KONICA MINOLTA

License Kit LK-114

User's Guide

Ver. 4.0

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About this product

Serverless Pull Printing is a function that executes print jobs, which are spooled in an MFP once through the user's computer, from any MFP in a Serverless Pull Printing group that consists of multiple MFPs.

To use the Serverless Pull Printing function, register the i-Option license and install the extension memory of the Upgrade Kit in the MFP.

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Dialog boxes

The dialog boxes shown in this manual are those that appear in Windows 7.

Detail
The dialog boxes that appear in this document may differ from those that appear on your computer, depending on the installed devices and specified settings.

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1 Introduction

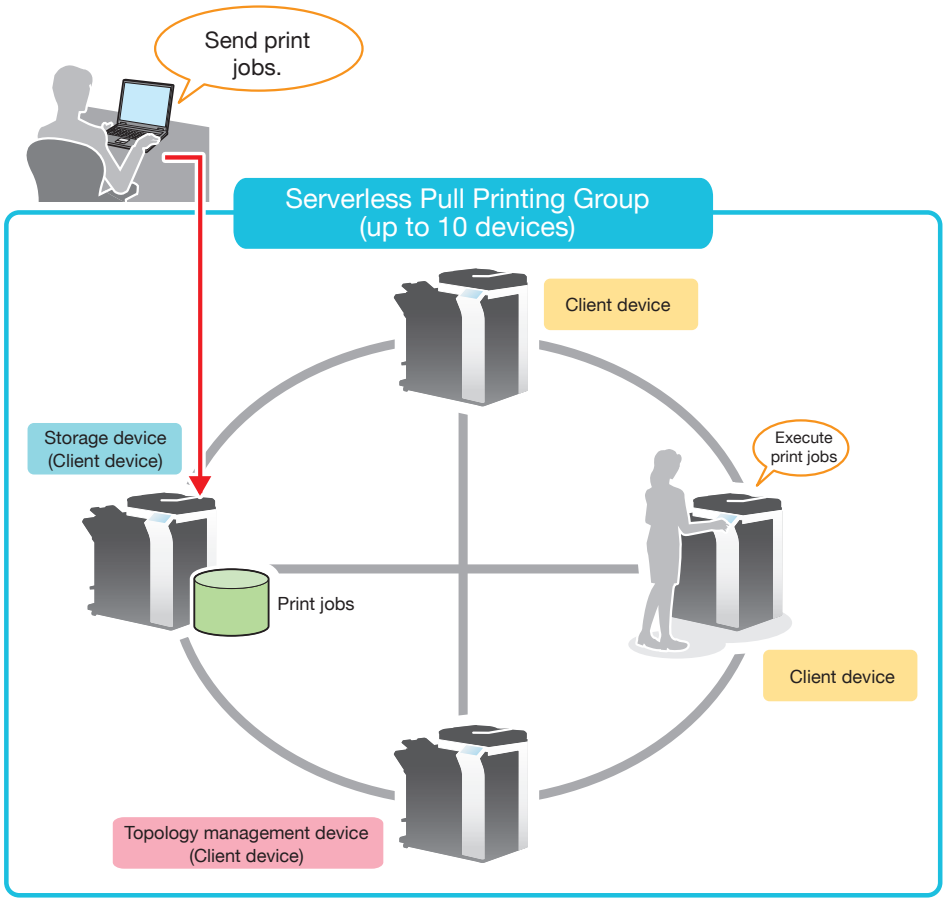
1.1 Serverless Pull Printing

Serverless Pull Printing is a function that executes print jobs, which are spooled in an MFP through the user's computer once, from any MFP in a Serverless Pull Printing group that consists of multiple MFPs.

The Serverless Pull Printing function provides the following solutions.

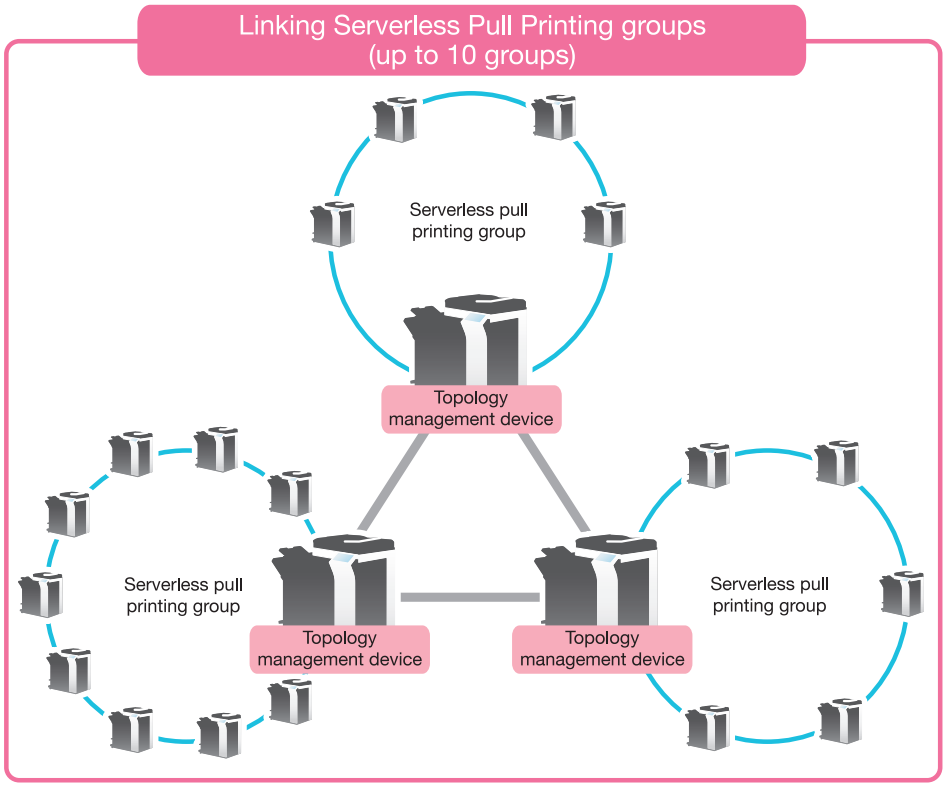
- The size of the remaining print jobs can be reduced, thereby reducing printing costs and enhancing security.
- No print server is required, which reduces equipment costs and administrator load.
- If the target MFP is busy, it can be executed from another MFP, thereby enhancing operational efficiency.

Basic configuration of a Serverless Pull Printing group



Case in which a group consists of 11 or more MFPs

This function establishes cooperation among multiple Serverless Pull Printing groups, thereby, enabling you to execute print jobs spooled in MFPs in another Serverless Pull Printing group that the self machine has not joined.



Assign the following roles to MFPs composing a Serverless Pull Printing group depending on the intended use.

Item	Description
Topology management device	Has a role to establish cooperation among multiple Serverless Pull Printing groups. This device sends information of the Serverless Pull Printing group the self machine join to another Serverless Pull Printing group and receives information from another Serverless Pull Printing group, sharing information between the Serverless Pull Printing groups. A single topology management device must be assigned to each Serverless Pull Printing group. Up to 10 MFPs can be registered in a single Serverless Pull Printing group, and up to 10 groups can be associated via the topology machine.
Storage device	Stores print jobs executed by the user, and processes the stored print jobs upon request from the client device. The maximum print job storage capacity of a single storage device is 100 documents for each user and 10,000 documents in total when the HDD capacity is 5GB. Up to 30 storage devices can be registered collectively in all Serverless Pull Printing groups.
Client device	Performs operations (file list display, printing, and deletion) for print jobs spooled in the storage device.

...

Reminder

The client function for Serverless Pull Printing is available when the optional i-Option LK-114 is installed while the Web browser function is enabled. When the optional extension memory is installed, this function is available regardless of whether the Web browser function is enabled or disabled.

To use the storage function for Serverless Pull Printing, the optional Extension Memory and i-Option LK-114 are required.

To use the topology management function for Serverless Pull Printing, the optional Extension Memory and i-Option LK-114 are required.

This guide provides the following information.

Chapter	Description	Intended for		See
		Administrator	User	
1 Introduction	Describes Serverless Pull Printing features, system environment, restrictions, and other items.	○	○	p. 1-1
2 Preparations (For Administrators)	Describes MFP settings.	○	-	p. 2-1
3 Creating a Serverless Pull Printing Group (For Administrators)	Describes how to create, change, and delete a Serverless Pull Printing group that uses Serverless Pull Printing.	○	-	p. 3-1
4 Serverless Pull Printing Settings (For Administrators)	Describes settings for both of the storage function and client function.	○	-	p. 4-1
5 Adding a Shortcut Key to the Main Menu (For Administrators)	Describes how to add a shortcut key to the main menu.	○	-	p. 5-1
6 Installing the Printer Driver and LK-114_ManagerPort	Describes how to install the printer driver and LK-114_ManagerPort and how to create LK-114_InstallTool.	○	○	p. 6-1
7 Uninstalling the Printer Driver and LK-114_ManagerPort	Describes how to uninstall the printer driver and LK-114_ManagerPort.	○	○	p. 7-1
8 Operation Procedures	Describes how to execute print jobs using the Serverless Pull Printing function.	○	○	p. 8-1

Chapter	Description	Intended for		See
		Administrator	User	
9 Troubleshooting	Describes error messages displayed during printing, causes, and actions.	○	○	p. 9-1
10 Appendix (For Administrators)	Describes how to create a Device Definition File.	○	-	p. 10-1

1.1.1 Preparation Check (For Administrators)

The following tools are required for preparations and settings to carry out Serverless Pull Printing.

- Printer driver (PCL and PS only)
- LK-114_SetupTool
- LK-114_Editor for SetupTool
- LK-114_InstallerCreateTool

Also, the following application is required to use LK-114_InstallerCreateTool.

- Driver Packaging Utility

To use the Serverless Pull Printing function, check that the below conditions are satisfied.

- Registering the i-Option license in the MFP
- Extension memory of Upgrade Kit (mounted by service engineers)

...

Reminder

For details on how to register the i-Option license, refer to "Registering the i-Option License" on page 2-4.

1.1.2 Pre-operation flow (For Administrators)

The following preparations and settings are required to allow the user to carry out Serverless Pull Printing.

Preparations

Configure the following MFP settings to use Serverless Pull Printing.

- MFP settings (OpenAPI setting, authentication setting)
- Registering the i-Option license

Configure this setting on the control panel of the MFP.

For details, refer to "Preparations (For Administrators)" on page 2-1.

Serverless Pull Printing setting and Serverless Pull Printing group setting

Simultaneously configure the Serverless Pull Printing setting and Serverless Pull Printing group setting using LK-114_SetupTool.

For details, refer to "Creating a Serverless Pull Printing Group (For Administrators)" on page 3-1 and "Serverless Pull Printing Settings (For Administrators)" on page 4-1.

Adding a shortcut key

Add a shortcut key for Serverless Pull Printing to the main menu.

Configure this setting on the control panel of the MFP.

For details, refer to "Adding a Shortcut Key to the Main Menu" on page 5-1.

Installing the printer driver and LK-114_ManagerPort

Install the printer driver and LK-114_ManagerPort.

The installation order is as follows.

1. LK-114_ManagerPort
2. Printer driver

If the user computer has administrator privileges:

- You do not need to create LK-114_InstallTool. Distribute the printer driver and LK-114_ManagerPort to the user computer, then install them by executing [Setup.exe].
  LK-114_ManagerPort is contained in [LK-114_InstallerCreateTool] - [InstForm] folder.

When the user computer has no administrator privileges:

- Create LK-114_InstallTool that enables installation that does not require administrator privileges, and distribute it to users.
  To create LK-114_InstallTool, use LK-114_InstallerCreateTool. If necessary, you can create the tool so that it automatically configures the printer driver and LK-114_ManagerPort settings.
  For details on how to create LK-114_InstallTool, refer to "Creating LK-114_InstallTool (For Administrators)" on page 6-2.

For details on how to install the printer driver and LK-114_ManagerPort, refer to "Installing the Printer Driver and LK-114_ManagerPort" on page 6-1.

1.2 System Requirements

Serverless Pull Printing is available under the following conditions.

Printer driver (PCL driver, PS driver)

The conditions for operating the printer driver conform to the specifications of the target MFP. For details, refer to the relevant user's MFP guide.

LK-114_ManagerPort

Operating system	Windows Vista Home Basic (Service Pack 2 or later)* Windows Vista Home Premium (Service Pack 2 or later)* Windows Vista Ultimate (Service Pack 2 or later)* Windows Vista Business (Service Pack 2 or later)* Windows Vista Enterprise (Service Pack 2 or later)* Windows 7 Home Premium (Service Pack 1 or later)* Windows 7 Professional (Service Pack 1 or later)* Windows 7 Enterprise (Service Pack 1 or later)* Windows 7 Ultimate (Service Pack 1 or later)* Windows 8.1* Windows 8.1 Pro* Windows 8.1 Enterprise* Windows 10 Home* Windows 10 Pro* Windows 10 Enterprise* Windows 10 Education* * 32-bit (x86) and 64-bit (x64) editions are supported.
Software	One of the following libraries must be installed. Microsoft .NET Framework 3.5 (Service Pack 1 or later) Microsoft .NET Framework 4.0 or later
System	Recommended environment of compatible operating systems HDD free space: 512MB or more
Display	800 x 600 pixels or more 16-bit color or higher

LK-114_InstallTool

Operating system	Windows Vista Home Basic (Service Pack 2 or later)* Windows Vista Home Premium (Service Pack 2 or later)* Windows Vista Ultimate (Service Pack 2 or later)* Windows Vista Business (Service Pack 2 or later)* Windows Vista Enterprise (Service Pack 2 or later)* Windows 7 Home Premium (Service Pack 1 or later)* Windows 7 Professional (Service Pack 1 or later)* Windows 7 Enterprise (Service Pack 1 or later)* Windows 7 Ultimate (Service Pack 1 or later)* Windows 8.1* Windows 8.1 Pro* Windows 8.1 Enterprise* Windows 10 Home* Windows 10 Pro* Windows 10 Enterprise* Windows 10 Education* * 32-bit (x86) and 64-bit (x64) editions are supported.
Software	One of the following libraries must be installed. Microsoft .NET Framework 3.5 (Service Pack 1 or later) Microsoft .NET Framework 4.0 or later
System	Recommended environment of compatible operating systems HDD free space: 512MB or more
Display	800 x 600 pixels or more 16-bit color or higher

LK-114_InstallerCreateTool (For Administrators)

Operating system	Windows Vista Home Basic (Service Pack 2 or later)* Windows Vista Home Premium (Service Pack 2 or later)* Windows Vista Ultimate (Service Pack 2 or later)* Windows Vista Business (Service Pack 2 or later)* Windows Vista Enterprise (Service Pack 2 or later)* Windows 7 Home Premium (Service Pack 1 or later)* Windows 7 Professional (Service Pack 1 or later)* Windows 7 Enterprise (Service Pack 1 or later)* Windows 7 Ultimate (Service Pack 1 or later)* Windows 8.1* Windows 8.1 Pro* Windows 8.1 Enterprise* Windows 10 Home* Windows 10 Pro* Windows 10 Enterprise* Windows 10 Education* * 32-bit (x86) and 64-bit (x64) editions are supported.
Software	One of the following libraries must be installed. Microsoft .NET Framework 3.5 (Service Pack 1 or later) Microsoft .NET Framework 4.0 or later
System	Recommended environment of compatible operating systems HDD free space: 512MB or more
Display	800 x 600 pixels or more 16-bit color or higher

LK-114_SetupTool (For Administrators)

Operating system	Windows Vista Home Basic (Service Pack 2 or later)* Windows Vista Home Premium (Service Pack 2 or later)* Windows Vista Ultimate (Service Pack 2 or later)* Windows Vista Business (Service Pack 2 or later)* Windows Vista Enterprise (Service Pack 2 or later)* Windows 7 Home Premium (Service Pack 1 or later)* Windows 7 Professional (Service Pack 1 or later)* Windows 7 Enterprise (Service Pack 1 or later)* Windows 7 Ultimate (Service Pack 1 or later)* Windows 8.1* Windows 8.1 Pro* Windows 8.1 Enterprise* Windows 10 Home* Windows 10 Pro* Windows 10 Enterprise* Windows 10 Education* * 32-bit (x86) and 64-bit (x64) editions are supported.
Software	Microsoft .NET Framework 3.5 (Service Pack 1 or later)
System	Recommended environment of compatible operating systems HDD free space: 100MB or more
Display	1024 x 768 pixels or more 16-bit color or higher

LK-114_Editor for SetupTool (For Administrators)

Operating system	Windows Vista Home Basic (Service Pack 2 or later)* Windows Vista Home Premium (Service Pack 2 or later)* Windows Vista Ultimate (Service Pack 2 or later)* Windows Vista Business (Service Pack 2 or later)* Windows Vista Enterprise (Service Pack 2 or later)* Windows 7 Home Premium (Service Pack 1 or later)* Windows 7 Professional (Service Pack 1 or later)* Windows 7 Enterprise (Service Pack 1 or later)* Windows 7 Ultimate (Service Pack 1 or later)* Windows 8.1* Windows 8.1 Pro* Windows 8.1 Enterprise* Windows 10 Home* Windows 10 Pro* Windows 10 Enterprise* Windows 10 Education* * 32-bit (x86) and 64-bit (x64) editions are supported.
Software	Microsoft .NET Framework 4.5 or later
System	Recommended environment of compatible operating systems HDD free space: 100MB or more
Display	1024 × 768 pixels or more 16-bit color or higher

Driver Packaging Utility (For Administrators)

Operating system	Windows Vista Home Basic (Service Pack 2 or later)* Windows Vista Home Premium (Service Pack 2 or later)* Windows Vista Ultimate (Service Pack 2 or later)* Windows Vista Business (Service Pack 2 or later)* Windows Vista Enterprise (Service Pack 2 or later)* Windows Server 2008 Standard* Windows Server 2008 Enterprise* Windows 7 Home Basic (Service Pack 1 or later) Windows 7 Home Premium (Service Pack 1 or later)* Windows 7 Professional (Service Pack 1 or later)* Windows 7 Enterprise (Service Pack 1 or later)* Windows 7 Ultimate (Service Pack 1 or later)* Windows Server 2008 R2 Standard Windows Server 2008 R2 Enterprise Windows 8.1* Windows 8.1 Pro* Windows 8.1 Enterprise* Windows 10 Home* Windows 10 Pro* Windows 10 Enterprise* Windows 10 Education* Windows Server 2012 Standard Windows Server 2012 Datacenter Windows Server 2012 R2 Standard Windows Server 2012 R2 Datacenter * 32-bit (x86) and 64-bit (x64) editions are supported.

1.3 Restrictions

The following restrictions are put in place to use Serverless Pull Printing.

- The extension memory of the Upgrade Kit is required to use Serverless Pull Printing.
- A Serverless Pull Printing group can be composed of up to 10 MFPs.
- Up to 10 Serverless Pull Printing groups can be linked using the topology management function.
- A Serverless Pull Printing group cannot be created over a WAN.
- No encryption is carried out to send print jobs from a storage device to a client device.
- Only the PCL and PS drivers on Windows environment are available. When you use the PCL driver, print jobs will be deleted without being spooled if [1200dpi (Rasterize on PC)] is selected for the jobs in [Resolution] in the [Quality] tab of the [Printing Preferences] window. To print using 1200 dpi, select [1200dpi (Rasterize on Device)] or use the PS driver. If a print job is sent using the PS driver, the print setting cannot be changed while prints are being made using a client device.
- The available authentication patterns are as follows. All MFPs that are in a Serverless Pull Printing group must be set to the same authentication pattern.
  - MFP Authentication
  - External Server Authentication
  - MFP Authentication + External Server Authentication (Destination: MFP)
  - MFP Authentication + External Server Authentication (Destination: External Server)
  - Enhanced Server Authentication
  - MFP Authentication + Enhanced Server Authentication (Destination: MFP)
  - MFP Authentication + Enhanced Server Authentication (Destination: Enhanced Server)
  - Enhanced Server Authentication + External Server Authentication (Destination: External Server)
- Authentication can be performed using card authentication, biometric authentication or the control panel.
- The number of users is restricted depending on the MFP specification.
- The print job spool capacity of a single storage device is 100 documents per user, and the total is 5GB, up to 10,000 documents.
- Serverless Pull Printing cannot be used together with the security enhancement mode, vendor mode, or integrated management device mode.
- When you are logging in to Windows with the Guest account, you cannot use LK-114_ManagerPort unless the Guest account is changed.

...

Reminder

To compose a Serverless Pull Printing group of different models of MFPs, refer to "Composing a Serverless Pull Printing Group of Different Models" on page 2-3.

2 Preparations (For Administrators)

2.1 MFP Settings

Configure the following MFP settings to use Serverless Pull Printing. Settings are required for all MFPs that use Serverless Pull Printing.

2.1.1 Enabling the OpenAPI function

On the MFP, select [Utility] - [Administrator Settings] - [System Connection] - [OpenAPI Settings] - [Access Setting], then check that the OpenAPI function is enabled.

...

Note

If the SSL enable or disable mode is changed in [OpenAPI Settings] after Serverless Pull Printing settings (p. 4-1) have been completed, specify the mode again using LK-114_SetupTool (p. 3-2).

...

Reminder

The menu configuration of the MFP control panel varies depending on models and versions. For details on the procedure, refer to the relevant user's guide of each MFP.

2.1.2 Authentication settings

On the MFP, select [Utility] - [Administrator Settings], then select the desired option from the following user authentication methods. Set the same authentication pattern to all MFPs that are in a Serverless Pull Printing group.

- MFP Authentication
- External Server Authentication
- MFP Authentication + External Server Authentication (Destination: MFP)
- MFP Authentication + External Server Authentication (Destination: External Server)
- Enhanced Server Authentication
- MFP Authentication + Enhanced Server Authentication (Destination: MFP)
- MFP Authentication + Enhanced Server Authentication (Destination: Enhanced Server)
- Enhanced Server Authentication + External Server Authentication (Destination: External Server)

Note

To perform external server authentication using a card, select [Utility] - [Administrator Settings] - [User Authentication / Account Track], then enable the simplified print authentication setting.

Reminder

The menu configuration of the MFP control panel varies depending on models and versions. For details on the procedure, refer to the relevant user's guide of each MFP.

2.2 Composing a Serverless Pull Printing Group of Different Models

To compose a Serverless Pull Printing group of different models, follow the steps shown below to enable the simplified print authentication setting.

This setting can be configured using the MFP control panel or PageScope Data Administrator.

2.2.1 Simplified print authentication setting

This section describes how to enable the simplified print authentication setting.

When using the MFP control panel:

1 Tap [Utility] - [Administrator Settings] - [User Authentication / Account Track] - [Print Simple Auth.] - [Authentication Setting].

– When the administrator password entry screen appears, enter the administrator password.

2 Tap [Allow], then tap [OK].

When using PageScope Data Administrator

1 Double-click a device in [Device list].

2 Click [Authentication settings] - [Simple Print Authentication].

3 Select the [Enable Simple Print Authentication] check box.

2.3 Registering the i-Option License

To add the Serverless Pull Printing function to an MFP, register the i-Option license, then enable the function.

For details on how to register the i-Option license and enable the Serverless Pull Printing function, refer to the relevant user's MFP guide.

3 Creating a Serverless Pull Printing Group (For Administrators)

Create a Serverless Pull Printing group to use Serverless Pull Printing.

Up to 10 MFPs can be registered in a single Serverless Pull Printing group, and up to 10 groups can be associated via the topology machine.

Note

A Serverless Pull Printing group cannot be created over a WAN.

Note

LK-114_SetupTool does not support IPv6. To use Serverless Pull Printing in IPv6, configure the required settings on the MFP control panel. For details, refer to "Serverless Pull Printing Settings (For Administrators)" on page 4-1.

Reminder

To compose a Serverless Pull Printing group of different models of MFPs, refer to "Composing a Serverless Pull Printing Group of Different Models" on page 2-3.

Reminder

A Serverless Pull Printing group can be created in a local environment in which the MFP is not connected to the network. For details, refer to "Creating a Configuration File of Serverless Pull Printing Group Information in Local Environment" on page 3-30.

3.1 LK-114_SetupTool

LK-114_SetupTool is a tool to create and manage a Serverless Pull Printing group that uses Serverless Pull Printing.

Using LK-114_SetupTool allows you to easily specify MFPs that are in a Serverless Pull Printing group or cancel the specification.

If the Serverless Pull Printing settings are different between LK-114_SetupTool and the MFP, they can be synchronized.

Prepare LK-114_SetupTool in advance, then copy it to any folder.

NetBIOS setting

Before using LK-114_SetupTool, configure the NetBIOS setting as shown below.

The following shows the steps to use this tool in Windows 7.

1 Select [Start] - [Control Panel] - [Network and Internet] - [Network and Sharing Center] - [Local Area Connection].

This displays the local area connection status window.

2 Click [Properties].

This displays the local area connection properties window.

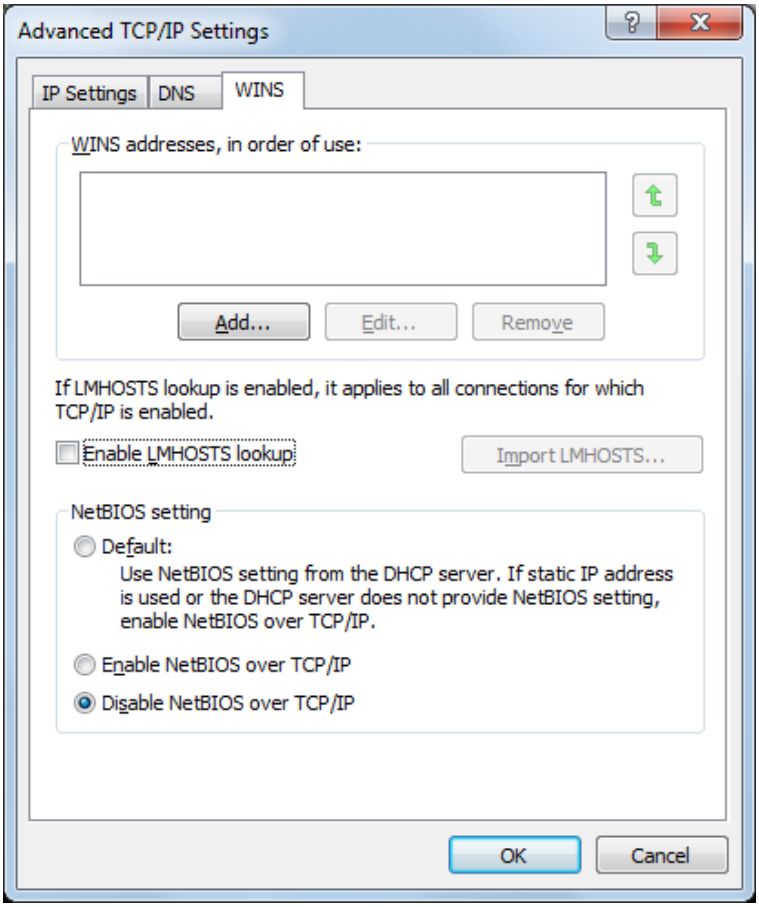
3 From the item list for connection, select [Internet Protocol Version 4 (TCP/IPv4)], then click [Properties].

This displays the properties window for Internet Protocol Version 4 (TCP/IPv4).

4 Click [Advanced].

5 Configure a NetBIOS setting on the [WINS] tab of the Advanced TCP/IP Settings window, then click [OK].

– Clear the [Enable LMHOSTS lookup] check box.
– In [NetBIOS setting], select [Disable NetBIOS over TCP/IP].

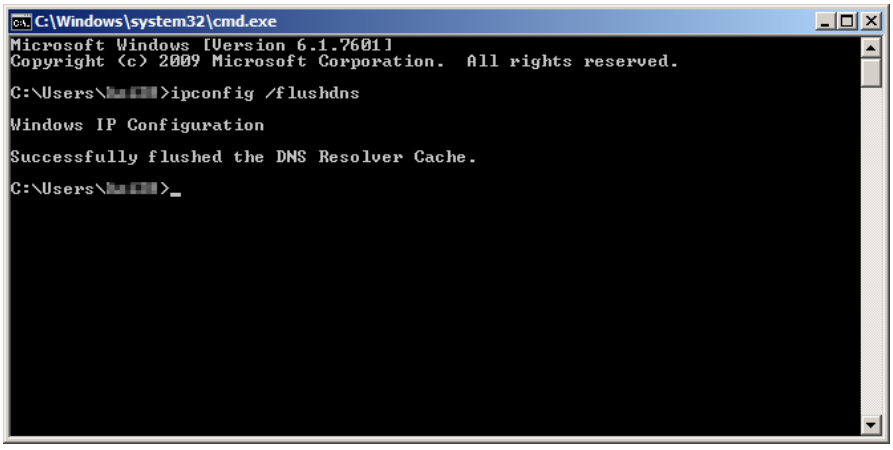


6 Select [Start] - [All Programs] - [Accessories] - [Command Prompt].

7 Execute the following command: "ipconfig /flushdns".

– Make sure to include a space between "ipconfig" and "/flushdns".

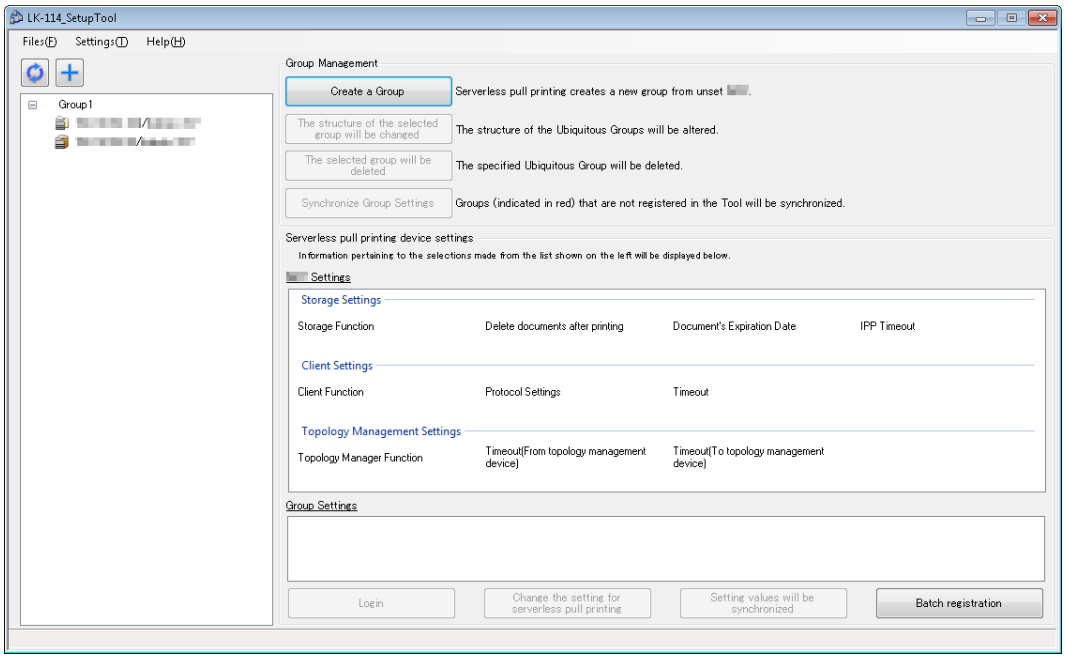
The following message appears.



3.1.1 LK-114_SetupTool start-up and the window

Log in to Windows with administrator privileges, then double-click [LK-114_SetupTool.exe] to start LK-114_SetupTool.

The MFP connected at start-up is searched automatically, and it is displayed in the MFP list area in the left-hand pane of the window.



Item	Description
	Updates the contents of the MFP list.
	Manually add an MFP. For details, refer to "Searching for an MFP" on page 3-6.
MFP List	Displays MFPs that are compatible with Serverless Pull Printing.
[Create a Group]	Creates a new Serverless Pull Printing group.
[The structure of the selected group will be changed]	Change the created Serverless Pull Printing group configuration.
[The selected group will be deleted]	Deletes the selected Serverless Pull Printing group.
[Synchronize Group Settings]	Synchronizes a Serverless Pull Printing group that is not registered in the LK-114_SetupTool side.
bizhub Settings	Displays the Serverless Pull Printing settings (storage function, client function, and topology management function settings) of the MFP selected from the MFP list.
Group Settings	Displays the Serverless Pull Printing settings (Serverless Pull Printing group setting) of the MFP selected from the MFP list.

Item	Description
[Login]	Available when the MFP with is selected. Individually authenticates an MFP that does not match the administrator password specified in LK-114_SetupTool or an MFP for which automatic acquirement is not specified in the Serverless Pull Printing settings by authentication, and acquires the Serverless Pull Printing settings.
[Change the setting for serverless pull printing]	Changes the Serverless Pull Printing settings for each MFP.
[Setting values will be synchronized]	Synchronizes setting values when they are different between the Serverless Pull Printing settings configured in LK-114_SetupTool and the MFP settings.
[Batch registration]	Collectively registers all MFPs that are imported from the Serverless Pull Printing group configuration file. For details on how to create a Serverless Pull Printing group configuration file, refer to "Creating a Configuration File of Serverless Pull Printing Group Information in Local Environment" on page 3-30.

Reminder

Update processing may not be performed correctly depending on the DNS server environment. The processing operation may have caused a timeout. Change the timeout setting value in the administrator settings of LK-114_SetupTool. For details on how to change the setting in LK-114_SetupTool, refer to "Configuring administrator settings" on page 3-7.

If necessary, you can change the connection timeout setting value on the MFP. For details, refer to "Specifying the connection timeout period" on page 4-8.

Icon types

The following shows the meaning of each icon displayed in the MFP list.

Item	Description
	Indicates the MFP with the print storage function enabled.
	Indicates the MFP with the client function enabled.
	Indicates that the topology management function is enabled.
	Indicates that the topology management function and client function are enabled.
	Indicates the MFP with both the print storage and client functions enabled.

Item	Description
No icon displayed	Indicates the MFP with all functions disabled.
	Indicates an MFP for which the current Serverless Pull Printing settings cannot be viewed due to administrator passwords that do not match or other reasons.

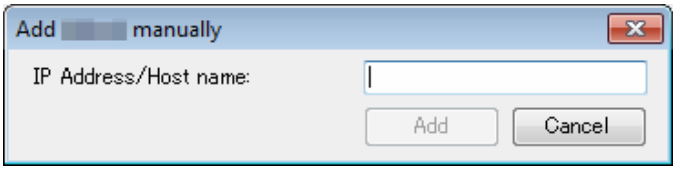
3.1.2 Searching for an MFP

Manually add an MFP to display it in the MFP list.

Searching for an MFP

1 Click .

2 Enter the IP address or host name, then click [Add].

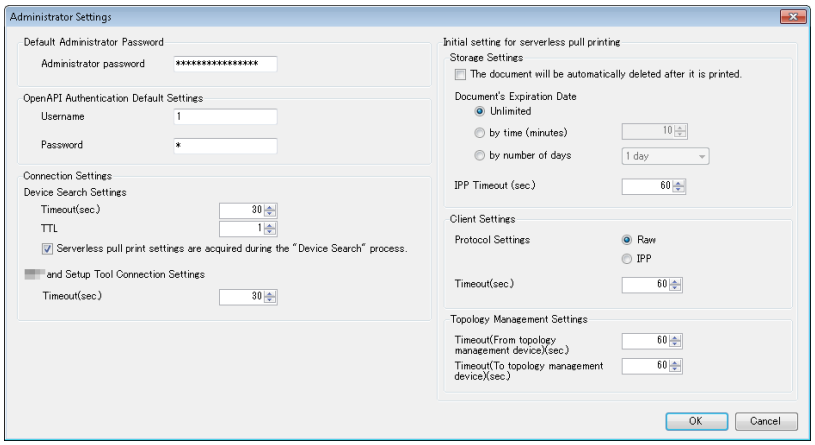


The MFP is added to the list.

3.1.3 Configuring administrator settings

Configure administrator settings.

The following items can be specified in Administrator Settings.



Item	Description
Default Administrator Password	Specify the default administrator password. The value specified in this item is displayed as the default on the screen that requires the entry of the administrator password.
OpenAPI Authentication Default Settings	Specify the default user name and password for OpenAPI authentication. The value specified in this item is displayed as the default on the screen that requires the entry of the user name and password for OpenAPI authentication. **Reminder** *When not using the user name and password for OpenAPI authentication, you do not need to enter them.*
Connection Settings	Configure communication settings such as the periods (seconds) required to trigger a timeout during MFP search processing and during communication between the MFP and LK-114_SetupTool. • [Device Search Settings]: Specify the timeout period and TTL (Time To Live) to search for the MFP using LK-114_SetupTool. To obtain Serverless Pull Printing settings simultaneously when searching for the MFP, select the [Serverless pull print settings are acquired during the "Device Search" process.] check box. • [bizhub and Setup Tool Connection Settings]: Specify the period required to trigger a timeout during communication between the MFP and LK-114_SetupTool.

Item	Description
Initial Setting for serverless pull printing	Specify the default values that are to be sent to an MFP with new Serverless Pull Printing settings required. In [Storage Settings], specify the default values for the storage function. • [The document will be automatically deleted after it is printed.]: Specify whether to automatically delete print jobs when print jobs spooled in the storage device are executed. • [Document's Expiration Date]: Specify the time required to automatically delete data of print jobs spooled in the storage device. • [IPP Timeout (sec.)]: Specify the period required to trigger a timeout when making prints using IPP. In [Client Settings], specify the default values for the client function. • [Protocol Settings]: Select a protocol to be used for Serverless Pull Printing from the [IPP] or [Raw] port. • [Timeout (sec.)]: Specify the period required to trigger a timeout when connecting to the storage device. In [Topology Management Settings], specify the default values for the topology management function. • [Timeout (From topology management device) (sec.)]: Specify the timeout period for a communication from a topology management device when using the MFP as a topology management device. • [Timeout (To topology management device) (sec.)]: Specify the timeout period for a communication to a topology management device when using the MFP as a storage device or client device.

Configuring administrator settings

1 Select [Settings] - [Administrator Settings] on the menu bar.

The Administrator Settings page appears.

2 Specify each item, then click [OK].

3.2 Creating a Serverless Pull Printing Group

Create a new Serverless Pull Printing group with MFPs that are not set to Serverless Pull Printing.

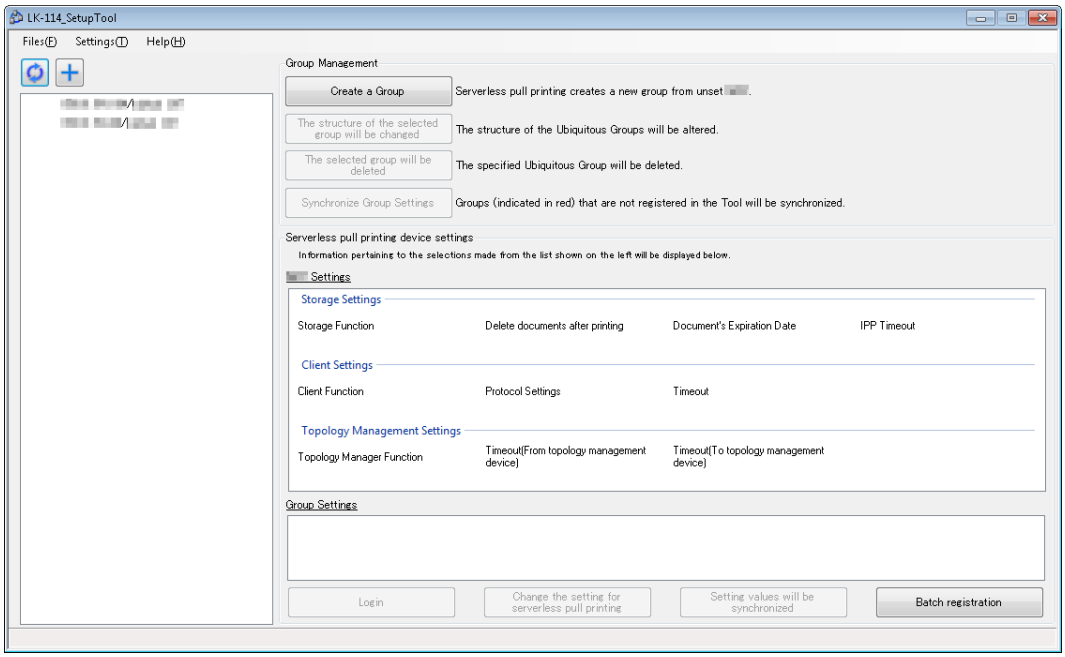
If a Serverless Pull Printing group is registered in the MFP, the MFP restarts automatically.

Also, when a setting change is required on a topology management device in another group, the MFP restarts automatically.

Up to 10 MFPs can be registered in a single Serverless Pull Printing group, and up to 10 groups can be associated via the topology machine.

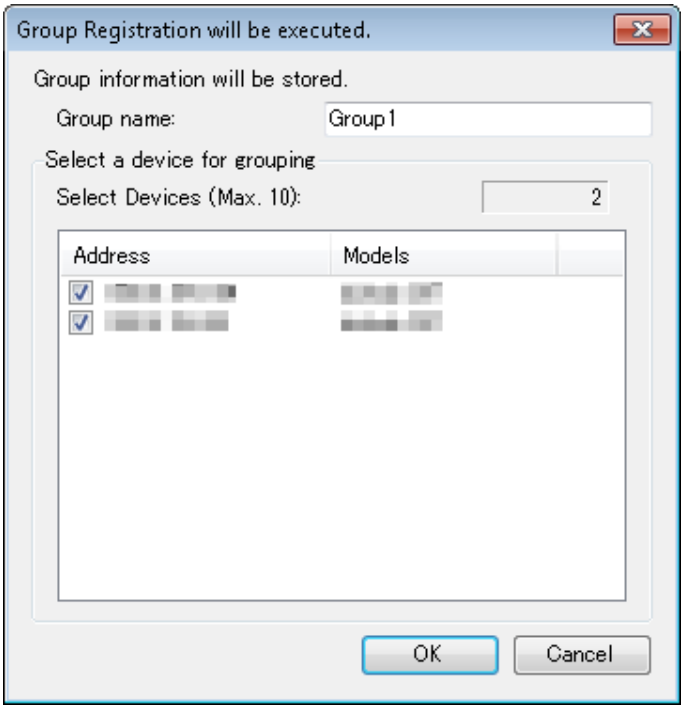
Creating a Serverless Pull Printing group

1 Click [Create a Group].



2 Enter the [Group name] of a Serverless Pull Printing group, then select the check box of the MFP to be assigned to a Serverless Pull Printing group.

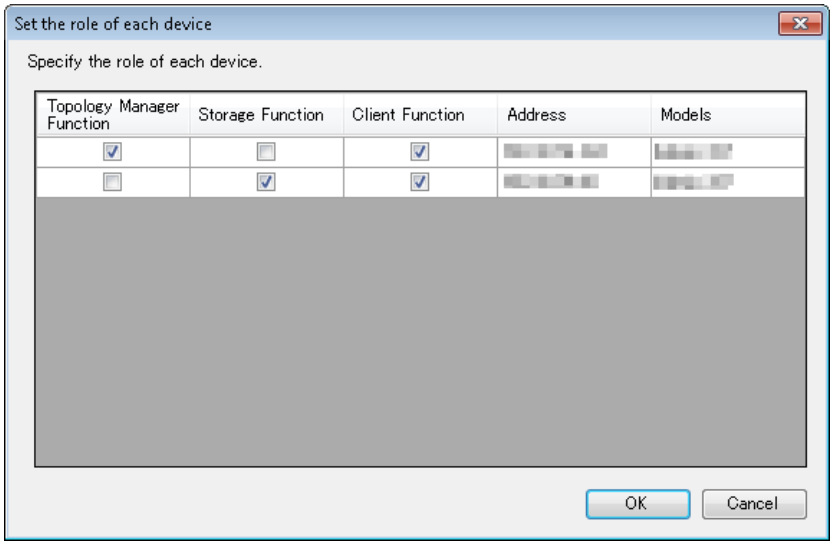
- The Serverless Pull Printing group name can be specified using up to 16 single-byte characters.
- Up to 10 MFPs can be selected. The number of selected MFPs is displayed in [Select Devices].



3 Click [OK].

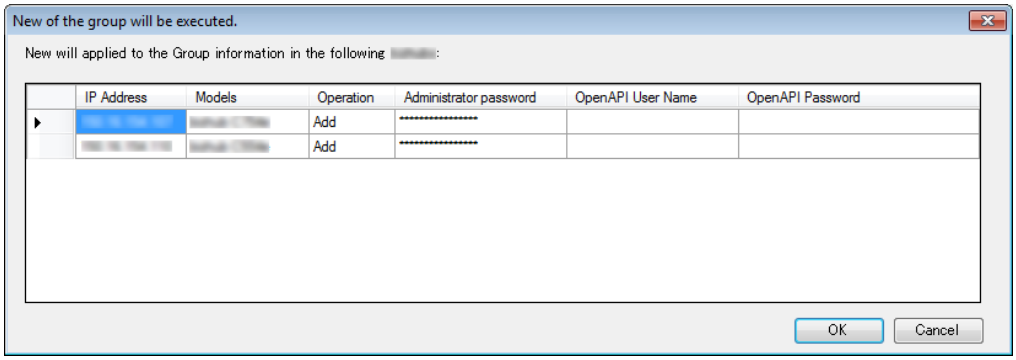
4 Specify the role (topology management, storage, or client) for the MFP to be registered in a Serverless Pull Printing group, then click [OK].

- A single topology management device must be assigned to each Serverless Pull Printing group.
- A single MFP can have both roles of storage and client devices.
- A single MFP can have both roles of topology management and client devices.
- A single MFP cannot have both roles of topology management and storage devices.



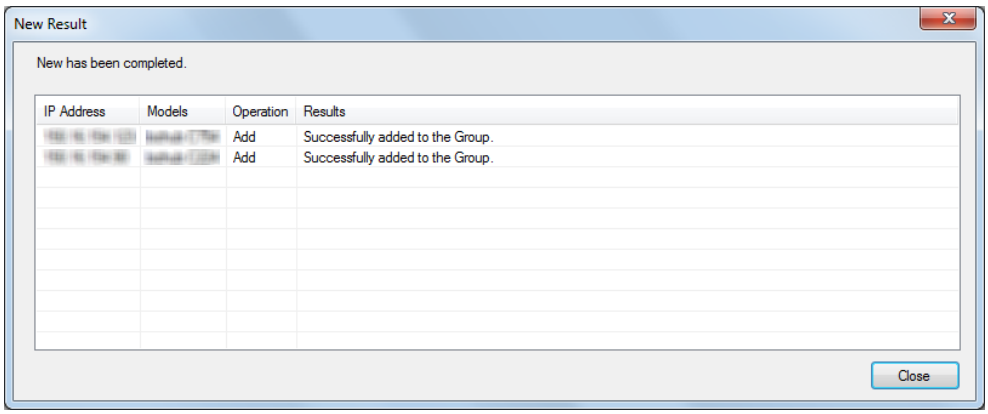
5 Enter the MFP administrator password, and OpenAPI user name and password, then click [OK].

- When not using the user name and password for OpenAPI authentication, you do not need to enter the OpenAPI user name and password.



A Serverless Pull Printing group is created. After processing is completed, the new creation result window appears.

6 Click [Close].



...

Reminder

The default values can be specified for the administrator password, and OpenAPI user name and password in advance. For details, refer to "Configuring administrator settings" on page 3-7.

...

Reminder

Using LK-114_Editor for SetupTool allows you to configure Serverless Pull Printing group settings in a local environment in which the MFP is not connected to the network. For details, refer to "Creating a Configuration File of Serverless Pull Printing Group Information in Local Environment" on page 3-30.

3.3 Changing the Serverless Pull Printing Group Configuration

Change the created Serverless Pull Printing group configuration.

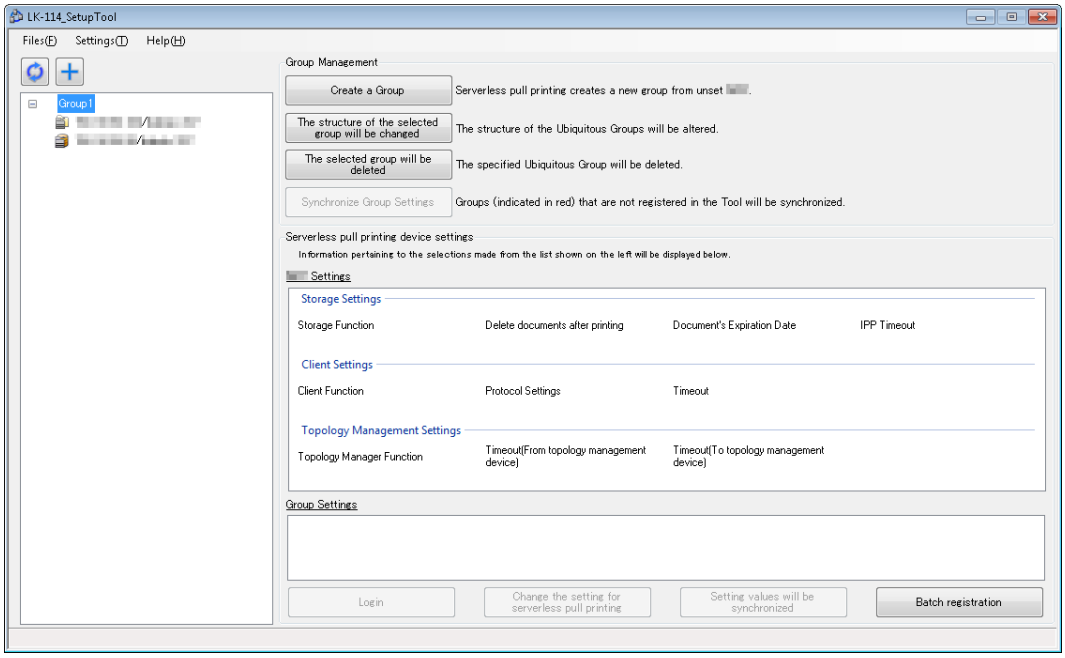
If a Serverless Pull Printing group is changed in the MFP, the MFP restarts automatically.

Also, when a setting change is required on a topology management device in another group, the MFP restarts automatically.

Changing the Serverless Pull Printing group configuration

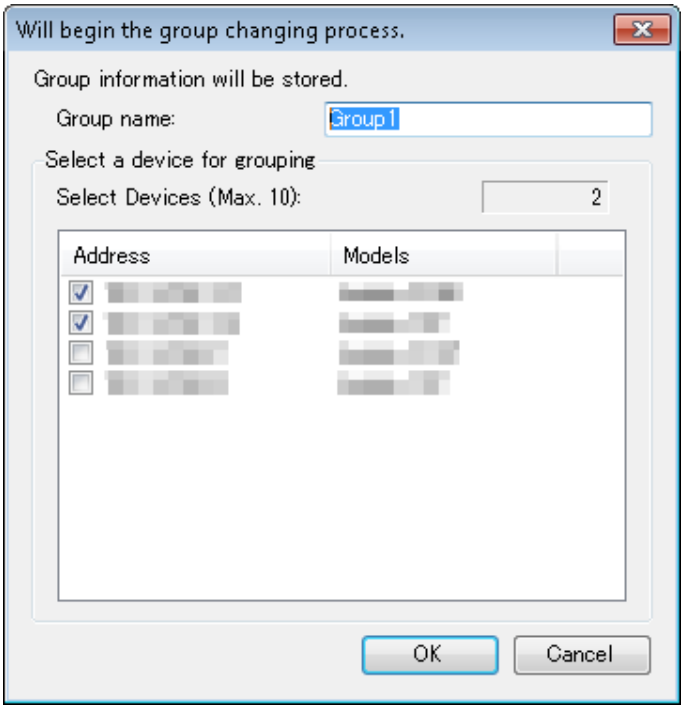
1 Select a Serverless Pull Printing group name from the MFP list, then click [The structure of the selected group will be changed].

– Selecting the Serverless Pull Printing group name enables the [The structure of the selected group will be changed] button.



2 Change Serverless Pull Printing group information.

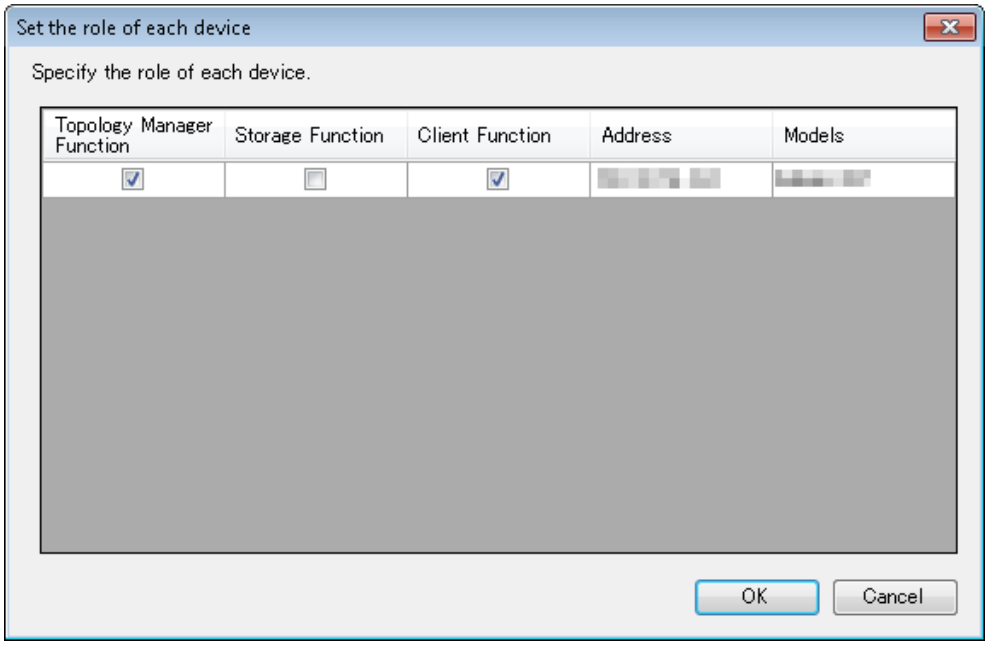
- To change the Serverless Pull Printing group name, change [Group name].
- To delete an MFP from a Serverless Pull Printing group, clear the check box of the MFP to be deleted.
- To add an MFP to a Serverless Pull Printing group, select the check box of the MFP to be added.



3 Click [OK].

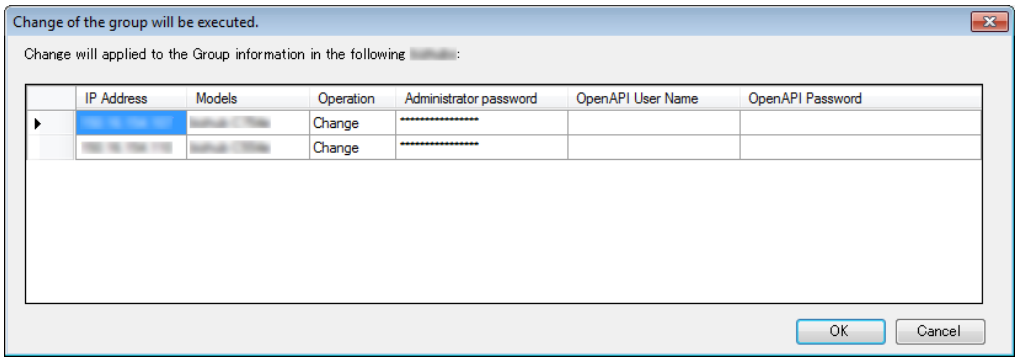
4 If necessary, specify the role (topology management, storage, or client) for the MFP to be registered in a Serverless Pull Printing group, then click [OK].

- A single topology management device must be assigned to each Serverless Pull Printing group.
- A single MFP can have both roles of storage and client devices.
- A single MFP can have both roles of topology management and client devices.
- A single MFP cannot have both roles of topology management and storage devices.



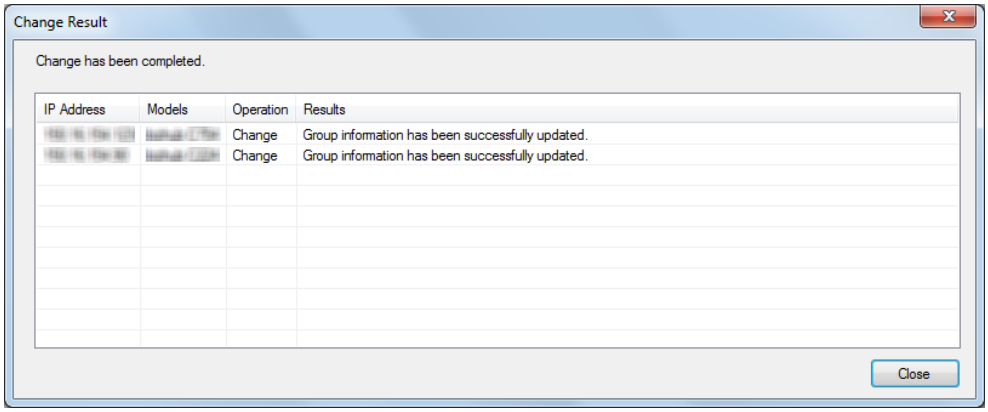
5 Enter the MFP administrator password, and OpenAPI user name and password, then click [OK].

- When not using the user name and password for OpenAPI authentication, you do not need to enter the OpenAPI user name and password.



This changes the Serverless Pull Printing group configuration. After processing is completed, the change result window appears.

6 Click [Close].



3.4 Deleting a Serverless Pull Printing Group

Delete a Serverless Pull Printing group.

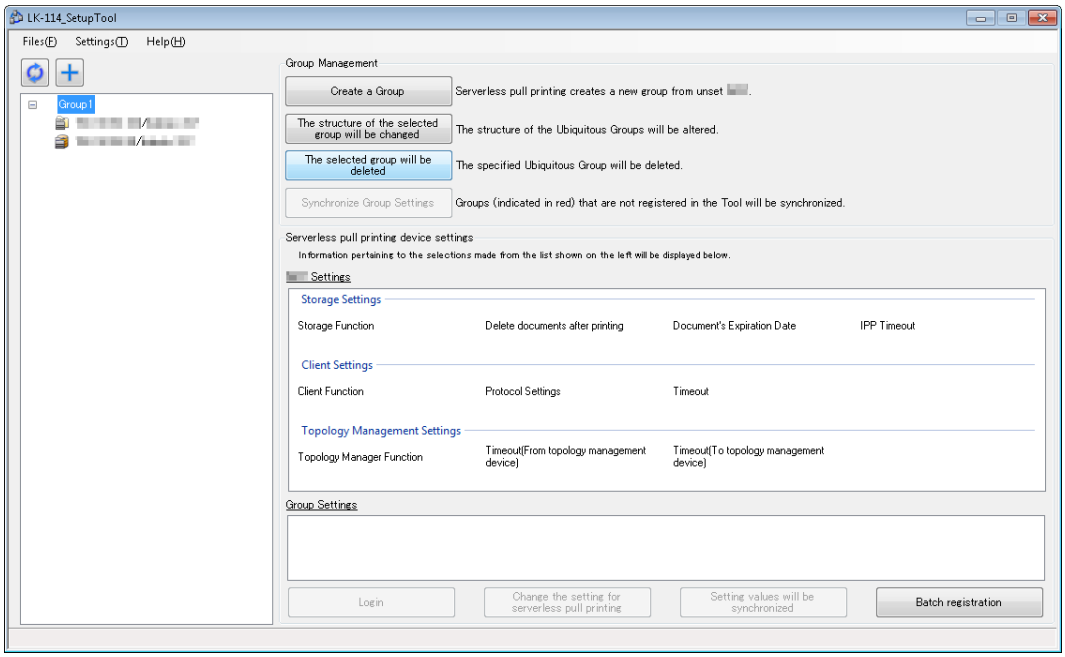
If a Serverless Pull Printing group is deleted from the MFP, the MFP restarts automatically.

Also, when a setting change is required on a topology management device in another group, the MFP restarts automatically.

Deleting a Serverless Pull Printing group

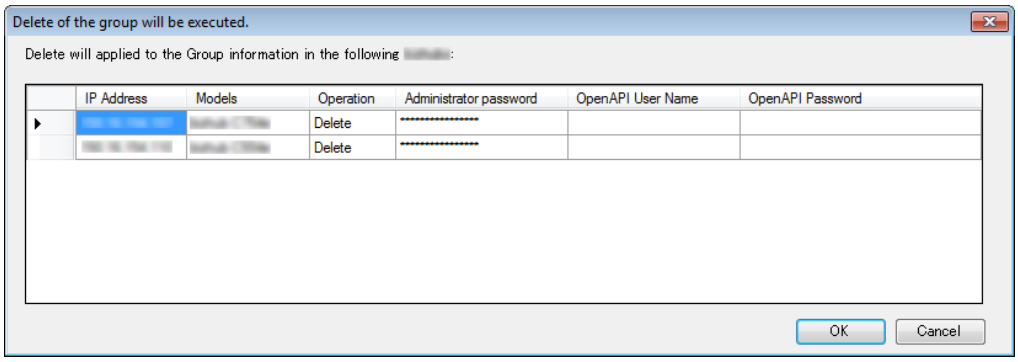
1 Select the Serverless Pull Printing group name to be deleted from the MFP list, then click [The selected group will be deleted].

– Selecting the Serverless Pull Printing group name enables the [The selected group will be deleted] button.



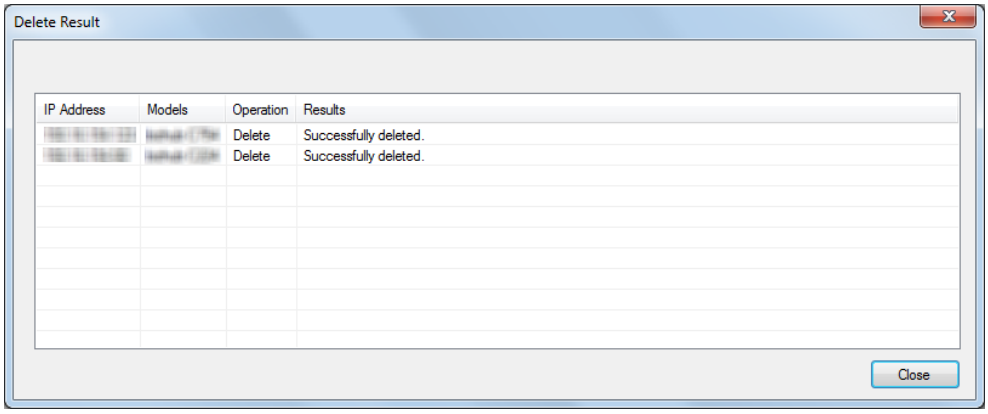
2 Enter the MFP administrator password, and OpenAPI user name and password, then click [OK].

– When not using the user name and password for OpenAPI authentication, you do not need to enter the OpenAPI user name and password.



The Serverless Pull Printing group is deleted. After processing is completed, the deletion result window appears.

3 Click [Close].



Reminder

This deletes group information stored in LK-114_SetupTool.

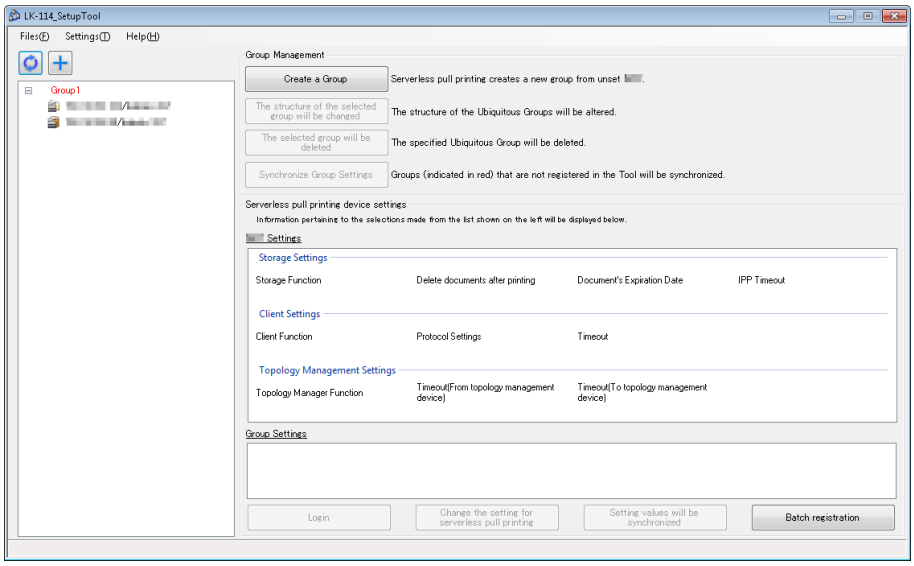
Reminder

Even if all MFPs composing a Serverless Pull Printing group are not deleted, group information is deleted from both LK-114_SetupTool and the MFP list.

3.5 Synchronizing Serverless Pull Printing Group Settings

Synchronizes a Serverless Pull Printing group that is not registered in the LK-114_SetupTool side.

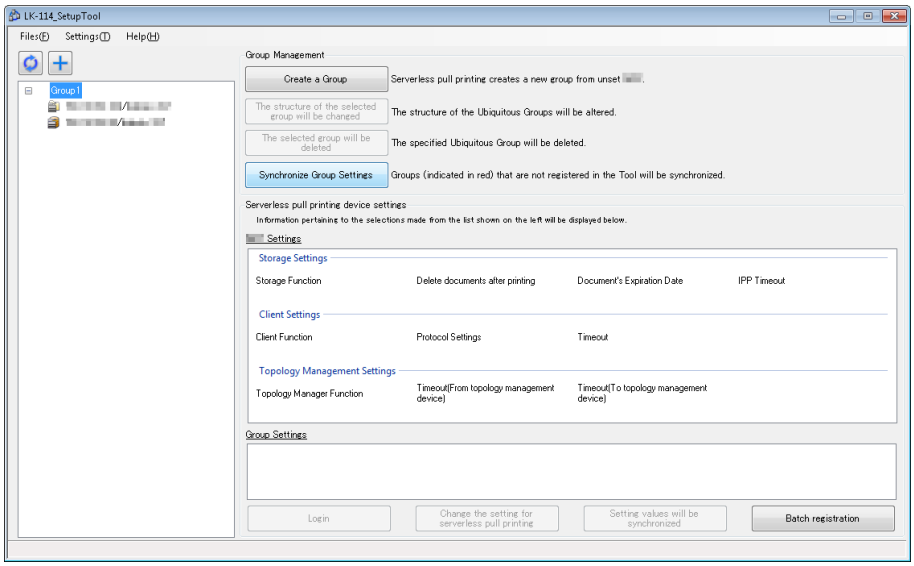
If a Serverless Pull Printing group is not registered in LK-114_SetupTool while LK-114_SetupTool is restarted or settings are imported, its name is displayed in red.



Synchronizing Serverless Pull Printing group settings

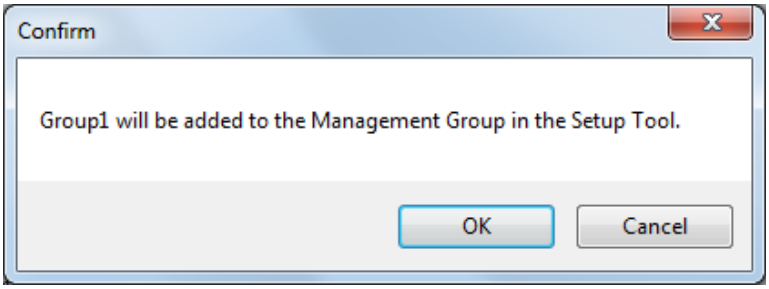
1 Select a Serverless Pull Printing group for which you want to synchronize the Serverless Pull Printing group settings, then click [Synchronize Group Settings].

– If the Serverless Pull Printing group displayed in red is selected from the MFP list, the [Synchronize Group Settings] button is enabled.



The confirmation dialog box appears.

2 Click [OK].



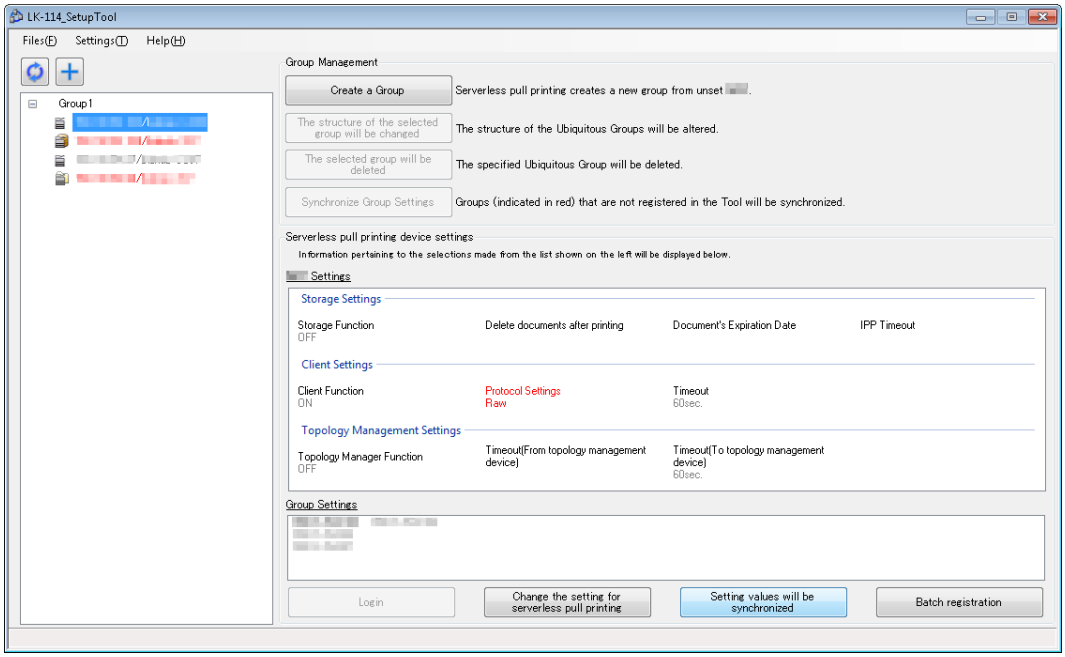
Serverless Pull Printing group settings are synchronized, and the Serverless Pull Printing group name is changed from red to black.

3.6 Synchronizing Setting Values in Serverless Pull Printing Settings

Synchronize Serverless Pull Printing setting values between LK-114_SetupTool and MFP.

If an MFP that has a Serverless Pull Printing setting different from that of LK-114_SetupTool is found when LK-114_SetupTool is restarted or settings are imported, it is displayed in red.

If an MFP displayed in red is selected, the setting detail is displayed in [bizhub Settings] and [Group Settings] in the right side pane of the window.



Item		Character color	
MFP displayed in the MFP list		Red	Displays an MFP of which settings are different from those of LK-114_SetupTool.
bizhub Settings	Storage Settings	Red	Displays an item of which the setting is different between LK-114_SetupTool and MFP.
	Client Settings	Red	Displays an item of which the setting is different between LK-114_SetupTool and MFP.
	Topology Management Settings	Red	Displays an item of which the setting is different between LK-114_SetupTool and MFP.

Item	Character color	
Group Settings	Red	Indicates that Serverless Pull Printing group settings are configured in LK-114_SetupTool, but not configured in the MFP.
	Gray	Indicates that Serverless Pull Printing group settings are configured in the MFP, but not configured in LK-114_SetupTool.

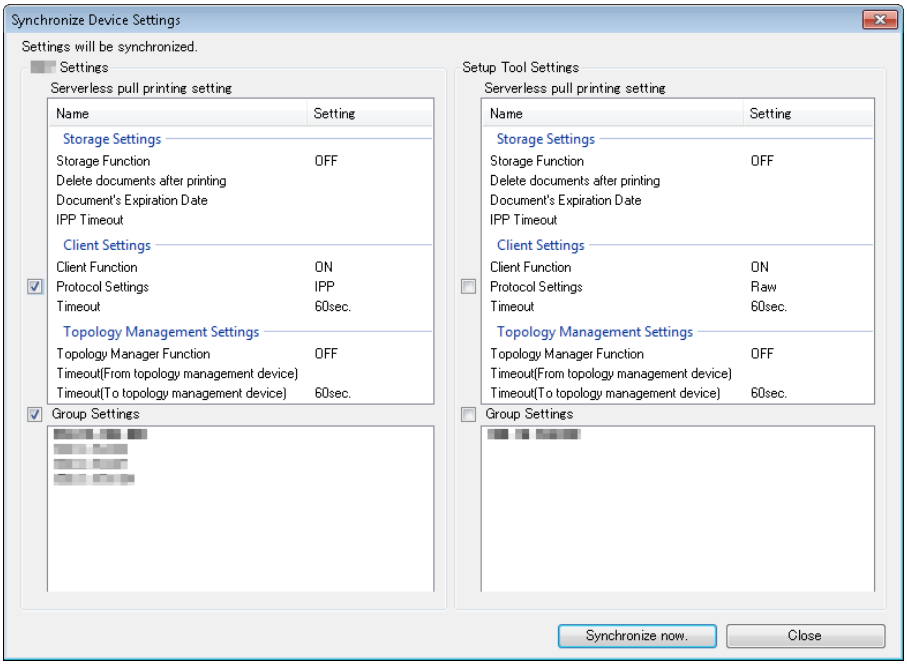
Synchronizing Serverless Pull Printing settings

1 Select an MFP for which you want to synchronize the setting value, then click [Setting values will be synchronized].

– If the MFP displayed in red is selected from the MFP list, the [Setting values will be synchronized] button is enabled.

2 Check the contents of [bizhub Settings] and [Setup Tool Settings], then select the check boxes for the setting values to be updated.

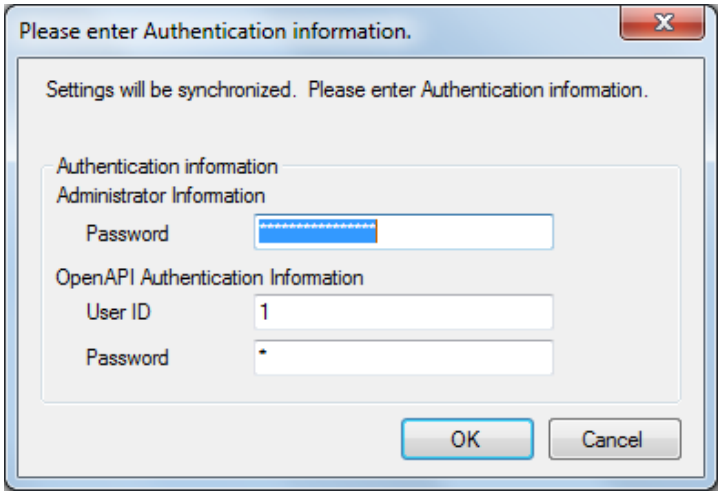
– Check boxes are displayed for the items of which setting values are different between LK-114_SetupTool and MFP.



3 Click [Synchronize now.].

4 Enter the password into [Password] of [Administrator Information], and also enter the user ID and password into [User ID] and [Password] of [OpenAPI Authentication Information], then click [OK].

– When not using the user name and password for OpenAPI authentication, you do not need to enter the OpenAPI user name and password.



This starts the synchronization of setting values. After processing is completed, the completion window appears.

5 Click [OK].

...

Reminder

If the Enable/Disable setting for each of the topology management function, storage function, and client function is different between LK-114_SetupTool and the MFP, reconfigure the functions of each device, referring to "Changing the Serverless Pull Printing Group Configuration" on page 3-13.

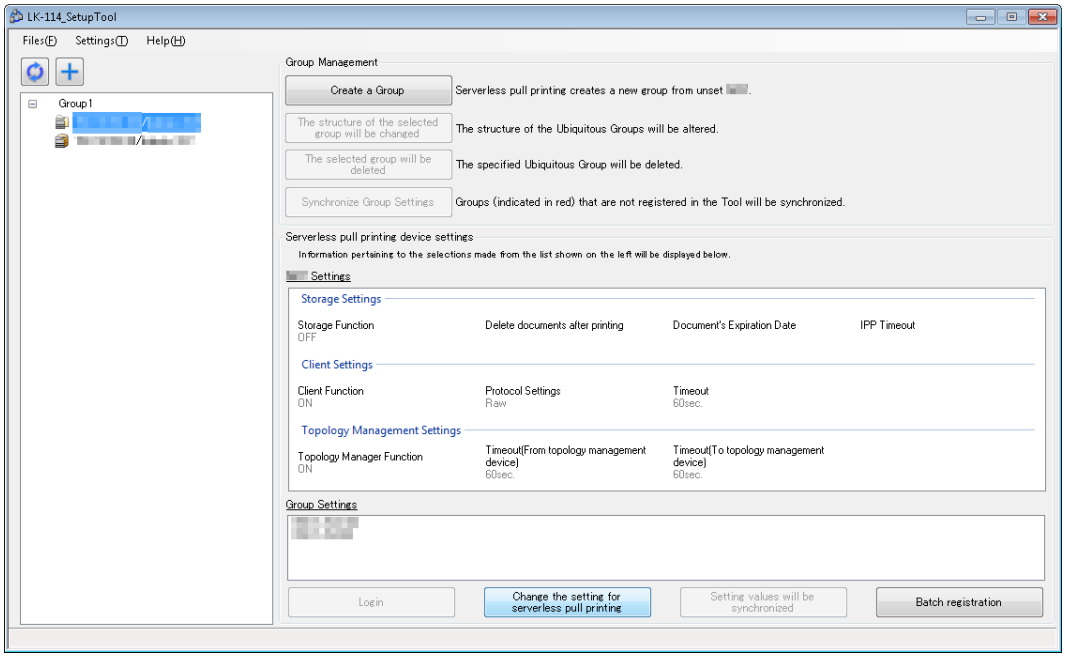
3.7 Changing Serverless Pull Printing Settings

Change Serverless Pull Printing settings.

Changing Serverless Pull Printing settings

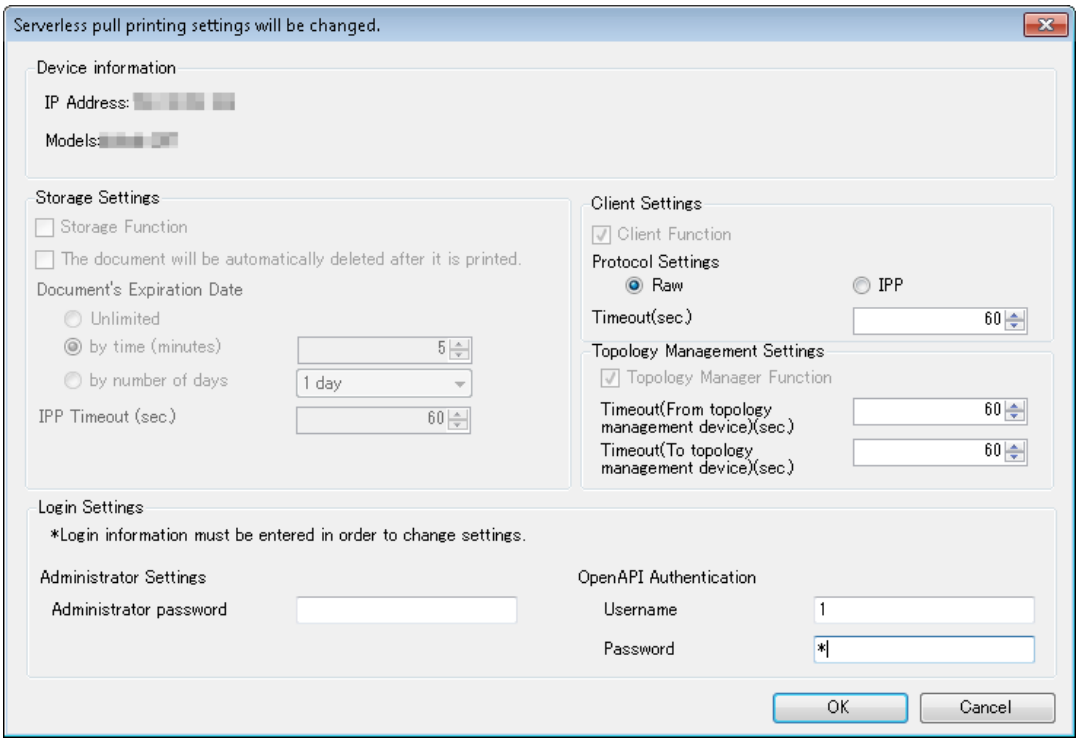
1 Select an MFP you want to change the Serverless Pull Printing settings for, then click [Change the setting for serverless pull printing].

- Selecting the desired MFP enables the [Change the setting for serverless pull printing] button.
- If an MFP with is selected, the authentication information entry window appears. Enter the appropriate authentication information.



2 Change Serverless Pull Printing settings.

– The Serverless Pull Printing settings acquired from the MFP are currently displayed. Change settings as necessary.



3 Enter login information in [Login Settings], then click [OK].

The Serverless Pull Printing settings are changed. The setting change completion window then appears.

4 Click [OK].

Reminder

When changing the Enable/Disable setting for each of the topology management function, storage function, and client function, perform the procedure shown in "Changing the Serverless Pull Printing Group Configuration" on page 3-13.

3.8 Collectively Updating MFP Settings

Import the Serverless Pull Printing group configuration file, and collectively update the settings of multiple MFPs.

Then, all the collectively updated MFPs restart automatically.

After restarting, wait until the MFP can be connected to the network.

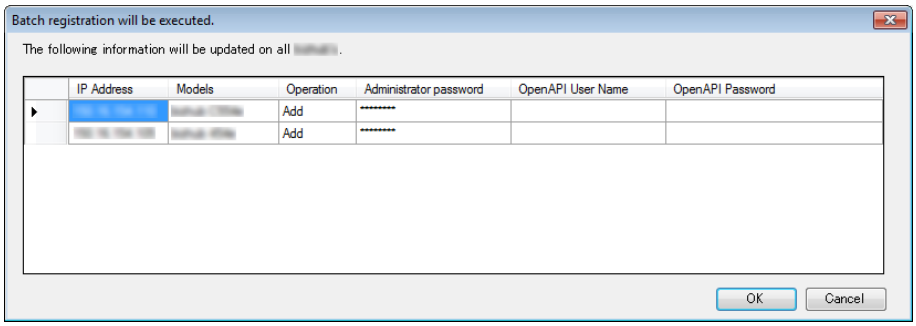
1 Create a Serverless Pull Printing group configuration file using LK-114_Editor for SetupTool.

– For details, refer to "Creating a Configuration File of Serverless Pull Printing Group Information in Local Environment" on page 3-30.

2 Click [Batch registration].

This displays information of the MFPs registered in the Serverless Pull Printing group configuration file.

3 Check the details, then click [OK].



Bulk registration is carried out. The [Change Result] window appears.

4 Click [Close].

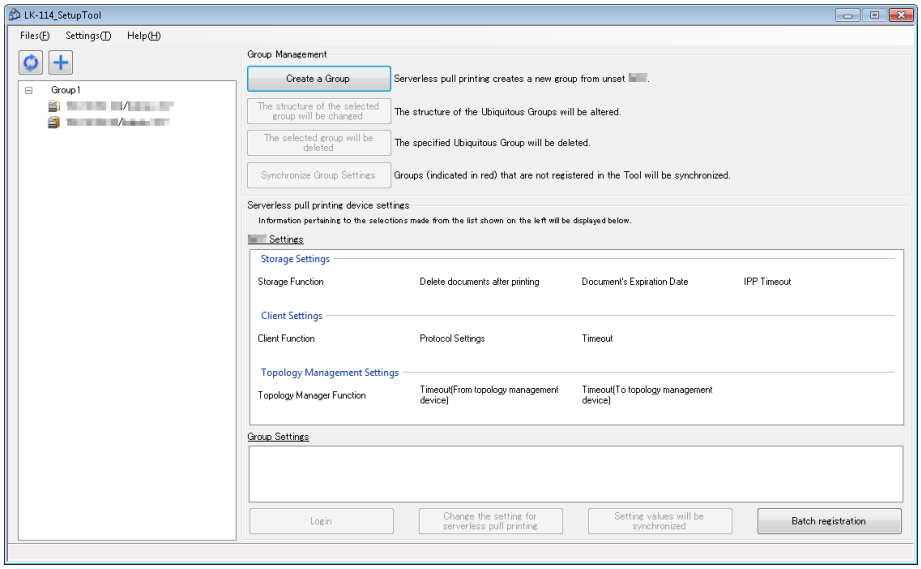
MFPs that have been collectively updated are displayed in the LK-114_SetupTool window.

3.9 Managing MFPs with the Power Turned off

Manage MFPs with the power turned off.

The MFPs with the power turned off are displayed in gray.

The MFPs that are powered off are not targeted for Serverless Pull Printing settings and synchronization.



Deleting an MFP from a Serverless Pull Printing group

Delete an MFP with the power turned off from a Serverless Pull Printing group.

1 Select a Serverless Pull Printing group of the MFP displayed in gray, then click [The structure of the selected group will be changed].

2 Delete the MFP with the power turned off from a Serverless Pull Printing group.

– For details on the operation procedure, refer to "Changing the Serverless Pull Printing Group Configuration" on page 3-13.

Restoring an MFP in a Serverless Pull Printing group

1 Turn on the MFP that has been deleted from a Serverless Pull Printing group.

2 Click .

The MFP that has been deleted is detected, and it is displayed in the MFP list as an MFP that does not belong to any Serverless Pull Printing group.

The MFPs that are powered off are not targeted for Serverless Pull Printing settings and synchronization.

3.10 Managing Serverless Pull Printing Group Information

Multiple Serverless Pull Printing group information items can be managed by creating a configuration file for each network environment. The format of the configuration file is XML.

Importing Serverless Pull Printing group information

1 Select [Files] - [Import Settings] on the toolbar.

2 Select the target XML file on the import window, then click [Open].

Information of the configuration file is loaded, and displayed on the window.

Reminder

If any unsaved modification information is found in the currently used file before import processing or a Serverless Pull Printing group is created while the target file is not exported, a message window appears to check whether to save the modification information before opening the import window.

Exporting Serverless Pull Printing group information

1 Select [Files] - [Export Settings] on the toolbar.

2 Specify the storage folder on the export window before entering the file name, then click [Save].

The configuration file is saved with the current setting values.

Reminder

If a Serverless Pull Printing group is created using LK-114_SetupTool without creating a configuration file, a confirmation message appears to check whether to save the configuration file. Clicking the [OK] button displays the export window.

Creating a new configuration file of Serverless Pull Printing group information

1 Select [Files] - [New] on the toolbar.

2 Specify the storage folder in the new creation window of the Serverless Pull Printing group management file, then click [Save].

Reminder

After a configuration file has been created, the configured Serverless Pull Printing group settings are automatically detected when they are searched on the network, and they are saved in the management file that is created for the default Serverless Pull Printing group settings.

3.11 Creating a Configuration File of Serverless Pull Printing Group Information in Local Environment

A Serverless Pull Printing group can be created in a local environment in which the MFP is not connected on the network.

Set information such as IP addresses of MFPs, which compose a Serverless Pull Printing group, using LK-114_Editor for SetupTool, then create a Serverless Pull Printing group configuration file.

When the configuration file is imported using LK-114_SetupTool, a Serverless Pull Printing group can be registered.

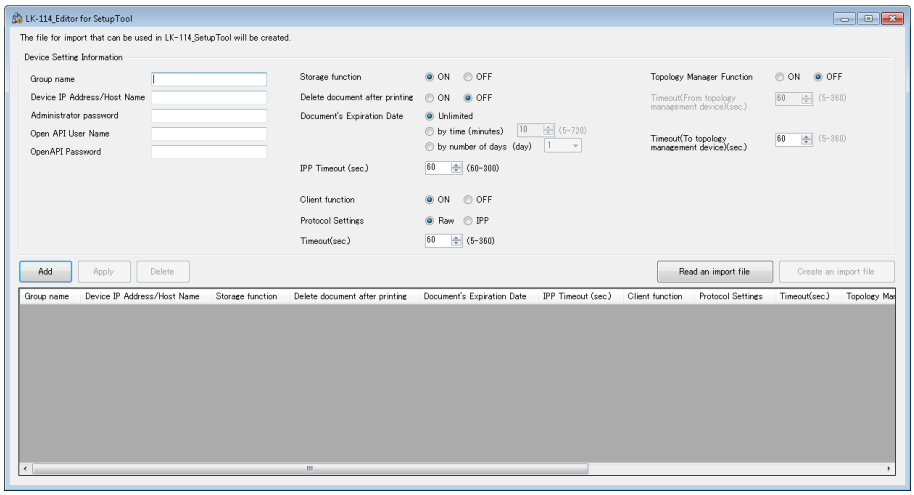
✔ Before starting this procedure, check the IP address or host name, administrator password, OpenAPI user name, and OpenAPI password of the MFP to be added to the Serverless Pull Printing group.

1 Export a Serverless Pull Printing group configuration file using LK-114_SetupTool.

– For details, refer to "Exporting Serverless Pull Printing group information" on page 3-28.

2 Double-click [LK114EditorForSetupTool.exe] to launch LK-114_Editor for SetupTool.

3 Click [Read an import file].



4 Select the Serverless Pull Printing group configuration file, then click [Open].

This imports information of the Serverless Pull Printing group configuration file.

5 Enter information of the MFP to be added to the group in [Device Setting Information].

- [Group name]: Enter the name of the Serverless Pull Printing group to add the MFP to. The Serverless Pull Printing group name can be specified using up to 16 single-byte characters.
- [Device IP Address/Host Name]: Enter the IP address or host name of the MFP.
- [Administrator password], [OpenAPI User Name], [OpenAPI Password]: Enter the administrator password, OpenAPI user name, and OpenAPI password of the MFP.

6 When using the MFP as a storage device, select [ON] for [Storage function].

- [Delete document after printing]: Specify whether to automatically delete a print job when a print job spooled in the storage device has been completed.
- [Document's Expiration Date]: Specify the time required to automatically delete data of print jobs spooled in the storage device.
- [IPP Timeout (sec.)]: Specify the timeout value to make prints using IPP.

7 When using the MFP as a client device, select [ON] for [Client function].

- [Protocol Settings]: Select a protocol for Serverless Pull Printing from the [IPP] or [Raw] port.
- [Timeout(sec.)]: Specify the period required to trigger a timeout when connecting to the storage device.

8 When using the MFP as a topology management device, select [ON] for [Topology Manager Function].

- [Timeout (From topology management device) (sec.)]: Specify the timeout period for a communication from a topology management device when using the MFP as a topology management device.
- [Timeout (To topology management device) (sec.)]: Specify the timeout period for a communication to a topology management device when using the MFP as a storage device or client device.

9 Click [Add].

MFP information is displayed in the list at the bottom of the window.

10 When all MFPs have been added to the group, click [Create an import file].

A configuration file is created in the same folder LK-114_SetupTool is in.

11 Launch LK-114_SetupTool to import the configuration file.

– For details on how to import the configuration file, refer to "Importing Serverless Pull Printing group information" on page 3-28.

Reminder

To change configuration information of an MFP that has already been added, select the target MFP from the list, then change the required setting in [Device Setting Information]. After changing the setting, click [Apply].

4 Serverless Pull Printing Settings (For Administrators)

Serverless Pull Printing settings can be configured on an MFP.

...

Reminder

When Serverless Pull Printing settings are configured using LK-114_SetupTool, you do not need to configure them on an MFP.

This chapter describes how to configure Serverless Pull Printing settings on the MFP control panel.

4.1 Serverless Pull Printing Settings

To configure Serverless Pull Printing settings, select [Utility] on an MFP used as a Serverless Pull Printing group.

The following items can be specified in [Serverless Pull Printing Settings].

- Print Storage Function Settings
  If the storage function of the MFP is enabled in LK-114_SetupTool, print job handling can also be configured. For details, refer to "Setting the Storage Function for Serverless Pull Printing" on page 4-2.
- Client Function Settings
  If the client function of the MFP is enabled in LK-114_SetupTool, a connection with the storage device can also be configured. For details, refer to "Setting the Client Function for Serverless Pull Printing" on page 4-6.

4.2 Setting the Storage Function for Serverless Pull Printing

You can change the setting of the storage function using the control panel of the MFP.

This change is possible when the storage function of the MFP is enabled in LK-114_SetupTool.

The following items are available in [Store Print Documents Settings].

Item	Description
Delete after Print Setting	Specify whether to automatically delete a print job when a print job spooled in the storage device has been completed. ... **Reminder** *This setting is available when the print storage function is set to [Enable].*
Document Delete Time Setting	Specify the time required to automatically delete data of print jobs spooled in the storage device. ... **Reminder** *This setting is available when the print storage function is set to [Enable].*
Delete All Documents	Deletes all data of print jobs spooled in the storage device. This item is not required to perform Serverless Pull Printing, but it is available to manually delete all documents. For details on the procedure, refer to "Manually Deleting a Document" on page 4-5.

...

Reminder

You cannot set the storage function to Enable or Disable using the control panel of the MFP.

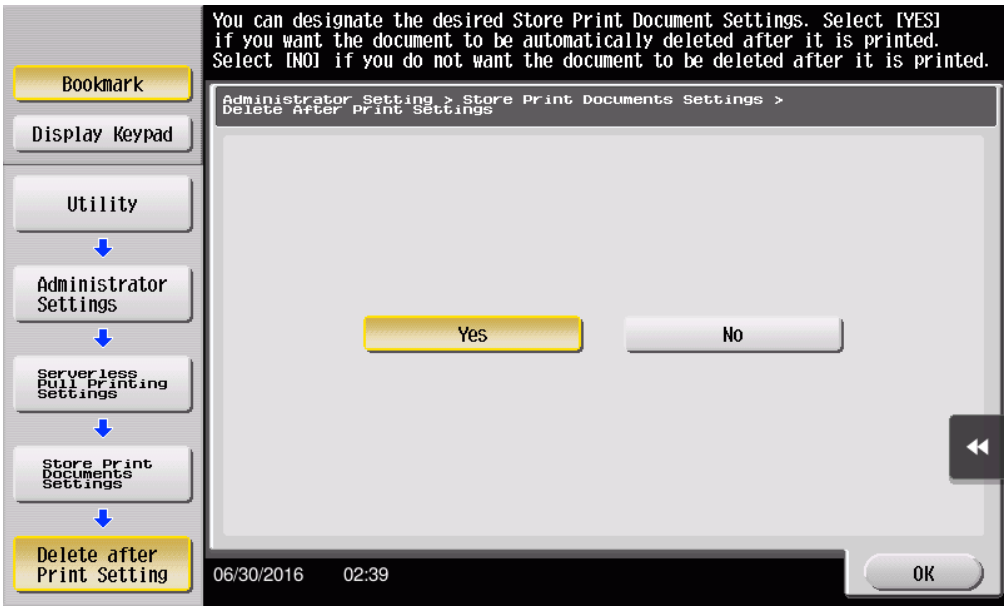
Printed-Job Deletion Setting

1 Tap [Utility] - [Administrator Settings] - [System Connection] - [Serverless Pull Printing Settings] - [Store Print Documents Settings] - [Delete after Print Setting].

– When the administrator password entry screen appears, enter the administrator password.

2 Select [Yes] or [No].

– Selecting [Yes] automatically deletes a document when a print job has been executed.
– Selecting [No] will result in no documents being deleted when a print job has been executed.



3 Tap [OK].

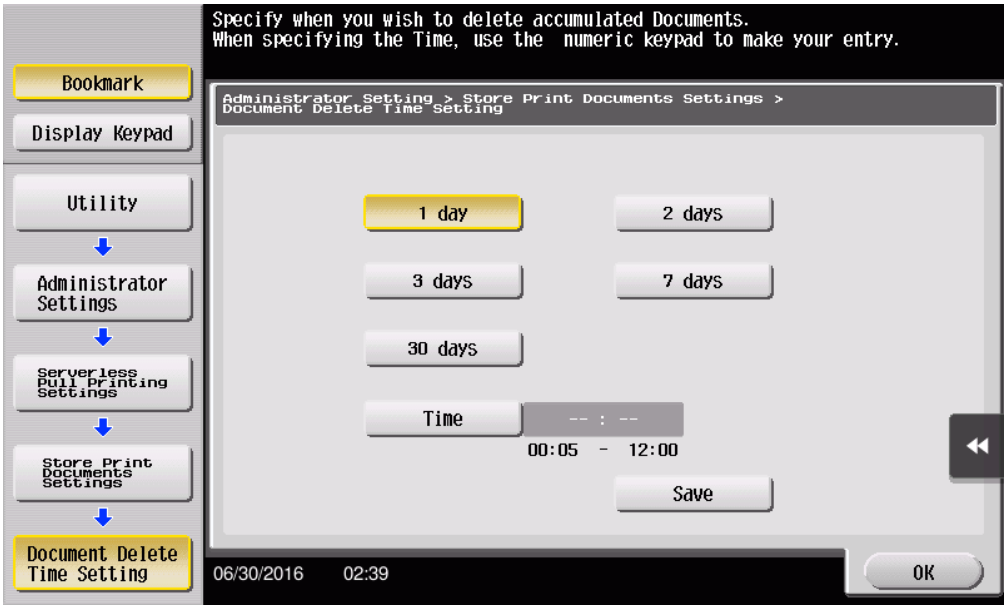
Specifying the document deletion time

1 Tap [Utility] - [Administrator Settings] - [System Connection] - [Serverless Pull Printing Settings] - [Store Print Documents Settings] - [Delete after Print Setting].

– When the administrator password entry screen appears, enter the administrator password.

2 Specify the period required to automatically delete a document.

– This setting is available for spooled documents. A document is processed based on the period specified in this item even if it is not printed.
– Selecting [Time] allows you to specify the period between 00:05 and 12:00 in 1-minute increments.
– Selecting [Save] will result in no documents being deleted.



3 Tap [OK].

4.3 Manually Deleting a Document

Manually delete all data of print jobs spooled in the storage device.

Note

If the print storage function is set to [No Limit], it will not be possible to delete all documents.

Manually Deleting a Document

1 Tap [Utility] - [Administrator Settings] - [System Connection] - [Serverless Pull Printing Settings] - [Store Print Documents Settings] - [Delete All Documents].

– When the administrator password entry screen appears, enter the administrator password.

The Delete All Documents screen appears.

2 Select [Yes], then tap [OK].

All documents are deleted.

Note

Do not turn the main power of the MFP off during data processing.

4.4 Setting the Client Function for Serverless Pull Printing

You can change the setting for the client function.

This change is possible when the client function of the MFP is enabled in LK-114_SetupTool.

The following items are available in [Client Function Settings].

Item	Description
Protocol Setting	Specify the protocol used for Serverless Pull Printing. You can select [IPP] or [Raw port]. **Reminder** *This setting is available when the client function is set to [Enable].* *This item can be set to [IPP] when IPP is set to [Enable].*
Connection Timeout Setting	Specify the timeout period to connect to the storage device. **Reminder** *This setting is available when the client function is set to [Enable].*

Reminder

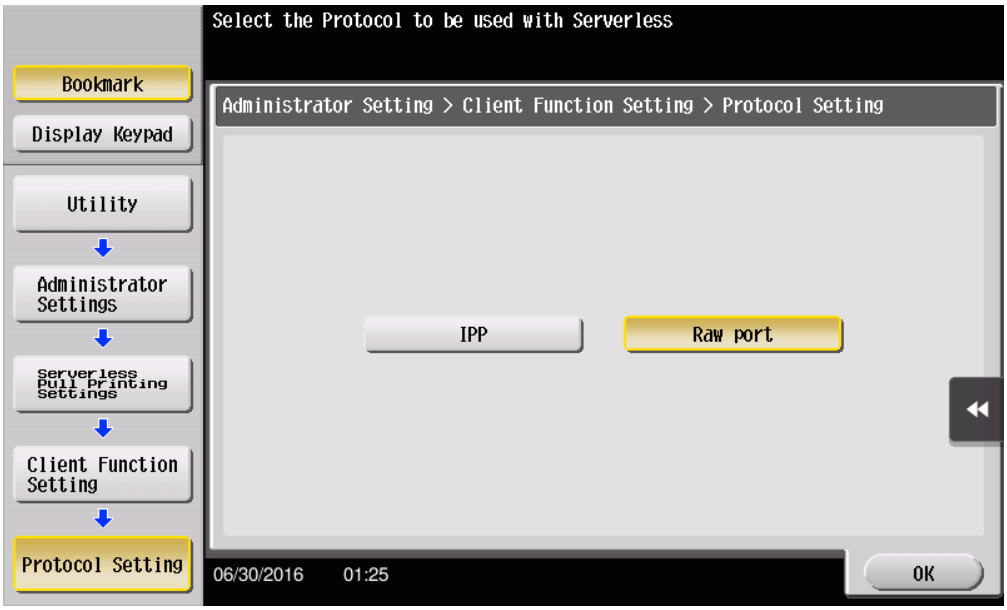
You cannot set the client function to Enable or Disable using the control panel of the MFP.

Specifying the protocol

1 Tap [Utility] - [Administrator Settings] - [System Connection] - [Serverless Pull Printing Settings] - [Client Function Setting] - [Protocol Setting].

– When the administrator password entry screen appears, enter the administrator password.

2 Select [IPP] or [Raw port], then tap [OK].



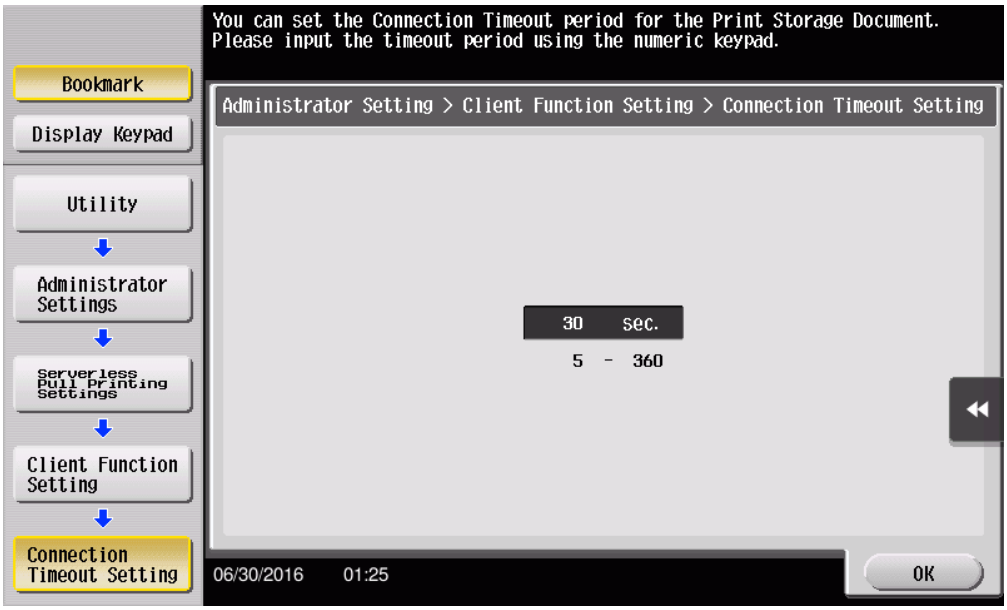
Specifying the connection timeout period

1 Tap [Utility] - [Administrator Settings] - [System Connection] - [Serverless Pull Printing Settings] - [Client Function Setting] - [Connection Timeout Setting].

– When the administrator password entry screen appears, enter the administrator password.

2 Specify the period required to trigger a timeout when connecting to the storage device.

– The period can be specified between 5 and 360 in 1-second increments.



3 Tap [OK].

5 Adding a Shortcut Key to the Main Menu (For Administrators)

5.1 Adding a Shortcut Key to the Main Menu

Place a shortcut key for Serverless Pull Printing on the main menu of the MFP registered in a Serverless Pull Printing group.

Note

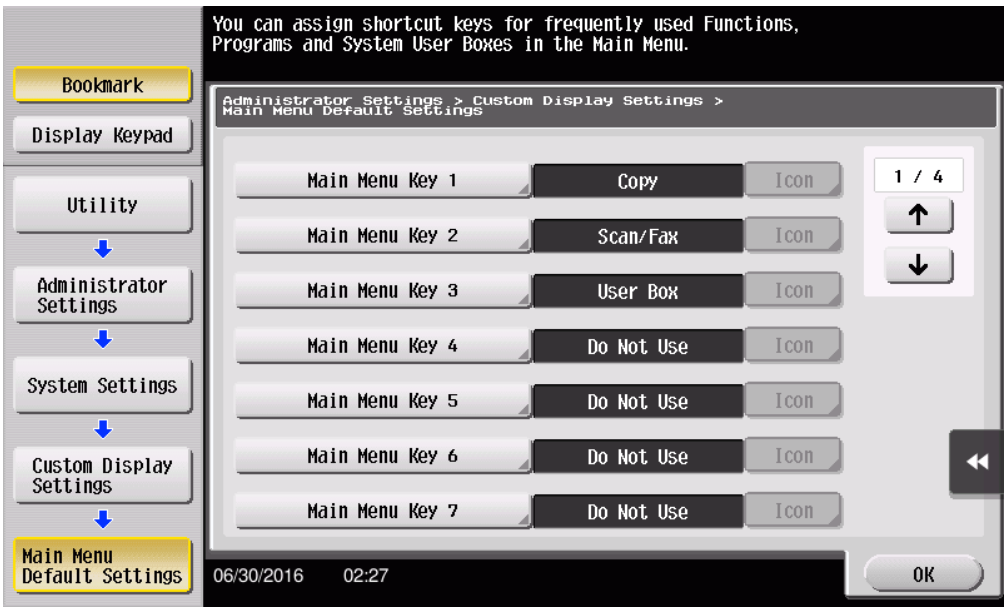
This setting is available only when the client function is enabled in Serverless Pull Printing Settings.

Adding a shortcut key

1 Tap [Utility] - [Administrator Settings] - [System Settings] - [Custom Display] - [Main Menu Default Settings].

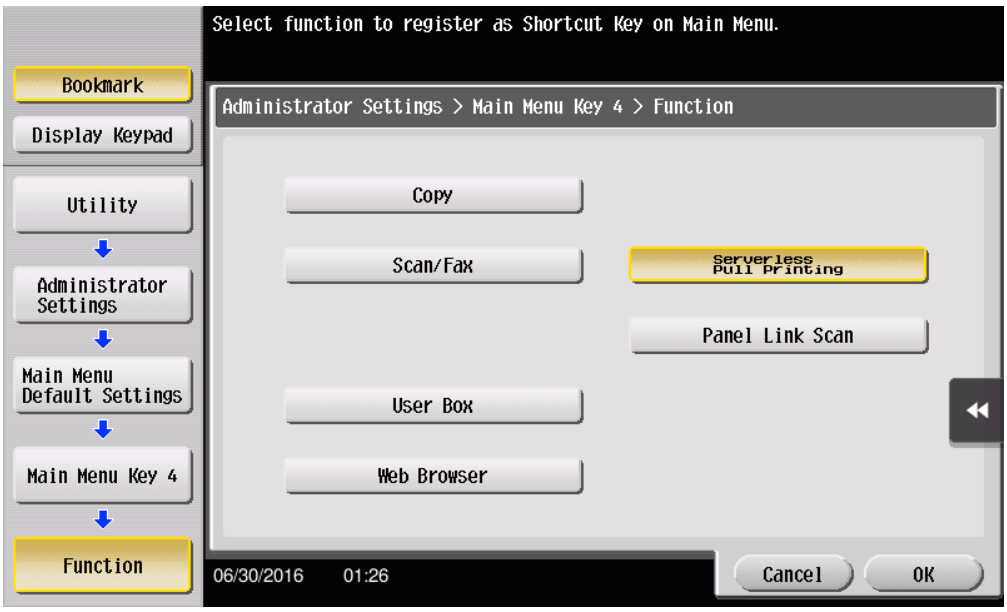
– When the administrator password entry screen appears, enter the administrator password.

2 Select a [Main Menu Key] that is not used.



3 Select [ON], then tap [Function].

4 Tap [Serverless Pull Printing], then tap [OK].



When the shortcut key is added, the shortcut key of [Serverless Pull Printing] is displayed on the main menu.

6 Installing the Printer Driver and LK-114_ManagerPort

To use the Serverless Pull Printing function on a user computer, install the compatible printer driver and LK-114_ManagerPort in the target MFP.

The installation order is as follows.

1. LK-114_ManagerPort
2. Printer driver

When the user computer has administrator privileges:

- Distribute the printer driver and LK-114_ManagerPort to the user computer, then install them by executing [Setup.exe].
  LK-114_ManagerPort is contained in [LK-114_InstallerCreateTool] - [InstForm] folder.

When the user computer has no administrator privileges:

- Create LK-114_InstallTool that enables installation that does not require administrator privileges, and distribute it to users. To create LK-114_InstallTool, use LK-114_InstallerCreateTool.
  If necessary, you can create the tool so that it automatically configures the printer driver and LK-114_ManagerPort settings.
  For details on how to create LK-114_InstallTool, refer to "Creating LK-114_InstallTool (For Administrators)" on page 6-2.

6.1 Creating LK-114_InstallTool (For Administrators)

This section describes how to create LK-114_InstallTool.
For details on how to install the printer driver and LK-114_ManagerPort in a user computer with no administrator privileges using LK-114_InstallTool, refer to "Manual Installation Using LK-114_InstallTool" on page 6-14.

6.1.1 LK-114_InstallerCreateTool

LK-114_InstallerCreateTool is a tool to create LK-114_InstallTool to be distributed to user computers. Using LK-114_InstallTool that is distributed, the user can configure the setting that enables the Serverless Pull Printing function on the user computer.

LK-114_InstallerCreateTool allows the user to compile the printer driver, LK-114_ManagerPort installer, and their configuration files in a LK-114_InstallTool package.
Then, you can embed authentication information such as the administrator's user ID and password in LK-114_InstallTool to enable the installation even if the user computer has no administrator privileges.

Prepare LK-114_InstallerCreateTool in advance, then copy it to any folder.

6.1.2 Preparations

To create LK-114_InstallTool using LK-114_InstallerCreateTool, prepare a printer driver setup file in advance.

The printer driver setup file is a printer driver with the administrator ID, domain, and password embedded.

Before creating a printer driver setup file, check the following.

- Before using Driver Packaging Utility, install the printer driver used for the printer driver setup file in the computer. For details on how to install the printer driver, refer to "Printer Functions" in the user's MFP guide.
- To create a printer driver setup file, use Driver Packaging Utility. Prepare Driver Packaging Utility in advance, then copy it to any folder.
- The user name, domain, and password of the user with administrator privileges are required when creating a printer driver setup file. Check them in advance.

For details on how to create a printer driver setup file, refer to "Creating a printer driver setup file using Driver Packaging Utility" on page 6-3.

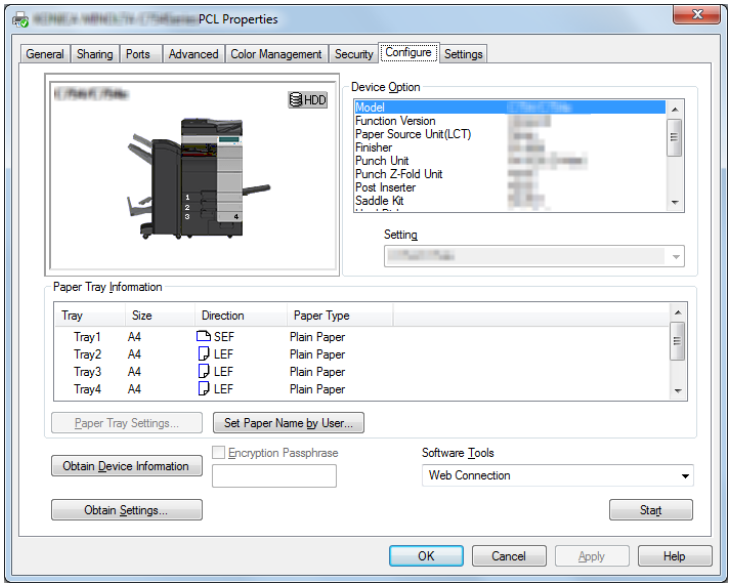
Creating a printer driver setup file using Driver Packaging Utility

The following shows the steps in Windows 7 environment.

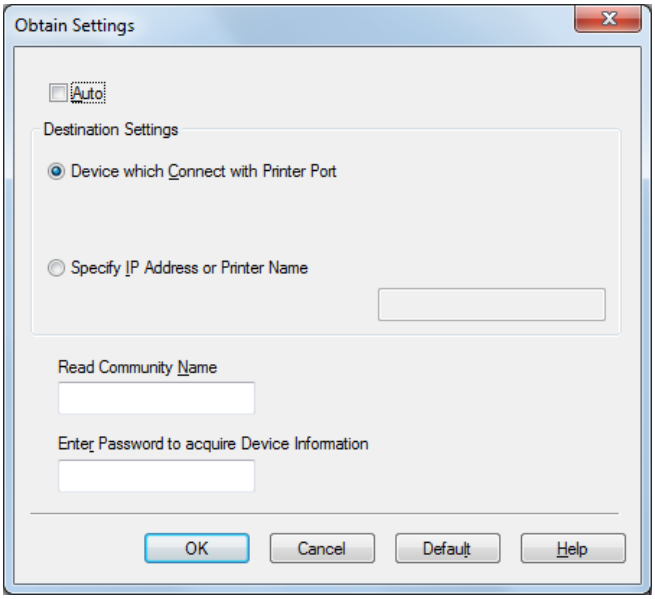
1 Select [Control Panel] - [Devices and Printers].

2 Right-click the target printer, then select [Printer properties].

3 Select the [Configure] tab, then click [Obtain Settings].



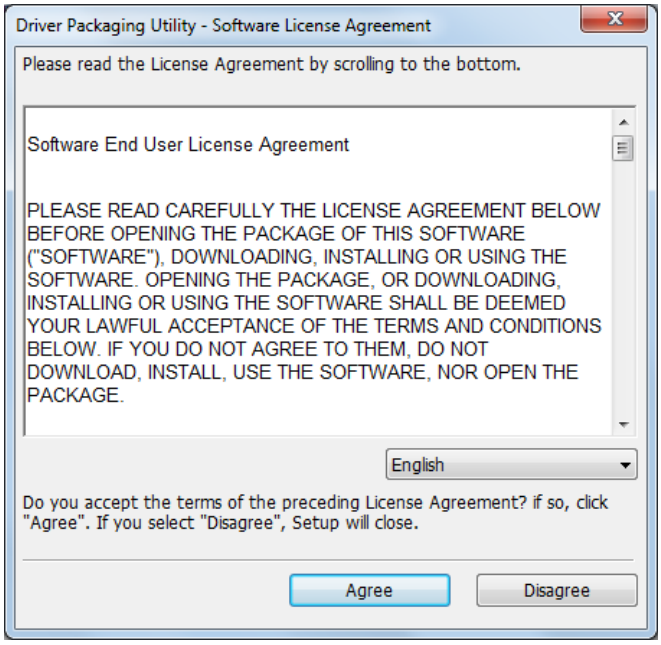
4 Clear the [Auto] check box, then click [OK].



5 Double-click DPU.exe to launch Driver Packaging Utility.

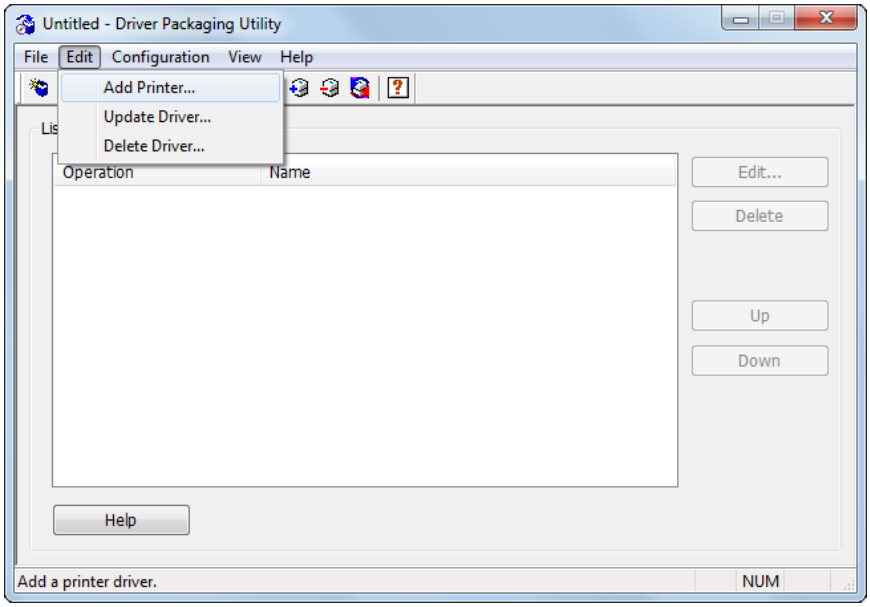
– In Windows Vista or Windows 7, a warning message appears. Permit to open Driver Packaging Utility.

6 Click [Agree].



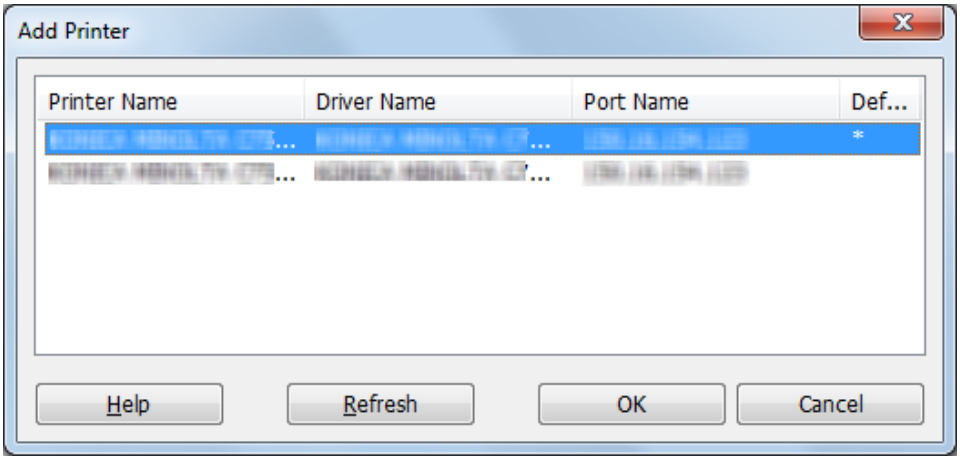
The Driver Packaging Utility page appears.

7 Select [Edit] - [Add].

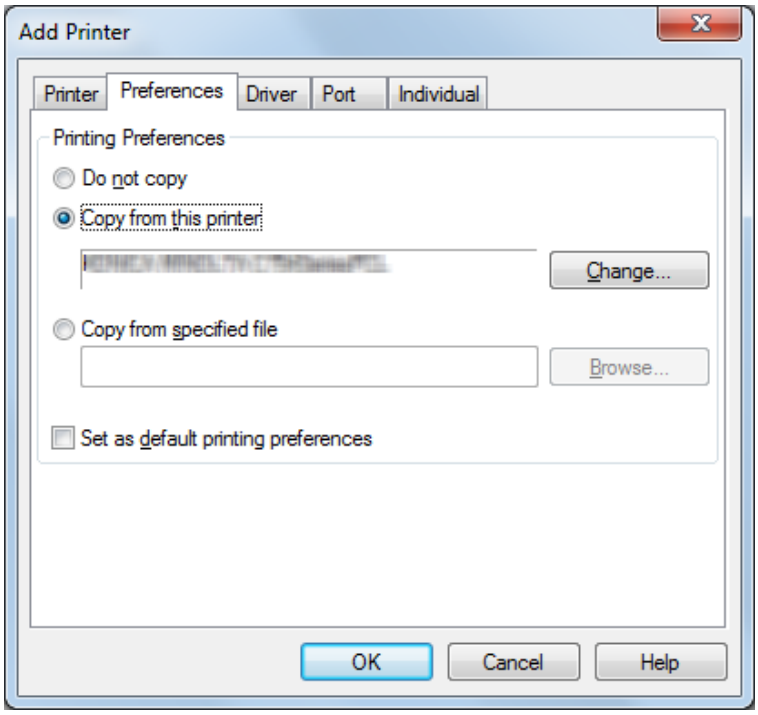


The Standard TCP/IP Port printers installed in the computer are listed on the Add Printer window.

8 Select the printer driver to be used for LK-114_ManagerPort, then click [OK].

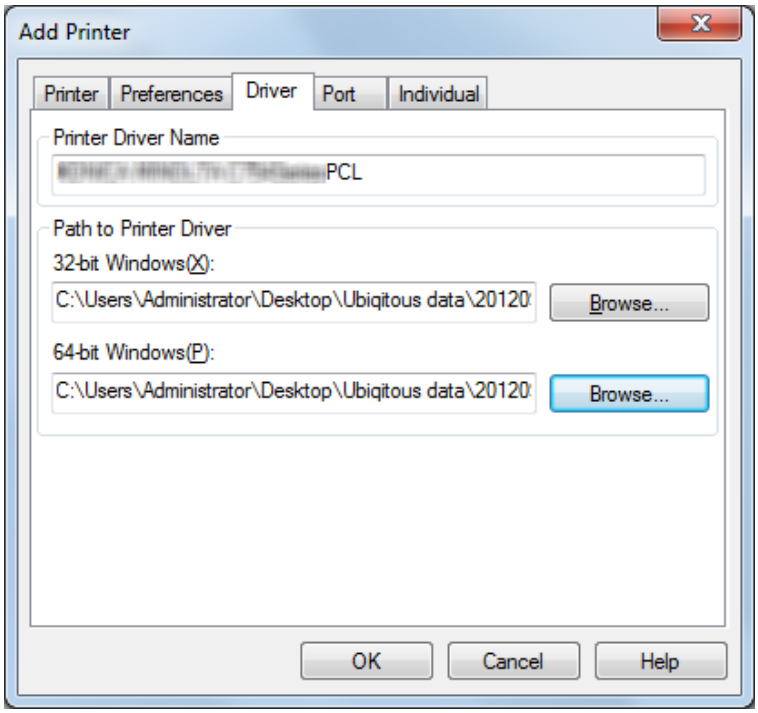


9 In the [Preferences] tab, select [Copy from this printer].

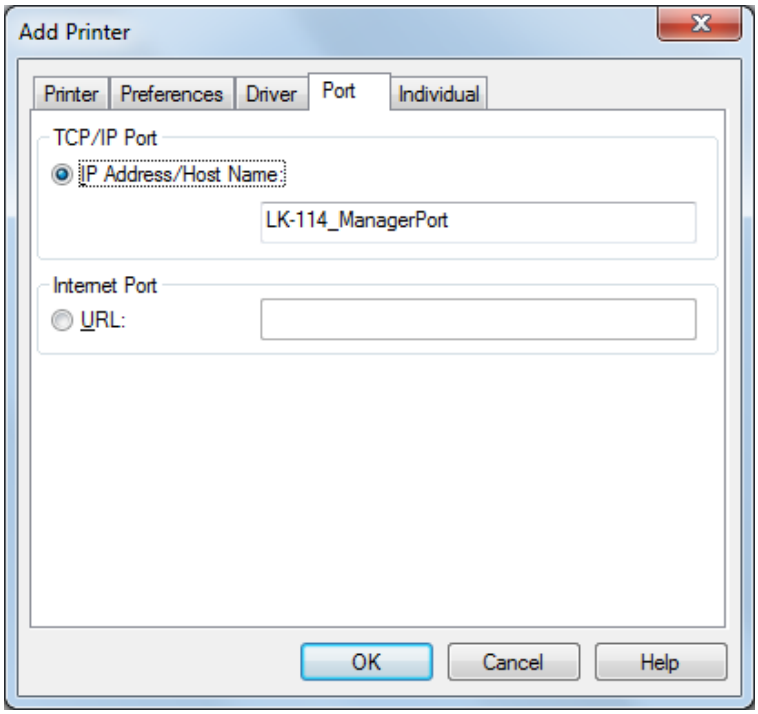


10 In the [Driver] tab, specify the desired printer driver, then click [OK].

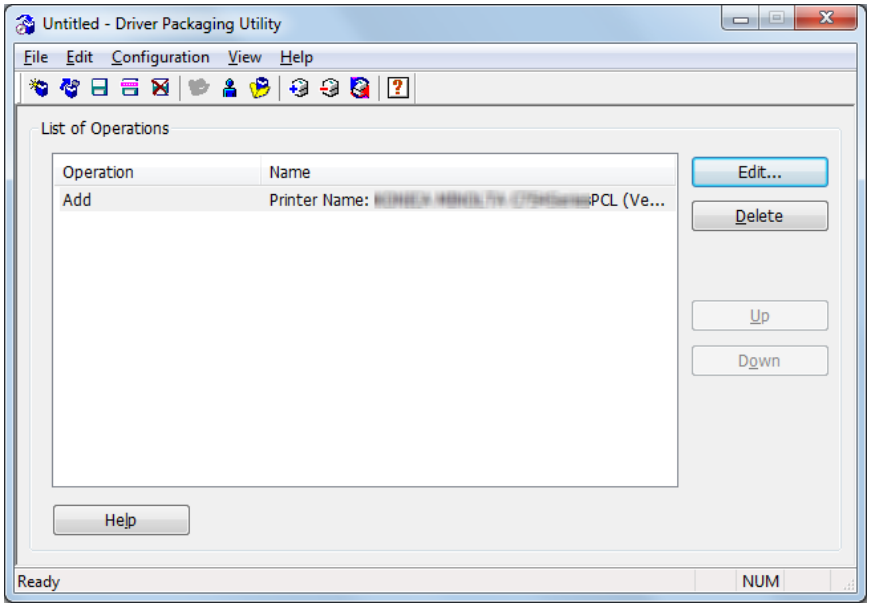
- Click [Browse], then specify [Path to Printer Driver].
- In this item, specify the printer driver file of the printer driver folder before installation, not the printer driver file installed in Program Files.



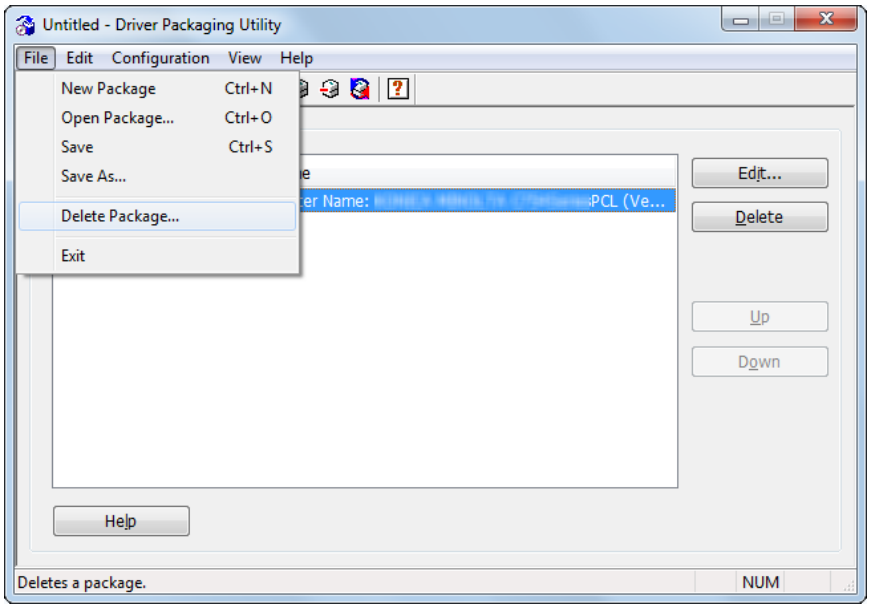
11 Type "LK-114_ManagerPort" into the [IP Address/Host Name] field of the [Port] tab, then click [OK].



The printer name added to the task list appears.

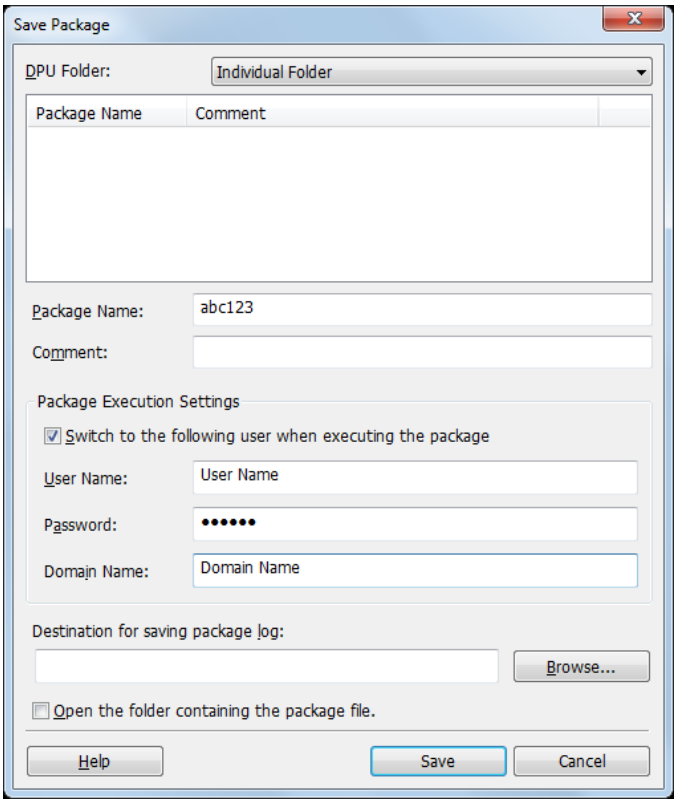


12 Select [File] - [Save As].



13 Enter the required items.

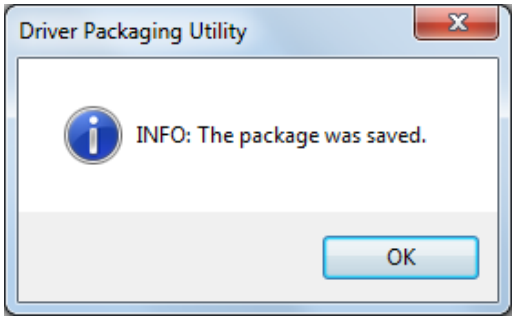
– Enter any name in [Package Name].
– Select the [Switch to the following user when executing the package] check box, then enter the user name, password, and domain of the user with the destination's administrator privileges.



14 Click [Save].

A package (printer driver setup file) is created.

15 On the completion window, click [OK].



...

Reminder

After creating a printer driver setup file, restore the [Auto] check box, which is cleared in the Auto Import Setting window (step 4), to the original state as necessary.

6.1.3 Creating and distributing LK-114_InstallTool

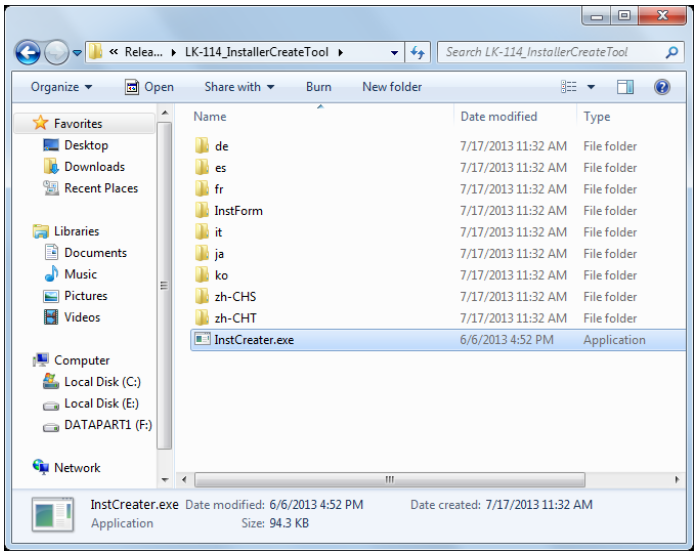
Create and distribute LK-114_InstallTool.

Creating LK-114_InstallTool

Before creating LK-114_InstallTool, check for the following:

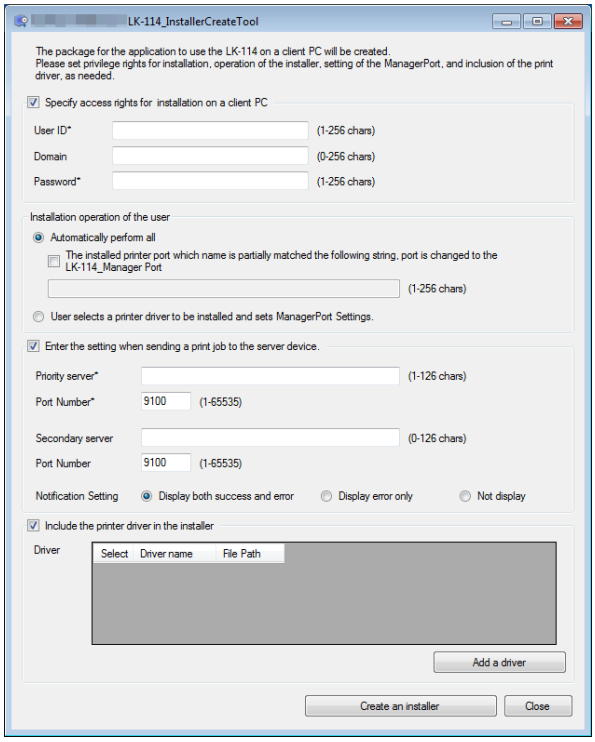
- ✔ Checking the user ID, domain, and password of the user who has administrator privileges when the user who executes LK-114_InstallTool has no administrator privileges on their own computer
- ✔ Preparing LK-114_InstallerCreateTool in the computer

1 Double-click [InstCreater.exe] to launch LK-114_InstallerCreateTool.



2 In [Specify access rights for installation on a client PC], set privileges to install LK-114_ManagerPort.

- If the user who executes LK-114_InstallTool has no administrator privileges on their own computer, enter [User ID], [Domain], and [Password] of the user who has administrator privileges.
- If the user who executes LK-114_InstallTool has administrator privileges on their own computer, clear the [Specify access rights for installation on a client PC] check box. This carries out installation using the privileges of the user who executed [invoke.exe] of LK-114_InstallTool.



3 In [Installation operation of the user], select whether the user will need to configure the printer driver and LK-114_ManagerPort settings.

- If [Automatically perform all] is selected, the user does not need to configure settings.
- To enable LK-114_ManagerPort to use the printer driver that has already been installed on the user computer, select [Automatically perform all], select the [The installed printer port which name is partially matched the following string, port is changed to the LK-114_Manager Port] check box, then enter the printer driver name in the text box.
- When the user configures settings, select [User selects a printer driver to be installed and sets ManagerPort Settings.].

4 In [Enter the setting when sending a print job to the server device.], configure settings to send print jobs.

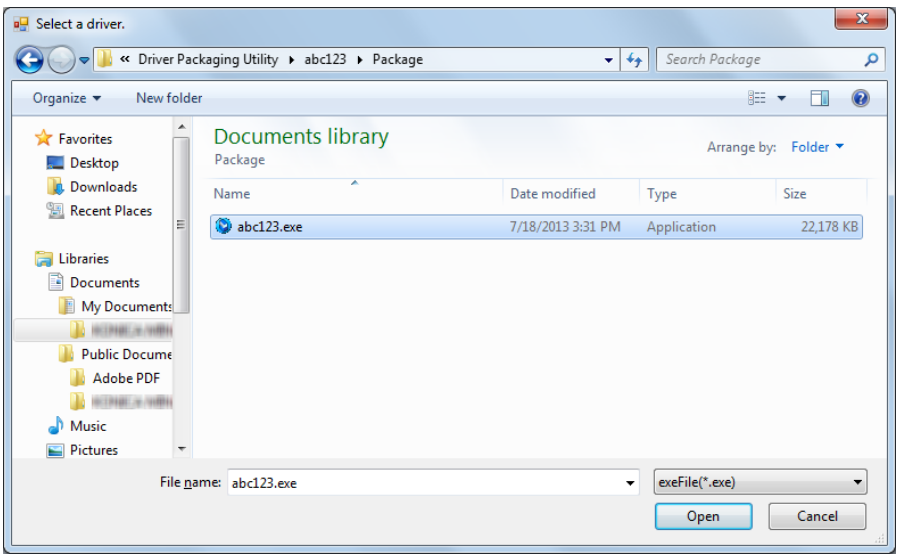
- In [Priority server] and [Secondary server], enter the IP address of the MFP that sends print jobs from the user computer and the port number to be used, respectively.
- In [Notification Setting], select whether to display a message when a print job is sent to the server device.
- When not configuring settings to send print jobs, clear the [Enter the setting when sending a print job to the server device.] check box.

5 In [Include the printer driver in the installer], specify whether to package the printer driver in LK-114_InstallTool.

- To package the printer driver in LK-114_InstallTool, select the check box for [Include the printer driver in the installer], then click [Add a driver]. Proceed to step 6.
- When not packaging the printer driver in LK-114_InstallTool, clear the [Include the printer driver in the installer] check box, then click [Create an installer]. Proceed to step 8.

6 Specify the folder created using Driver Packaging Utility, select the printer driver setup file, then click [Open].

- Specify the printer driver compatible with the user computer.

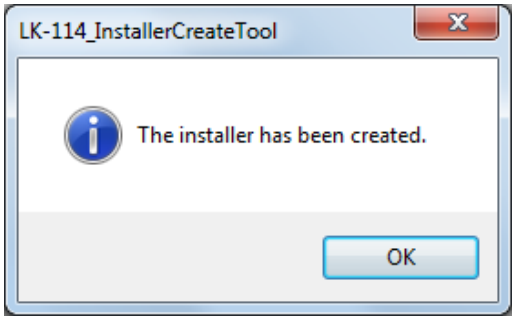


7 Select the desired printer driver, then click [Create an installer].

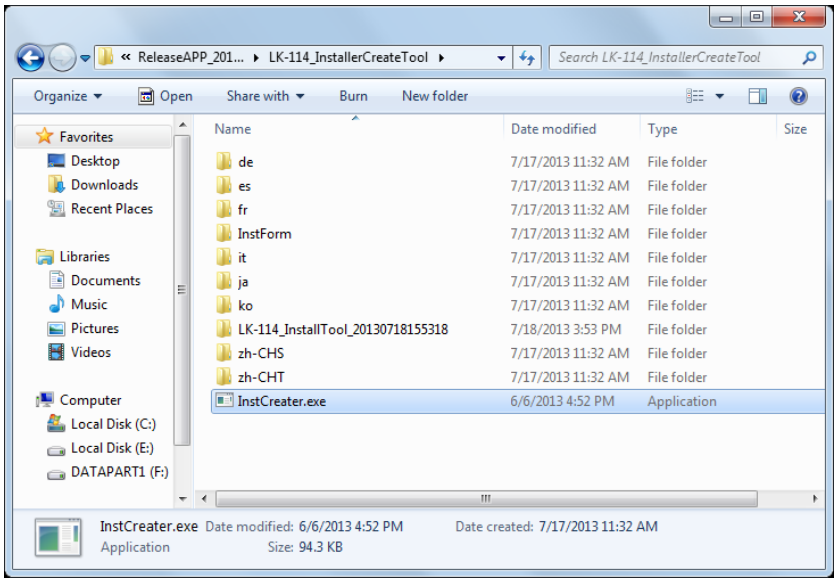
- [Driver name] can be changed as necessary. If necessary, specify a driver name users can easily understand when distributing the driver.
  (Example: abc123.exe -> 3F printer driver)

LK-114_InstallTool is created.

8 On the completion window, click [OK].



The LK-114_InstallTool_yyyymmddhhmmss folder to be distributed is created in the LK-114_InstallerCreateTool folder. ("yyyymmddhh-mmss" indicates the date and time when LK-114_InstallTool has been created.)



9 Distribute the LK-114_InstallTool_yyyymmddhhmmss folder to the user computer.

– To distribute Device Definition File, place it in the same level as for the LK-114_InstallTool_yyyymmddhhmmss folder.

...

Reminder

The Device Definition File is used to help you enter device information in LK-114_ManagerPort settings. Device information can be entered directly without using the Device Definition File. Prepare a Device Definition File as necessary. For details on the Device Definition File, refer to "Device Definition File" on page 10-1.

6.2 Automatic Installation Using LK-114_InstallTool

Install the printer driver and LK-114_ManagerPort using LK-114_InstallTool distributed from the administrator.

This section describes the procedure to use when [Automatically perform all] was selected in [Installation operation of the user] to create LK-114_InstallTool using LK-114_InstallerCreateTool.

If LK-114_InstallTool is not provided, check with the administrator.

1 Double-click [invoke.exe] of LK-114_InstallTool that is distributed from the administrator.

The installer starts.

2 Follow the on-screen instructions.

This automatically installs LK-114_ManagerPort and the printer driver, and configures the LK-114_ManagerPort settings.

6.3 Manual Installation Using LK-114_InstallTool

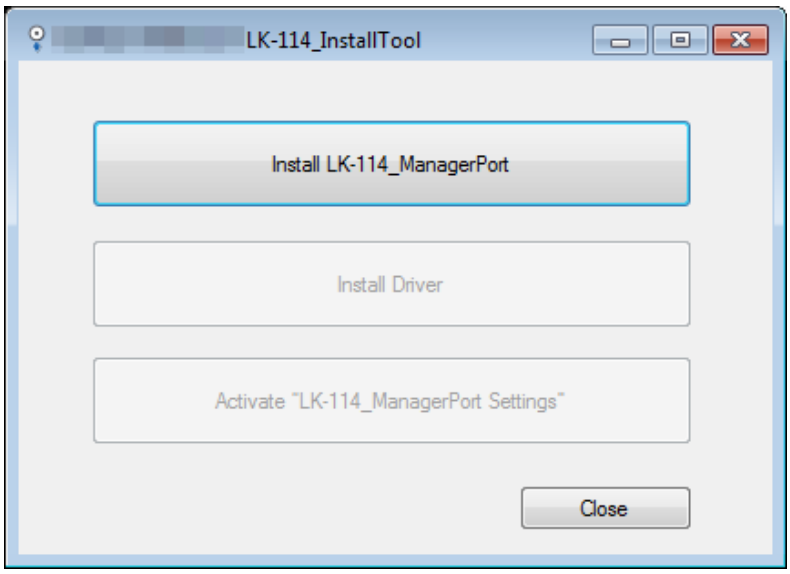
Install the printer driver and LK-114_ManagerPort using LK-114_InstallTool distributed from the administrator.

This section describes the procedure to use when [User selects a printer driver to be installed and sets ManagerPort Settings.] was selected in [Installation operation of the user] to create LK-114_InstallTool using LK-114_InstallerCreateTool.

If LK-114_InstallTool is not provided, check with the administrator.

Activating LK-114_InstallTool and target selection window

Double-click [invoke.exe] on LK-114_InstallTool distributed from the administrator; a window appears to enable the user to select the application to be installed.



Item	Description
Install LK-114_ManagerPort	Install LK-114_ManagerPort. For details, refer to "Installing LK-114_ManagerPort" on page 6-15. **Reminder** *If the target is newer than the version of the LK-114_ManagerPort installed on the computer, this item is displayed as [Update LK-114_ManagerPort].*

Item	Description
Install Driver	Install the printer driver. For details, refer to "Installing the printer driver" on page 6-19. **Note** *If LK-114_ManagerPort is not installed, the printer driver cannot be installed.*
Activate "LK-114_ManagerPort Settings"	Set up LK-114_ManagerPort. For details, refer to "Setting up LK-114_ManagerPort" on page 6-21. **Note** *If LK-114_ManagerPort is not installed, LK-114_ManagerPort settings cannot be set up.*

6.3.1 Installing LK-114_ManagerPort

Install LK-114_ManagerPort using LK-114_InstallTool distributed from the administrator.

If LK-114_InstallTool is not provided, check with the administrator.

Reminder

For a user computer with administrator privileges, you can select [LK-114_InstallerCreateTool] - [InstForm] - [LK-114_ManagerPort] folder and execute [Setup.exe] to install LK-114_ManagerPort.

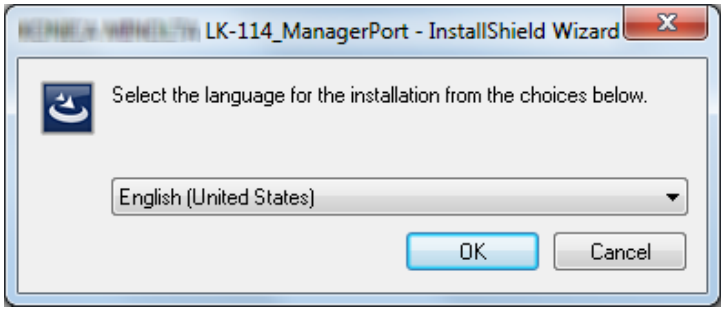
Installation procedure

1 Click [Install LK-114_ManagerPort] on the target selection window of LK-114_InstallTool.

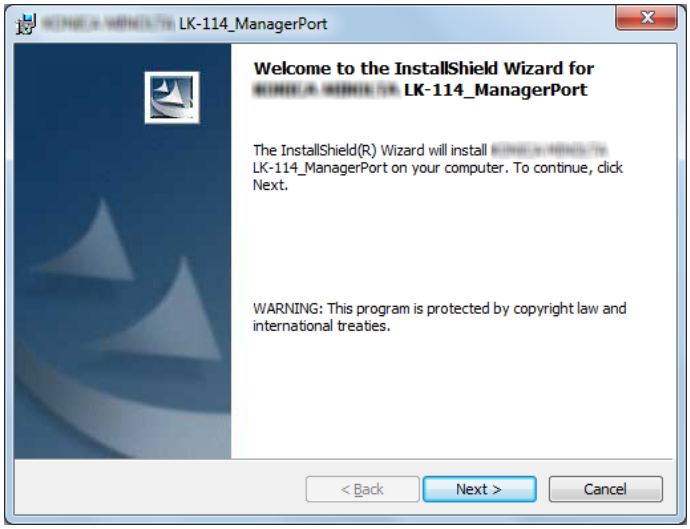
- To update, click [Update LK-114_ManagerPort].
- For details on the target selection window, refer to "Activating LK-114_InstallTool and target selection window" on page 6-14.

2 In the installation start window, click [Yes].

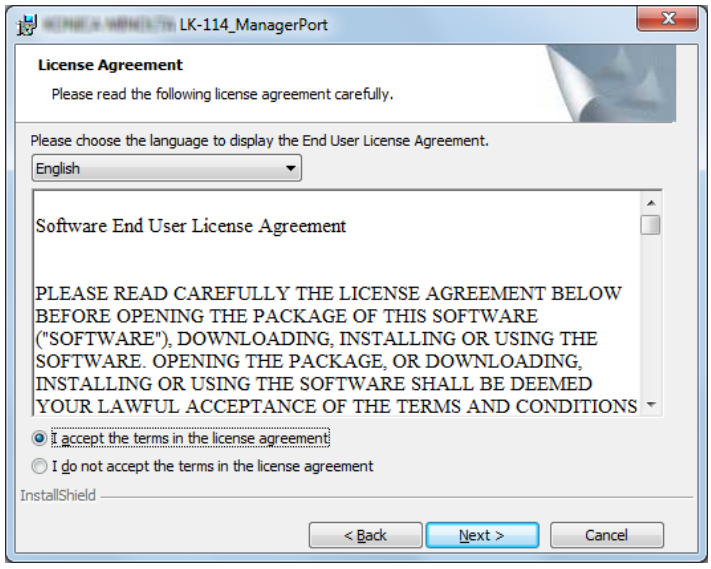
3 Select [English (United States)], then click [OK].



4 Click [Next].

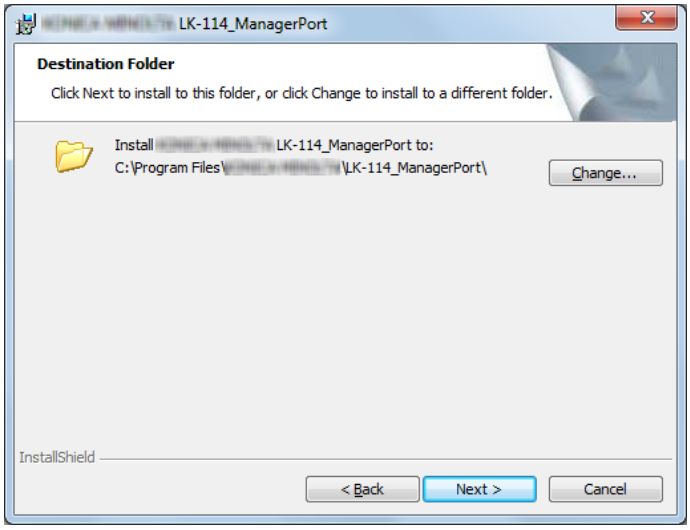


5 Select [I accept the terms in the license agreement], then click [Next].



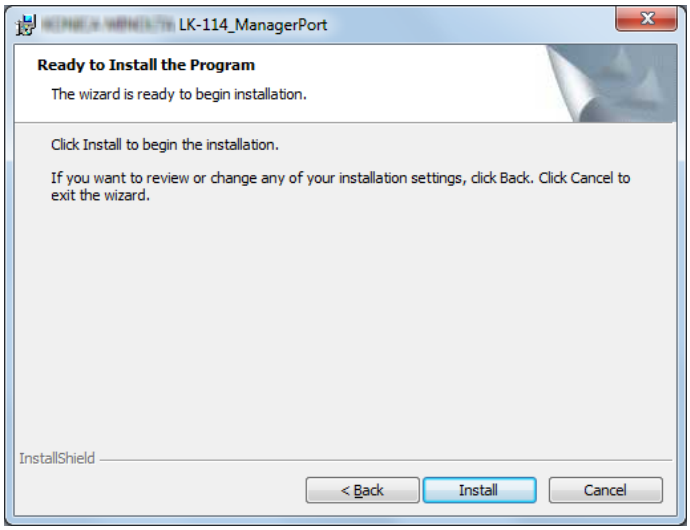
6 Check the destination folder.

– To install in a different folder, click [Change], then specify the desired folder.



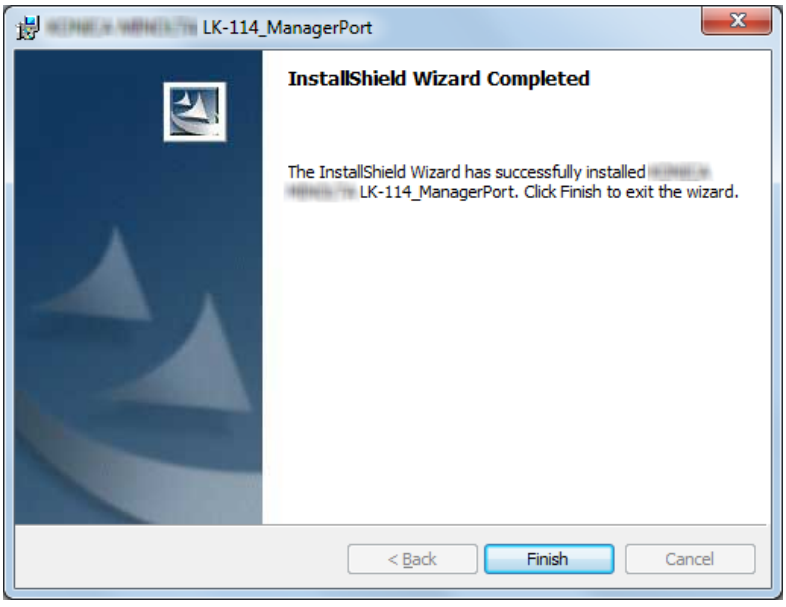
7 Click [Next].

8 Click [Install].



This starts installing LK-114_ManagerPort. When the installation is completed, the completion window appears.

9 On the completion window, click [Finish].



This returns to the target selection window of LK-114_InstallTool.

6.3.2 Installing the printer driver

Install the printer driver using LK-114_InstallTool distributed from the administrator.

If LK-114_InstallTool is not provided, check with the administrator.

...

Reminder

On a user computer with administrator privileges, LK-114_ManagerPort can be installed by executing [Setup.exe] in the folder.

Installation procedure

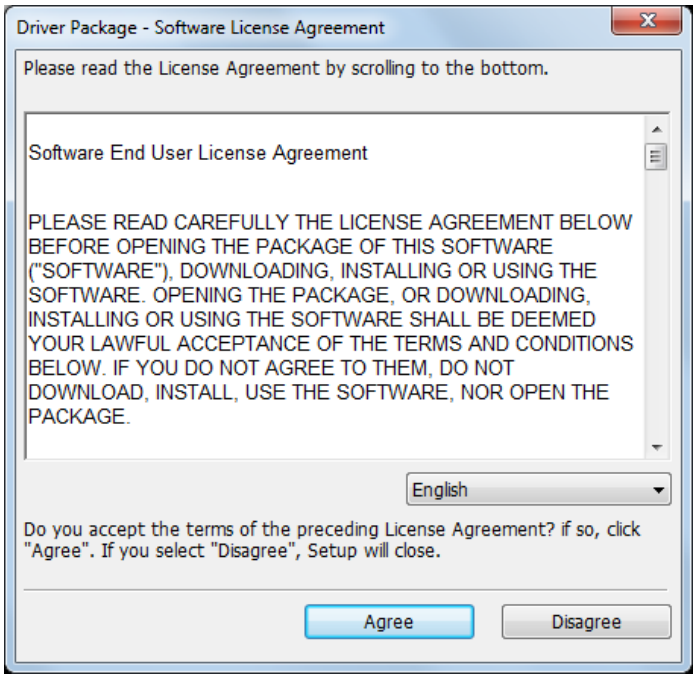
Before installing the printer driver, check the following.

✔ LK-114_ManagerPort is installed in the computer.

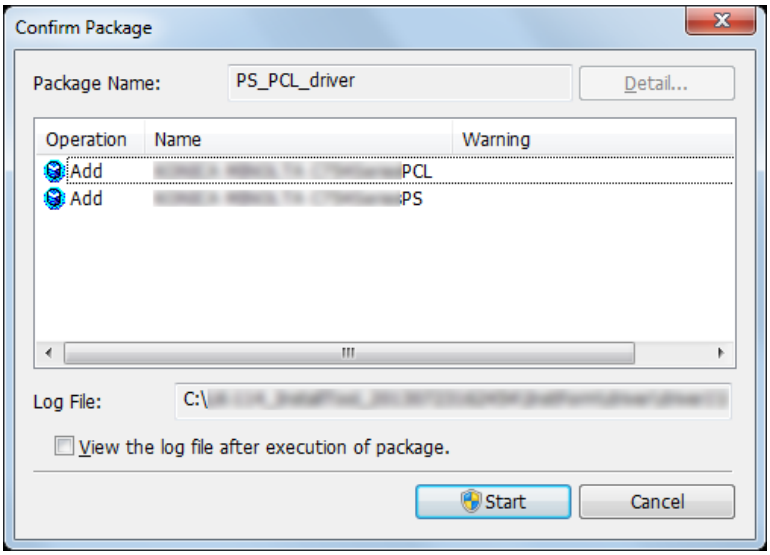
1 Click [Install Driver] on the target selection window of LK-114_InstallTool.

- For details on the target selection window, refer to "Activating LK-114_InstallTool and target selection window" on page 6-14.
- If multiple printer drivers are selected on LK-114_InstallerCreateTool, the printer driver selection window appears. Select a printer driver to be installed.

2 Click [Agree].

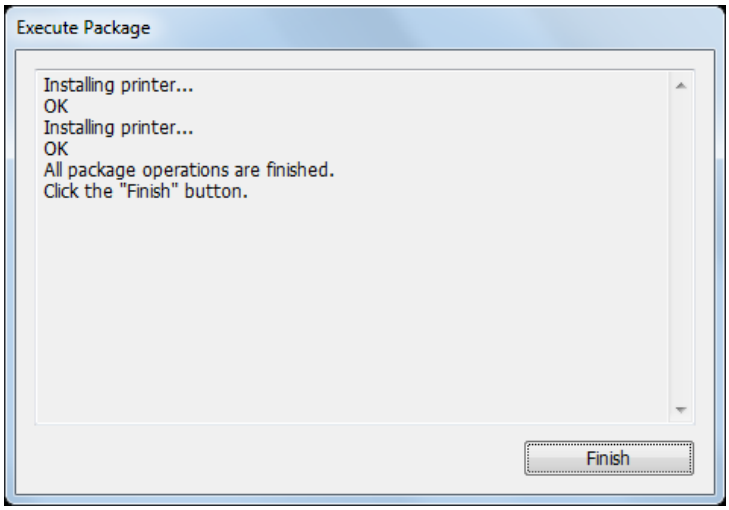


3 Select the printer driver setup file created using Driver Packaging Utility, then click [Execute].



Installation starts.

4 Click [Finish].



This returns to the target selection window of LK-114_InstallTool.

6.3.3 Setting up LK-114_ManagerPort

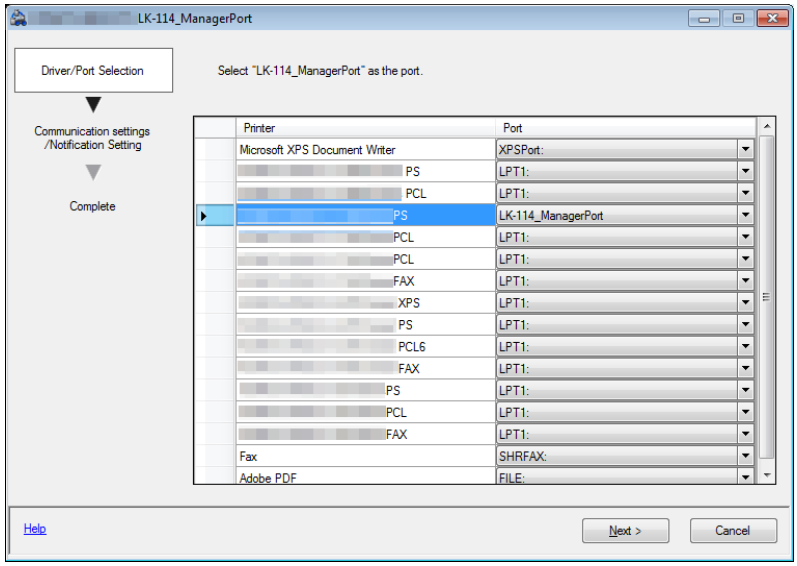
After installation of LK-114_ManagerPort has been completed, continue setting up of LK-114_ManagerPort.

1 Open the LK-114_ManagerPort settings screen.

- To open from the LK-114_InstallTool: Click [Activate "LK-114_ManagerPort Settings"] from the screen where applications, targeted for installation, can be selected. If the Device Definition File selection window appears, select the target Device Definition File.
- To open from the Start menu: Follow [Start] - [KONICA MINOLTA] or [MFP-Printer Utility] - [LK-114_ManagerPort], and select [LK-114_ManagerPort Settings].

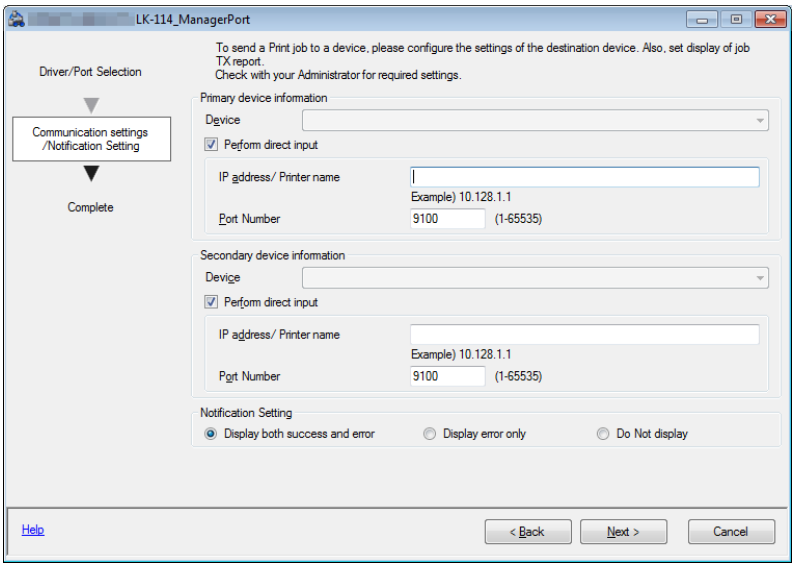
2 Change the printer port to [LK-114_ManagerPort], then click [Next].

- If the Printer Driver had been installed from the LK-114_InstallTool, make sure that [LK-114_ManagerPort] is being selected.



3 Select the Print job's destination; either [Primary device information] or [Secondary device information].

- If there is a Device Definition File, select it from the [Device] list.
- If there is no Device Definition File, check [Perform direct input] and enter the IP address of the device and the MFP's Print Port for [Port Number]. In [Port Number], enter the MFP's print port.
- Enter [Secondary device information] when necessary.
- Select a Printer that complies with the Printer specified with [LK-114_ManagerPort] in the Driver/Port Selection screen (step 2).

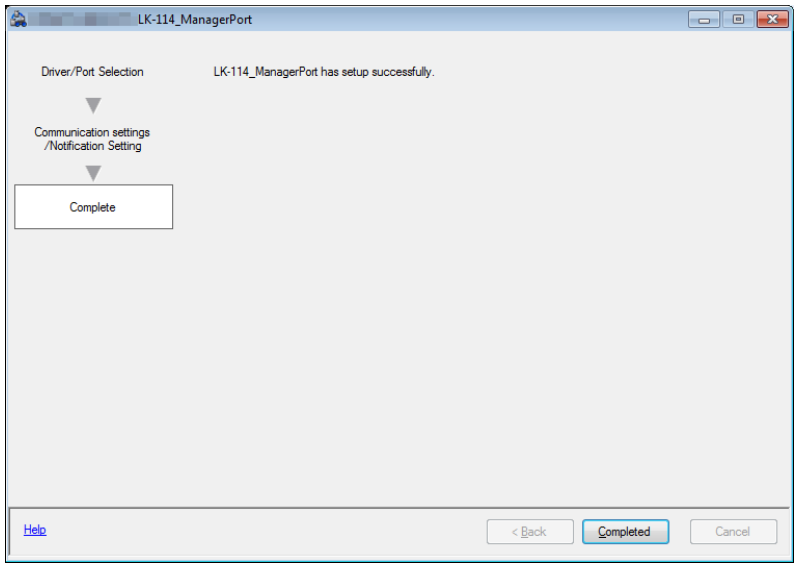


If the Printer had been selected from the [Device] list, its IP address and Port number will show automatically.

4 In [Notification Setting], select whether to display a message when a print job is sent to the server device.

5 Click [Next].

6 Click [Completed].



...

Reminder

After the LK-114_ManagerPort has been set up, select the Printer specified with the LK-114_ManagerPort when Printing. By selecting that particular Printer, Print will be executed via the LK-114_ManagerPort.

...

Reminder

For details on the Device Definition File, refer to "Device Definition File" on page 10-1.

7 Uninstalling the Printer Driver and LK-114_ManagerPort

7.1 Uninstalling the Printer Driver

Delete the printer driver from a computer.

Uninstallation procedure

Make sure to check the following before uninstalling LK-114_ManagerPort.

✔ You are logged on to Windows as an administrator.

1 Open the [Devices and Printers] window.

- Windows 7 or Vista: Select [Start] - [Control Panel] - [Hardware and Sound] - [Devices and Printers].
- Windows 8.1: Right-click the Start window, then select [All apps] - [Control Panel] - [Hardware] - [Devices and Printers].

2 Right-click the printer to be deleted, then select [Remove Device].

3 Restart your computer.

7.2 Uninstalling LK-114_ManagerPort

Delete LK-114_ManagerPort from a computer.

Uninstallation procedure

Make sure to check the following before uninstalling LK-114_ManagerPort.

- ✔ You are logged on to Windows as an administrator.
- ✔ Make sure that [LK-114_ManagerPort] is not being used in the Driver/Port selection screen of "LK-114_ManagerPort" settings.

1. Open the window to uninstall the program.
   - Windows 7 or Vista: Select [Start] - [Control Panel] - [Programs and Features] or [Programs].
   - Windows 8.1: Right-click the Start window, then select [All apps] - [Control Panel] - [Program] - [Uninstall a program].
2. Select LK-114_ManagerPort and uninstall the program.
3. Restart your computer.

8 Operation Procedures

8.1 Available Operations with Serverless Pull Printing

The following operations are available for Serverless Pull Printing.

- Spooling print jobs in a storage device (p. 8-2)
- Executing print jobs using a client device (p. 8-4)
- Checking the list of spooled print jobs in a client device (p. 8-4)
- Changing the print setting of spooled print jobs in a client device (p. 8-4)
- Deleting the spooled print jobs in a client device (p. 8-8)

Reminder

The MFP in a Serverless Pull Printing group that is used as the topology management device can also be used as a client device.

All of the other MFPs in the same Serverless Pull Printing group can be used as storage and client devices.

8.2 Spooling Print Jobs in a Storage Device

Spool print jobs in a storage device.

Spooling a print job

Before spooling a print job, check the following.

✔ The printer driver and LK-114_ManagerPort are installed to use the Serverless Pull Printing function, and LK-114_ManagerPort has already been set up.

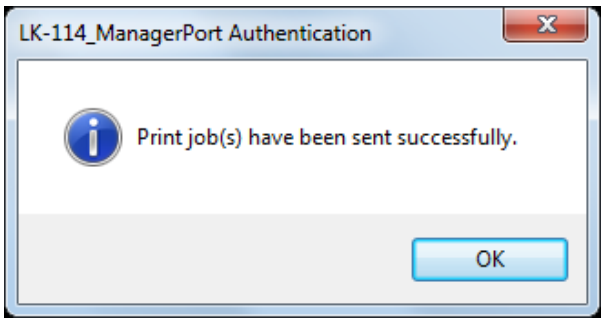
1 Open the file to be spooled.

2 From the software menu, execute a print job.

– Select the MFP assigned to a storage device, then click [OK].

The print jobs is sent to the storage device. After spool processing is completed, the completion window appears.

3 Click [OK].



When a communication error has occurred due to a communication check failure:

If the system failed to spool the print job in a storage device because it could not check the communication status to the primary and secondary destinations specified in LK-114_ManagerPort, the "Failed to send the Print job(s)." message appears in the message window.

If you click [OK], the print job is deleted automatically.

Check the communication of the destination, then execute the print job again.

When a sending error has occurred during data sending:

If a sending error has occurred during data sending, the "Failed to send the Print job(s)." message appears in the message window.

If you click [OK], the print job is left in the spooler as an error.

Check the communication of the destination, then execute the print job again.

8.3 Using a Client Device for Printing

Operate a print job spooled in a storage device using the control panel of a client device from a user computer to make prints. If necessary, printing can be carried out using a storage device.

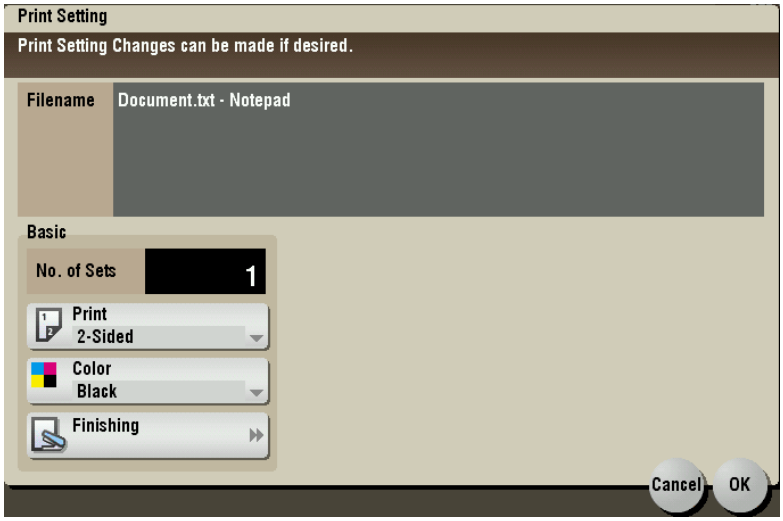
Note

When a print job spooled on a storage device is executed on a client device, box printing or security printing is not possible.

Changing print settings

A print job can be executed by changing print settings. For details on the procedure, refer to "Executing a print job" on page 8-6.

The following items can be changed on the Print Settings screen.



Item	Description
No. of Sets	Change the number of copies.
Print	Select [1-Side] or [2-Sided].
Color	Select [Black] or [Full Color]. **Note** *If image processing is performed using the printer driver, the [Color] setting is not updated even if it is changed.*

Item		Description
Finishing	Staple	Select the desired option from [OFF], [Corner], and [2 Points].
	Punch	Select the desired option from [OFF], [2 Holes], [3 Holes], and [4 Holes]. ... **Reminder** *The displayed setting items vary depending on the MFP model and the region.*
Position	Staple/Punch	Select the desired option from the displayed combination of staple and punch positions. ... **Reminder** *The displayed setting items vary depending on the finish setting.*

...

Note

If a finisher is not installed in a client device, [Finishing] and [Position] are not available.

...

Note

For a document spooled in a storage device using the PS driver, you cannot display or change print settings on a client device. (The settings configured using the PS driver at the time of spooling become available.)

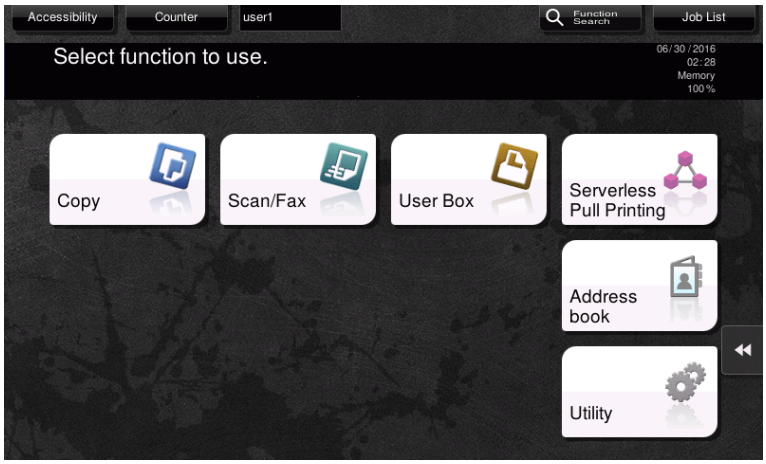
Executing a print job

1 On the control panel of a client device, enter the user name and password into [User Name] and [Password], then tap [Login]

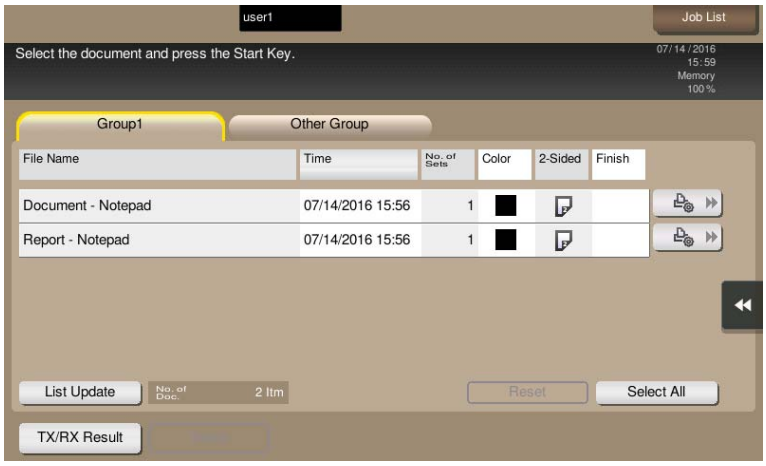
2 Press the Menu key.

The Main Menu appears.

3 Tap [Serverless Pull Printing].



4 Select the target print job.



- Tapping [Other Group] displays a list of print jobs in other groups the currently operated client device does not join.
- If you tap [List Update], the print job list is updated. If you tap [Cancel List Update] during update processing, updating of the print job list is canceled.
- If you tap ([Print Settings]), the Print Settings screen appears, and you can change the print settings of the print job.
- Tapping [Reset] deselects print jobs.
- Tapping [Select All] selects all print jobs.

– Tapping [TX/RX Result] allows you to check the status of MFPs in all Serverless Pull Printing groups.

5 Press the [Start] key on the control panel.

Note

If the same user simultaneously logs in to multiple client devices, it may result in a print job operation or printing failure.

Reminder

If the free space in a storage device reduces, "The free space in the print storage device is insufficient. Tap the [TX/RX Result] button to view details." message is displayed. Tap [TX/RX Result] on the print job list screen.

Reminder

If the print receiving port of the client device is busy, a Serverless Pull Printing job is queued.

Reminder

Operations in another group may cause a significant reduction in performance as compared with operations in the group including the MFP, depending on the user's network environment or the number of storage devices in another group. Therefore, operations of print jobs in another group should only be performed when required, for example, when you want to make prints using an MFP on the destination floor.

Reminder

When a group consists of 30 or more MFPs, we recommend that you set [Connection Timeout Setting] to "360 sec.". For details, refer to "Specifying the connection timeout period" on page 4-8.

8.4 Deleting a Print Job

Delete a print job from a storage device.

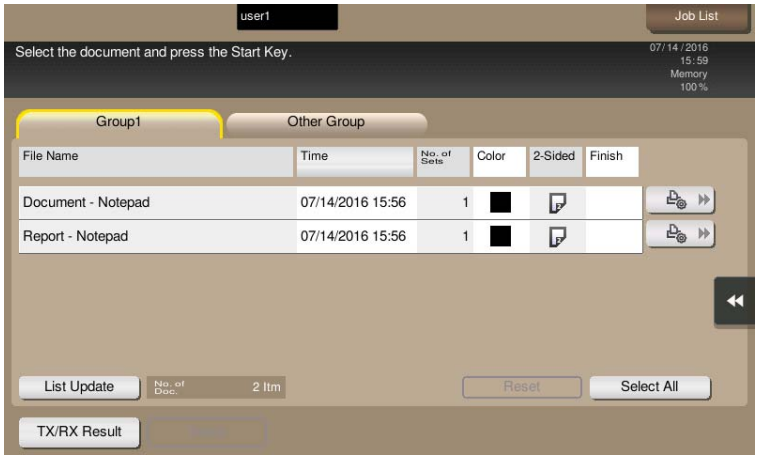
Deleting a print job

1 On the control panel of a client device, enter the user name and password into [User Name] and [Password], then tap [Login].

2 Press the Menu key.

3 Tap [Serverless Pull Printing].

4 Select the print job to be deleted, then tap [Delete].



- If you tap [List Update], the print job list is updated.
- Tapping [Reset] deselects print jobs.
- Tapping [Select All] selects all print jobs.

5 Tap [OK] on the confirmation screen.

9 Troubleshooting

9.1 Error Messages Displayed during Printing and Actions

Error message	Cause	Action
Failed to send the Print job(s). (When sending a print job from a computer to a storage device)	The system could not check the communication status to the primary and secondary destinations specified in LK-114_ManagerPort, and failed to spool a print job in a storage device.	User: If [OK] is clicked, the print job is deleted automatically. Check the communication of the destination, then execute the print job again.
	A sending error has occurred during data sending.	User: If [OK] is clicked, the print job is left in the spooler as an error. Check the communication of the destination, then execute the print job again.
Problem detected in the Client machine. Turn the main power OFF and then ON again to resolve the error. If the trouble code appears again, please contact the Administrator. (When operating a client device)	A fatal error has occurred in a client device.	User: Restart the client device. Administrator: Check the client settings using LK-114_SetupTool or the MFP.
Printer RX Port cannot be used. Please Contact the Administrator. (When operating a storage or client device)	The MFP port is unavailable.	Administrator: Check the port setting in LK-114_ManagerPort.
Problem detected in Store Print Documents. Turn the main power OFF and then ON again to resolve the error. If the trouble code appears again, please contact the Administrator. (When operating a storage device)	A fatal error has occurred in a storage device.	User: Restart the storage device. Administrator: Check the storage settings using LK-114_SetupTool. Or, check the print storage settings on the MFP.
Store Print Documents is invalid. (When operating a storage device)	The print storage device setting is disabled.	Administrator: Enable the storage settings using LK-114_SetupTool.

Error message	Cause	Action
TX Timeout has occurred. Please contact the Administrator. (When operating a client device)	A processing operation has caused a timeout.	Administrator: Change the timeout setting value in the administrator settings of LK-114_SetupTool. Or change the connection timeout setting value in the MFP.
Incorrect Serverless Pull Printing Group setting. Please contact the Administrator. (When operating a client device)	The target client device has not been registered in the Serverless Pull Printing group settings configured in the print storage device.	Administrator: Register the MFP in the same Serverless Pull Printing group as for the storage device using LK-114_SetupTool.
In progress. Please try again after sometime. (When operating a storage or client device)	The MFP is in process of operation, and it cannot receive a request.	User: Re-run the job.
Store Print Documents is starting. Please try again later. (When operating a storage device)	The storage device is active.	User: Check that the storage device has started, then re-run the job.
The number of documents is nearing the max. limit. Please contact the Administrator. (When operating a storage device)	Seventy percent or more of 10,000 documents are registered.	Administrator: Delete unnecessary documents on the document list screen.
In Store Print Documents, the HDD Spool Storage space is nearing the max. limit. Please contact the Administrator. (When operating a storage device)	Seventy percent or more of documents are registered in the 5GB HDD.	Administrator: Delete unnecessary documents on the document list screen.
The number of Files is nearing the max. Spool Limit. Delete the files. (When operating a client device)	Seventy percent or more of the maximum 100 documents are registered by users who have logged in.	User: Delete unnecessary documents on the document list screen.
Some Documents could not be processed. Please try again later. (When operating a storage device)	Failed to complete the processing operation because the target document is currently being used in a storage device.	User: Re-run the job.

10 Appendix (For Administrators)

10.1 Device Definition File

The Device Definition File is an XML file that contains device information. Creating device information allows you to easily enter device information in the LK-114_ManagerPort settings.

Create a Device Definition File as necessary.

Place the created Device Definition File in the same level as for the folder that contains LK-114_InstallTool.

The table below shows the components of the XML tag.

Type	Tag	Remarks
XML declaration	<?xml version="1.0" encoding="utf-8"?>	XML version and encode
Hierarchical structure	<DeviceSettings>	
	<Storage>	Describe the MFP with the storage function enabled.
	<MFP>	
	<Address>	Describe the IP address or printer name of the MFP.
	<Port>	Describe the MFP port.
	<Name>	Describe the explanation of the MFP.
	<Client>	Describe the MFP with the storage function disabled.
	<MFP>	
	<Address>	Describe the IP address or printer name of the MFP.
	<Port>	Describe the MFP port.
	<Name>	Describe the explanation of the MFP.

To create a Device Definition File, note the following points.

- To add device information of the MFP, conform to the unit of the <MFP> tag. Multiple <MFP> tags can be described depending on the number of MFPs.

- Display MFP device information with the <Storage> and <Client> tags in the [Device] list of the LK-114_ManagerPort communication setting page.
  - [Primary device information] - [Device] list: MFP device information of <Storage> tag
  - [Secondary device information] - [Device] list: MFP device information of <Storage> tag + MFP device information of <Client> tag
- The display format of the [Device] list is "Value of <Name> tag + (Value of <Address> tag)".

The layout sample is as follows.

```
<?xml version="1.0" encoding="utf-8"?>
<DeviceSettings>
    <Storage>
        <MFP>
            <Address>192.168.1.10</Address>
            <Port>9100</Port>
            <Name>MFP in entrance</Name>
        </MFP>
    </Storage>
    <Client>
        <MFP>
            <Address>192.168.1.11</Address>
            <Port>9100</Port>
            <Name>MFP in south side</Name>
        </MFP>
        <MFP>
            <Address>192.168.1.12</Address>
            <Port>9100</Port>
            <Name>MFP in window side</Name>
        </MFP>
        <MFP>
            <Address>192.168.1.13</Address>
            <Port>9100</Port>
            <Name>MFP on 10th floor</Name>
        </MFP>
    </Client>
</DeviceSettings>
```

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