**olivetti**

APPLIED FUNCTIONS

**d-COLOR** P3100

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## 2 Configuring the Operating Environment of This Machine

# 1 Using Web Connection

# 1        Using Web Connection

## 1.1      Web Connection

### Web Connection

**Web Connection** is a built-in utility software product for management use.

By using a Web browser on your computer, you can easily confirm the status of this machine and configure various machine settings.

Although character input such as address entry and network setting is a difficult process using the touch panel, it can be carried out easily if you use the computer.

### Operating environment

| Item | Specifications |
|------|----------------|
| Network | Ethernet (TCP/IP) |
| Web Browser | For Windows<br>• Microsoft Internet Explorer 8 or later<br>• Mozilla Firefox 18 or later<br>For Mac OS<br>• Mozilla Firefox 18 or later<br>On Linux<br>• Mozilla Firefox 18 or later |

# 1.2 Operations required to use this function

## 1.2.1 Configuring network environment settings

### Assigning an IP address

If this machine has a fixed IP address, manually enter the IP address, subnet mask, and default gateway address.

In the **Control Panel**, select **Menu/Select** - [ADMIN SETTINGS] - [EXPERT ADJUSTMENT] - [ETHERNET] - [TCP/IP] - [IPV4 SETTINGS], then configure the following settings.

| Settings | Description |
|---|---|
| [IP ADDRESS] | When manually specifying the IP address, enter the fixed IP address assigned to the machine. |
| [SUBNET MASK] | When manually specifying the IP address, enter the subnet mask. |
| [DEFAULT GATEWAY] | When manually specifying the IP address, enter the default gateway. |
| [IP APPLICATION] | When automatically specifying the IP address, select the method for automatic retrieval.<br>• [DHCP]: [ON] is specified by default.<br>• [BOOTP]: [OFF] is specified by default.<br>• [ARP/PING]: [OFF] is specified by default.<br>• [AUTO IP SETTINGS]: Fixed to [ENABLE]. |

### Confirming the IP address

Print out the Configuration Page, then check that an IP address is assigned to this machine.

To print out the Configuration Page, select **Menu/Select** - [PRINT REPORTS] - [CONFIGURATION PG] on the **Control Panel**.

## 1.2.2 Checking Web browser settings

If your PC is connected to the Internet via a proxy server in your network environment, register this machine as an exception under the proxy settings of the Web browser.

- If you are using Internet Explorer, select [Internet options] from the [Tools] menu. In the [Connections] tab, click [LAN settings], and click [Advanced] under [Proxy server]. In the [Exceptions] text box, enter the IP address or the host name of this machine and click [OK].

- If you are using Firefox (Windows), select [Options] from the [Tools] menu. Click [Settings] in the [Network] tab under the [Advanced] menu, and select [Manual proxy configuration]. In the [No Proxy for] text box, enter the IP address or the host name of this machine and click [OK].

- If you are using Firefox (Mac OS), select [Preferences...] from the [Firefox] menu. Click [Settings...] in the [Network] tab under the [Advanced] menu, and select [Manual proxy configuration]. In the [No Proxy for] text box, enter the IP address or the host name of this machine and click [OK].

### Reference
*For details, refer to the Help of your Web browser.*

## 1.3    Basic usage

### 1.3.1    How to access

This section describes how to access **Web Connection**.

**1**    Start the Web browser.

**2**    Enter the IP address of the machine in the URL field, then press [Enter].

➔ Example: When the IP address of this machine is 192.168.1.20, enter "http://192.168.1.20/". To use SSL communication, enter "https://192.168.1.20/".

➔ For details on how to confirm the IP address of this machine, refer to page 1-4.

The **Web Connection** screen appears.

**Tips**

- If the WINS server is installed to resolve the name, you can gain access by specifying the host name of this machine. The host name of this machine is registered in the hosts file on the computer (C:\Win-dows\System32\drivers\etc\hosts), and is usually assigned by the administrator. For details, contact the machine administrator.

- If you use Internet Explorer 6 in the IPv6 environment, correct the hosts file (C:\Windows\Sys-tem32\drivers\etc\hosts), then enter the host name in the URL field.
  Example: When the IPv6 address of this machine is fe80::220:6bff:fe10:2f16, add
  "fe80::220:6bff:fe10:2f16 IPv6_MFP_1" to the hosts file, and enter "http://IPv6_MFP_1" in the URL field.

- If you use Internet Explorer 7/8/9 or a Web browser other than Internet Explorer in the IPv6 environment, enclose the IPv6 address in [ ].
  Example: When the IPv6 address of this machine is fe80::220:6bff:fe10:2f16, enter
  "http://[fe80::220:6bff:fe10:2f16] /".

## 1.3.2 Web Connection screen configuration

The **Web Connection** screen primarily consists of the following three parts.

- Top of the screen: Displays the name of the login user and the status of the machine.
- Left of the screen: Displays the function menu of **Web Connection**.
- Right of the screen: Displays the contents of the selected menu.

This example shows the items in [System] - [Device Information] - [Summary] to explain sections of each screen.
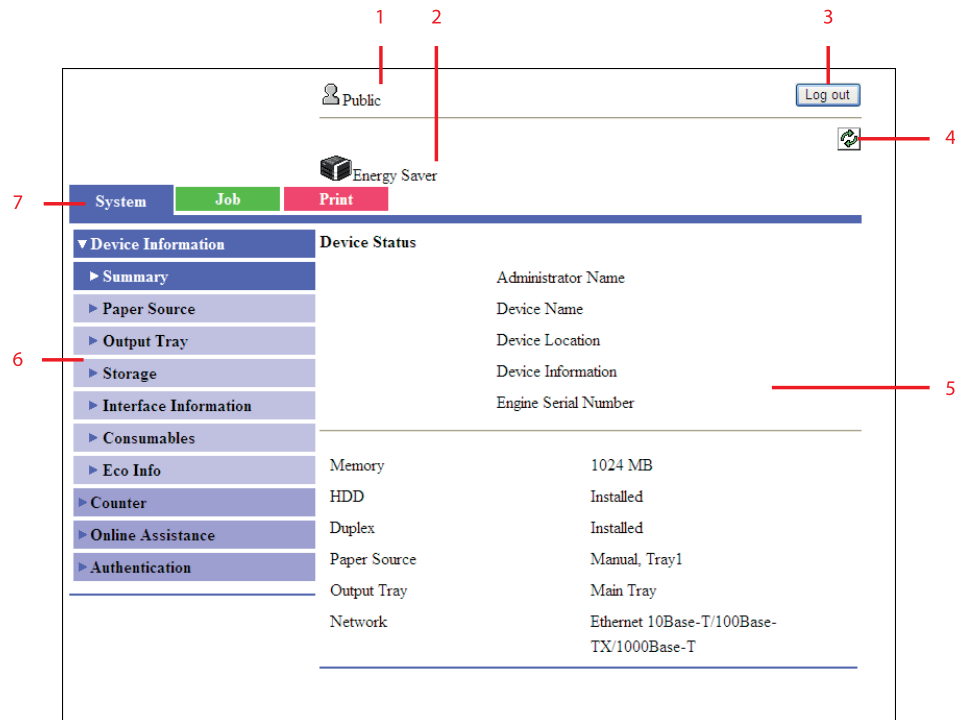
| No. | Item | Description |
|-----|------|-------------|
| 1 | Login user name | Displays the login mode and user name. |
| 2 | Status display | Displays the status of this machine.<br>Displays the status of the printer of this machine with icons and messages. For details, refer to page 1-7. |
| 3 | [Log out] | Click this button to log out of **Web Connection**. |
| 4 | Refresh | Click this button to update the screen. |
| 5 | Information and settings | Click the menu at the left-hand side of the screen, and the contents of that menu will appear. |
| 6 | Menu | Click the category of the menu to display the menu items of that category. |
| 7 | Menu category | Menu items are divided into some categories depending on each content. |

## 1.3.3    Status display
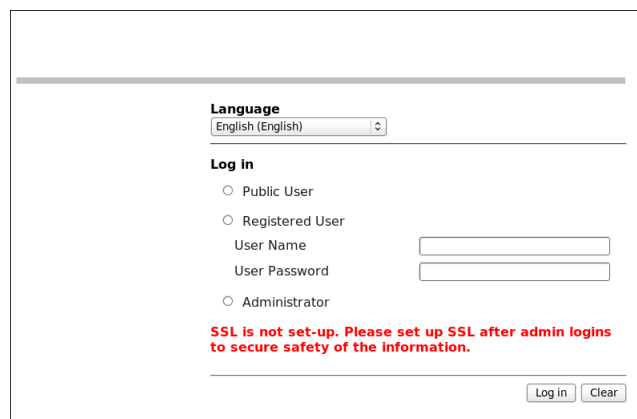
The current status of this machine is always shown at the top of the screen. The following icons represent the types of status.

| Icon | Status | Description |
|------|--------|-------------|
| | Ready | This machine is on-line, and ready for printing, or the machine is printing. |
| | Alert | You need to exercise care, however, printing can be continued. |
| | Error | Exercise care before printing. |
| | Fatal error | This machine needs to be restarted. If this error persists after restarting the machine, this machine needs to be repaired. Contact your service representative. |

## 1.3.4    Login methods

### Login screen

When you access **Web Connection**, this screen appears first. Enter the required information such as a user name, and log in to **Web Connection**.

**Language**
English (English)

**Log in**
○ Public User
○ Registered User
User Name
User Password
○ Administrator

**SSL is not set-up. Please set up SSL after admin logins to secure safety of the information.**

Log in    Clear

| Item | Description |
|------|-------------|
| [Language] | Select a language to be used to display the **Web Connection**. |
| [Log in] | Select a mode to log in. The login mode differs depending on the user type. The user mode and administrator mode are available as login modes. For details, refer to page 1-8. |

**Tips**

The screen that appears differs depending on whether Authentication is enabled on this machine. Also, operations available after you log in differ depending on the information you enter on this Login screen.

## Login mode

**Web Connection** has multiple login modes, and available operations differ depending on the mode.

Two **Web Connection** login modes are provided: the "administrator mode", which is used to configure settings of this machine, and the "user mode" that enables use of the functions of this machine.

| Login mode | Description |
|---|---|
| Administrator Mode | Enables the machine administrator to log in to configure settings of this machine.<br>To log in, you need to enter the administrator password of this machine.<br>Logging in as the administrator enables you to use the following category menus.<br>• [System]<br>• [Security]<br>• [Job]<br>• [Print]<br>• [Network] |
| User mode | Enables a user such as a registered user, or public user to log in to this machine.<br>You can check the status of this machine, check jobs, perform direct print, and other functions of this machine. |
| [Registered User] | Enables a user or account track registered to this machine to log in.<br>To log in, enable the authentication setting on this machine and register the user or account track.<br>Logging in as a registered user enables you to use the following category menus.<br>• [System]<br>• [Job]<br>• [Print] |
| [Public User] | Enables a user who is not registered on this machine to log in as a public user.<br>If the user is not permitted to use public users on this machine, this mode is not available. |

**Tips**

- A maximum of 100 clients can be connected at a time, including users and administrators. Also, multiple number of users and administrators can log in at a time.
- If you do not operate this machine for a given period of time after you log in to **Web Connection**, you will automatically be logged out.

## Logging in to Administrator mode

Logging in to the administrator mode enables you to configure settings for this machine.

**1**    On the Login screen, select [Administrator] and click [Log in].

**2**    Enter the administrator password, then click [OK].

The administrator mode window appears.

## Logging in to User mode

You can log in as a registered user or public user.

**1**    To log in as a registered user, select [Registered User] on the Log in screen.

→ To log in as a public user, select [Public User], then click [Log in] on the Log in screen.

**2**    Enter the user name and password, then click [Log in].

The user mode window appears.

# 1.4    Available operations in User mode

## 1.4.1    [System] tab

To display: **User mode** - [System]

Enables you to confirm the information on the system configuration and settings of this machine.

| Item | Description |
|------|-------------|
| [Device Information] | Enables you to confirm information such as the status of this machine and optional devices that are installed on this machine. |
| [Summary] | Displays the components of this machine and the installation status of optional devices. |
| [Paper Source] | Displays the status of the machine's paper tray and information about paper in the tray. |
| [Output Tray] | Displays the status of the machine's output tray. |
| [Storage] | Displays the capacity of the machine's HDD. This function is available when an optional **Hard Disk** is installed. |
| [Interface Information] | Displays the machine's network settings. |
| [Consumables] | Displays the status of the machine's consumables. |
| [Counter] | Enables you to confirm the machine's counter information. |
| [Total Counter] | Displays the total number of sheets of paper printed on this machine by function. |
| [Sheets Printed by Paper Size] | Displays the total number of sheets of paper that has been printed on this machine by paper size. |
| [Sheets Printed by Paper Type] | Displays the total number of sheets of paper that has been printed on this machine by paper type. |
| [Online Assistance] | Enables you to check the online assistance about this product. |
| [Authentication] | Displays the authentication information of the login user. If you are logging in as a registered user, you can change the password. |
| [User Password Change] | Enables you to change the password of a user who logs in to the computer. |
| [Registration Information] | Enables you to view the registered information of a user who logs in to the computer. |

## 1.4.2    [Job] tab

To display: **User mode** - [Job]

Enables you to check the job that is currently being performed and the job log.

| Item | Description |
|------|-------------|
| [Current Jobs] | Displays the print jobs that are currently being processed on this machine. |
| [Job History] | Displays the print jobs for which processing is completed on this machine. |

## 1.4.3      [Print] tab

To display: **User mode** - [Print]

Enables you to confirm the printer settings of this machine, print reports, and use the direct print function.

| Item | Description |
|---|---|
| [Default Settings] | Enables you to check the printer-related setting values of this machine. |
| [General Settings] | Displays the print settings that are used in common for print functions. |
| [Paper Source Settings] | Displays the paper settings for each paper tray. |
| [Tray Mapping Settings] | Displays the settings related to the tray mapping. |
| [PCL Settings] | Displays the settings related to the PCL printing. |
| [PostScript Settings] | Displays the settings related to the PS printing. |
| [XPS Settings] | Displays the settings related to the XPS printing.<br>This function is available when an optional **Hard Disk** is installed. |
| [Print Quality Settings] | Displays the settings related to the image quality. |
| [OOXML Settings] | Displays the settings related to OOXML printing.<br>This function is available when an optional **Hard Disk** is installed. |
| [Page Layout Settings] | Displays the settings related to the page layout. |
| [Font/Form] | Enables you to check the font, form and profile information saved on this machine. |
| [PCL Font] | Displays the list of PCL fonts saved on this machine. |
| [PostScript Font] | Displays the list of PS fonts saved on this machine. |
| [Form Overlay] | Displays the list of forms saved on this machine.<br>This function is available when an optional **Hard Disk** is installed. |
| [Color Profile] | Displays the list of color profiles saved on this machine. |
| [Report Types] | Prints various reports.<br>Select the report that you want to print, and click [Print]. |
| [Direct Print] | Prints the file on the computer by directly sending it to this machine.<br>This function is available when an optional **Hard Disk** is installed.<br>For details, refer to [User's Guide Print]. |

# 1.5    Available operations in Administrator mode

## 1.5.1    [System] tab

### [Device Information]

To display: **Administrator mode** - [System] - [Device Information]

Enables you to confirm information such as the status of this machine and optional devices that are installed on this machine.

| Item | Description |
|---|---|
| [Summary] | Displays the components of this machine and the installation status of optional devices. |
| [Paper Source] | Displays the status of the machine's paper tray and information about paper in the tray. |
| [Output Tray] | Displays the status of the machine's output tray. |
| [Storage] | Displays the capacity of the machine's HDD.<br>This function is available when an optional **Hard Disk** is installed. |
| [Interface Information] | Displays the machine's network settings. |
| [Consumables] | Displays the status of the machine's consumables. |

### [Counter]

To display: **Administrator mode** - [System] - [Counter]

Enables you to confirm the machine's counter information.

| Item | Description |
|---|---|
| [Total Counter] | Displays the total number of sheets of paper printed on this machine by function. |
| [Sheets Printed by Paper Size] | Displays the total number of sheets of paper that has been printed on this machine by paper size. |
| [Sheets Printed by Paper Type] | Displays the total number of sheets of paper that has been printed on this machine by paper type. |

## [Online Assistance]

To display: **Administrator mode** - [System] - [Online Assistance]

Register the support information of the machine, such as contact information for the machine or a product support URL.

When the support information is registered, you can confirm it by selecting [System] - [Online Assistance] in user mode of **Web Connection**.

| Item | Description |
|------|-------------|
| [Contact Name] | Enter the contact name of this machine (using up to 63 bytes). |
| [Contact Information] | Enter the contact information of this machine, such as the phone number or URL (using up to 127 bytes). |
| [Product Help URL] | Enter the Product Assistance URL of this machine (using up to 127 bytes). |
| [Corporate URL] | Enter the URL of the Web page for the manufacturer of this machine (using up to 127 bytes). |
| [Supplies and Accessories] | Enter information of the consumables supplier (using up to 127 bytes). |
| [Contact Utility Link] | Enter the URL of the Web page for the Device Management Utility (using up to 127 bytes). |
| [Driver URL] | If necessary, enter the URL of the location where the driver of this machine is stored (using up to 127 bytes). Enter an appropriate URL to suit your environment. |

## [Import/Export] - [Authentication]

To display: **Administrator mode** - [System] - [Import/Export] - [Authentication]

Enables you to import or export the authentication information that is registered on this machine in an environment where user authentication and account track are employed.

(This menu is displayed when user authentication or account track is set up on this machine.)

| Item | Description |
|------|-------------|
| [Import] | Imports the authentication information file on a computer to this machine. Click [Browse] to select a file to import, then click [Import]. |
| [Export] | Exports the authentication information file of this machine to a computer. |
| [Clear] | Deletes the registered authentication information saved on this machine. |

**Tips**
- This function is available when an optional **Hard Disk** is installed.
- You cannot edit the exported files.

## [Date/Time Settings] - [Manual Settings]

To display: **Administrator mode** - [System] - [Date/Time Settings] - [Manual Settings]

Manually specify the current date and time of this machine.

| Item | Description |
|------|-------------|
| [Year] | Enter the year. |
| [Month] | Enter the month. |
| [Day] | Enter the day. |
| [Hour] | Enter the hour. |
| [Minute] | Enter the minute. |
| [Time Zone] | Select a time zone (time difference from world standard time) to suit your environment. [GMT] is specified by default. |

## [Date/Time Settings] - [Time Adjustment Settings]

To display: **Administrator mode** - [System] - [Date/Time Settings] - [Time Adjustment Settings]

Using the NTP (Network Time Protocol) server, you can automatically adjust the date and time of this machine.

Register the NTP server used. To periodically adjust the date and time by connecting to the NTP server, specify an interval for adjusting the date and time.

| Item | Description |
| --- | --- |
| [Time Adjustment] | To automatically adjust the date and time of this machine using the NTP server, select [Enable]. <br> [Disable] is specified by default. |
| [NTP Server Address] | Enter the NTP server address. <br> Use one of the following formats. <br> • Example of host name entry: "host.example.com" <br> • Example of IP address (IPv4) entry: "192.168.1.1" <br> • Example of IP address (IPv6) entry: "fe80::220:6bff:fe10:2f16" |
| [Port Number] | If necessary, change the NTP server port number. <br> Normally, you can use the original port number. <br> [123] is specified by default. |
| [Time Zone] | Select a time zone (time difference from world standard time) to suit your environment. <br> [GMT] is specified by default. |
| [Adjustment Time] | Displays the latest date and time at which time correction was performed by connecting to the NTP server. |

**Tips**

If time zone is specified, the standard time obtained from the server adjusted to your time zone is specified as the correction time.

## [Date/Time Settings] - [Daylight Saving Time Settings]

To display: **Administrator mode** - [System] - [Date/Time Settings] - [Daylight Saving Time Settings]

Specifies daylight saving time for the current country setting.

| Item | Description |
| --- | --- |
| [Daylight Saving Time] | Select [Enable] to use daylight saving time. <br> Also enter the time to be adjusted for daylight saving time (in minutes). <br> [Disable] is specified by default. |

## [Machine Settings]

To display: **Administrator mode** - [System] - [Machine Settings] - [Machine Settings]

Register device information of this machine, such as the name, installed place, and information of the administrator.

| Item | Description |
|------|-------------|
| [Device Name] | Enter the name of this machine (using up to 127 bytes). |
| [Device Location] | Enter the location of this machine (using up to 127 bytes). |
| [Device Information] | Enter the information of this machine (using up to 127 bytes). |
| [Administrator Name] | Enter the machine administrator name (using up to 127 bytes). |
| [Administrator E-mail Address] | Enter the E-mail address of the machine administrator (using ASCII characters of up to 320 bytes). |
| [Do Startup Page] | Select whether or not to print the start page when this machine is turned on. [Off] is specified by default. |
| [Unit of Measure] | Select a system of units that are normally used. The default value depends on the region the machine is used in. |
| [Sleep Mode Time] | Change the time required to automatically change to Sleep mode after you did not operate this machine. The default value depends on the region the machine is used in. |
| [Entering Power Save Mode] | When this machine receives a print job from a computer in Power Save mode, select the timing to switch to Power Save mode after the print job has completed. • [Normal]: Switches the machine status at the time specified in [Sleep Mode Time]. • [Immediately]: Switches to Power Save mode immediately after a print job has ended. [Immediately] is specified by default. |
| [Power Consumption in Sleep Mode] | Select whether or not to reduce the power consumption in Sleep mode. • [Enable]: Further reduces power consumption in Sleep mode. Select [Enable] in normal conditions. • [Disable]: Select this option if a smooth network communication is not established while [Enable] is specified. [Enable] is specified by default. |
| [Hide Personal Information] | Select whether or not to hide document names, in the [Job] tab. [Off] is specified by default. |

## [ROM Version]

To display: **Administrator mode** - [System] - [ROM Version] - [ROM Version]

Enables you to check the ROM version of this machine.

## [Maintenance] - [Clear Settings]

To display: **Administrator mode** - [System] - [Maintenance] - [Clear Settings]

Initializes the network settings and system settings.

| Item | Description |
|------|-------------|
| [System Settings] | Initializes the system settings. When this option is selected, this machine restarts automatically. |
| [Network Settings] | Initializes the network settings. When this option is selected, this machine restarts automatically. |
| [All Settings] | Initializes the all settings. When this option is selected, this machine restarts automatically. |

## [Maintenance] - [Reset]

To display: **Administrator mode** - [System] - [Maintenance] - [Reset]

Resets the controller.

## [Notification Settings] - [Status Notification Settings]

To display: **Administrator mode** - [System] - [Notification Settings] - [Status Notification Settings]

If a warning, such as paper addition, toner replacement, or paper jam, occurs on this machine, it can be sent to a registered E-mail address.

| Item | Description |
|---|---|
| [IP Address] | Specify the destination IP address to send a notification of the machine status using the SNMP TRAP function.<br>For details on how to specify the SNMP TRAP function, refer to page 1-45. |
| [Notification Address] | Enter the IP address (IPv4), IP address (IPv6), or host name. |
| [Port Number] | If necessary, change the port number.<br>[162] is specified by default. |
| [Community Name] | Enter the community name.<br>[public] is specified by default. |
| [E-mail Address] | Specify the destination E-mail address to send the machine status via E-mail. |
| [Notification Address] | Enter the E-mail address as a destination (using ASCII characters of up to 320 bytes). |
| [Alert] | Select an item to be notified automatically. |
| [Paper Empty] | Select whether or not to send a notification when the tray is out of paper.<br>[Enable] is specified by default. |
| [Paper Jam] | Select whether or not to send a notification when a paper jam occurs.<br>[Enable] is specified by default. |
| [Maintenance] | Select whether or not to send a notification when periodic inspection is required.<br>[Enable] is specified by default. |
| [Toner Out] | Select whether or not to send a notification when toner runs out.<br>[Enable] is specified by default. |
| [Fuser Unit End] | Select whether or not to send a notification when the finishing unit must be replaced.<br>[Enable] is specified by default. |
| [Operator Call] | Select whether or not to send a notification when an error occurs.<br>[Enable] is specified by default. |
| [Service Call] | Select whether or not to send a notification when a service call occurs.<br>[Enable] is specified by default. |
| [Job Complete] | Select whether or not to send a notification when a job is completed.<br>[Enable] is specified by default. |
| [Job Error] | Select whether or not to send a notification when a job has terminated abnormally.<br>[Enable] is specified by default. |

## [Notification Settings] - [Total Counter Notification Settings]

To display: **Administrator mode** - [System] - [Notification Settings] - [Total Counter Notification Settings]

The counter information managed by this machine can be sent to the registered E-mail address. The information is useful for gaining an overall picture of the machine operating status.

| Item | Description |
|------|-------------|
| [Model Name] | Enter a model name to be included in the notification mail message (using ASCII characters of up to 20 bytes). |
| [Schedule Setting] | Specify the notification schedule by day, week, or month.<br>Up to two schedules can be registered. You can use different schedules for different purposes. |
| [Register Notification Address] | Enter a destination E-mail address.<br>Select the notification schedule for a destination. |

**Tips**

After the setting is complete, a test notification is sent to the registered mail addresses when you click [Send Now].

## [Job Log] - [Job Log Settings]

To display: **Administrator mode** - [System] - [Job Log] - [Job Log Settings]

Configure settings for obtain a job log.

| Item | | Description |
|------|---|-------------|
| [Job Log] | | Select whether or not to obtain a job log.<br>[Disable] is specified by default. |
| | [Accounting Log] | Select whether or not to obtain an accounting log. You can obtain information relevant to paper consumption for each user or account.<br>[Enable] is specified by default. |
| | [Counting Log] | Select whether or not to obtain a counting log. You can obtain information about paper consumption and the reduction rate of paper used for printing.<br>[Enable] is specified by default. |
| | [Audit Log] | Select whether or not to obtain an audit log. You can obtain user operation or job history. Your can track unauthorized actions or the leakage of information.<br>[Enable] is specified by default. |
| [Overwrite Setting] | | Select whether or not to allow the oldest job log to be overwritten by a new job log when the hard disk becomes full.<br>[Do not Overwrite] is specified by default. |

**Tips**

This function is available when an optional **Hard Disk** is installed.

## [Job Log] - [Create Job Log]

To display: **Administrator mode** - [System] - [Job Log] - [Create Job Log]

Creates a job log file based on the log information of this machine.

**Tips**

- This function is available when an optional **Hard Disk** is installed.
- If there is a job log file that has not been downloaded since it was created, a confirmation dialog box appears, asking whether or not to delete the current job log file and create new job log file.

## [Job Log] - [Download Job Log]

To display: **Administrator mode** - [System] - [Job Log] - [Download Job Log]

Downloads the job log file created in [Create Job Log].

**Tips**

This function is available when an optional **Hard Disk** is installed.

## [Job Log] - [Erase Job Log]

To display: **Administrator mode** - [System] - [Job Log] - [Erase Job Log]

Deletes a job log file on this machine.

**Tips**

This function is available when an optional **Hard Disk** is installed.

## [License Settings] - [Enabler]

To display: **Administrator mode** - [System] - [License Settings] - [Enabler]

Register the function and license code, which were obtained from the License Management Server, with this machine and enable the expansion function.

## 1.5.2    [Security] tab

## [Authentication] - [General Settings]

To display: **Administrator mode** - [Security] - [Authentication] - [General Settings]

Configure the setting relevant to User Authentication/Account Track.

| Item | Description |
|---|---|
| [User Authentication] | Select whether or not to use user authentication.<br>• [Device]: Select this option to use the authentication function of this machine.<br>[Off] is specified by default. |
| [Public Access] | Select whether or not to permit that public users (unregistered users) to use this machine.<br>• [Allow]: Allows public users to use this machine.<br>• [Allow (without Login)]: A public user can use this machine without logging in to this machine. Using this option, you do not need to log in to this machine even when there are many public users.<br>• [Restrict]: Does not permit to use this machine by public users.<br>[Allow] is specified by default. |
| [Account Track] | Select whether or not to use account track. This option is available when [Device] is selected in [User Authentication].<br>[Off] is specified by default. |
| [Synchronize User Authentication & Account Track] | If [On] is selected in [Account Track], this option is set to [Synchronize]. |
| [Print without Authentication] | Select whether or not to allow print jobs that do not contain authentication information (jobs of which printing is requested without correctly configuring user authentication or account track settings in the printer driver).<br>• [Allow]: Prints a received job as it is.<br>• [Restrict]: Deletes a received job.<br>[Restrict] is specified by default. |
| [Counter] | Click [Reset] to reset the counters for all users and all accounts. |

**Tips**

This function is available when an optional **Hard Disk** is installed.

📖**Reference**

*For details on how to set the user authentication, refer to page 2-5.*

*For details on how to configure settings for combining user authentication with account track, refer to page 2-6.*

## [Authentication] - [User List]

To display: **Administrator mode** - [Security] - [Authentication] - [User List]

(This menu is displayed when selecting [Device] in **Administrator mode** - [Security] - [Authentication] - [General Settings] - [User Authentication].)

Displays the list of users registered on this machine. You can register, edit, or delete users.

To register or edit users, specify the following information.

| Item | Description |
|------|-------------|
| [No.] | User registration number. The smallest available number that is not used is automatically assigned. |
| [User Name] | Enter the user name to log in to this machine (using up to 64 characters). You cannot specify a duplicate name. Also, you cannot specify [Public]. |
| [Password] | Enter the password to log in to this machine (using up to 64 bytes, excluding spaces and "). To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Account Track Number] | Specify the department of a user by registration number of the department if the user authentication and account track functions are synchronized. |
| [Function Permission] | Restrict functions available to users.<br>• [Print]: Select whether or not to allow print operations. [Allow] is specified by default. |
| [Output Permission (Print)] | Select whether or not to allow color printing and black and white printing, respectively.<br>• [Color]: Select whether or not to allow color printing. Selecting [Economy Print Mode Only] only allows printing specified with [Toner Save]. [Allow] is specified by default.<br>• [Black]: Select whether or not to allow black and white printing. [Allow] is specified by default. |
| [Max. Allowance Set] | Set the maximum number of pages that can be printed.<br>• [Total]: To manage the upper limit according to a total number of copies in color, and black and white, select this check box, then enter the maximum allowance.<br>• [Color]: To manage the upper limit for color printing, select this check box, then enter the maximum allowance.<br>• [Black]: To manage the upper limit for black and white printing, select this check box, then enter the maximum allowance. |
| [Counter] | Click [Reset] to reset the counters for the user. |
| [Authentication Device Settings] | Displays whether the information on the authentication device is registered. |

📋 **Tips**

This function is available when an optional **Hard Disk** is installed.

## [Authentication] - [Account Track List]

To display: **Administrator mode** - [Security] - [Authentication] - [Account Track List]

(This menu is displayed when selecting [On] in **Administrator mode** - [Security] - [Authentication] - [General Settings] - [Account Track]. )

Displays the list of accounts registered on this machine. You can register, edit, or delete accounts.

To register or edit accounts, specify the following information.

| Item | Description |
|---|---|
| [No.] | Account registration number. The smallest available number that is not used is automatically assigned. |
| [Account Name] | Enter the account name to log in to this machine (using ASCII characters of up to 8 bytes, excluding spaces and "). You cannot specify a duplicate name. |
| [Password] | Enter the password to log in to this machine (using ASCII characters of up to 8 bytes, excluding spaces and "). To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Output Permission (Print)] | Select whether or not to allow color printing and black and white printing, respectively. <br>• [Color]: Select whether or not to allow color printing. Selecting [Economy Print Mode Only] only allows printing specified with [Toner Save]. [Allow] is specified by default. <br>• [Black]: Select whether or not to allow black and white printing. [Allow] is specified by default. |
| [Max. Allowance Set] | Set the maximum number of pages that can be printed. <br>• [Total]: To manage the upper limit according to a total number of copies in color, and black and white, select this check box, then enter the maximum allowance. <br>• [Color]: To manage the upper limit for color printing, select this check box, then enter the maximum allowance. <br>• [Black]: To manage the upper limit for black and white printing, select this check box, then enter the maximum allowance. |
| [Counter] | Click [Reset] to reset the counters for the account. |

**Tips**

This function is available when an optional **Hard Disk** is installed.

## [Authentication] - [Public User Registration]

To display: **Administrator mode** - [Security] - [Authentication] - [Public User Registration]

(This menu is displayed when access to this machine by public users is permitted in **Administrator mode** - [Security] - [Authentication] - [General Settings] - [Public Access]. )

Restricts functions available to public users.

| Item | Description |
|------|-------------|
| [Function Permission] | Restrict functions available to public users.<br>• [Print]: Select whether or not to allow print operations. [Allow] is specified by default. |
| [Output Permission (Print)] | Select whether or not to allow color printing and black and white printing, respectively.<br>• [Color]: Select whether or not to allow color printing. Selecting [Economy Print Mode Only] only allows printing specified with [Toner Save]. [Allow] is specified by default.<br>• [Black]: Select whether or not to allow black and white printing. [Allow] is specified by default. |

**Tips**

This function is available when an optional **Hard Disk** is installed.

## [ID & Print Settings]

To display: **Administrator mode** - [Security] - [ID & Print Settings] - [ID & Print Settings]

(This menu is displayed when selecting [Device] in **Administrator mode** - [Security] - [Authentication] - [General Settings] - [User Authentication].)

Specify the operations of the ID & Print function.

| Item | Description |
|------|-------------|
| [ID & Print] | Select whether or not to handle jobs normally printed from the printer driver as ID & Print jobs.<br>• [Enable]: Jobs that are normally printed are handled as ID & Print jobs.<br>• [Disable]: Only jobs for which ID & Print is set are handled as ID & Print jobs.<br>[Disable] is specified by default. |
| [Public User] | Select the processing method to perform when a public user job is received.<br>• [Print Immediately]: Prints the job without saving it on the HDD.<br>• [Save]: Saves to the HDD.<br>[Save] is specified by default. |
| [Default Operation Selection] | Select the default value for the operation that is performed after the authentication process is carried out on the login screen.<br>• [Begin Printing]: Prints an ID & Print job without logging in to this machine if there is an ID & Print job. If there is no ID & Print job, log in to this machine.<br>• [Access Basic Screen]: Log in to this machine. The ID & Print job is not executed.<br>[Begin Printing] is specified by default. |

**Tips**

This function is available when an optional **Hard Disk** is installed.

## [Authentication Device Settings] - [General Settings]

To display: **Administrator mode** - [Security] - [Authentication Device Settings] - [General Settings]

(To display this menu, the setting by your service engineer is required. For details, contact your service representative. )

Configure the setting relevant to IC card authentication.

| Item | Description |
|---|---|
| [Authentication Type] | Select how to log in to this machine.<br>• [Card Authentication]: Allows the user to log in by simply placing the IC card.<br>The setting value is fixed to [Card Authentication]. |

**Tips**

- This function is available when an optional **Hard Disk** is installed.
- If this menu is changed, the card information saved on this machine is deleted.

## [PKI Settings] - [Device Certificate]

To display: **Administrator mode** - [Security] - [PKI Settings] - [Device Certificate]

You can self-create a new certificate of this machine or install a certificate issued by the Certificate Authority (CA).

For details, refer to page 2-8.

## [PKI Settings] - [SSL/TLS Settings]

To display: **Administrator mode** - [Security] - [PKI Settings] - [SSL/TLS Settings]

Select whether or not to enable SSL communication. Also select the SSL encryption strength.

| Item | Description |
|---|---|
| [SSL/TLS] | Select whether or not to enable SSL communication.<br>[Disable] is specified by default. |
| [Encryption Strength] | Select the SSL encryption strength. Select the appropriate strength to suit your environment.<br>[AES-256, 3DES, RC4-128] is specified by default. |
| [SSL/TLS Version] | Select the version of the SSL to be used. Select the appropriate version to suit your environment. |

## [PKI Settings] - [Protocol Settings]

To display: **Administrator mode** - [Security] - [PKI Settings] - [Protocol Settings]

This machine can manage multiple certificates and use different certificates depending on the application (protocol). Select a certificate that is used for the protocol.

To use [IEEE802.1X]

| Item | Description |
|---|---|
| [Protocol] | [IEEE802.1X] |
| [Certificate Verification Settings] | To verify the certificate, select items to be verified.<br>If you select [Enable] at each item, the certificate is verified for each item.<br>• [Validity Period]: Check whether or not the certificate is within the validity period.<br>  [Enable] is specified by default.<br>• [CN]: Check whether or not CN (Common Name) of the certificate matches the server address.<br>  [Disable] is specified by default.<br>• [Chain]: Check whether or not there is any problem in the certificate chain (certificate path). The chain is validated by referencing the external certificates that are managed on this machine.<br>  [Disable] is specified by default. |
| [Device Certificate] | Select the certificate to be used. |

To use [HTTP Server]

| Item | Description |
|---|---|
| [Protocol] | [HTTP Server] |
| [Device Certificate] | Select the certificate to be used. |

To use [E-mail Send (SMTP)]

| Item | Description |
|---|---|
| [Protocol] | [E-mail Send (SMTP)] |
| [Certificate Verification Settings] | To verify the certificate, select items to be verified.<br>If you select [Enable] at each item, the certificate is verified for each item.<br>• [Validity Period]: Check whether or not the certificate is within the validity period.<br>  [Enable] is specified by default.<br>• [CN]: Check whether or not CN (Common Name) of the certificate matches the server address.<br>  [Disable] is specified by default.<br>• [Chain]: Check whether or not there is any problem in the certificate chain (certificate path). The chain is validated by referencing the external certificates that are managed on this machine.<br>  [Disable] is specified by default.<br>• [Key Usage]: Check whether or not the certificate is used according to the intended purpose approved by the certificate issuer.<br>  [Disable] is specified by default.<br>• [Check CRL Expiration]: Check whether or not the certificate has expired with CRL (Certificate Revocation List).<br>  [Disable] is specified by default.<br>• [Check OCSP Expiration]: Check whether or not the certificate has expired with the OCSP (Online Certificate Status Protocol) service.<br>  [Disable] is specified by default. |
| [Device Certificate] | Select the certificate to be used. |

To use [TCP Socket]

| Item | Description |
| --- | --- |
| [Protocol] | [TCP Socket] |
| [Device Certificate] | Select the certificate to be used. |

To use [OpenAPI]

| Item | Description |
| --- | --- |
| [Protocol] | [OpenAPI] |
| [Certificate Verification Settings] | To verify the certificate, select items to be verified.<br>If you select [Enable] at each item, the certificate is verified for each item.<br>• [Validity Period]: Check whether or not the certificate is within the validity period.<br>  [Enable] is specified by default.<br>• [CN]: Check whether or not CN (Common Name) of the certificate matches the server address.<br>  [Disable] is specified by default.<br>• [Chain]: Check whether or not there is any problem in the certificate chain (certificate path). The chain is validated by referencing the external certificates that are managed on this machine.<br>  [Disable] is specified by default.<br>• [Key Usage]: Check whether or not the certificate is used according to the intended purpose approved by the certificate issuer.<br>  [Disable] is specified by default.<br>• [Check CRL Expiration]: Check whether or not the certificate has expired with CRL (Certificate Revocation List).<br>  [Disable] is specified by default.<br>• [Check OCSP Expiration]: Check whether or not the certificate has expired with the OCSP (Online Certificate Status Protocol) service.<br>  [Disable] is specified by default.<br>• [Client Certificate]: Select whether or not to request a certificate from clients that connect to this machine.<br>  [Disable] is specified by default. |
| [Device Certificate] | Select the certificate to be used. |

To use [Web Service]

| Item | Description |
| --- | --- |
| [Protocol] | [Web Service] |
| [Certificate Verification Settings] | To verify the certificate, select items to be verified.<br>If you select [Enable] at each item, the certificate is verified for each item.<br>• [Validity Period]: Check whether or not the certificate is within the validity period.<br>  [Enable] is specified by default.<br>• [Chain]: Check whether or not there is any problem in the certificate chain (certificate path). The chain is validated by referencing the external certificates that are managed on this machine.<br>  [Disable] is specified by default.<br>• [Key Usage]: Check whether or not the certificate is used according to the intended purpose approved by the certificate issuer.<br>  [Disable] is specified by default.<br>• [Check CRL Expiration]: Check whether or not the certificate has expired with CRL (Certificate Revocation List).<br>  [Disable] is specified by default.<br>• [Check OCSP Expiration]: Check whether or not the certificate has expired with the OCSP (Online Certificate Status Protocol) service.<br>  [Disable] is specified by default.<br>• [Client Certificate]: Select whether or not to request a certificate from clients that connect to this machine.<br>  [Disable] is specified by default. |
| [Device Certificate] | Select the certificate to be used. |

To use [IPsec]

| Item | Description |
|------|-------------|
| [Protocol] | [IPsec] |
| [Certificate Verification Settings] | To verify the certificate, select items to be verified.<br>If you select [Enable] at each item, the certificate is verified for each item.<br>• [Validity Period]: Check whether or not the certificate is within the validity period.<br>[Enable] is specified by default.<br>• [Chain]: Check whether or not there is any problem in the certificate chain (certificate path). The chain is validated by referencing the external certificates that are managed on this machine.<br>[Disable] is specified by default.<br>• [Key Usage]: Check whether or not the certificate is used according to the intended purpose approved by the certificate issuer.<br>[Disable] is specified by default.<br>• [Check CRL Expiration]: Check whether or not the certificate has expired with CRL (Certificate Revocation List).<br>[Disable] is specified by default.<br>• [Check OCSP Expiration]: Check whether or not the certificate has expired with the OCSP (Online Certificate Status Protocol) service.<br>[Disable] is specified by default. |
| [Device Certificate] | Select the certificate to be used. |

To use [ThinPrint]

| Item | Description |
|------|-------------|
| [Protocol] | [ThinPrint] |
| [Certificate Verification Settings] | To verify the certificate, select items to be verified.<br>If you select [Enable] at each item, the certificate is verified for each item.<br>• [Validity Period]: Check whether or not the certificate is within the validity period.<br>[Enable] is specified by default.<br>• [CN]: Check whether or not CN (Common Name) of the certificate matches the server address.<br>[Disable] is specified by default.<br>• [Chain]: Check whether or not there is any problem in the certificate chain (certificate path). The chain is validated by referencing the external certificates that are managed on this machine.<br>[Disable] is specified by default.<br>• [Key Usage]: Check whether or not the certificate is used according to the intended purpose approved by the certificate issuer.<br>[Disable] is specified by default.<br>• [Check CRL Expiration]: Check whether or not the certificate has expired with CRL (Certificate Revocation List).<br>[Disable] is specified by default.<br>• [Check OCSP Expiration]: Check whether or not the certificate has expired with the OCSP (Online Certificate Status Protocol) service.<br>[Disable] is specified by default. |
| [Device Certificate] | Select the certificate to be used. |

**Tips**

An optional **i-Option LK-111** is required to use the ThinPrint function.

## [PKI Settings] - [External Certificate]

To display: **Administrator mode** - [Security] - [PKI Settings] - [External Certificate]

Displays the list of external certificates registered on this machine.

Click [New Registration] to register a new external certificate to this machine.

| Item | Description |
|---|---|
| [Certification Type] | Select a type of new external certificate to be registered.<br>• [Trusted Root Certification Authorities]: Register the certificate of the CA that issued the certificate.<br>• [Trusted Intermediate Certification Authorities]: Register the trusted certificate of the intermediate CA.<br>• [Trusted Certificate]: Register the trusted certificate individually.<br>• [Untrusted Certificate]: Register the untrusted certificate individually. |
| [File] | Click [Browse], and specify the location of the external certificate to be registered. |

**Tips**

If any external certificate has already been registered while an optional **Hard Disk** is not installed, [New Registration] is not displayed.

## [PKI Settings] - [Validate Certificate]

To display: **Administrator mode** - [Security] - [PKI Settings] - [Validate Certificate]

You can configure the settings for verifying reliability of the certificate (expiration date, CN, key usage, etc.) for the peers.

| Item | Description |
|---|---|
| [Certificate Verification Settings] | Configure the certificate verification settings. |
| [Certificate Verification] | Select whether or not to verify the reliability of the certificate for a peer.<br>[Enable] is specified by default. |
| [Timeout] | Change the time-out time of certificate expiration confirmation.<br>[30] sec. is specified by default. |
| [OCSP Service] | Select whether or not to use the OCSP service.<br>Using the Online Certificate Status Protocol (OCSP) service, you can check online to find whether or not the certificate has expired.<br>[Disable] is specified by default. |
| [URL] | To use the OCSP service, enter the URL of the OCSP service (using up to 511 bytes).<br>If [URL] is left blank, the URL of the OCSP service embedded in the certificate will be used. |
| [Proxy Settings] | When confirming the expiration date via a proxy server, register the currently used proxy server. |
| [Proxy Server Address] | Enter the address of the proxy server you are using.<br>Use one of the following formats.<br>• Example of host name entry: "host.example.com"<br>• Example of IP address (IPv4) entry: "192.168.1.1"<br>• Example of IP address (IPv6) entry: "fe80::220:6bff:fe10:2f16" |
| [Proxy Server Port Number] | If necessary, change the proxy server port number.<br>[8080] is specified by default. |
| [User Name] | Enter the user name to log in to the proxy server (using ASCII characters of up to 63 bytes). |
| [Password] | Enter the password (using ASCII characters of up to 63 bytes).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |

| Item | Description |
|------|-------------|
| [No Proxy for following domain] | If necessary, enter the address that does not use the proxy server.<br>Use one of the following formats.<br>• Example of host name entry: "host.example.com"<br>• Example of IP address (IPv4) entry: "192.168.1.1"<br>• Example of IP address (IPv6) entry: "fe80::220:6bff:fe10:2f16" |

## [IPsec]

The IPsec technology prevents the falsification or leakage of data on the IP packet basis using encryption technology.

Configure the settings if IPsec is installed in your environment.

✔ This function is available when an optional **Hard Disk** is installed.

**1** In the administrator mode, select [Security] - [IPsec] - [IPsec], then click [Edit] in [IPsec Settings].

The [IPsec Settings] screen appears.

**2** Click [Edit] from [IKEv1] or [IKEv2] on the [IPsec Settings] screen, then configure the following settings.

| Item | Description |
|------|-------------|
| [Encryption Algorithm] | Select the encryption algorithm used for generating a common key used in communication. |
| [Authentication Algorithm] | Select the authentication algorithm used for generating a common key used in communication. |
| [Encryption Key Validity Period] | Enter a validation period of a common key used for encrypted communication.<br>When this period has expired, a new key is created. This can secure the communication.<br>[28800] sec. is specified by default. |
| [Diffie-Hellman Group] | Select the Diffie-Hellman group.<br>[Group2] is specified by default. |
| [Negotiation Mode] | Select the method to securely generate a common key used for encrypted communication.<br>This option is available when [IKEv1] is selected in the [IPsec Settings] window.<br>[Main Mode] is selected by default. |

**3**  Click [Edit] from [SA] on the [IPsec Settings] screen, then register the Security Association (SA).

→  Up to 10 groups can be registered for the [SA].

| Item | Description |
|---|---|
| [Name] | Enter the SA name (using up to 10 characters). |
| [Encapsulation Mode] | Select an IPsec operation mode.<br>[Transport] is specified by default. |
| [Security Protocol] | Select a security protocol.<br>[AH] is specified by default. |
| [Key Exchange Method] | Select the key replacement method to securely create a common key used to encrypt communications.<br>[IKEv1] is specified by default. |
| [Tunnel End Point] | Enter the IP address of the peer's IPsec gateway.<br>This is required when [Tunnel] is selected in [Encapsulation Mode]. |
| [IKE Settings] | Configure IKE settings used for this SA.<br>This is required when [IKEv1] or [IKEv2] is selected in [Key Exchange Method]. |
| | [Authentication Method] | Select an authentication method.<br>[Pre-Shared Key] is specified by default. |
| | [Replay Detection] | Select whether or not to protect from replay attacks.<br>[Disable] is specified by default. |
| | [ESN] | If you select [Enable] for [Replay Detection], select whether or not to apply extended sequence numbering for IPsec communication.<br>[Disable] is specified by default. |
| | [ESP Encryption Algorithm] | If you select [ESP] for [Security Protocol], configure the ESP encryption algorithm. |
| | [ESP Authentication Algorithm] | If you select [ESP] for [Security Protocol], configure the ESP authentication algorithm. |
| | [AH Authentication Algorithm] | If you select [AH] for [Security Protocol], configure the AH authentication algorithm. |
| | [Perfect Forward Secrecy] | Select this check box if you wish to increase the IKE strength.<br>Selecting this check box increases the time spent for communication.<br>This option is available when [IKEv2] is selected in the [IKE Settings] window. |
| | [Diffie-Hellman Group] | Select the Diffie-Hellman group.<br>[Group2] is specified by default. |
| | [Lifetime After Establishing SA] | Enter the lifetime of a common key used to encrypt communications.<br>[3600] sec. is specified by default. |
| [Manual Key Settings] | When using a device that does not support automatic key exchange using IKE, configure each parameter manually.<br>This is required when [Manual Key] is selected in [Key Exchange Method]. |
| | [Encryption Algorithm] | If you select [ESP] for [Security Protocol], select the algorithm to be used for encryption.<br>If you select [AES_CBC] for [Encryption Algorithm], specify the [Key Length]. |
| | [Authentication Algorithm] | Select the algorithm to be used for authentication.<br>If you select [SHA2] for [Authentication Algorithm], specify the [Key Length]. |
| | [SA Index] | Specify the SA Security Parameter Index to be added to the IPsec header.<br>You can specify different security parameter indexes respectively for send and receive. |
| | [Common Key Encryption] | Specify the common key used for encryption.<br>You can specify different common keys respectively for send and receive. |
| | [Common Key Authentication] | Specify the common key used for authentication.<br>You can specify different common keys respectively for send and receive. |

**4** From [Peer] on the [IPsec Settings] screen, click [Edit] and register peers of this machine.

→ Up to 10 [Peer] can be registered.

| Item | Description |
| --- | --- |
| [Name] | Enter a peer name (using up to 10 characters). |
| [Set IP Address] | Select the method to specify the peer address. Specify the IP address of the peer depending on the selected method. |
| [Pre-Shared Key Text] | Enter the Pre-Shared Key text to be shared with the peer (using ASCII characters of up to 128 bytes). <br> To enter text in HEX code, select the [HEX Format] check box, then enter the text. <br> Specify the same text as that for the peer. |
| [Key-ID String] | Enter the Key-ID to be specified for the Pre-Shared Key (using ASCII characters of up to 128 bytes). |

**5** From [Protocol Setting] on the [IPsec Settings] screen, click [Edit] and specify the protocol used for IPsec communication.

→ In [Protocol Setting], up to 10 items can be registered.

| Item | Description |
| --- | --- |
| [Name] | Enter the protocol name (using up to 10 characters). |
| [Protocol Identification Setting] | Select a protocol used for IPsec communication. |
| [Port Number] | If [TCP] or [UDP] has been selected in [Protocol Identification Setting], specify the port number used for IPsec communication. |

**6** Click [Apply], and close the [IPsec Settings] screen.

**7** In the Administrator mode, select [Security] - [IPsec] - [IPsec] - [General Settings], then configure the following settings.

| Item | Description |
| --- | --- |
| [IPsec] | Select whether or not to enable IPsec. <br> [Disable] is specified by default. |
| [Dead Peer Detection] | If no response can be confirmed from the peer in a certain period, the SA with the peer is deleted. <br> Select a time that elapses before sending survival confirmation information to the peer how has not responded. <br> [60] is specified by default. |
| [Cookies] | Select whether or not to enable the defense using Cookies against denial-of-service attacks. <br> [Disable] is specified by default. |
| [ICMP Pass] | Select whether or not to apply IPsec to the Internet Control Message Protocol (ICMP). <br> Select [Enable] to allow the ICMP packets to pass without applying IPsec to the ICMP. <br> [Enable] is specified by default. |
| [ICMPv6 Pass] | Select whether or not to apply IPsec to the Internet Control Message Protocol for IPv6 (ICMPv6). <br> Select [Enable] to allow the ICMPv6 packets to pass without applying IPsec to the ICMPv6. <br> [Enable] is specified by default. |
| [Default Action] | Select an action to be taken if no settings meet the [IPsec Policy] while IPsec communication is enabled. <br> Select [Deny] to discard IP packets that do not meet the [IPsec Policy] settings. <br> [Allow] is specified by default. |

**8** From [IPsec Policy] on [IPsec] screen, click [Edit], then configure the following settings.

| Item | Description |
|---|---|
| [Name] | Enter a name for the IPsec policy (using up to 10 characters). |
| [Peer] | Select a peer setting.<br>Select the setting from those registered in [Peer] on the [IPsec Settings] screen. |
| [Protocol Setting] | Select an appropriate protocol.<br>Select the setting from those registered in [Protocol Setting] on the [IPsec Settings] screen. |
| [SA] | Select a peer setting.<br>Select the setting from those registered in [SA] on the [IPsec Settings] screen. |
| [Communication Type] | Select a direction of IPsec communication. |
| [Action] | Select an action to be taken for the IP packets that met [Peer], [Protocol Setting], and [Communication Type].<br>• [Protected]: Protect the IP packets that met the conditions.<br>• [Allow]: Do not protect the IP packets that met the conditions.<br>• [Deny]: Discard the IP packets that met the conditions.<br>• [Refuse]: Refuse the IP packets that met the conditions. |

**9** In the administrator mode, select [Security] - [IPsec] - [Communication Check], then check that a connection with a peer can be established normally by the specified setting.

➜ Enter the peer's IP address into [IP Address], then click [Check Connection].

## [IP Address Filtering]

To display: **Administrator mode** - [Security] - [IP Address Filtering]

You can specify both IP addresses that are permitted to access this machine and those that are refused access to the machine.

| Item | Description |
|---|---|
| [Access Permission Address] | Select [Enable] to specify IP addresses that are permitted to access. Also enter the range of IP addresses permitted to access.<br>If a single IP address is permitted to access, you can only enter the address in one side of the range.<br>• Example of entry: "192.168.1.1"<br>[Disable] is specified by default. |
| [Access Refuse Address] | Select [Enable] to specify IP addresses refused to access. Also enter the range of IP addresses.<br>If a single IP address is refused to access, you can only enter the address in one side of the range.<br>• Example of entry: "192.168.1.1"<br>[Disable] is specified by default. |
| [Exclusion Protocol] | Select the check box for the protocol that you want to exclude from access restriction using the IP address filtering.<br>[OFF] (not selected) is specified by default. |

**Tips**

IP address filtering is not supported in the IPv6 environment.

## [IEEE802.1X]

To display: **Administrator mode** - [Security] - [IEEE802.1X]

Using IEEE802.1X authentication, you can connect devices that are only authorized by administrators to the LAN environment.

If IEEE802.1X authentication is installed in your environment, configure the following settings.

| Item | Description |
|---|---|
| [IEEE802.1X] | Select [Enable] to use the IEEE802.1X authentication.<br>[Disable] is specified by default. |
| [EAP Type] | Select an EAP authentication method.<br>• [Server Specification]: The EAP type provided by the authentication server will be used for authentication. Configure the supplicant settings as required for this machine according to the EAP type that is provided by the authentication server.<br>• Do not select [None].<br>[None] is specified by default. |
| [User ID] | Enter the user ID (using ASCII characters of up to 128 bytes).<br>This user ID is used for all EAP types. |
| [Password] | Enter the password (using ASCII characters of up to 128 bytes).<br>The password is used for all EAP types other than [EAP-TLS].<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [TTLS Anonymous Name] | Enter the anonymous name used for EAP-TTLS authentication (using ASCII characters of up to 128 bytes) if [EAP Type] is set to [EAP-TTLS] or [Server Specification].<br>[anonymous] is specified by default. |
| [TTLS Authentication Type] | Select an internal authentication protocol for EAP-TTLS if [EAP Type] is set to [EAP-TTLS] or [Server Specification].<br>[MS-CHAPv2] is specified by default. |
| [Send Client Certificate] | Select whether or not to encrypt the authentication information using a certificate for this machine, if necessary.<br>This setting can be configured if the following conditions are satisfied:<br>• An optional **Hard Disk** is installed, and the certificate is registered in this machine.<br>• [EAP-TTLS], [PEAP], or [Server Specification] is selected from [EAP Type]. |
| [Server ID] | To verify CN of the certificate, enter the server ID (using ASCII characters of up to 64 bytes). |
| [Encryption Strength] | If [EAP-TLS], [EAP-TTLS], [PEAP], or [Server Specification] is selected from [EAP Type], select an encryption strength for encryption by TLS, if necessary.<br>• [Medium]: Keys that are more than 56 bits in length are used for communication.<br>• [High]: Keys that are more than 128 bits in length are used for communication.<br>[Medium] is specified by default. |
| [Network Stop] | Specify the delay time between the start of an authentication process and the end of network communication, if necessary.<br>If an authentication process does not succeed within the specified time, all network communication will stop.<br>To specify the delay time, set [Network Stop] to [Enable], and enter the delay (sec.) in [Limit Time].<br>To restart the authentication process after network communication stopped, reboot this machine.<br>[Disable] is specified by default. |

## [Auto Logout]

To display: **Administrator mode** - [Security] - [Auto Logout] - [Auto Logout]

If you do not operate this machine for a given period of time after you log in to **Web Connection**, you will automatically be logged out. If necessary, you can change the time period before you are automatically logged out.

| Item | Description |
|---|---|
| [Admin Mode Logout Time] | Select a time period until the user is automatically logged out of the administrator mode.<br>[10] minutes is specified by default. |
| [User Mode Logout Time] | Select a time period until the user is automatically logged out of the user mode.<br>[60] minutes is specified by default. |

## [Administrator Password]

To display: **Administrator mode** - [Security] - [Administrator Password] - [Administrator Password]

(This menu is displayed when [Enable] is set to **Administrator mode** in [Security] - [PKI Settings] - [SSL/TLS Settings] - [SSL/TLS] while an HTTPS connection is established.)

You can change the administrator password of this machine from **Web Connection**.

| Item | Description |
|---|---|
| [Current Password] | Enter the current administrator password (using up to eight characters). |
| [New Password] | Enter a new administrator password (using up to eight characters). |
| [Retype New Password] | Retype the new administrator password for confirmation (using up to eight characters). |

## 1.5.3    [Job] tab

## [Current Jobs]

To display: **Administrator mode** - [Job] - [Current Jobs]

Displays the print jobs that are currently being processed on this machine.

| Item | Description |
|---|---|
| [No.] | Displays the ID No. of the job. |
| [User Name] | Displays the user name of the job. |
| [Document Name] | Displays the name of the job. |
| [Status] | Displays the current status of the job. |
| [Create Time] | Displays the time by which the job is registered. |
| [Delete] | Deletes the selected job. |

## [Job History]

To display: **Administrator mode** - [Job] - [Job History]

Displays the print jobs for which processing is completed on this machine.

| Item | Description |
|---|---|
| [No.] | Displays the ID No. of the job. |
| [User Name] | Displays the user name of the job. |
| [Document Name] | Displays the name of the job. |
| [Result] | Displays the execution result of the job. |
| [Detail] | Displays the detailed information of the job. |

## 1.5.4 [Print] tab

### [Default Settings] - [General Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [General Settings]

Configure the paper and paper tray settings used for printing, and the setting on printing condition if no setting is specified by the printer driver.

| Item | Description |
|------|-------------|
| [PDL] | Select the Page Description Language. When you select [Auto], this machine automatically switches between PCL and PS.<br>[Auto] is specified by default. |
| [Paper Source] | Select the paper tray for the printing paper.<br>[Tray1] is specified by default. |
| [Duplex] | Select whether or not to print an original on both sides of paper when data containing multiple pages is printed.<br>[Off] is specified by default. |
| [Binding Position] | Select the binding position for 2-sided printing.<br>[Left Bind] is specified by default. |
| [Output Tray] | Displays the primary output tray. |
| [Copies] | Enter the number of copies to be printed.<br>[1] is specified by default. |
| [Paper Size] | Select the size of paper for printing.<br>The default value depends on the region the machine is used in. |
| [Width] / [Length] | When you have selected [Custom Size] in [Paper Size], enter the width and length of the paper. |
| [Paper Type] | Select the paper type used for printing.<br>[Plain Paper] is specified by default. |
| [Collate] | Select whether to print multiple sets of copies on a set basis.<br>This function is available when an optional **Hard Disk** is installed.<br>[Off] is specified by default. |
| [Auto Continue] | Select whether or not to continue printing when the paper size and type of the print job are different from that of the paper loaded in the paper tray.<br>[Off] is specified by default. |
| [Hold Job Timeout] | Specify the time period during which a print job is stored in the HDD.<br>This function is available when an optional **Hard Disk** is installed.<br>[Disable] is specified by default. |
| [Grayscale Page] | Select the printing method of black-and-white page when color printing is carried out.<br>• [Auto]: Prints according to the setting of the first page.<br>• [Grayscale Page]: Prints by detecting that the page is black and white for each page.<br>• [Color Print]: Prints the black-and-white page as color page.<br>[Auto] is specified by default. |
| [Original Direction] | Select the orientation of the image to be printed.<br>[Portrait] is specified by default. |
| [Minimal Print] | Select whether or not to slightly reduce the full page size when directly printing a PDF, PPML, or OOXML (docx, xlsx, or pptx) file. This function is available when printing the entire original image, including its edges.<br>[Off] is specified by default. |
| [TIFF Auto Paper Select] | Specify the method for determining the paper to be used when a TIFF, JPEG, or PDF file is directly printed.<br>• [Auto]: Prints on paper that matches the image size.<br>• [Priority Paper Size]: Prints on the primary paper size.<br>[Priority Paper Size] is specified by default.<br>This function is available when an optional **Hard Disk** is installed. |

## [Default Settings] - [Paper Source Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [Paper Source Settings]

Configure the settings on the paper tray. This machine operates according to these settings unless the printer driver specifies the print settings.

| Item | Description |
|------|-------------|
| [Manual] | Specify the size and type of the paper loaded in the bypass tray.<br>• [Paper Size]: When loading a standard size paper, select the paper size.<br>• [Width]/[Length]: When you have selected [Custom Size] in [Paper Size], enter the width and length of the paper.<br>• [Paper Type]: Select the type of the paper loaded in the tray. |
| [Tray1] | Specify the size and type of the paper loaded in tray 1.<br>• [Paper Size]: When loading a standard size paper, select the paper size.<br>• [Width]/[Length]: When you have selected [Custom Size] in [Paper Size], enter the width and length of the paper.<br>• [Paper Type]: Select the type of the paper loaded in the tray. |
| [Tray2] | Specify the size and type of paper loaded in tray 2.<br>• [Paper Size]: Displays the size of the loaded paper.<br>• [Paper Type]: Select the type of the paper loaded in the tray. |
| [Tray Chaining] | When the paper tray has become empty during printing, select whether or not to enable automatic switching to the paper tray that contains paper of the same size, orientation and type.<br>[Enable] is specified by default. |

**Tips**

[Tray2] is available when the optional **Lower Feeder Unit** is installed.

## [Default Settings] - [Tray Mapping Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [Tray Mapping Settings]

Specify the paper tray to be used for printing when a print job is received by the printer driver of other companies.

| Item | Description |
|------|-------------|
| [Tray Mapping Mode] | Select whether or not to enable the tray mapping.<br>[Off] is specified by default. |
| [Logical Tray 0] to [Logical Tray 9] | Assigns logical trays 0 to 9 to physical trays. |

## [Default Settings] - [PCL Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [PCL Settings]

Configure the PCL settings.

| Item | Description |
|---|---|
| [PCL Settings] | Specify the default values for PCL printing. |
|     [Font Number] | Specify the default font. The displayed font number corresponds to the PCL font list.<br>[0] is specified by default. |
|     [Symbol Set] | Select the font symbol set to be used.<br>[PC-8] is specified by default. |
|     [Lines Per Page] | Enter the number of lines of text data to be printed on one page.<br>The default value depends on the region the machine is used in. |
|     [Font Point Size] | Enter the font size (in points) for proportional fonts (with different widths for each character).<br>[12.00] is specified by default. |
|     [Font Pitch Size] | Enter the font width (in pitches) for typewriter fonts (with the same width for each character).<br>[10.00] is specified by default. |
|     [CR/LF Mapping] | Select whether or not to replace the line feed codes when printing text data. When you want to replace the line feed codes, select the replacement method.<br>[CR=CR LF=LF] is selected by default. |
| [Print Quality Settings] | Adjust the image quality for PCL printing. |
|     [Contrast] | Adjust the contrast of the printed image.<br>[0] is specified by default. |
|     [Image Printing] | Select the RGB image data processing method.<br>• [Source]: Specify the color space of the input RGB. [sRGB] is specified by default.<br>• [Intent]: Specify the color conversion property that is changed from input RGB to device CMYK. [Photographic] is specified by default.<br>• [Gray Treatment]: Specify the printing method of black and gray colors. [Composite Black] is specified by default. |
|     [Text Printing] | Select the RGB text data processing method.<br>• [Source]: Specify the color space of the input RGB. [sRGB] is specified by default.<br>• [Intent]: Specify the color conversion property that is changed from input RGB to device CMYK. [Vivid] is specified by default.<br>• [Gray Treatment]: Specify the printing method of black and gray colors. [Black and Gray] is specified by default. |
|     [Graphics Printing] | Select the RGB graphic data processing method.<br>• [Source]: Specify the color space of the input RGB. [sRGB] is specified by default.<br>• [Intent]: Specify the color conversion property that is changed from input RGB to device CMYK. [Vivid] is specified by default.<br>• [Gray Treatment]: Specify the printing method of black and gray colors. [Black and Gray] is specified by default. |

## [Default Settings] - [PostScript Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [PostScript Settings]

Configure the PostScript print settings.

| Item | Description |
|---|---|
| [PostScript Settings] | Specify the default values for PostScript print settings. |
| [Wait Timeout] | Specify the time-out period after it is judged as PS error.<br>If you select [0], time-out will not work.<br>[0] sec. is specified by default. |
| [PS Protocol] | Select the protocol that is used for PS data communication.<br>If you select [Auto], an appropriate protocol is automatically determined from the PS print jobs.<br>[Auto] is specified by default. |
| [Print to PS Error] | Select whether or not to print error information when an error occurs during PS rasterization.<br>[Off] is specified by default. |
| [Auto Trapping] | Select whether or not to enable the auto trapping.<br>If you enable the auto trapping, printing is carried out by superimposing neighboring colors so as to prevent white space being generated around a picture.<br>[Off] is specified by default. |
| [Black Overprint] | Select whether or not to enable the black overprint.<br>Enable the black overprint to superimpose black color on a neighboring color to print so as to prevent white space being generated around black characters or figures.<br>• [Text]: Printing is carried out by superimposing black color on neighboring colors only in the text portion.<br>• [Text/Graphic]: Printing is carried out by superimposing black color on neighboring colors in both of the text portion and figure portion.<br>[Off] is specified by default. |
| [Print Quality Settings] | Adjust the image quality for PostScript printing. |
| [Image Printing] | Select the RGB image data processing method.<br>• [RGB Source]: Specify the color space of the input RGB. [sRGB] is specified by default.<br>• [RGB Intent]: Specify the color conversion property that is changed from input RGB to device CMYK. [Photographic] is specified by default.<br>• [RGB Gray Treatment]: Specify the printing method of black and gray colors. [Composite Black] is specified by default.<br>• [Destination Profile]: Specify the output profile. [Auto] is specified by default. |
| [Text Printing] | Select the RGB text data processing method.<br>• [RGB Source]: Specify the color space of the input RGB. [sRGB] is specified by default.<br>• [RGB Intent]: Specify the color conversion property that is changed from input RGB to device CMYK. [Vivid] is specified by default.<br>• [RGB Gray Treatment]: Specify the printing method of black and gray colors. [Black and Gray] is specified by default.<br>• [Destination Profile]: Specify the output profile. [Auto] is specified by default. |
| [Graphics Printing] | Select the RGB graphic data processing method.<br>• [RGB Source]: Specify the color space of the input RGB. [sRGB] is specified by default.<br>• [RGB Intent]: Specify the color conversion property that is changed from input RGB to device CMYK. [Vivid] is specified by default.<br>• [RGB Gray Treatment]: Specify the printing method of black and gray colors. [Black and Gray] is specified by default.<br>• [Destination Profile]: Specify the output profile. [Auto] is specified by default. |

| Item | Description |
|------|-------------|
| [Simulation] | Configure the simulation settings.<br>• [Profile]: Select the simulation profile for input CMYK. [None] is specified by default.<br>• [Intent]: Specify the color conversion property for simulation. [Relative Color] is specified by default.<br>• [CMYK Gray Treatment]: Specify the printing method of plate K in the CMYK input data for simulation. [Composite Black] is specified by default. |

## [Default Settings] - [XPS Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [XPS Settings]

Specify whether or not to perform the verification of a digital signature or printing of error information when directly printing an XPS file.

| Item | Description |
|------|-------------|
| [Digital Signature] | Select whether or not to verify a digital signature when an XPS file with a digital signature is printed.<br>When [Enable] is selected, the data is not printed if the signature is invalid.<br>[Disable] is specified by default. |
| [Print to XPS Error] | Select whether or not to print error information when an error occurs when an XPS file is being printed.<br>[On] is specified by default. |

**Tips**

This function is available when an optional **Hard Disk** is installed.

## [Default Settings] - [Print Quality Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [Print Quality Settings]

Adjust the image quality of the printed image.

| Item | Description |
|---|---|
| [Print Quality Settings] | Specify the default value for image quality. |
| [Color Mode] | Select whether to print in color or gray scale.<br>[Color] is specified by default. |
| [Color Separation] | Select whether or not to enable the color separation. If the color separation is enabled, one page is divided into each color element of CMYK, and the divided images are printed in 4 pages in black.<br>[Off] is specified by default. |
| [Brightness] | Adjust the brightness of the printed image.<br>[0] is specified by default. |
| [Halftone] | Select the half-tone image processing method for each of [Image Printing], [Text Printing], and [Graphics Printing] categories.<br>• [Line Art]: Intermediate colors are reproduced with high precision.<br>• [Detail]: Intermediate colors are reproduced with precision.<br>• [Smooth]: Intermediate colors are reproduced smoothly.<br>The following shows the default settings.<br>• [Image Printing]: [Detail]<br>• [Text Printing]: [Line Art]<br>• [Graphics Printing]: [Detail] |
| [Edge Enhancement] | Select whether or not to sharpen the edges for each of [Image Printing], [Text Printing], and [Graphics Printing] categories.<br>The following shows the default settings.<br>• [Image Printing]: [Off]<br>• [Text Printing]: [On]<br>• [Graphics Printing]: [On] |
| [Edge Strength] | Select the degree of edge enhancement when sharpening the edges.<br>[Middle] is specified by default. |
| [Economy Print Mode] | Select whether or not to adjust the printing density in order to save the amount of toner consumed.<br>[Off] is specified by default. |
| [Calibration Settings] | Adjust the printing quality. |
| [Tone Calibration] | Select whether or not to enable the density adjustment.<br>[On] is specified by default. |
| [Cyan Density] | Adjust the density of cyan in highlight portions, intermediate portions, and shadow portions.<br>[0] is specified by default in every case. |
| [Magenta Density] | Adjust the density of magenta in highlight portions, intermediate portions, and shadow portions.<br>[0] is specified by default in every case. |
| [Yellow Density] | Adjust the density of yellow in highlight portions, intermediate portions, and shadow portions.<br>[0] is specified by default in every case. |
| [Black Density] | Adjust the density of black in highlight portions, intermediate portions, and shadow portions.<br>[0] is specified by default in every case. |

## [Default Settings] - [OOXML Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [OOXML Settings]

Configure the default print settings when directly printing OOXML (docx, xlsx, pptx) files.

| Item | Description |
|------|-------------|
| [Print Mode] | Select whether to give priority to either the image quality or speed when directly printing of an OOXML (docx, xlsx, or pptx) file is carried out.<br>[Speed] is specified by default. |
| [Print Sheet/Book] | Select whether to print the currently selected sheet or the entire book when handling an Excel file.<br>The [Sheet] is specified by default. |
| [Paper Size] | Select a paper size to print an OOXML (docx, xlsx, or pptx) file.<br>The default value depends on the region the machine is used in. |
| [Paper Type] | Select a paper type to print an OOXML (docx, xlsx, or pptx) file.<br>[Plain Paper] is specified by default. |

**Tips**

This function is available when an optional **Hard Disk** is installed.

## [Default Settings] - [Page Layout Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [Page Layout Settings]

Configure the default combination settings for direct printing.

| Item | Description |
|------|-------------|
| [Page Layout] | Select [Enable] to reduce multiple pages onto one sheet for printing.<br>[Disable] is specified by default. |
| [Row] | Enter a number of pages to be placed in a horizontal orientation.<br>[1] is specified by default. |
| [Column] | Enter a number of pages to be placed in a vertical orientation.<br>[1] is specified by default. |
| [Combination Method] | Select a method to arrange pages.<br>[Horizontal] is specified by default. |
| [Combination Orientation] | Select a direction of page layout.<br>[Top Left to Bottom Right] is specified by default. |
| [Space] | Enter the page space in the row and column directions.<br>[0] mm is specified by default in every case. |
| [Margin] | Enter page margins at the top, bottom, right-, and left-hand sides.<br>[0] mm is specified by default in every case. |
| [Zoom] | Select whether to automatically adjust the zoom ratio or specify any zoom ratio to enlarge or reduce a page.<br>[Auto] is specified by default. |
| [Frame] | Select whether or not to print a border line between pages.<br>[Disable] is specified by default. |

## [Default Settings] - [Barcode Settings]

To display: **Administrator mode** - [Print] - [Default Settings] - [Barcode Settings]

Configure the bar code font settings.

| Item | Description |
|------|-------------|
| [Width of the Bar] | Specify the line width for bar code font.<br>[0] is specified by default. |
| [Width of the Space] | Specify the space width for bar code font.<br>[0] is specified by default. |

📋 **Tips**

An optional **i-Option LK-106** is required to use the bar code font.

## [Font/Form]

To display: **Administrator mode** - [Print] - [Font/Form]

Enables you to check the font, form and profile information saved on this machine.

| Item | Description |
|------|-------------|
| [PCL Font] | Displays the list of PCL fonts saved on this machine. |
| [PostScript Font] | Displays the list of PS fonts saved on this machine. |
| [Form Overlay] | Displays the list of forms saved on this machine.<br>This function is available when an optional **Hard Disk** is installed. |
| [Color Profile] | Displays the list of color profiles saved on this machine. |

## [Download Font/Form]

To display: **Administrator mode** - [Print] - [Download Font/Form]

Manage the fonts, forms and profiles that are saved on the HDD of this machine.

| Item | | Description |
|------|------|-------------|
| [PostScript Font] | | Manage the PostScript fonts. |
| | [Download Post-Script Font] | Download PostScript fonts to the HDD of this machine.<br>Specify the storage location and the font to be downloaded, and click [Download]. |
| | [Delete PostScript Font] | Delete the PostScript fonts that are saved on the HDD of this machine.<br>In the list of PostScript fonts, select the check box of the font you want to delete, and click [Delete]. |
| [Form Overlay] | | Manage the forms. |
| | [Download Form Overlay] | Download forms to the HDD of this machine.<br>Specify the storage location and the form to be downloaded, and click [Download]. |
| | [Delete Form Overlay] | Delete the forms that are saved on the HDD of this machine.<br>In the list of forms, select the check box of the form you want to delete, and click [Delete]. |
| [Color Profile] | | Manage the color profiles. |
| | [Download Color Profile] | Download color profiles to the HDD of this machine.<br>Specify the storage location and the color profile to be downloaded, and click [Download].<br>You can download up to 20 color profiles to the HDD. |
| | [Delete Color Profile] | Delete the color profiles that are saved on the HDD of this machine.<br>In the list of color profiles, select the check box of the color profile you want to delete, and click [Delete]. |

Tips

This function is available when an optional **Hard Disk** is installed.

## [Report Types]

To display: **Administrator mode** - [Print] - [Report Types] - [Report Types]

Prints various reports. Select the report that you want to print, and click [Print].

| Item | Description |
|------|-------------|
| [Configuration Page] | Prints a list that contains information and settings of this machine. |
| [PCL Font Page] | Prints the PCL font list. |
| [PostScript Font Page] | Prints the PostScript font list. |
| [Statistics Page] | Prints a list that contains statistics information, such as the number of pages printed. |
| [Directory Listing Page] | Prints a list of HDD directories.<br>This function is available when an optional **Hard Disk** is installed. |

## [Direct Print]

To display: **Administrator mode** - [Print] - [Direct Print] - [Direct Print]

Prints the file on the computer by directly sending it to this machine.

For details, refer to [User's Guide Print].

Tips

This function is available when an optional **Hard Disk** is installed.

### 1.5.5          [Network] tab

## [General Settings] - [Ethernet Settings]

To display: **Administrator mode** - [Network] - [General Settings] - [Ethernet Settings]

Specify the network speed, and check the MAC address.

| Item | Description |
|------|-------------|
| [Speed/Duplex] | Select the network speed according to your environment.<br>[Auto] is specified by default. |
| [MAC Address] | Displays the MAC address of the network interface card of this machine. |

## [General Settings] - [Local Interface Settings]

To display: **Administrator mode** - [Network] - [General Settings] - [Local Interface Settings]

Change the time-out time to limit a communication with the computer.

| Item | Description |
|------|-------------|
| [I/O Timeout] | When this machine is connected via a USB device to the computer, change the communication time-out time if necessary.<br>[60] sec. is specified by default. |

# [TCP/IP Settings] - [TCP/IP Settings]

To display: **Administrator mode** - [Network] - [TCP/IP Settings] - [TCP/IP Settings]

Configure the TCP/IP settings.

| Item | Description |
|------|-------------|
| [TCP/IP] | Select whether or not to use TCP/IP.<br>[Enable] is specified by default. |
| [LPD] | Select whether or not to use LPD (Line Printer Daemon).<br>[Enable] is specified by default. |
| [SLP] | Select whether or not to use SLP (Service Location Protocol).<br>[Enable] is specified by default. |
| [LLMNR] | Select whether or not to use LLMNR (Link-local Multicast Name Resolution).<br>[Enable] is specified by default. |

# [TCP/IP Settings] - [IPv4 Settings]

To display: **Administrator mode** - [Network] - [TCP/IP Settings] - [IPv4 Settings]

Assign an IP address (IPv4) to this machine.

| Item | Description |
|------|-------------|
| [IP Address Setting Method] | When automatically specifying the IP address, select the method for automatic retrieval.<br>• [DHCP]: [ON] (selected) is specified by default.<br>• [BootP]: [OFF] (not selected) is specified by default.<br>• [ARP/PING]: [OFF] (not selected) is specified by default.<br>• [Auto IP]: [ON] (selected) is specified by default. |
| [IP Address] | When manually specifying the IP address, enter the fixed IP address. |
| [Subnet Mask] | When manually specifying the IP address, enter the subnet mask. |
| [Default Gateway] | When manually specifying the IP address, enter the default gateway. |
| [Domain Name Automatic Acquisition] | When using the DHCP or other protocols, select whether or not to automatically retrieve the domain name.<br>[Enable] is specified by default. |
| [DNS Server Automatic Acquisition] | Select whether or not to automatically obtain the address of the DNS server.<br>[Enable] is specified by default. |

# [TCP/IP Settings] - [IPv6 Settings]

To display: **Administrator mode** - [Network] - [TCP/IP Settings] - [IPv6 Settings]

Assign an IP address (IPv6) to this machine.

| Item | Description |
|------|-------------|
| [IPv6] | Select whether or not to use IPv6.<br>[Enable] is specified by default. |
| [Auto Setting] | Select whether or not to automatically assign the IPv6 global address of this machine.<br>[Enable] is specified by default. |
| [Link Local Address] | Displays the link-local address that is automatically specified from the MAC address of this machine. |
| [Global Address] | When manually specifying the IPv6 address, enter the IPv6 global address. |
| [Gateway Address] | When manually specifying the IPv6 address, enter the gateway address. |
| [DHCPv6] | Select whether or not to automatically assign the IPv6 global address using DHCPv6.<br>[Enable] is specified by default. |
| [DNS Server Automatic Acquisition] | Select whether or not to automatically obtain the address of the DNS server.<br>When using DHCPv6, the DNS server address can be specified automatically.<br>[Enable] is specified by default. |

| Item | Description |
|---|---|
| [Search Domain Name Automatic Acquisition] | When using the DHCP or other protocols, select whether or not to automatically retrieve the domain name.<br>[Enable] is specified by default. |
| [NTP Server Automatic Acquisition] | In the IPv6 environment, select whether or not to automatically specify the NTP server address by DHCPv6.<br>[Enable] is specified by default. |

## [TCP/IP Settings] - [RAW Port Settings]

To display: **Administrator mode** - [Network] - [TCP/IP Settings] - [RAW Port Settings]

Specify a RAW port number required for Port9100 printing.

| Item | Description |
|---|---|
| [RAW Port] | Select whether or not to use the RAW port.<br>[Enable] is specified by default. |
| [Port Number] | If necessary, change the RAW port number.<br>[9100] is specified by default. |
| [Bidirectional] | Select whether or not to enable bidirectional communication of the RAW port.<br>[Disable] is specified by default. |

## [TCP/IP Settings] - [DNS Settings]

To display: **Administrator mode** - [Network] - [TCP/IP Settings] - [DNS Settings]

Configure the DNS settings when a DNS server is used.

| Item | Description |
|---|---|
| [Host Name] | Enter the host name of this machine (using ASCII characters of up to 63 bytes, including only - for symbol marks).<br>If your DNS server does not support the Dynamic DNS function, register the host name of this machine on the DNS server. |
| [Domain Name] | When not automatically retrieving the default domain name, enter the default domain name of this machine (using ASCII characters of up to 63 bytes, including only - for symbol marks). |
| [DNS Server Address (IPv4)] | Enter the address (IPv4) of your DNS server. You can register up to three addresses. |
| [DNS Server Address (IPv6)] | Enter the address (IPv6) of your DNS server. You can register up to three addresses. |
| [Search Domain Name] | When not automatically retrieving the search domain name, enter the search domain name of this machine (using ASCII characters of up to 251 bytes, including only - for symbol marks). |
| [Dynamic DNS] | Select whether or not to enable the Dynamic DNS function.<br>When your DNS server supports the Dynamic DNS function, the specified host name can be automatically registered on the DNS server or changes can be automatically updated as long as [Enable] is selected.<br>[Disable] is specified by default. |

## [E-mail Settings] - [E-mail TX (SMTP)]

To display: **Administrator mode** - [Network] - [E-mail Settings] - [E-mail TX (SMTP)]

Configure the settings on the E-mail transmission function of this machine.

| Item | Description |
|---|---|
| [E-mail TX (SMTP)] | Configure the settings to send an E-mail from this machine. |
| [E-mail TX (SMTP)] | Select whether or not to send an E-mail from this machine.<br>[Enable] is specified by default. |
| [E-mail Notification] | Select whether or not to use the E-mail notification function.<br>If a warning such as paper addition, toner replacement, or paper jam occurs on this machine, it can be sent to a registered E-mail address.<br>[Enable] is specified by default. |
| [Total Counter Notification] | Select whether or not to use the total counter notification function.<br>Using this function, you can send counter information managed by this machine to the registered E-mail address.<br>[Enable] is specified by default. |
| [SMTP Server Automatic Acquisition] | When using the DNS server, select whether or not to automatically retrieve the E-mail server (SMTP) address.<br>[Disable] is specified by default. |
| [SMTP Server Address] | Enter the address of your E-mail server (SMTP).<br>Use one of the following formats.<br>• Example of host name entry: "host.example.com"<br>• Example of IP address (IPv4) entry: "192.168.1.1"<br>• Example of IP address (IPv6) entry: "fe80::220:6bff:fe10:2f16"<br><br>📄 **Note**<br>To specify [SMTP Server Address], you need to enter [Device E-mail Address]. |
| [Port Number] | If necessary, change the port number of the E-mail server (SMTP).<br>[25] is specified by default. |
| [SSL/TLS] | Select the method to encrypt communications with the E-mail server (SMTP).<br>Select [Enable] or [Start TLS] according to your environment.<br>[Disable] is specified by default. |
| [Port Number (SSL)] | If necessary, change the SSL communication port number.<br>This is required when [Enable] is selected in [SSL/TLS].<br>[465] is specified by default. |
| [Connection Timeout] | Change the time-out time to communicate with the E-mail server (SMTP), if necessary.<br>[60 sec.] is specified by default. |
| [Administrator E-mail Address] | Displays the E-mail address of the administrator. |
| [Device E-mail Address] | Enter the E-mail address of this machine (using ASCII characters of up to 320 bytes). |
| [Max Mail Size] | Select whether or not to limit the maximum E-mail size.<br>[No Limit] is specified by default. |
| [Server Capacity] | If you select [Limit] in [Max Mail Size], enter the maximum E-mail size that is available in the E-mail server (SMTP).<br>E-mails that have been exceeded the specified size will be discarded. |
| [Binary Division] | Select whether or not to divide a large E-mail before sending it.<br>This item is necessary if the maximum capacity of an E-mail to be sent is restricted in the E-mail server.<br>[Off] is specified by default. |
| [Divided Mail Size] | Enter the size to divide an E-mail when selecting [On] in [Binary Division].<br>[500] KB is specified by default. |
| [SMTP Authentication] | Configure the setting if your environment requires the SMTP authentication for sending an E-mail. |

| Item | Description |
|------|-------------|
| [SMTP Authentication] | Select whether or not to use SMTP authentication.<br>[Disable] is specified by default. |
| [Account] | When you have selected [Enable] in [SMTP Authentication], enter the user ID for SMTP authentication (using up to 255 bytes). |
| [Password] | When you have selected [Enable] in [SMTP Authentication], enter the password (using up to 128 bytes).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Domain Name] | When you have selected [Enable] in [SMTP Authentication], enter the domain name (realm) for SMTP authentication (using ASCII characters of up to 255 bytes).<br>This item is necessary when the SMTP authentication method is Digest-MD5. |

## [HTTP Settings] - [HTTP Server Settings]

To display: **Administrator mode** - [Network] - [HTTP Settings] - [HTTP Server Settings]

Configure the settings on the HTTP server function of this machine.

| Item | Description |
|------|-------------|
| [HTTP Server] | Select whether or not to use this machine as the HTTP server.<br>If you select [Disable], you cannot use **Web Connection**.<br>[Enable] is specified by default. |
| [Port Number] | If necessary, change the HTTP server port number.<br>[80] is specified by default. |
| [SSL/TLS] | Select whether or not to use SSL for communication with the HTTP server.<br>[Disable] is specified by default. |
| [Port Number (SSL)] | If necessary, change the SSL communication port number.<br>[443] is specified by default. |

## [IPP Settings]

To display: **Administrator mode** - [Network] - [IPP Settings] - [IPP Settings]

Configure the operating environment for IPP printing.

| Item | Description |
|------|-------------|
| [IPP Print] | Select whether or not to use IPP printing.<br>[Enable] is specified by default. |
| [Accept IPP Job] | Select whether or not to enable reception of the IPP job.<br>[Enable] is specified by default. |
| [Printer Name] | If necessary, enter a printer name of this machine (using up to 127 bytes). |
| [Printer Location] | If necessary, enter the installation location of this machine (using up to 127 bytes). |
| [Printer Information] | If necessary, enter the printer information of this machine (using up to 127 bytes). |
| [Printer URI] | Displays the URI of the printers that can print data using the IPP. |
| [Operational Support] | Select whether or not to allow the following IPP operations.<br>• [Print Job]: Allows a print job.<br>• [Validate Job]: Allows you to check a valid job.<br>• [Cancel Job]: Allows you to cancel a job.<br>• [Get Job Attributes]: Allows you to obtain job attributes.<br>• [Get Jobs]: Allows you to obtain a list of job attributes.<br>• [Get Print Attributes]: Allows you to obtain printer attributes.<br>[ON] (selected) is specified by default in every case. |
| [IPP Authentication] | Select the IPP authentication method.<br>[Requesting-user-name] is specified by default. |

| Item | Description |
|---|---|
| [User Name] | Enter the user name (using ASCII characters of up to 20 bytes, excluding a colon (:)).<br>This entry is required if you have selected [Basic] or [Digest] in [IPP Authentication]. |
| [Password] | Enter the password (using ASCII characters of up to 20 bytes).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password.<br>This entry is required if you have selected [Basic] or [Digest] in [IPP Authentication]. |
| [Realm] | Enter the domain (realm) (using ASCII characters of up to 127 bytes).<br>This entry is required if you have selected [Digest] in [IPP Authentication]. |

## [FTP Settings] - [FTP Server Settings]

To display: **Administrator mode** - [Network] - [FTP Settings] - [FTP Server Settings]

To use application software with which the FTP server of this machine is used to communicate, configure the FTP server.

| Item | Description |
|---|---|
| [FTP Server] | Select whether or not to use the FTP server function of this machine.<br>[Enable] is specified by default. |
| [Port Number] | If necessary, change the FTP server port number.<br>[21] is specified by default. |
| [Command Prohibit] | Select a command to deny a receiving job from an FTP client when using the FTP server of this machine.<br>Set this option to return an error when a PORT/EPRT command or PASV/EPSV command is sent from an FTP client to this machine.<br>[Allow] is specified by default. |
| [PORT Command Enhanced Security] | Select whether or not to enable this machine to run security measures against FTP bounce attacks. This option is not available if [Command Prohibit] is set to [PORT/EPRT].<br>When a PORT/EPRT command is sent from an FTP client, the data connection is established only if both of the following conditions are satisfied.<br>• A port number less than 1024 is not specified.<br>• The IP address specified by the command is same as that specified when a control connection is established.<br>[Enable] is specified by default. |

## [SNMP Settings]

To display: **Administrator mode** - [Network] - [SNMP Settings] - [SNMP Settings]

Configure the settings for obtaining the machine information and monitoring the machine using SNMP (Simple Network Management Protocol).

| Item | | Description |
|---|---|---|
| [SNMP Settings] | | Configure the SNMP settings. |
| | [SNMP] | Select whether or not to use SNMP.<br>[Enable] is specified by default. |
| | [SNMP v1/v2c (IP)] | Select whether or not to use SNMP v1 or SNMP v2.<br>[Enable] is specified by default. |
| | [SNMP v3 (IP)] | Select whether or not to use SNMP v3.<br>[Enable] is specified by default. |
| | [UDP Port] | If necessary, change the UDP port number.<br>[161] is specified by default. |
| [SNMP v1/v2c Settings] | | Configure the SNMP v1/v2c settings. |

| Item | Description |
|------|-------------|
| [Read Community Name] | Enter a read-only community name (using ASCII characters of up to 15 bytes, excluding spaces, \, ,' ,", and #).<br>[public] is specified by default. |
| [Write] | Select whether or not to enable the read and write functions.<br>[Enable] is specified by default. |
| [Write Community Name] | If [Write] is set to [Enable], enter the community name in the read-write enable state (using ASCII characters of up to 15 bytes, excluding spaces, \, ,' ,", and #).<br>[private] is specified by default. |
| [SNMP v3 Settings] | Configure the SNMP v3 settings. |
| [Context Name] | Enter a context name (using ASCII characters of up to 63 bytes, excluding spaces, \, ,' ,", and #). |
| [Discovery] | Select whether or not to allow a user for detection.<br>[Enable] is specified by default. |
| [Discovery User Name] | If [Discovery] is set to [Enable], enter a user name for detection (using ASCII characters of up to 32 bytes, excluding spaces, \, ,' ,", and #).<br>[public] is specified by default. |
| [Read User Name] | Enter a read-only user name (ASCII characters of up to 32 bytes, excluding spaces, \, ,' ,", and #).<br>[initial] is specified by default. |
| [Security Level] | Select a security level for the read-only user.<br>[Auth-password/Priv-password] is specified by default. |
| [auth-password] | Enter an authentication password for the read-only user (using ASCII characters between 8 and 32 bytes, excluding spaces, \, ,' ,", and #).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [priv-password] | Enter a privacy password for the read-only user (using ASCII characters between 8 and 32 bytes, excluding spaces, \, ,' ,", and #).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Write User Name] | Enter a user name used by the read and write user (using ASCII characters of up to 32 bytes, excluding spaces, \, ', ", and #).<br>[restrict] is specified by default. |
| [Security Level] | Select a security level of the read and write user.<br>[Auth-password/Priv-password] is specified by default. |
| [auth-password] | Enter an authentication password for the read and write user (using ASCII characters between 8 and 32 bytes, excluding spaces, \, ,' ,", and #).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [priv-password] | Enter a privacy password for the read and write user (using ASCII characters between 8 and 32 bytes, excluding spaces, \, ,' ,", and #).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Encryption Algorithm] | Select an encryption algorithm.<br>[DES] is specified by default. |
| [Authentication Method] | Select an authentication algorithm.<br>[MD5] is specified by default. |
| [Trap Settings] | Configure the settings on the SNMP TRAP function. |
| [Allow Setting] | Select whether or not to allow a notification of the status of this machine using the SNMP TRAP function.<br>[Enable] is specified by default. |
| [Trap Setting When Authentication Fails] | Select whether or not to send TRAP when authentication fails.<br>[Disable] is specified by default. |

## [Web Service Settings] - [Common Settings]

To display: **Administrator mode** - [Network] - [Web Service Settings] - [Common Settings]

Configure settings to detect this machine using the Web service.

| Item | Description |
|------|-------------|
| [Friendly Name] | Enter the name of this machine to be displayed when this machine is searched for using the Web service through a computer (using up to 127 bytes). |
| [Secure Mode] | Select whether or not to use the SSL for Web service communication.<br>[Disable] is specified by default. |

## [Web Service Settings] - [Printer Settings]

To display: **Administrator mode** - [Network] - [Web Service Settings] - [Printer Settings]

Configure settings to perform Web service printing.

| Item | Description |
|------|-------------|
| [Print Function] | Select whether or not to use the WS print function.<br>[Enable] is specified by default. |
| [Printer Name] | Enter the name of this machine when using it as a WS printer (using up to 127 bytes, excluding !, \, and ,). |
| [Printer Location] | If necessary, enter the installation location of the printer (using up to 127 bytes). |
| [Printer Information] | If necessary, enter the printer information (using up to 127 bytes). |

## [Bonjour Settings]

To display: **Administrator mode** - [Network] - [Bonjour Settings] - [Bonjour Settings]

Configure the Bonjour operating environment when using this machine in the Mac OS control.

| Item | Description |
|------|-------------|
| [Bonjour] | Select whether or not to use Bonjour.<br>[Enable] is specified by default. |
| [Printer Name] | Enter a Bonjour name that is to be displayed as the name of connected device (using up to 63 bytes). |
| [Priority Protocol] | Select the protocol preferentially used for connection by Bonjour.<br>[RAW Port] is specified by default. |

## [OpenAPI Settings]

To display: **Administrator mode** - [Network] - [OpenAPI Settings] - [OpenAPI Settings]

To use application software that communicates with this machine via OpenAPI, configure the OpenAPI settings of this machine.

| Item | Description |
|------|-------------|
| [OpenAPI] | Select whether or not to use OpenAPI on this machine.<br>[Enable] is specified by default. |
| [OpenAPI External] | Select whether or not to connect to external application software via OpenAPI.<br>[Enable] is specified by default. |
| [Port Number] | If necessary, change the OpenAPI communication port number.<br>[50001] is specified by default. |
| [SSL/TLS] | Select whether or not to use SSL for a communication via OpenAPI.<br>This setting is available when the certification of this machine is registered.<br>[Non-SSL Only] is specified by default. |
| [Port Number (SSL/TLS)] | If necessary, change the SSL communication port number.<br>[50003] is specified by default. |

| Item | Description |
|------|-------------|
| [Authentication] | Select whether or not to authenticate users accessing via OpenAPI. To authenticate, enter the login name and password in [Login Name] and [Password].<br>[Off] is specified by default. |
| [Login Name] | Enter the login name that is used for OpenAPI authentication (using ASCII characters of up to eight bytes, excluding symbols). |
| [Password] | Enter the password that is used for OpenAPI authentication (using ASCII characters of up to eight bytes, excluding symbols).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Proxy] | Configure a setting for the required proxy server if you want associate this machine with a different system that supports OpenAPI. |
| | [Proxy Server Address] | Enter the proxy server address.<br>Use one of the following formats.<br>• Example of host name entry: "host.example.com"<br>• Example of IP address (IPv4) entry: "192.168.1.1"<br>• Example of IP address (IPv6) entry: "fe80::220:6bff:fe10:2f16" |
| | [Proxy Server Port Number (HTTP)] | If necessary, change the proxy server port number for HTTP.<br>[8080] is specified by default. |
| | [Proxy Server Port Number (HTTPS)] | If necessary, change the proxy server port number for HTTPS.<br>[8080] is specified by default. |
| | [Proxy Server Port Number (FTP)] | If necessary, change the proxy server port number for FTP.<br>[21] is specified by default. |
| | [Proxy Server User Name] | Enter the user name to log in to the proxy server (using ASCII characters of up to 63 bytes). |
| | [Proxy Server Password] | Enter the password (using ASCII characters of up to 63 bytes).<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |

## [TCP Socket Settings]

To display: **Administrator mode** - [Network] - [TCP Socket Settings] - [TCP Socket Settings]

Configure the TCP Socket operating environment.

| Settings | Description |
|----------|-------------|
| [TCP Socket] | Select whether or not to use TCP Socket on this machine.<br>[Enable] is specified by default. |
| [Port Number] | If necessary, change the TCP Socket port number.<br>[59158] is specified by default. |
| [SSL/TLS] | Select whether or not to use SSL for a communication via TCP Socket.<br>This setting is available when the certification of this machine is registered.<br>[Non-SSL Only] is specified by default.<br><br>📄 **Note**<br>When [Security] - [PKI Settings] - [SSL/TLS Settings] - [SSL/TLS] is set to [Enable], the setting can be changed. |
| [Port Number (SSL/TLS)] | If necessary, change the SSL communication port number.<br>[59159] is specified by default. |

## [LLTD Settings]

To display: **Administrator mode** - [Network] - [LLTD Settings] - [LLTD Settings]

Select whether or not to use LLTD (Link Layer Topology Discovery).

Using LLTD, you can display this machine on the network map if your computer is equipped with Windows Vista or later (Windows Vista/7/8/8.1/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2).

[Enable] is specified by default.

# 2 Configuring the Operating Environment of This Machine

# 2    Configuring the Operating Environment of This Machine

## 2.1    Configuring the WS print operating environment

### Overview

If the Web service function that is available in Windows Vista or later (Windows Vista/7/8/8.1/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2) is used, this machine that is connected to the network is automatically detected and easily installed as a Web service printer.

HTTP is used for communication between this machine and the computer. In addition, using SSL to encrypt a communication between the this machine and the computer enables more secure printing.

When using the WS printing function, follow the below procedure to configure the settings.

1    Configure settings for connecting to the network such as setting of the IP address of this machine

➜    For details on configuring the setting, refer to page 1-4.

2    Configuring basic settings for the WS printing

➜    For details on configuring the setting, refer to page 2-3.

3    Set the following options according to your environment

| Purpose | Reference |
|---|---|
| Communicate with the computer using SSL | page 2-4 |

📖 **Reference**
*For details on how to configure settings on the computer, refer to page 3-14.*

### Configuring basic settings for the WS printing

Enable printing using the Web service. Also, configure settings used to detect this machine using the Web service, and define information of this machine used as a printer.

1    In the administrator mode, select [Network] - [Web Service Settings] - [Common Settings], then configure the following settings.

| Settings | Description |
|---|---|
| [Friendly Name] | Enter the name of this machine to be displayed when this machine is searched for using the Web service through a computer (using up to 127 bytes). |

2    In the administrator mode, select [Network] - [Web Service Settings] - [Printer Settings], then configure the following settings.

| Settings | Description |
|---|---|
| [Print Function] | Select [Enable] to use the WS print function.<br>[Enable] is specified by default. |
| [Printer Name] | Enter the name of this machine when using it as a WS printer (using up to 127 bytes, excluding !, \, and ,). |
| [Printer Location] | If necessary, enter the installation location of the printer (using up to 127 bytes). |
| [Printer Information] | If necessary, enter the printer information (using up to 127 bytes). |

## Using SSL communication

Communication between this machine and the computer is encrypted with SSL.

To encrypt SSL communication between this machine and the computer, you must set the bidirectional SSL communication between them. Before starting this procedure, confirm the following.

●     Name resolution must have been performed in the DNS server.

●     If the certificate of this machine is not issued by the Certificate Authority (CA), you must register the certificate of this machine in [Trusted Root Certification Authorities] of the computer.

●     Create a certificate on the computer in advance, and associate it with the TCP/IP communication port (default port number: 5358).

To make SSL communications, enable SSL.

In the administrator mode, select [Network] - [Web Service Settings] - [Common Settings], then configure the following settings.

| Settings | Description |
| --- | --- |
| [Secure Mode] | Select [Enable] to use SSL communication.<br>[Disable] is specified by default. |

**Tips**

If you are using Windows 8/8.1, a communication that utilizes the Web service cannot be encrypted using SSL.

## 2.2    Employing user authentication

### Tips

This function is available when an optional **Hard Disk** is installed.

### Overview

Users of this machine can be restricted by the authentication function (MFP authentication) of this machine. Authentication information of users are managed internally by this machine.

Employing the user authentication enables security- and cost-conscious advanced operations such as restricting users from accessing this machine, restricting users from using the functions by user, and managing the use status of this machine.

### Configuring basic settings for the user authentication

Enable user authentication. In addition, register the user on this machine.

1    In the administrator mode, select [Security] - [Authentication] - [Common Settings], then configure the following settings.

| Settings | Description |
|---|---|
| [User Authentication] | Select [Device] to employ user authentication. |
| [Public Access] | Select whether or not to permit that public users (unregistered users) to use this machine.<br>• [Allow]: Allows public users to use this machine.<br>• [Allow (without Login)]: A public user can use this machine without logging in to this machine. Using this option, you do not need to log in to this machine even when there are many public users.<br>• [Restrict]: Does not permit to use this machine by public users.<br>[Allow] is specified by default. |

2    In the administrator mode, select [Security] - [Authentication] - [User List] - [New Registration], then register a user.

| Settings | Description |
|---|---|
| [User Name] | Enter the user name to log in to this machine (using up to 64 characters). |
| [Password] | Enter the password to log in to this machine (using up to 64 bytes, excluding spaces and ").<br>To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Function Permission] | Restrict functions available to users.<br>• [Print]: Select whether or not to allow print operations. [Allow] is specified by default. |
| [Output Permission (Print)] | Select whether or not to allow color printing and black and white printing, respectively.<br>• [Color]: Select whether or not to allow color printing. Selecting [Economy Print Mode Only] only allows printing specified with [Toner Save]. [Allow] is specified by default.<br>• [Black]: Select whether or not to allow black and white printing. [Allow] is specified by default. |
| [Max. Allowance Set] | Set the maximum number of pages that can be printed.<br>• [Total]: To manage the upper limit according to a total number of copies in color, and black and white, select this check box, then enter the maximum allowance.<br>• [Color]: To manage the upper limit for color printing, select this check box, then enter the maximum allowance.<br>• [Black]: To manage the upper limit for black and white printing, select this check box, then enter the maximum allowance. |

## 2.3    Associating user authentication with account track

📑 **Tips**

This function is available when an optional **Hard Disk** is installed.

### Overview

You can use a combination of user authentication and account track to manage each user for each department.

A password can be set by account to restrict users from using this machine. Also, using this function, you can restrict available functions or manage the use status of this machine by account.

### Configuring basic settings for user authentication and account track

Enable user authentication and account track. Also register users and account tracks.

**1** In the administrator mode, select [Security] - [Authentication] - [General Settings], then configure the following settings.

| Settings | Description |
|---|---|
| [User Authentication] | When using user authentication and account track in conjunction, select [Device]. |
| [Account Track] | When using user authentication and account track in conjunction, select [On]. [Off] is specified by default. |
| [Synchronize User Authentication & Account Track] | If [On] is selected in [Account Track], this option is set to [Synchronize]. |

**2** In the administrator mode, select [Security] - [Authentication] - [Account Track List] - [New Registration], then register an account.

| Settings | Description |
|---|---|
| [Account Name] | Enter the account name to log in to this machine (using up to 8 bytes, excluding spaces and "). You cannot specify a duplicate name. |
| [Password] | Enter the password to log in to this machine (using up to 8 bytes, excluding spaces and "). To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Output Permission (Print)] | Select whether or not to allow color printing and black and white printing, respectively. <br> • [Color]: Select whether or not to allow color printing. Selecting [Economy Print Mode Only] only allows printing specified with [Toner Save]. [Allow] is specified by default. <br> • [Black]: Select whether or not to allow black and white printing. [Allow] is specified by default. |
| [Max. Allowance Set] | Set the maximum number of pages that can be printed. <br> • [Total]: To manage the upper limit according to a total number of copies in color, and black and white, select this check box, then enter the maximum allowance. <br> • [Color]: To manage the upper limit for color printing, select this check box, then enter the maximum allowance. <br> • [Black]: To manage the upper limit for black and white printing, select this check box, then enter the maximum allowance. |

**3**    In the administrator mode, select [Security] - [Authentication] - [User List] - [New Registration], then register a user.

| Settings | Description |
|---|---|
| [User Name] | Enter the user name to log in to this machine (using up to 64 characters). |
| [Password] | Enter the password to log in to this machine (using up to 64 bytes, excluding spaces and "). <br> To enter (change) the password, select the [Change Password] check box, then enter a new password. |
| [Account Track Number] | Specify the department of a user by registration number of the department if the user authentication and account track functions are synchronized. |
| [Function Permission] | Restrict functions available to users. <br> • [Print]: Select whether or not to allow print operations. [Allow] is specified by default. |
| [Output Permission (Print)] | Select whether or not to allow color printing and black and white printing, respectively. <br> • [Color]: Select whether or not to allow color printing. Selecting [Economy Print Mode Only] only allows printing specified with [Toner Save]. [Allow] is specified by default. <br> • [Black]: Select whether or not to allow black and white printing. [Allow] is specified by default. |
| [Max. Allowance Set] | Set the maximum number of pages that can be printed. <br> • [Total]: To manage the upper limit according to a total number of copies in color, and black and white, select this check box, then enter the maximum allowance. <br> • [Color]: To manage the upper limit for color printing, select this check box, then enter the maximum allowance. <br> • [Black]: To manage the upper limit for black and white printing, select this check box, then enter the maximum allowance. |

## 2.4 Using the certificate of this machine

### 2.4.1 Creating a certificate for this machine to communicate via SSL

#### Overview

Communication between this machine and the computer can be encrypted with SSL to enhance security.

The following shows how to use the certificate on this machine.

| Usage | Description |
|---|---|
| Using a self-created certificate | Create a certificate with this machine. The Certificate Authority (CA) is not required, and the certificate can be used simply after entering necessary information to create it. For details, refer to page 2-8. |
| Using a certificate issued by the Certificate Authority (CA) | Create certificate signing request data on this machine, and request the trusted Certificate Authority (CA) for issuing a certificate for the machine. When the data is returned from the Certificate Authority after review, register the data with this machine. For details, refer to page 2-9. |

**Tips**

If an optional **Hard Disk** is installed, multiple certificates can be managed.

#### Self-creating a certificate

Create a certificate with this machine. The Certificate Authority (CA) is not required, and the certificate can be used simply after entering necessary information to create it.

1 In the administrator mode, select [Security] - [PKI Settings] - [Device Certificate] - [New Registration] - [Create a Self-signed Certificate] - [Next], and enter information required for creating a certificate, then click [Apply].

| Settings | Description |
|---|---|
| [Common Name] | Displays the IP address of this machine. |
| [Organization] | Enter the organization or association name (using ASCII characters of up to 63 bytes). |
| [Organization Unit] | Enter the account name (using ASCII characters of up to 63 bytes). You can also specify a null. |
| [Locality] | Enter the locality name (using ASCII characters of up to 127 bytes). |
| [State/Province] | Enter the state or province name (using ASCII characters of up to 127 bytes). |
| [Country] | Enter the country name. For the country name, specify a country code defined in ISO03166 (using ASCII characters of up to 2 bytes). United States: US, Great Britain: GB, Italy: IT, Australia: AU, The Netherlands: NL, Canada: CA, Spain: ES, Czech Republic: CZ, China: CN, Denmark: DK, Germany: DE, Japan: JP, France: FR, Belgium: BE, Russia: RU |
| [E-mail Address] | Enter the E-mail address of the machine administrator (using ASCII characters of up to 127 bytes). |
| [Validity Start Date] | Displays the starting date of the certificate validity period. Displays the date and time of this machine when this screen is displayed. |
| [Validity Period] | Enter the validity period of a certificate with the number of days that have elapsed since the starting date. |

2 When the certificate has been installed, enable SSL communication.

➔ For details, refer to page 1-21.

## Requesting CA for a certificate issuance

Create certificate signing request data on this machine, and request the trusted Certificate Authority (CA) for issuing a certificate for the machine. When the data is returned from the Certificate Authority after review, register the data with this machine.

**1**    In the administrator mode, select [Security] - [PKI Settings] - [Device Certificate] - [New Registration] - [Request a Certificate] - [Next], and enter information required for issuing a certificate, then click [Apply].

| Settings | Description |
|---|---|
| [Common Name] | Displays the IP address of this machine. |
| [Organization] | Enter the organization or association name (using ASCII characters of up to 63 bytes). |
| [Organization Unit] | Enter the account name (using ASCII characters of up to 63 bytes). You can also specify a null. |
| [Locality] | Enter the locality name (using ASCII characters of up to 127 bytes). |
| [State/Province] | Enter the state or province name (using ASCII characters of up to 127 bytes). |
| [Country] | Enter the country name. For the country name, specify a country code defined in ISO03166 (using ASCII characters of up to 2 bytes). United States: US, Great Britain: GB, Italy: IT, Australia: AU, The Netherlands: NL, Canada: CA, Spain: ES, Czech Republic: CZ, China: CN, Denmark: DK, Germany: DE, Japan: JP, France: FR, Belgium: BE, Russia: RU |
| [E-mail Address] | Enter the E-mail address of the machine administrator (using ASCII characters of up to 127 bytes). |

**2**    Click [Save].

➜    Click this button to save certificate signing request data in your computer as a file.

**3**    Send the certificate signing request data to the Certificate Authority.

When the data is returned from the Certificate Authority after review, register the data with this machine.

**4**    In the administrator mode, select [Security] - [PKI Settings] - [Device Certificate] - [Edit] - [Install a Certificate] - [Next], and specify the text data sent from the Certificate Authority (CA), and then click [Apply].

**5**    When the certificate has been installed, enable SSL communication.

➜    For details, refer to page 1-21.

## 2.4.2　Managing the certificates for this machine

### Exporting a certificate

A certificate for this machine can be exported. You can export the certificate if you wish to manage it on the computer or transfer it to other device.

In the administrator mode, select [Security] - [PKI Settings] - [Device Certificate] - [Edit] - [Export a Certificate] - [Next], and enter the password (using ASCII characters of up to 32 bytes), and then click [Export].

**Tips**

The entered password is required to import the certificate.

### Importing a certificate

The exported certificate can be imported on this machine.

In the administrator mode, select [Security] - [PKI Settings] - [Device Certificate] - [New Registration] - [Import a Certificate] - [Next], specify the certificated to be imported, enter the password, and then click [Apply].

**Tips**

Enter the password specified when the certificate is exported.

### Deleting a certificate

A certificate for this machine can be deleted if necessary.

In the administrator mode, select [Security] - [PKI Settings] - [Device Certificate] - [Edit] - [Delete a Certificate], then click [Next].

# 3 Manually Installing the Printer Driver (for Windows)

# 3 Manually Installing the Printer Driver (for Windows)

## 3.1 Checking the connection method

### In Windows Vista/7/8/8.1/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2

The installation method for the printer driver differs depending on the method used to connect this machine to the computer. When this machine is connected to the network, there are several printing protocols. The installation method for the printer driver also differs depending on the protocol.

| Installation method | Connection method | |
|---|---|---|
| Connection method in which setup is possible using Add Printer Wizard | LPR | A network connection using the LPR (Line Printer Remote) print service. It uses a TCP/IP protocol and the LPR printing port.<br>• For the installation procedure, refer to page 3-5. |
| | Port 9100 | A network connection using the PORT9100 print service. It uses a TCP/IP protocol and the RAW printing port.<br>• For the installation procedure, refer to page 3-5. |
| | IPP/IPPS | A network connection using the IPP (Internet Printing Protocol) print service. Printing can be carried out via the Internet using the HTTP (HyperText Transfer Protocol) of the TCP/IP protocol.<br>IPPS is an IPP for SSL encrypted communication.<br>• For the installation procedure, refer to page 3-11. |
| | Web service print | It is a connection corresponding to Web service function of Windows Vista and later operating systems and capable of automatically detecting the printer on the network.<br>• For the installation procedure, refer to page 3-14. |
| | USB | A connection using a USB port. |
| Connection method in which plug and play-based setup is possible | USB | A connection using a USB port.<br>• For the installation procedure, refer to page 3-15. |

## In Windows XP/Server 2003

The installation method for the printer driver differs depending on the method used to connect this machine to the computer. When this machine is connected to the network, there are several printing protocols. The installation method for the printer driver also differs depending on the protocol.

| Setup procedures | Connection method | |
|---|---|---|
| Connection method in which setup is possible using Add Printer Wizard | LPR | A network connection using the LPR (Line Printer Remote) print service. It uses a TCP/IP protocol and the LPR printing port.<br>• For the installation procedure, refer to page 3-5. |
| | Port 9100 | A network connection using the PORT9100 print service. It uses a TCP/IP protocol and the RAW printing port.<br>• For the installation procedure, refer to page 3-5. |
| | IPP/IPPS | A network connection using the IPP (Internet Printing Protocol) print service. Printing can be carried out via the Internet using the HTTP (HyperText Transfer Protocol) of the TCP/IP protocol.<br>IPPS is an IPP for SSL encrypted communication.<br>• For the installation procedure, refer to page 3-11. |
| | USB | A connection using a USB port. |
| Connection method in which plug and play-based setup is possible | USB | A connection using a USB port.<br>• For the installation procedure, refer to page 3-15. |

## 3.2    Using LPR/Port9100 connection for installation

### Operations required to use this function (for administrators)

Configure the LPR/Port 9100 operating environment.

- When using port 9100:
  Make sure that the RAW port number has been set. (In normal circumstances, you can use the default settings.) For details on how to configure the settings, refer to page 1-42.
- When using the LPR:
  Check that LPD is enabled. (In normal circumstances, you can use the default settings.) For details on how to configure the settings, refer to page 1-41.

### 3.2.1    Installing the printer driver by automatically detecting the printer

### In Windows 8/8.1/Server 2012/Server 2012 R2

You can install the printer driver by automatically detecting the printer on the network or by creating a new port.

✔ Administrator privileges are required to perform this task.

✔ Since the printer is searched for during the installation, be sure to connect this machine to the network before turning it on.

**1**    Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2**    Display the printer window.

→ In Windows 8.1, click [⊙] in the Start window, then click [Control Panel] - [Hardware and Sound] - [View devices and printers].

→ In Windows 8, right-click the Start window, then click [All apps] - [Control Panel] - [Hardware and Sound] - [View devices and printers].

→ In Windows Server 2012/Server 2012 R2, open the Start window, then click [Control Panel] - [Hardware] - [View devices and printers].

**3**    Select Add a printer.

The [Add Printer] wizard appears.

**4**    Select your machine from the list, then click [Next].

→ If no printers are detected, restart this machine.

→ Use the IP address to confirm the printer that you want to connect to.

→ It may take some time to finish searching the entire list of printers.

**5**    Click [Have Disk...].

**6**    Click [Browse...].

**7**    Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [Open].

→ Select the folder according to the printer driver, operating system, and language to be used. Selectable printer drivers: PCL driver, PS driver, and XPS driver

**8**    Click [OK].

The [Printers] list appears.

**9**    Click [Next].

**10**    Follow the on-screen instructions to carry out operations.

→ If the [User Account Control] window appears, click [Continue] or [Yes].

**11**    Click [Finish].

**12** After finishing the installation, make sure that the icon for the installed printer is displayed in the [Devices and Printers] window.

**13** Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed.

## In Windows Vista/7/Server 2008/Server 2008 R2

You can install the printer driver by automatically detecting the printer on the network or by creating a new port.

The procedure for installing the printer driver by automatically detecting the printer on the network is as follows:

✔ Administrator privileges are required to perform this task.

✔ Since the printer is searched for during the installation, be sure to connect this machine to the network before turning it on.

**1** Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2** Display the printer window.

→ In Windows 7/Server 2008 R2, open the Start menu, then click [Devices and Printers]. If [Devices and Printers] is not displayed, select [Control Panel] - [Hardware and Sound], and click [View devices and printers]. When [Control Panel] is displayed in an icon view, double-click [Devices and Printers].

→ In Windows Vista/Server 2008, click the Start menu, and select [Control Panel] - [Hardware and Sound] - [Printers]. When [Control Panel] is displayed in Classic View, double-click [Printers].

**3** Select Add a printer.

The [Add Printer] wizard appears.

**4** Click [Add a network, wireless or Bluetooth printer].

Connected printers are detected.

**5** Select your machine from the list, then click [Next].

→ If no printers are detected, restart this machine.

→ Use the IP address to confirm the printer that you want to connect to.

→ It may take some time to finish searching the entire list of printers.

**6** Click [Have Disk...].

**7** Click [Browse...].

**8** Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [Open].

→ Select the folder according to the printer driver, operating system, and language to be used. Selectable printer drivers: PCL driver, PS driver, and XPS driver

**9** Click [OK].

The [Printers] list appears.

**10** Click [Next].

**11** Follow the on-screen instructions to carry out operations.

→ If the [User Account Control] window appears, click [Continue] or [Yes].

**12** Click [Finish].

**13** After finishing the installation, make sure that the icon for the installed printer is displayed in the [Printers] or [Devices and Printers] window.

**14** Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed.

## 3.2.2    Installing the printer driver by creating a new port

### In Windows 8/8.1/Server 2012/Server 2012 R2

The procedure for installing the printer driver by creating a new port is as follows:

✔ Administrator privileges are required to perform this task.

✔ Since the printer is searched for during the installation, be sure to connect this machine to the network before turning it on.

**1** Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2** Display the printer window.

➔ In Windows 8.1, click [⊕] in the Start window, then click [Control Panel] - [Hardware and Sound] - [View devices and printers].

➔ In Windows 8, right-click the Start window, then click [All apps] - [Control Panel] - [Hardware and Sound] - [View devices and printers].

➔ In Windows Server 2012/Server 2012 R2, open the Start window, then click [Control Panel] - [Hardware] - [View devices and printers].

**3** Select Add a printer.

**4** In the window showing the detected printer, click [The printer that I want isn't listed].

**5** Click [Add a local printer or network printer with manual settings].

**6** Click [Create a new port:], then select [Standard TCP/IP Port].

**7** Click [Next].

**8** Select [TCP/IP Device], then enter the IP address.

**9** Click [Next].

**10** Click [Have Disk...].

**11** Click [Browse...].

**12** Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [Open].

➔ Select the folder according to the printer driver, operating system, and language to be used. Selectable printer drivers: PCL driver, PS driver, and XPS driver

**13** Click [OK].

The [Printers] list appears.

**14** Click [Next].

**15** Follow the on-screen instructions to carry out operations.

➔ If the [User Account Control] window appears, click [Continue] or [Yes].

**16** Click [Finish].

**17** After finishing the installation, make sure that the icon for the installed printer is displayed in the [Devices and Printers] window.

**18** Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed.

## In Windows Vista/7/Server 2008/Server 2008 R2

The procedure for installing the printer driver by creating a new port is as follows:

✔    Administrator privileges are required to perform this task.

✔    Since the printer is searched for during the installation, be sure to connect this machine to the network before turning it on.

**1**    Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2**    Display the printer window.

➔    In Windows 7/Server 2008 R2, open the Start menu, then click [Devices and Printers]. If [Devices and Printers] is not displayed, select [Control Panel] - [Hardware and Sound], and click [View devices and printers]. When [Control Panel] is displayed in an icon view, double-click [Devices and Printers].

➔    In Windows Vista/Server 2008, click the Start menu, and select [Control Panel] - [Hardware and Sound] - [Printers]. When [Control Panel] is displayed in Classic View, double-click [Printers].

**3**    Select Add a printer.

The [Add Printer] wizard appears.

**4**    Click [Add a local printer].

The [Choose a printer port] dialog box appears.

**5**    Click [Create a new port:], then select [Standard TCP/IP Port].

**6**    Click [Next].

**7**    Select [TCP/IP Device], then enter the IP address.

**8**    Click [Next].

➔    If the [Additional Port Information Required] or [More Port Information Required] dialog box appears, go to Step 9.

➔    If the [Install the printer driver] dialog box appears, go to Step 12.

**9**    Select [Custom], and then click [Settings...].

**10**    Change the settings according to the port, and then click [OK].

➔    For an LPR connection, select the [LPR] check box, then enter "Print" in [Queue Name:]. You must discriminate between upper and lower case letters when entering it.

➔    For the Port 9100 connection, select the [Raw] check box, then enter a RAW port number ([9100] by default) in [Port Number:].

➔    If both LPR and Port9100 are enabled on this machine, the printer driver is connected to this machine using LPR.

**11**    Click [Next].

The [Install the printer driver] dialog box appears.

**12**    Click [Have Disk...].

**13**    Click [Browse...].

**14**    Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [Open].

➔    Select the folder according to the printer driver, operating system, and language to be used. Selectable printer drivers: PCL driver, PS driver, and XPS driver

**15**    Click [OK].

The [Printers] list appears.

**16**    Click [Next].

**17**   Follow the on-screen instructions to carry out operations.

➔   If the [User Account Control] window appears, click [Continue] or [Yes].

**18**   Click [Finish].

**19**   After finishing the installation, make sure that the icon for the installed printer is displayed in the [Printers] or [Devices and Printers] window.

**20**   Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed.

## In Windows XP/Server 2003

✔   Administrator privileges are required to perform this task.

**1**   Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2**   From the Start menu, click [Printers and Faxes].

➔   If [Printers and Faxes] is not displayed, select [Control Panel] - [Printers and Other Hardware] - [Printers and Faxes] from the Start menu.

**3**   Select Printer Install.

➔   In Windows XP, select [Add a printer] from [Printer Tasks].

➔   In Windows Server 2003, double-click [Add Printer].

[Add Printer Wizard] appears.

**4**   Click [Next >].

**5**   Select [Local printer attached to this computer], then click [Next >].

➔   Clear the [Automatically detect and install my Plug and Play printer] check box.

The [Select a Printer Port] page appears.

**6**   Click [Create a new port:], then select [Standard TCP/IP Port] as the [Type of port:].

**7**   Click [Next >].

[Add Standard TCP/IP Printer Port Wizard] starts.

**8**   Click [Next >].

**9**   In the [Printer Name or IP Address:] box, enter the IP address for the machine, and then click [Next >].

➔   If the [Additional Port Information Required] window appears, go to Step 10.

➔   If the [Finish] screen appears, go to Step 13.

**10**   Select the [Custom] check box, then click [Settings:].

**11**   Change the settings according to the port, and then click [OK].

➔   For an LPR connection, select the [LPR] check box, then enter "Print" in [Queue Name:]. You must discriminate between upper and lower case letters when entering it.

➔   For the Port 9100 connection, select the [Raw] check box, then enter a RAW port number ([9100] by default) in [Port Number:].

**12**   Click [Next >].

**13**   Click [Finish].

[Add Printer Wizard] appears.

**14**   Click [Have Disk...].

**15**   Click [Browse...].

16  Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [Open].

→  Select the folder according to the printer driver, operating system, and language to be used.
    Selectable printer drivers: PCL driver and PS driver

17  Click [OK].

The [Printers] list appears.

18  Click [Next >].

19  Follow the on-screen instructions to carry out operations.

→  To use a network connection, perform a test print after the network settings have been configured.

20  Click [Finish].

21  After finishing the installation, make sure that the icon for the installed printer is displayed in the [Printers and Faxes] window.

22  Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed.

# 3.3    Using IPP connection for installation

## Operations required to use this function (for administrators)

Configure the IPP operating environment.

For details on how to configure the settings, refer to page 1-44.

**Tips**

You can enhance security by encrypting communication between the computer and this machine with SSL when IPP printing is carried out on this machine (IPPS printing). To use SSL communications, a certificate must be registered in advance. For details on how to configure the settings, refer to page 2-8.

## In Windows 8/8.1/Server 2012/Server 2012 R2

✔    Administrator privileges are required to perform this task.

**1**    Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2**    Display the printer window.

➜    In Windows 8.1, click [⊕] in the Start window, then click [Control Panel] - [Hardware and Sound] - [View devices and printers].

➜    In Windows 8, right-click the Start window, then click [All apps] - [Control Panel] - [Hardware and Sound] - [View devices and printers].

➜    In Windows Server 2012/Server 2012 R2, open the Start window, then click [Control Panel] - [Hardware] - [View devices and printers].

**3**    Select Add a printer.

The [Add Printer] wizard appears.

**4**    In the window showing the detected printer, click [The printer that I want isn't listed].

**5**    In [Select a shared printer by name], enter the URL for the machine in the following format, then click [Next].

➜    http://<IP address of this machine>/ipp
Example: http://192.168.1.20/ipp

➜    When specifying to use IPPS printing, enter "https://[host name]. [domain name]/ipp".
For [host name]. [domain name], specify the host name and domain name registered for the DNS server being used.

➜    If the certificate for the machine is not the one issued by the certifying authority, you must register the certificate for the machine on the Windows 8/8.1/Server 2012/Server 2012 R2 system as the certificate by "Trusted Root Certification Authorities" for the computer account.

➜    When registering the certificate in the machine, check that the certificate shows [host name]. [domain name] as the common name.

**6**    Click [Have Disk...].

**7**    Click [Browse...].

**8**    Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [Open].

➜    Select the folder according to the printer driver, operating system, and language to be used. Selectable printer drivers: PCL driver, PS driver, and XPS driver

**9**    Click [OK].

The [Printers] list appears.

**10**   Click [Next].

**11** Follow the on-screen instructions to carry out operations.

→ If the [User Account Control] window appears, click [Continue] or [Yes].

**12** Click [Finish].

**13** After finishing the installation, make sure that the icon for the installed printer is displayed in the [Devices and Printers] window.

**14** Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed.

## In Windows Vista/7/Server 2008/Server 2008 R2

✔ Administrator privileges are required to perform this task.

**1** Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2** Display the printer window.

→ In Windows 7/Server 2008 R2, open the Start menu, then click [Devices and Printers]. If [Devices and Printers] is not displayed, select [Control Panel] - [Hardware and Sound], and click [View devices and printers]. When [Control Panel] is displayed in an icon view, double-click [Devices and Printers].

→ In Windows Vista/Server 2008, click the Start menu, and select [Control Panel] - [Hardware and Sound] - [Printers]. When [Control Panel] is displayed in Classic View, double-click [Printers].

**3** Select Add a printer.

The [Add Printer] wizard appears.

**4** Click [Add a network, wireless or Bluetooth printer].

Connected printers are detected.

**5** In the window showing the detected printer, click [The printer that I want isn't listed].

**6** In [Select a shared printer by name], enter the URL for the machine in the following format, then click [Next].

→ http://<IP address of this machine>/ipp
Example: http://192.168.1.20/ipp

→ When specifying to use IPPS printing, enter "https://[host name]. [domain name]/ipp".
For [host name]. [domain name], specify the host name and domain name registered for the DNS server being used.

→ If the certificate for the machine is not the one issued by the certifying authority, you must register the certificate for the machine on the Windows Vista/7/Server 2008/Server 2008 R2 system as the certificate by "Trusted Root Certification Authorities" for the computer account.

→ When registering the certificate in the machine, check that the certificate shows [host name]. [domain name] as the common name.

**7** Click [Have Disk...].

**8** Click [Browse...].

**9** Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [Open].

→ Select the folder according to the printer driver, operating system, and language to be used.
Selectable printer drivers: PCL driver, PS driver, and XPS driver

**10** Click [OK].

The [Printers] list appears.

**11** Click [OK].

**12** Follow the on-screen instructions to carry out operations.

➔ If the [User Account Control] window appears, click [Continue] or [Yes].

**13** Click [Finish].

**14** After finishing the installation, make sure that the icon for the installed printer is displayed in the [Printers] or [Devices and Printers] window.

**15** Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed. Once the settings for the printer have been configured, you can use the printer in the same way as a general local printer.

## In Windows XP/Server 2003

✔ Administrator privileges are required to perform this task.

**1** Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2** From the Start menu, click [Printers and Faxes].

➔ If [Printers and Faxes] is not displayed, select [Control Panel] - [Printers and Other Hardware] - [Printers and Faxes] from the Start menu.

**3** Select Printer Install.

➔ In Windows XP, select [Add a printer] from [Printer Tasks].
➔ In Windows Server 2003, double-click [Add Printer].
[Add Printer Wizard] appears.

**4** Click [Next >].

**5** In the [Local or Network Printer] page, select [A network printer, or a printer attached to another computer], then click [Next >].

**6** In the [Specify a Printer] page, select [Connect to a printer on the Internet or on a home or office network:].

**7** In [URL:], enter the URL for the machine in the following format, then click [Next >].

➔ http://<IP address of this machine>/ipp
Example: http://192.168.1.20/ipp
➔ When specifying to use IPPS printing, enter "https://[IP address of this machine]/ipp".
➔ If a confirmation dialog box appears after clicking [Next >], click [OK].

**8** Click [Have Disk...].

**9** Click [Browse...].

**10** Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [Open].

➔ Select the folder according to the printer driver, operating system, and language to be used.
Selectable printer drivers: PCL driver and PS driver

**11** Click [OK].

The [Printers] list appears.

**12** Click [OK].

**13** Follow the on-screen instructions to carry out operations.

**14** Click [Finish].

**15** After finishing the installation, make sure that the icon for the installed printer is displayed in the [Printers and Faxes] window.

**16**   Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed. Once the settings for the printer have been configured, you can use the printer in the same way as a general local printer.

# 3.4     Using the Web service connection for installation

## Web service

The Web service function automatically detects devices on the network and installs the necessary printer drivers.

If you are using Windows Vista/7/8/8.1/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2, locate the printers that support the Web service print function on the network to install the printer drivers.

## Operations required to use this function (for administrators)

Configure the Web service operating environment.

For details on how to configure the settings, refer to page 2-3.

## Installation methods

✔   Administrator privileges are required to perform this task.

✔   To install a different printer driver on the computer where one has already been installed, you must uninstall the whole package of the currently installed printer driver.

**1**   Install the printer driver for this machine.

➔   For details, refer to [User's Guide Print]. The printer driver can be installed in any port.

**2**   Turn on the power of the machine while it is connected to the network.

**3**   In [Network and Sharing Center] on the computer, check that [Network Discovery] is enabled.

**4**   Open the [Network] window.

➔   In Windows 8/8.1/Server 2012/Server 2012 R2, open [Control Panel], select the [Network and Internet] category, then click [View network computers and devices].

➔   In Windows 7/Server 2008 R2, open [Computer] and click [Network].
If [Network] is not displayed, click the [Network and Internet] category on [Control Panel], then click [View network computers and devices].

➔   In Windows Vista/Server 2008, open the Start menu, and click [Network].

Connected computers and devices are detected.

**5**   Select the device name of the machine, then click [Install] on the toolbar.

➔   In Windows 8/8.1/Server 2012/Server 2012 R2, click [Network] - [Add devices and printers] on the toolbar. In the displayed window, select the device name of this machine, then click [Next].

The printer driver for this machine is detected and the machine is ready to print.

**6**   After finishing the installation, make sure that the icon for the installed printer is displayed in the [Printers] or [Devices and Printers] window.

📖**Reference**
*If the printer driver is not correctly installed, the driver must be updated using [Update Driver...]. For details, refer to page 3-16.*

## 3.5    Using USB connection for installation

### In Windows Vista/7/8/8.1/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2

To connect this machine using the USB port in Windows Vista/7/8/8.1/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2, first install the printer driver and then associate it with this machine through plug and play.

✔ In Windows 7/8/8.1/Server 2008 R2/Server 2012/Server 2012 R2, the installation disk cannot be specified after the connection has been established. Install the printer driver in advance.

✔ In Windows Vista/Server 2008, you can continue the task and specify the printer driver installation disk to install the printer driver if it is not installed in advance.

✔ Administrator privileges are required to perform this task.

1    Install the printer driver for this machine.

➜ For details, refer to [User's Guide Print].

2    Connect this machine to the computer using a USB cable.

3    Turn on the power of this machine.

The printer driver for this machine is detected and the machine is ready to print.

➜ If the printer driver is not detected, restart this machine.

4    After finishing the installation, make sure that the icon for the installed printer is displayed in the [Printers] or [Devices and Printers] window.

📖**Reference**
*If the printer driver is not correctly installed, the driver must be updated using [Update Driver...]. For details, refer to page 3-16.*

### In Windows XP/Server 2003

✔ Administrator privileges are required to perform this task.

1    Connect this machine to the computer using a USB cable, and then start the computer.

2    Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

3    Turn on the power of this machine.

The [Found New Hardware Wizard] dialog box appears.

➜ If the [Found New Hardware Wizard] dialog box does not appear, restart this machine.

➜ If a page with a message saying "Windows connect to Windows Update" appears, select [No, not this time].

4    Select [Install from a list or specific location (Advanced)], then click [Next >].

5    Under [Search for the best driver in these locations.], select [Include this location in the search:], then click [Browse].

6    Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [OK].

➜ Select the folder according to the printer driver, operating system, and language to be used. Selectable printer drivers: PCL driver and PS driver

7    Click [Next >], and perform the procedure by following the on-screen instructions.

8    Click [Finish].

9    After finishing the installation, make sure that the icon for the installed printer is displayed in the [Printers and Faxes] window.

**10** Remove the CD/DVD-ROM from the CD/DVD-ROM drive.
Installation of the printer driver is then completed.

## Updating the printer driver

In Windows 7/8/8.1/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2, if this machine is connected without the printer driver having first been installed, the printer driver will not be correctly identified. If the printer driver is not correctly identified, the driver must be updated using [Update Driver...].

**1** Display the printer window.

➔ In Windows 8.1, click [⊕] in the Start window, then click [Control Panel] - [Hardware and Sound] - [View devices and printers].
When [Control Panel] is displayed in an icon view, double-click [Devices and Printers].

➔ In Windows 8, right-click the Start window, then click [All apps] - [Control Panel] - [Hardware and Sound] - [View devices and printers].
When [Control Panel] is displayed in an icon view, double-click [Devices and Printers].

➔ In Windows Server 2012/Server 2012 R2, open the Start window, then click [Control Panel] - [Hardware] - [View devices and printers].
When [Control Panel] is displayed in an icon view, double-click [Devices and Printers].

➔ In Windows 7/Server 2008 R2, open the Start menu, then click [Devices and Printers]. If [Devices and Printers] is not displayed, select [Control Panel] - [Hardware and Sound], and click [View devices and printers].
When [Control Panel] is displayed in an icon view, double-click [Devices and Printers].

**2** Right-click the device name of the machine that is under [Unspecified] and then click [Properties].

➔ If [Unknown Device] appears instead of the device name of the machine, right-click to remove the device, and install the printer driver.

**3** In the [Hardware] tab, click [Properties].

**4** In the [General] tab, click [Change Settings].

**5** In the [Driver] tab, click [Update Driver...].

**6** In the page in which to select how to search the driver software, click [Browse my computer for driver software anyway].

**7** Click [Browse...].

**8** Select the folder on the CD/DVD-ROM containing the desired printer driver, then click [OK].

➔ Select the folder according to the printer driver, operating system, and language to be used.
Selectable printer drivers: PCL driver, PS driver, and XPS driver

**9** Click [Next].

**10** Follow the on-screen instructions to carry out operations.

**11** Click [Close].

**12** After finishing the installation, make sure that the icon for the installed printer is displayed in the [Devices and Printers] window.

**13** Remove the CD/DVD-ROM from the CD/DVD-ROM drive.
This completes the update of the printer driver.

## 3.6    Manually uninstalling the printer driver

If the printer driver was installed without using the installer, manually uninstall the printer driver.

**1**    Display the printer window.

➜ In Windows 8.1, click [⊙] in the Start window, then click [Control Panel] - [Hardware and Sound] - [View devices and printers].

➜ In Windows 8, right-click the Start window, then click [All apps] - [Control Panel] - [Hardware and Sound] - [View devices and printers].

➜ In Windows Server 2012/Server 2012 R2, open the Start window, then click [Control Panel] - [Hardware] - [View devices and printers].

➜ In Windows 7/Server 2008 R2, open the Start menu, then click [Devices and Printers]. If [Devices and Printers] is not displayed, select [Control Panel] - [Hardware and Sound], and click [View devices and printers].

➜ In Windows Vista/Server 2008, click the Start menu, and select [Control Panel] - [Hardware and Sound] - [Printers]. When [Control Panel] is displayed in Classic View, double-click [Printers].

➜ In Windows XP/Server 2003, click the Start menu, then select [Printers and Faxes]. If [Printers and Faxes] is not displayed, select [Control Panel] - [Printers and Other Hardware] - [Printers and Faxes]. When [Control Panel] is displayed in Classic View, double-click [Printers].

**2**    Click the icon of the printer driver to be uninstalled.

**3**    Uninstall the printer driver.

➜ In Windows 7/8/8.1/Server 2008 R2/Server 2012/Server 2012 R2, click [Remove device] on the toolbar.

➜ In Windows XP/Vista/Server 2003/Server 2008, press the [Delete] key on the computer keyboard.

**4**    From then on, follow the on-screen instructions to carry out operations.

When the printer driver ha been uninstalled, the icon disappears from the window.

**5**    Open [Server Properties].

➜ In Windows 7/8/8.1/Server 2008 R2/Server 2012/Server 2012 R2, select a different printer, and click [Print Server Properties] on the toolbar.

➜ In Windows Vista/Server 2008, right-click on the area that has nothing displayed in the [Printers] window, click [Run as administrator] - [Server Properties].

➜ In Windows XP/Server 2003, click the [File] menu, then [Server Properties].

➜ If the [User Account Control] window appears, click [Continue] or [Yes].

**6**    Click the [Driver] tab.

**7**    From the [Installed printer drivers:] list, select the printer driver to be uninstalled, then click [Remove...].

➜ In Windows Vista/7/8/8.1/Server 2008 R2/Server 2012/Server 2012 R2, go to Step 8.

➜ In Windows XP/Server 2003, go to Step 9.

**8**    Select [Remove driver and driver package.] or [Remove driver and driver package.] in the dialog box for confirming to remove the target, then click [OK].

**9**    In the dialog box for confirming if you are sure to remove the printer, click [Yes].

➜ If you are using Windows Vista/7/8/8.1/Server 2008 R2/Server 2012/Server 2012 R2, the dialog box appears to reconfirm whether you are sure you want to remove the printer. Click [Uninstall].

**10**    Close the open windows, and then restart the computer.

➜ Be sure to restart the computer.

Uninstallation of the printer driver is then completed.

## Tips

In Windows XP/Server 2003, if the printer driver is uninstalled in the above procedure, the model information files remain on the computer. For this reason, when reinstalling the same version of the printer driver, the driver may not be rewritten. In this case, remove the following files as well.

- Check the "C:\WINDOWS\system32\spool\drivers\w32×86" folder ("C:\WINDOWS\system32\spool\drivers\×64" folder in the ×64 system), and if there is a folder of the corresponding model, remove it. However, if multiple drivers are installed including the PCL driver, PostScript driver and fax driver, the model information of all drivers is deleted. To leave drivers other than the fax driver, do not remove the folder.
- From the "C:\WINDOWS\inf" folder, remove "oem*.inf" and "oem*.PNF" ("*" included in the file name indicates a number, which differs depending on the computer environment).
  Before removing these files, open the inf file, and then check the model name described on the last few lines to confirm it is the file for the corresponding model. The number of the PNF file is the same as that of the inf file.
- If you have deleted a file using [Remove driver and driver package.] in Windows Vista/7/8/8.1/Server 2008/Server 2008 R2/Server 2012/Server 2012 R2, this operation is not required.

# 4

**Adding a Printer Using LPR/IPP Connection (Mac OS Environment)**

# 4        Adding a Printer Using LPR/IPP Connection (Mac OS Environment)

## 4.1        Using LPR connection

### Operations required to use this function (for administrators)

Configure the LPR operating environment.

For details on how to configure the settings, refer to page 1-41.

### In Mac OS X 10.4 and later

In Mac OS X 10.4 and later, use the following procedure to add a printer using an LPR connection:

**1**    Select [System Preferences...] in the Apple menu.

**2**    Click the [Network] icon.

**3**    The Ethernet setting window appears.
➜ In Mac OS X 10.5 and later, select [Ethernet], then click [Advanced...].
➜ In Mac OS X 10.4, select [Built-in Ethernet], then click [Configure...].

**4**    Click the [TCP/IP] tab.

**5**    Configure the settings including the IP address and subnet mask according to the settings of the network to which the computer is connected.

**6**    Click the close button at the top left corner of the window.
➜ When the [Apply configuration changes] message appears, click [Apply].
Then, add the printer to the computer.

**7**    Select [System Preferences...] in the Apple menu.

**8**    Click the [Print & Fax], [Print & Scan] or [Printers & Scanners] icon.

**9**    Click [+] in the [Print & Fax], [Print & Scan] or [Printers & Scanners] window.
➜ In Mac OS X 10.9, select [Add Printer or Scanner...] in the list that is displayed by clicking [+] in the [Printers & Scanners] window.
➜ In Mac OS X 10.7/10.8, select [Add Other Printer or Scanner...] or [Add Printer or Scanner...] in the list that is displayed by clicking [+] in the [Print & Scan] window.

**10**    Click [IP] or [IP Printer].

**11**    In [Protocol:], select [Line Printer Daemon - LPD].

**12**    In [Address:], enter the IP address for the machine.
The printer driver for the machine specified with the IP address is displayed in [Print Using:] or [Use:].
➜ When the printer driver is displayed, go to Step 14.
➜ When the printer driver is not correctly displayed, go to Step 13.

**13**   Manually select the printer driver.

➜ In Mac OS X 10.9, select [Select Software...] from [Use:], then click the driver of the desired printer from the list that is displayed in another window.

➜ In Mac OS X 10.6/10.7/10.8, select [Select Printer Software...] from [Print Using:], then click the driver of the desired printer from the list that is displayed in another window.

➜ In Mac OS X 10.5, select [Select a driver to use...] in [Print Using:], then click the driver of the desired printer from the list.

➜ In Mac OS X 10.4, select [GENERIC] in [Print Using:], and then click the driver of the desired printer from the list.

**14**   Click [Add].

Addition of the printer is then completed.

## In Mac OS X 10.3

In Mac OS X 10.3, use the following procedure to add a printer using an LPR connection:

**1**   Select [System Preferences...] in the Apple menu.

**2**   Click the [Network] icon.

**3**   From [Show], select [Built-in Ethernet].

**4**   Click the [TCP/IP] tab.

**5**   Select the [Settings:] item and configure the settings including the IP address and subnet mask according to the settings for the network to which the computer is connected.

**6**   Click the close button at the top left corner of the window.

➜ When the [Apply configuration changes] message appears, click [Apply].

Then, add the printer to the computer.

**7**   From [Macintosh HD] (hard disk of the system) - [Applications] - [Utilities], double-click [Printer Setup Utility] or [Print Center] to open it.

**8**   When the [You have no printers available.] window appears, click [Add]. When the Printer List appears, click [Add].

➜ If available printers have already been specified, the [You have no printers available.] window does not appear.

**9**   Select [IP Printing] as the connection method.

**10**   In [Printer Type:], select [LPD/LPR].

**11**   In [Printer Address:], enter the IP address for the machine.

**12**   In [Printer Model:], select [GENERIC], then click the driver of the desired printer from the model list.

**13**   Click [Add].

Addition of the printer is then completed.

## 4.2    Using IPP connection

### Operations required to use this function (for administrators)

Configure the IPP operating environment.

For details on how to configure the settings, refer to page 1-44.

### In Mac OS X 10.4 and later

In Mac OS X 10.4 and later, use the following procedure to add a printer with an IPP connection:

**1**    Select [System Preferences...] in the Apple menu.

**2**    Click the [Network] icon.

**3**    The Ethernet setting window appears.

→    In Mac OS X 10.5 and later, select [Ethernet], then click [Advanced...].

→    In Mac OS X 10.4, select [Built-in Ethernet], then click [Configure...].

**4**    Click the [TCP/IP] tab.

**5**    Configure the settings including the IP address and subnet mask according to the settings of the network to which the computer is connected.

**6**    Click the close button at the top left corner of the window.

→    When the [Apply configuration changes] message appears, click [Apply].

Then, add the printer to the computer.

**7**    Select [System Preferences...] in the Apple menu.

**8**    Click the [Print & Fax], [Print & Scan] or [Printers & Scanners] icon.

**9**    Click [+] in the [Print & Fax], [Print & Scan] or [Printers & Scanners] window.

→    In Mac OS X 10.9, select [Add Printer or Scanner...] in the list that is displayed by clicking [+] in the [Printers & Scanners] window.

→    In Mac OS X 10.7/10.8, select [Add Other Printer or Scanner...] or [Add Printer or Scanner...] in the list that is displayed by clicking [+] in the [Print & Scan] window.

[Printer Browser] appears.

**10**    Click [IP] or [IP Printer].

**11**    In [Protocol:], select [Internet Printing Protocol - IPP].

**12**    In [Address:], enter the IP address for the machine. In [Queue:], enter "ipp".

The printer driver for the machine specified with the IP address is displayed in [Print Using:] or [Use:].

→    When the printer driver is displayed, go to Step 14.

→    When the printer driver is not correctly displayed, go to Step 13.

**13**    Manually select the printer driver.

→    In Mac OS X 10.9, select [Select Software...] from [Use:], then click the driver of the desired printer from the list that is displayed in another window.

→    In Mac OS X 10.6/10.7/10.8, select [Select Printer Software...] from [Print Using:], then click the driver of the desired printer from the list that is displayed in another window.

→    In Mac OS X 10.5, select [Select a driver to use...] in [Print Using:], then click the driver of the desired printer from the list.

→    In Mac OS X 10.4, select [GENERIC] in [Print Using:], and then click the driver of the desired printer from the list.

**14** Click [Add].

Addition of the printer is then completed.

## In Mac OS X 10.3

In Mac OS X 10.3, use the following procedure to add a printer with IPP connection:

**1** Select [System Preferences...] in the Apple menu.

**2** Click the [Network] icon.

**3** From [Show], select [Built-in Ethernet].

**4** Click the [TCP/IP] tab.

**5** Select the [Settings:] item and configure the settings including the IP address and subnet mask according to the settings for the network to which the computer is connected.

**6** Click the close button at the top left corner of the window.
   ➜ When the [Apply configuration changes] message appears, click [Apply].
   Then, add the printer to the computer.

**7** Select [Macintosh HD] (hard disk of the system) - [Applications] - [Utilities], then double-click [Printer Setup Utility] to open the dialog box.

**8** When the [You have no printers available.] window appears, click [Add]. When the Printer List appears, click [Add].
   ➜ If available printers have already been specified, the [You have no printers available.] window does not appear.

**9** Select [IP Printing] as the connection method.

**10** In [Printer Type:], select [Internet Printing Protocol - IPP].

**11** In [Printer Address:], enter the IP address for the machine.
   ➜ Leave [Queue Name:] blank.

**12** In [Printer Model:], select [GENERIC], then click the driver of the desired printer from the model list.

**13** Click [Add].

Addition of the printer is then completed.

# 5 Printing in the Linux Environment

# 5        Printing in the Linux Environment

## 5.1      System environment requirements

Before installing the printer driver, check the following operating environment.

| Item | Specifications |
|---|---|
| Operating system | Red Hat Enterprise Linux 4/5/6 Desktop<br>SUSE Linux Enterprise Desktop 9/10/11<br>Red Hat Enterprise Linux 4/5/6 server<br>SUSE Linux Enterprise Server 9/10/11 |
| CPU | Any processor of the same or higher specifications as recommended for your operating system |
| Memory | Memory capacity as recommended for your operating system |
| Drive | CD/DVD-ROM drive |

**Tips**

The following describes the operation procedure using Red Hat Enterprise Linux 5, as an example.

## 5.2    Preparation for printing

### 5.2.1    Adding the printer

✔  Before installing the printer driver, exit all application software.

✔  Root authority is required to add a printer.

**1**  Connect this machine to the computer via USB or network.

➜  If a dialog box to specify the printer driver appears when you use USB to connect this machine, click [Cancel] to close the dialog box.

**2**  Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**3**  From the [System] menu, select [Administration] - [Printing].

**4**  Click [New Printer].

**5**  Enter the [Printer name], [Description], and [Location], and click [Forward].

The printer is automatically detected in the device column.

**6**  Select the connection method.

➜  When USB is used, select "Name of this machine USB #1" in the device column.

➜  When connecting via network, select this machine that was automatically detected in the device column.

➜  If this machine is not displayed in the device column, select the port according to the connection method.
[AppSocket/HP jetDirect], [Internet Printing Protocol (ipp)], or [LPD/LPR Host or Printer]

**7**  Click [Forward].

**8**  Select [Provide PPD file].

**9**  Click the folder icon, and specify the PPD file on the CD/DVD-ROM.

➜  You can obtain the PPD file of the various languages in the "Drivers/LinuxPPD/<language>" folder. Select the PPD file suitable for your language.

**10**  Click [Forward].

**11**  Click [Apply].

**12**  Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed.

## 5.2.2    Manually adding the printer driver

### Manually installing the PPD file

✔    Before installing the printer driver, exit all application software.

✔    Root authority is required to install the printer driver.

**1**    Insert the printer driver CD/DVD-ROM into the CD/DVD-ROM drive of the computer.

**2**    From the CD/DVD-ROM, copy the PPD file to "/usr/share/cups/model".

➜    You can obtain the PPD file of the various languages in the "Drivers/LinuxPPD/<language>" folder. Select the PPD file suitable for your language.

**3**    From the main menu, select [Application] - [Accessories] - [Terminal].

**4**    Restart CUPS.

➜    Enter "/etc/init.d/cups restart", and press the Enter key.

**5**    Exit the [Terminal].

**6**    Remove the CD/DVD-ROM from the CD/DVD-ROM drive.

Installation of the printer driver is then completed. Continue to "Adding a printer from CUPS Administration Web Page".

### Adding a printer from CUPS Administration Web Page

✔    Root authority is required to install the printer driver.

**1**    Connect this machine to the computer via USB or network.

➜    If a dialog box to specify the printer driver appears when you use USB to connect this machine, click [Cancel] to close the dialog box.

**2**    Start the Web browser.

**3**    Enter "http://localhost:631" in the URL field.

The CUPS Administration Web page appears.

**4**    Click [Add Printer].

**5**    Enter the [Name], [Location], and [Description], then click [Continue].

**6**    Select the connection method in the device list, then click [Continue].

➜    When the TCP/IP connection is used: Select [AppSocket/HP jetDirect], [Internet Printing Protocol (ipp)], or [LPD/LPR Host or Printer].

➜    When the USB connection is used: Select [USB Printer #1], then go to Step 8.

**7**    Enter the device URI in the following format, then click [Continue].

➜    socket://(printer name or IP address of this machine): (port number)
Example of IP address entry: socket://192.168.1.190:9100
Example of printer name entry: socket://Hostname:9100
(You can use the IP address as a substitute for the printer name. The port number can be omitted. )

**8**    In the manufacturer column, select [GENERIC], then click [Continue].

➜    You can obtain the PPD file of the various languages in the "Drivers/LinuxPPD/<language>" folder. Select the PPD file suitable for your language.

**9**    Select this machine in the model column, then click [Add Printer].

**10**    To use the administrator privileges, enter the user name and password, then click [OK].

## 5.2.3     Configuring the default settings of the printer driver

When you use this machine for the first time, properly configure the printer driver so that it contains information such as the options installed on this machine. If necessary, you can change the default print settings of the printer driver.

### Tips

- The name and display order of the settings vary depending on your operating system, its version, or the CUPS version.
- The following describes the print functions unique to this machine.

1   Start the Web browser.

2   Enter "http://localhost:631" in the URL field.

3   Click [Manage Printer].

4   Click [Set Printer Options].

   The printer drive setup page appears.

## [Options Installed]

| Item | Description |
|---|---|
| [Paper Source Unit] | Select the paper feed unit that is installed on this machine.<br>[None] is specified by default. |
| [Hard Disk] | Select whether or not the **Hard Disk** is installed on this machine.<br>[None] is specified by default. |

### NOTICE
*You cannot use the optional functions unless the name of this machine and installed options are specified. If any option is installed, be sure to specify it.*

## [General]

| Item | Description |
|---|---|
| [Collate] | When printing multiple sets of copies, select this check box to output sets of copies one by one.<br>This function is available when an optional **Hard Disk** is installed.<br>[On] is specified by default. |
| [Paper Source] | Select the paper tray for the printing paper. |
| [Paper Type] | Select the paper type used for printing. |
| [Resolution] | Select the print resolution.<br>[600dpi] is specified by default. |
| [Paper Size] | Select the size of paper for printing. |
| [Nearest Size and Scale] | Select whether or not to use paper of the appropriate size by automatically enlarging or reducing the original data if the size of sheets of the paper loaded in the paper tray does not match that of original data.<br>[Off] is specified by default. |
| [Print Type] | Select the print sides of paper.<br>[2-Sided] is specified by default. |
| [Orientation] | Specify the orientation of the original.<br>[Portrait] is specified by default. |
| [Binding Position] | Select the binding position.<br>[Left Bind] is specified by default. |
| [Select Color] | Select colors for printing.<br>[Auto Color] is specified by default. |

| Item | Description |
|------|-------------|
| [Glossy Mode] | Select whether or not to print images with a glossy finish.<br>[Off] is specified by default. |
| [Edge Strength] | Select the degree of edge enhancement when sharpening the edges.<br>[Middle] is specified by default. |

## [Image Options]

| Item | Description |
|------|-------------|
| [Image RGB Source] | Specify the color space of the input RGB.<br>[sRGB] is specified by default. |
| [Image RGB Intent] | Specify the color conversion property that is changed from input RGB to device CMYK.<br>[Photographic] is specified by default. |
| [Image RGB Gray Treatment] | Specify the method to print in black or gray.<br>[Black and Gray] is specified by default. |
| [Image Halftone] | Select the half-tone image processing method.<br>[Detail] is specified by default. |
| [Image Edge Enhancement] | Select whether or not to sharpen the edges.<br>[Off] is specified by default. |

## [Text Options]

| Item | Description |
|------|-------------|
| [Text RGB Source] | Specify the color space of the input RGB.<br>[sRGB] is specified by default. |
| [Text RGB Intent] | Specify the color conversion property that is changed from input RGB to device CMYK.<br>[Vivid] is specified by default. |
| [Text RGB Gray Treatment] | Specify the method to print in black or gray.<br>[Black and Gray] is specified by default. |
| [Text Halftone] | Select the half-tone image processing method.<br>[Line Art] is specified by default. |
| [Text Edge Enhancement] | Select whether or not to sharpen the edges.<br>[On] is specified by default. |

## [Graphics Options]

| Item | Description |
|------|-------------|
| [Graphics RGB Source] | Specify the color space of the input RGB.<br>[sRGB] is specified by default. |
| [Graphics RGB Intent] | Specify the color conversion property that is changed from input RGB to device CMYK.<br>[Vivid] is specified by default. |
| [Graphics RGB Gray Treatment] | Specify the method to print in black or gray.<br>[Black and Gray] is specified by default. |
| [Graphics Halftone] | Select the half-tone image processing method.<br>[Detail] is specified by default. |
| [Graphics Edge Enhancement] | Select whether or not to sharpen the edges.<br>[On] is specified by default. |

**[Simulation]**

| Item | Description |
|---|---|
| [Simulation Profile] | Select the simulation profile for input CMYK.<br>[None] is specified by default. |
| [Match Paper Color] | Select whether or not to suit the background of paper for printing when carrying out a simulation.<br>[Off] is specified by default. |
| [CMYK Gray Treatment] | Specify the printing method of plate K in the CMYK input data when simulation is carried out.<br>[Composite Black] is specified by default. |

## 5.3      Printing procedure

The following describes the printing procedure using OpenOffice in Red Hat Enterprise Linux 5.

✔      The contents of the print dialog and print setting dialog vary depending on the application.

✔      The following steps and operations may vary depending on the version of your operating system.

**1**      Open data of the original using the application software. From the [File] menu, select [Print].

**2**      Specify the printer that you want to use for printing.

**3**      Click [Print].

Printing is executed.

# 6

**Using the Authentication Unit (IC Card Type)**

# 6 Using the Authentication Unit (IC Card Type)

## 6.1 Authentication Unit (IC card type)

The **Authentication Unit** (IC card type) is an "IC card authentication" system that reads the IC card to perform personal authentication. If you register a compatible noncontact IC card such as an employee ID card, you can use this machine synchronously with functions such as the user entering-leaving management to integrate the authentication system.

If this machine provides user authentication, you can log in to this machine or execute a print job using the IC card authentication function.

**Tips**

To employ IC card user authentication, the setting by your service engineer is required in addition to optional **Hard Disk** and **Authentication Unit**. For details, contact your service representative.

## 6.2    Operations required to use this function (for Administrators)

### 6.2.1    Configuring authentication settings of this machine

You must specify user authentication as MFP authentication on this machine.

**1**    Log in to the administrator mode of **Web Connection**.

**2**    In the administrator mode, select [Security] - [Authentication] - [General Settings], then configure the following settings.

| Settings | Description |
|---|---|
| [User Authentication] | Select [Device] to employ MFP authentication. |

**3**    In the administrator mode, select [Security] - [Authentication Device Settings] - [General Settings], then configure the following settings.

| Settings | Description |
|---|---|
| [Authentication Type] | Select how to log in to this machine.<br>• [Card Authentication]: Allows the user to log in by simply placing the IC card.<br>The setting value is fixed to [Card Authentication]. |

The authentication setting is then completed.

After the authentication function of this machine (MFP authentication) has been configured, register user authentication information.

### 6.2.2    Registering user authentication information

Connect the authentication unit to a computer, and use **Data Administrator** through a computer to register information.

#### Data Administrator

**Data Administrator** is a management tool to edit or register authentication information or address information of the target device through a computer on the network.

Using this tool, you can import authentication information or address information from a device and rewrite it to the device after editing.

**Tips**

This function is available when an optional Hard Disk is installed.

#### Setting up Data Administrator

For setup, install the **IC CardDriver (USB-Driver)** of the authentication unit, then install **Data Administrator PlugIn for IC Card Authentication Unit AU-201**.

✔    The following describes the setup procedure in the Windows 7/8/8.1 system.

✔    Before setup, install **Data Administrator V4.1.27000** or later on your computer. For details on installation, refer to the relevant **Data Administrator** manual.

✔    To check the version of your **Data Administrator**, select the [Help] menu in **Data Administrator**, and also select [Version Information] - [Plug-in version].

✔    **IC CardDriver (USB-Driver)** and **Data Administrator PlugIn** are stored on the CD/DVD-ROM included in the authentication unit.

1    Turn the **Power Switch** of this machine off, and disconnect the authentication unit from this machine.

2    Install **IC CardDriver (USB-Driver)**.

➔   Connect the authentication unit to the USB port of your computer.

*NOTICE*

*When connecting or disconnecting the USB cable, hold the plug. Otherwise, the machine may be damaged or a failure may occur.*

*Do not connect another USB device to the same port as for the authentication unit. Doing so reduces the USB power supply, resulting in an operation failure.*

*To use the USB hub, connect the self-power USB hub that supplies 500 mA or more.*

3    Open the [Devices and Printers] window.

➔   In Windows 8.1, click [⊙] in the Start window, then click [Control Panel] - [Hardware and Sound] - [View devices and printers].

➔   In Windows 8, right-click the Start window, then click [All apps] - [Control Panel] - [Hardware and Sound] - [View devices and printers].

➔   In Windows 7, open the Start menu, then click [Devices and Printers]. If [Devices and Printers] is not displayed, select [Control Panel] - [Hardware and Sound], and click [View devices and printers].

4    Right-click the device name or [Unknown Device] of the authentication unit displayed in the [Unspecified] category, then click [Properties].

5    In the [Hardware] tab, click [Properties].

6    In the [General] tab, click [Update Driver...].

7    On the screen in which to select how to search the driver software, click [Browse my computer for driver software anyway].

8    Click [Browse...].

9    Select the IC CardDriver (USB-Driver) file on the computer, then click [OK].

10    Click [Next], and perform the procedure by following the on-screen instructions.

➔   If the [Windows Security] dialog box for verifying the publisher appears, click [Install this driver software anyway].

11    When the installation is complete, click [Close].

Then, install **Data Administrator PlugIn for IC Card Authentication Unit AU-201**.

12    Click setup.exe of **Data Administrator PlugIn**.

13    If necessary, select the setup language, and click [OK].

14    Follow the on-screen instructions to proceed the installation.

15    Click [Next].

16    Select [I accept the terms in the license agreement], then click [Next].

17    Click [Install].

18    When the installation is complete, click [Finish].

This completes the installation of **Data Administrator PlugIn for IC Card Authentication Unit AU-201**, which completes the setup.

## Registering user authentication information

✔    To register user authentication information with **Data Administrator**, connect the authentication unit to the computer's USB port, and also connect the computer to this machine via network.

**1**    Turn on the **Power Switch** of this machine.

**2**    Start **Data Administrator**, and import device information of this machine.

➜   Restart the procedure five or more seconds after connecting the authentication unit.

➜   For details about how to import device information, refer to the relevant **Data Administrator** manual.

**3**    In [Function selection], select [Authentication Settings] - [User authentication settings], and then click [Add].

**4**    Select a user template, and click [OK].

➜   For details on templates, refer to the relevant **Data Administrator** manual.

The User Registration screen appears.

**5**    Enter the user name and password, and select the [IC card authentication] tab.

**6**    Place the IC card on the authentication unit, then click [Start reading].

➜   You can also register the card by directly entering the card ID.

**7**    Click [OK], and register authentication information of the next user.

**8**    After the registration of authentication information has been completed for all users, click [Export to the device].

➜   When necessary, select a user name, and click [Edit] to change registered information.

**9**    Click [Write].

➜   **Data Administrator** supports the batch copy function. If necessary, you can collectively write the registered authentication information to multiple devices.

**10**   When writing to this machine has finished, click [OK].

**11**   Disconnect the authentication unit from the computer's USB port.

*NOTICE*
*When connecting or disconnecting the USB cable, hold the plug. Otherwise, the machine may be damaged or a failure may occur.*

**12**   Connect the authentication unit to the machine's **USB Port**.

*NOTICE*
*When connecting or disconnecting the USB cable, hold the plug. Otherwise, the machine may be damaged or a failure may occur.*

**13**   Restart this machine.

*NOTICE*
*When restarting this machine, turn the **Power Switch** off and on again after 10 or more seconds have elapsed. Not doing so may result in an operation failure.*

## 6.3     Logging in to this machine

You can log in by simply touching the IC card to or place it on the authentication unit.

**1**   Check that the Login screen is displayed.

**2**   Touch the IC card to or place it on the **Authentication Unit**.

Authentication starts. If authentication succeeds, you can log in to this machine.

**Tips**

If authentication fails frequently, IC card information may not have been correctly registered. Register IC card information again.

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**DICHIARAZIONE CE DI CONFORMITA' del COSTRUTTORE secondo ISO/IEC 17050**
*MANUFACTURER'S CE DECLARATION of CONFORMITY according to ISO/IEC 17050*

**OLIVETTI S.p.A**          Via Jervis, 77 - IVREA (TO) - ITALY

Dichiara sotto la sua responsabilita' che il prodotto:
*Declares under its sole responsibility that the product:*

| | |
|---|---|
| Categoria generale: | **Apparecchiature per la Tecnologia dell' Informazione** |
| *Equipment category:* | ***Information Technology Equipment*** |
| Tipo di apparecchiatura: | **Stampante a colori** |
| *Product type:* | ***Color Printer*** |
| Modello/*Product name*: | **d-Color P3100** |
| Opzioni/*Options:* | **PF-P14, AU-201, HD-P06** |

è conforme e soddisfa i requisiti essenziali di **Compatibilità Elettromagnetica, Consumo Energetico e Sicurezza** previsti dalle Direttive:
*is in compilance and fulfills the essential requirements of Electromagnetic Compatibility, Electrical Power Consumption and Electrical Safety as prescribed by the Directives:*

**2004/108/CE del 15 Dicembre 2004 (EMC) -** *2004/108/EC dated 15th December 2004*
**2009/125/CE del 21 Ottobre 2009 (ErP) -** *2009/125/EC dated 21st October 2009*
**2006/95/CE del 12 Dicembre 2006 (LVD) -** *2006/95/EC dated 12th December 2006*
**2011/65/UE del 8 Giugno 2011 (RoHS) -** *2011/65/EU dated 8th June 2011*

in quanto progettato e costruito in conformità alle seguenti Norme Armonizzate:
*since designed and manufactured in compliance with the following European Harmonized Standards:*

**EN 55022:2010** (Limits and methods of measurements of radio interference characteristics of Information Technology Equipment) / Class B
**EN 61000-3-2:2006 + A1:2009 + A2:2009** (Electromagnetic Compatibility (EMC) - Part 3: Limits - Section 2: Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
**EN 61000-3-3:2008** (Electromagnetic Compatibility (EMC) - Part 3: Limits - Section 3: Limitation of voltage fluctuations and flicker in low voltage supply systems for equipment with rated current up to and including 16A)
**EN 55024:2010** (Electromagnetic Compatibility – Information technology equipment – Immunity characteristics – Limits and methods of measurement)
**EN 62311:2008** (Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz))
**EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011** (Safety of Information Technology Equipment, including electrical business equipment)
**EN 60825-1:2007** (Radiation Safety of laser products, equipment classification, requirements and user's guide)
**EN 50581:2012** (Technical documentation for the assessment of electrical and electro electronic products with respect to the restriction of hazardous substances)
**1275/2008/EC** (Ecodesign requirements for standby and off mode electric power consumption)

La conformità ai suddetti requisiti essenziali viene attestata mediante l'apposizione della **Marcatura CE** sul prodotto.
*Compliance with the above mentioned essential requirements is shown by affixing the **CE marking** on the product.*

Ivrea, 27 March 2014
*Ivrea, 27th March 2014*

Walter Fontani
Quality Director
Olivetti S.p.A.

Note: 1) La Marcatura CE è stata apposta nel 2014
*Notes: 1) CE Marking has been affixed in 2014*
2) Il Sistema della Qualità è conforme alle norme serie UNI EN ISO 9000.
*2) The Quality System is in compliance with the UNI EN ISO 9000 series of Standards*