LAN	35, 272
Wireless LAN interface	
checking the signal	72
connecting	7C
setup procedure	71
Wireless I AN Signal	3,6

